



“Common Good In A World Of Increasing Asymmetries And Global Challenges”

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“Rents, financial development and economic growth”

Sustainable HRM, Employee Attitudes, and Behaviors in the Hotel Industry

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Abstract

This study explores the extent of Sustainable Human Resource Management (HRM) and determines the Sustainable HRM practices in the hotel sector in Greece. A study was carried out aiming to establish a theoretical framework linking Sustainable HRM with employee trust, job satisfaction, organizational commitment, and ultimately employee performance. Additionally, empirical research using a survey method was conducted, collecting 113 questionnaires from tourism employees. The purpose of this research is to explore the relationship between the implementation of Sustainable HRM practices and employee attitudes and behaviors and the establishment of the first tool that measures and evaluates Sustainable HRM policies in the hotel industry in Greece and enhances its operational efficiency.

The study focuses on the correlation between workplace trust, organizational commitment, and performance. The research results indicate how HRM is evolving into a sustainable approach and is being utilized as a means for organizations to achieve their sustainability goals. The objective is to create a scale that measures Sustainable HRM.

Keywords:

Sustainable Human Resource Management (HRM), hotel industry, employee trust, job satisfaction, organizational commitment, ultimately employee performance

JEL Classification:

M12 - Personnel Management; Executive Compensation

Q01 - Sustainable Development

O15 - Human Resources; Human Development; Income Distribution; Migration

Q56 - Environment and Development; Environment and Trade; Sustainability; Environmental Accounts and Accounting; Environmental Equity; Population Growth

1. Introduction

Human Resource Management (HRM) encompasses a range of roles and actions aimed at acquiring and utilizing employees essential for accomplishing job tasks efficiently. Through HRM, employees contribute to the organization's goals and objectives (Mahajan, 2015). HRM practices include personnel selection, training, development, evaluation, workplace health, and safety, as well as rewards and incentives.

The field of HRM is constantly evolving, giving rise to a new sustainable form. Sustainable HRM emerged from the integration of sustainable development concepts with Human Resource Management practices. This modern approach supports employee development through social dialogue, environmental care, and cooperation, viewing people as valuable resources. This has a direct impact on businesses, fostering development and achieving desired outcomes through employee performance and satisfaction.

The purpose of this study is to investigate and determine the extent of Sustainable HRM practices in the hotel sector in Greece, along with exploring their impact on employee attitudes and behaviors. The research begins with a theoretical approach to Sustainable HRM and its evolution. The study establishes a theoretical framework linking Sustainable HRM with employee trust, job satisfaction, organizational commitment, and ultimately employee performance. Empirical research using a survey method was conducted, collecting 113 questionnaires from tourism employees (hotel industry). The results reveal that tourism enterprises apply Sustainable HRM practices to a moderate degree, supporting all research hypotheses. Of particular interest is the strong positive impact of Sustainable HRM policies on employee trust in the organization. This research contributes both theoretically, being the first of its kind in the hotel industry in Greece, and practically, serving as a valuable tool for hotel businesses to understand Sustainable HRM and enhance its operational efficiency.

Human Resources (HR) constitutes one of the most crucial departments in an organization. Sustainable HRM, in particular, has evolved in recent years, with limited research conducted on it. Further investigation and study are needed as it can significantly enhance human resource management in organizations, leading to positive outcomes. The purpose of this research is to explore the relationship between the implementation of Sustainable HRM practices and employee attitudes and behaviors.

2. Literature review

Sustainable development has emerged as a critical concern for organizations worldwide, prompting a shift in their operational paradigms. This paradigm shift is significantly influenced by Human Resource Management (HRM) practices. The concept of Sustainable Human Resource Management (SHRM) encompasses various dimensions that contribute to an organization's long-term success. The origins of Sustainable Human Resource Management can be traced back to the late 1990s in Germany, Switzerland, and Australia. Müller-Christ and Remer (1999) initially defined SHRM as the set of actions that organizations should take to ensure continuous access to a skilled workforce. Essentially, SHRM involves

employing tools and strategies to integrate sustainability into an organization's culture, creating an HRM system that supports the sustainable performance of the company.

SHRM's primary objective is to meet the expectations of all key stakeholders. Guerci et al. (2018) emphasize that an organization's success hinges on its ability to reconcile the diverse interests of these stakeholders. HRM plays a pivotal role in this process by aligning the organization's strategic goals with sustainability principles. The HR department can guide organizational leaders in integrating sustainability into the corporate strategy and assist in achieving corporate sustainability objectives.

The HR function is instrumental in shaping a culture of sustainable development within businesses (Harmon et al., 2010). This culture shift arises from the fusion of sustainability principles with HR management. By fostering this culture, organizations can effectively address the complex challenges of sustainability.

SHRM emphasizes the importance of enhancing the skills and abilities of the workforce. This can be achieved through aligning HRM with the organization's strategic direction, ensuring the recruitment of appropriate talent, and providing relevant training (CIPD, 2013). Furthermore, managing employee performance and implementing a dynamic rewards system are integral components of SHRM.

Research in the realm of Sustainable Human Resource Management is still relatively scarce and recent, indicating a novel approach (Guerci et al., 2018). Several studies have employed quantitative research methods, such as surveys, to assess SHRM practices. These practices often include elements like talent acquisition, employee training, safety and well-being, diversity and inclusion, and environmental initiatives.

In conclusion, Sustainable Human Resource Management has emerged as a vital component of modern organizational strategies. HRM is instrumental in guiding organizations towards sustainability, cultivating a culture of sustainable development, and developing the human capital necessary for sustainable success. While research in this area is still evolving, it holds immense promise for the future, especially in aligning organizational goals with sustainability principles.

3. Data and methodology

Να στηρίξουμε το σχήμα μέσα στη διπλωματική (σελ 68)

Research Assumptions

Job satisfaction is related to how an individual evaluates their work and the work environment in which they are situated (Weiss & Cropanzano, 1996). As the demand for specialized workers increases, the creation of a satisfied workforce has significant implications for organizations and HR professionals. Therefore, we assume that:

Hypothesis 1 (H1): There is a positive correlation between Sustainable HRM practices and employee trust.

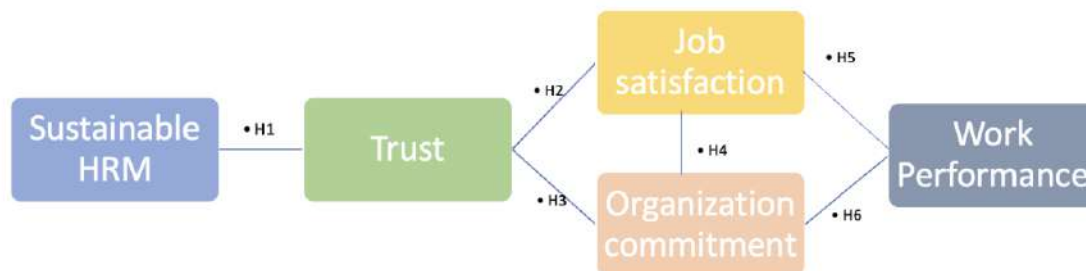
Hypothesis 2 (H2): There is a positive correlation between employee trust and job satisfaction.

Hypothesis 3 (H3): There is a positive correlation between employee trust and organizational commitment.

Hypothesis 4 (H4): There is a positive correlation between job satisfaction and organizational commitment.

Hypothesis 5 (H5): There is a positive correlation between job satisfaction and job performance.

Hypothesis 6 (H6): There is a positive correlation between organizational commitment and job performance.



We will examine the research results and discuss them. The purpose of this study is to investigate the impact of Sustainable Human Resource Management (HRM) practices on employees in the hotel industry. Specific objectives include:

Understanding (measuring) the degree of implementation of sustainable HRM practices in the hotel industry.

Understanding the impact of sustainable HRM on employee trust in the company and consequently its impact on their job satisfaction, organizational commitment, and work performance.

4. Results and Discussion

According to what we have studied in a previous chapter (Chapter 3), we could conclude that the findings of our research align with those of previous studies. Specifically, in the study by Cho & Choi (2021), which was conducted on tourism employees, a positive correlation between Sustainable HRM and employee satisfaction is observed. Additionally, in

the study by Almarzooqi et al (2018), there is a positive correlation between Sustainable HRM practices and employee performance.

Employees in the tourism sector tend to be negative about the implementation of Sustainable HRM practices, as we can see from the overall average score, which is only 2.98. Employee cooperation has the highest average score of 3.76, followed by long-term orientation with 3.56. Finally, as observed, profitability has a score of 1.96, and environmental care has a score of 2.14, indicating that these practices are either not implemented at all or implemented to a very limited extent.

As we can see, there is a positive correlation in terms of trust maintained by employees with the statement 'The company has the capabilities required to do its job well,' which has the highest average score of 3.94, as well as 'The company I work for is known to do a good job (provides good services)' with a score of 3.92, showing that employees trust the company for the services it can provide. It's worth mentioning the statement with the lowest average score, 'The needs and desires of employees are important to the company,' with an average score of 3.21, indicating that employees feel that their needs are not as important to the company.

In conclusion, we find that there is a positive correlation between Sustainable HRM and trust (H1) with a correlation coefficient of 0.880. Furthermore, the same applies to the correlation between trust and job satisfaction (H2) with a correlation coefficient of 0.591. In H3, which concerns trust and organizational commitment, the coefficient is 0.731, and in H4, which relates to job satisfaction and organizational commitment, we observe a percentage of 0.756, confirming that there is a positive correlation in both cases. Finally, regarding hypothesis H5, which corresponds to job satisfaction and job performance, we have a percentage of 0.349, while for hypothesis H6, which relates to organizational commitment and job performance, we have a percentage of 0.522, indicating that there is a positive correlation in these cases as well.

According to the above, we can conclude that there is a positive correlation between Sustainable HRM and both employee satisfaction and performance. This aligns with the research by Almarzooqi et al (2018), which establishes a correlation between certain practices and employee performance, as well as the research by Cho and Choi (2021) regarding employee satisfaction. Additionally, the study by Mazoor et al (2019) also associates Sustainable HRM practices with employee performance.

As for the correlation between trust and job satisfaction, we can refer to the research by Thoms et al (2002).

Finally, concerning organizational commitment and employee performance, we observe a correlation in the study by Ahmad et al (2010).

5. Results and Discussion

According to the results, it is observed that concerning Sustainable Human Resource Management (SHRM) practices, the opinions of employees in the tourism sector are negative, as these practices do not seem to be implemented. However, regarding performance, trust, organizational commitment, and job satisfaction, their opinions are positive. Additionally, the analysis of hypotheses reveals a positive correlation between the five variables: Sustainable HRM, employee performance, trust, job satisfaction, and organizational commitment.

The implementation of Sustainable HRM practices in businesses has a significant impact on employee attitudes, behaviors, and performance, contributing to the achievement of the organization's goals. This study takes a comprehensive approach to Sustainable HRM practices, distinguishing it from previous research that focused on specific practices. Thus, this research contributes to the existing literature, both in the Greek context and internationally, by addressing a significant research gap, especially in the hotel industry, where Sustainable HRM practices have not been adequately explored.

Human resources play a crucial role, and through the development and implementation of appropriate Sustainable HRM practices, positive outcomes in terms of employee satisfaction and, consequently, their performance can be achieved, ultimately affecting the overall performance of the organization. The results of this study could be valuable for many businesses aiming to enhance their Human Resource Management practices.

Particularly in the hotel industry, the contribution of this research is significant, as the adoption of Sustainable HRM practices can lead to substantial improvements in employee satisfaction, performance, and trust, ultimately benefiting the respective businesses.

6. Conclusion

We could conclude that Sustainable HRM practices play a significant role in establishing positive organizational outcomes and encouraging positive reciprocity, which impacts the attitudes and reactions of employees towards the organization. Organizations that emphasize Sustainable HRM will have greater flexibility and can maintain higher levels of performance compared to their counterparts in the industry.

The term 'sustainable' implies that actions taken today will have a positive impact on the future. However, few organizations are fully committed to the possibilities of Sustainable HRM. Human resource practices can significantly influence employee performance in any organization. Therefore, to enhance employee performance, organizations should implement sustainable HRM practices to strengthen their future performance.

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Multiparametric demand functions emerging from individual interactions

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Abstract

This study presents an agent-based economic model incorporating consumer heterogeneity and machine learning. It measures agent heterogeneity using a unique Euclidean metric, capturing variances in preferences and income. The model uses a Random Forest algorithm to estimate demand functions, optimizing value predictions. Unlike traditional models, this approach allows for emergent aggregate levels due to individual interactions, capturing phenomena like market booms and busts. It acknowledges complexities like asymmetric information and strategic interaction. This research provides vital insights into consumer choice dynamics and market behaviors, especially in decentralized procurement, making it a valuable alternative to conventional economic models.

JEL Classification: C63; D10

Keywords: Heterogeneity; agent-based modeling; random forest algorithm

1 Introduction

This study focuses on an agent-based modeling and simulation approach to understanding consumer decisions between various goods. These goods range from necessities to luxuries, affecting the shape of demand and Engel curves.

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Prices are influenced by various *states of the world*, meaning that the model proposed herein can handle uncertain outcomes. The model differentiates agents into categories based on income diversity and preference diversity. All agents within a group are assumed to be income-wise and preference-wise similar. A small fluctuation in an agent's parameters results in a subgroup of 'nearby' agents. However, between different groups, these agents are dissimilar or heterogeneous. The measure of this disparity can be quantified by the Euclidean distance between different preference and income values, or by the angle formed by the associated position vectors. Agents are considered rational, with each being defined by a thirteen-element vector, twelve for preference parameters and one for income. The bottom-up approach adopted in this study mirrors physical theories derived from experimentation.

Consumer choice theory helps in understanding demand more comprehensively, this holds true for agent-based modeling too. Some might argue that agent-based models provide an even deeper understanding compared to the standard economic model (SEM), as they are based on weaker assumptions and allow for a more granular view of agent diversity.

Agent-based models have been notably used in asset pricing, where agents select from various forecasting strategies to predict stock prices. These strategies' successes depend on market conditions and the current strategy set being used, leading to substantial market fluctuations as agents switch between strategies. Some studies suggest agent-based models could provide useful insights into market instabilities like the 2008 financial crisis.

In light of the 2008 economic downturn, novel economic modeling approaches have been sought, one of them being agent-based models. These models manage complexity efficiently, accommodate heterogeneous agents, and allow dynamic interactions. Moreover, agent-based models allow for direct micro-to-macro-level linkages without necessitating equilibrium or optimization.

A notable characteristic of agent-based models is the emergent aggregate level resulting from agent interactions. These interactions introduce a complex system, characterized by path-dependence, predictive challenges, and analytical intractability. Comparatively, the prevailing Walrasian equilibrium paradigm relies on the Walrasian Auctioneer pricing mechanism, which negates strategic behavior. Here, prices are the sole link between consumers before trading, and consumers perceive prices as external factors beyond their control.

However, if the Walrasian Auctioneer pricing mechanism is removed, it introduces numerous complexities such as asymmetric information, strategic interactions, limited information-based expectations, learning, social norms, transaction costs, externalities, market power, and coordination failure. Some studies have demonstrated how decentralized exchanges without an Auctioneer

can lead to improvements in resource allocation and agent welfare but also lead to wealth inequality.

With the advent of more advanced tools, it's becoming possible to incorporate procurement processes in economic models in more compelling ways. These tools are a combination of logical deduction and computational advancements. This study leverages such advancements, particularly artificial intelligence algorithms like the random forest algorithm for estimating the demand function for homogeneous groups of agents.

The rest of the paper is organized as follows. Section 2 outlines the model's general setup. Section 3 details the simulations framework and the derivation of results. Section 4 focuses on the data generation methodology. Section 5 concludes with a discussion of findings.

2 The general setup

Consider an economy consisting of n agents indexed by $j = 1, 2, \dots, N$ and L commodities indexed by $l = 1, 2, \dots, L$. Agent j 's preferences are described by a strictly quasiconcave utility function $u_j : \mathbb{R}_{\geq 0}^L \rightarrow \mathbb{R}$, where the domain $\mathbb{R}_{\geq 0}^L$ is the nonnegative orthant, i.e., $\mathbb{R}_{\geq 0}^L = \{(x_{j1}, x_{j2}, \dots, x_{jL}) \in \mathbb{R}^L : x_{jl} \geq 0\}$. Each agent is fully described by a vector with $2L + 1$ components of which $2L$ components are preference parameters, two for each commodity $l = 1, 2, \dots, L$, and the remaining parameter is agent j 's income.

There are two basic ingredients in the model. The first ingredient is a metric that captures the degree of preference and income heterogeneity between any two agents from the set of agents $N := \{1, 2, \dots, n\}$. Hence, this metric determines the 'proximity' of two agents from the set N . It can be assigned in many different ways. For example, the metric could be determined either by the $2L$ preference parameters that appear in agent j 's utility function or by both these preference parameters and agent j 's income, say m_j . In both cases, a greater value of this metric for any given two agents implies that the proximity between these two agents is smaller, i.e., they are characterized by greater heterogeneity with respect to their preferences or with respect to both their preferences and income. In either case, different weights could be attributed to the terms of the metric assigning different levels of importance to the particulars that quantify the proximity of the agents. Here, we consider as a measure of the proximity of any given two agents the Euclidean metric

$$d(\mathbf{x}, \mathbf{y}) = \|\mathbf{x} - \mathbf{y}\| = \left[\sum_{m=1}^{2L+1} (x_m - y_m)^2 \right]^{1/2} \quad \text{for } \mathbf{x}, \mathbf{y} \in \mathbb{R}^{2L+1} \quad (2.1)$$

induced by the normed vector space $(\mathbb{R}^{2L+1}, \|\cdot\|)$, where the function $\|\cdot\| : \mathbb{R}^{2L+1} \rightarrow \mathbb{R}$ is the Euclidean norm on $\mathbb{R}^{2L+1}$. The components x_m and y_m in the metric (2.1) are normalized so that the distance between the agents is appropriately expressed and is not affected by differences in scale. Alternatively, one may use as a measure of the heterogeneity between two agents the angle $\theta = \cos^{-1} \left(\frac{\langle \mathbf{x}, \mathbf{y} \rangle}{\|\mathbf{x}\| \|\mathbf{y}\|} \right)$ between the position vectors of points $\mathbf{x}$ and $\mathbf{y}$. The symbol $\langle \cdot, \cdot \rangle$ denotes the standard inner product for $\mathbb{R}^{2L+1}$. A larger angle θ is associated with a higher degree of heterogeneity and vice versa.

Agent j 's budget set correspondence is

$$B_j(\mathbf{p}, m_j) = \{(x_{j1}, x_{j2}, \dots, x_{jL}) \in \mathbb{R}_{\geq 0}^L : p_1 x_{j1} + p_2 x_{j2} + \dots + p_L x_{jL} \leq m_j\} \quad (2.2)$$

where $\mathbf{p} = [p_1, p_2, \dots, p_L]^t$ is the price vector. The symbol ' t ' denotes transposition. Under the assumption that the preference relation $\succsim \subseteq \mathbb{R}_{\geq 0}^L \times \mathbb{R}_{\geq 0}^L$ on the set of alternatives $\mathbb{R}_{\geq 0}^L$ is strictly monotonic, the utility function $u_j : \mathbb{R}_{\geq 0}^L \rightarrow \mathbb{R}$ is strictly increasing in at least one dimension. Then, the budget constraint in the correspondence (2.2) is always satisfied with equality. In particular, the budget hyperplane of agent $j = 1, 2, \dots, n$ is the point set

$$H_j(x_{j1}, x_{j2}, \dots, x_{jL}) = p_1 x_{j1} + p_2 x_{j2} + \dots + p_L x_{jL} - m_j = 0 \quad (2.3)$$

The second ingredient of the model is an ensemble machine learning algorithm denoted $\mathcal{A}$. Here, we use the random forest learning algorithm for the purpose of estimating the demand function of each of the L commodities for a homogeneous group of close by artificial agents generated via a small perturbation of some given agent who is fully described by his income and preference parameters as contained in the vector (3.1). The statistical principle behind the random forest algorithm is the bootstrap resampling scheme. In particular, let $\mathcal{X}_n = \{X_1, X_2, \dots, X_n\}$ be a random sample from an unknown distribution function F . Let F_n be the empirical distribution function assigning probability $\frac{1}{n}$ on each X_i , $i = 1, 2, \dots, n$. A bootstrap sample is defined to be a random sample of size n drawn from F_n , say $\mathcal{X}_n^* = \{X_1^*, X_2^*, \dots, X_n^*\}$. The star notation indicates that $\mathcal{X}_n^*$ is not the actual data set $\mathcal{X}_n$, but rather a randomized, or resampled, version of $\mathcal{X}_n$.

In other words, $\mathcal{X}_n^*$ is a random sample of size n drawn with replacement from the population of n objects $(X_1, X_2, \dots, X_n)$. Suppose $\hat{\theta} = \hat{\theta}(X_1, X_2, \dots, X_n)$ is an estimator of some parameter θ . The standard error of $\hat{\theta}$ is $\sigma(F) = \{Var_F(\hat{\theta})\}^{1/2}$ and the bootstrap estimate of $\sigma(F)$ is simply $\hat{\sigma} \equiv \sigma(F_n) = \{Var_*(\hat{\theta}^*)\}^{1/2}$, where $\hat{\theta}^* = \hat{\theta}(X_1^*, X_2^*, \dots, X_n^*)$. Because the distribution function F is unknown, the bootstrap method outlined is also called

the nonparametric bootstrap. If $F(\cdot) = G(\cdot, \theta)$, where G is a known distribution function and θ is a vector of parameters, one can estimate θ by $\hat{\theta}$ and then generate bootstrap random samples $\mathcal{X}_n^* = \{X_1^*, X_2^*, \dots, X_n^*\}$ from $G(\cdot, \hat{\theta})$. Because F is now known this is referred to as the parametric bootstrap. The random forest machine learning algorithm is an improvement of the bootstrap aggregation, or bagging for short, for the purpose of combining multiple decision trees which are all fitted on separate bootstrap samples and then averaged for the purpose of obtaining a better estimate of the true output value.

3 Simulations

There exists a finite set of agents $N = \{1, 2, \dots, n\}$ and $L = 6$ commodities in the artificial economy. Each agent $j \in N$ is characterized by his income and preference parameters contained in the 13×1 column vector

$$\mathbf{a}_j = \begin{bmatrix} m_j \\ a_{j1} \\ \vdots \\ a_{j6} \\ b_{j1} \\ \vdots \\ b_{j6} \end{bmatrix}_{13 \times 1} \quad (3.1)$$

where m_j is agent j 's income and

$$\mathbf{b}_j = \begin{bmatrix} a_{j1} \\ \vdots \\ a_{j6} \\ b_{j1} \\ \vdots \\ b_{j6} \end{bmatrix}_{12 \times 1} \quad (3.2)$$

is the vector of preference parameters related to the closed set $\mathcal{C} \triangleq \{x_1, x_2, \dots, x_6\}$ whose elements are the commodities in the artificial economy. Hence, we may write the vector (3.1) in partitioned form as

$$\mathbf{a}_j = \begin{bmatrix} m_j \\ \mathbf{b}_j \end{bmatrix}_{13 \times 1} \quad (3.3)$$

The utility function of agent j is *additively separable*, given by the multivariable exponential sum

$$u_j(\mathbf{x}_j; \mathbf{b}_j) = \sum_l a_{jl} b_{jl}^{1-x_{jl}}, a_{jl} < 0, b_{jl} > 1 \quad (3.4)$$

where x_{jl} are the quantities of commodities $x_1, x_2, \dots, x_6$ with prices $p_1, p_2, \dots, p_6$, respectively, from which agent $j = 1, 2, \dots, n$ obtains utility. The vector $\mathbf{x}_j$ is the commodity bundle (or commodity vector)

$$\mathbf{x}_j = \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \\ x_6 \end{bmatrix}_{6 \times 1} \quad (3.5)$$

which can be viewed as a point in $\mathbb{R}^6$, the commodity space. The sign conditions on the preference parameters a_{jl} and b_{jl} in equation (3.4) are sufficient in order for the marginal utilities of commodities $x_1, x_2, \dots, x_6$ to be strictly positive and strictly decreasing. The commodity set $\mathcal{C}$ is partitioned into two disjoint subsets $\mathcal{C}_1 \subsetneq \mathcal{C}$, $\mathcal{C}_2 \subsetneq \mathcal{C}$ with $\mathcal{C}_1 \cap \mathcal{C}_2 = \emptyset$ and $\mathcal{C}_1 \cup \mathcal{C}_2 = \mathcal{C}$. One of the two sets, say $\mathcal{C}_1$, contains only necessity commodities while $\mathcal{C}_2$ contains only luxury commodities. For each commodity in $\mathcal{C}$ we consider 100 different *states of the world* with respect to its price. Hence, the model developed here is conducive to the presence of risky alternatives. In this framework, the set of risky alternatives, say $\mathcal{R}$, coincides with the agents' consumption set, i.e., $\mathcal{R} = \mathcal{C}$. Then, one has a simple lottery $\mathcal{L} = (\rho_1, \rho_2, \dots, \rho_L)$ with $\rho_l \geq 0$, $l = 1, 2, \dots, L$ being the probabilities of the state-dependent prices $p_1, p_2, \dots, p_L$, respectively, and $\sum_{l=1}^L \rho_l = 1$. In any case, each commodity price $p_l \in \mathbb{R}_{>0} := (0, \infty)$ is bounded, i.e., there exist constants $M_{1,l}$ and $M_{2,l}$ such that for all $l \in \{1, 2, \dots, L\}$, $M_{1,l} \leq p_l \leq M_{2,l}$.

We consider 5 separate agents each of which is perturbed into 10 agents who are close by in terms of their Euclidean distance and form a homogeneous group, say, G . For all combinations of agents and sates of the world we have a total of $5 \times 10 \times 100 = 5,000$ cases. Hence, we estimate five thousand 6-dimensional demand vectors. The demand function of each commodity has the general form

$$\mathcal{D}_l(p_1, \dots, p_L, m_1, \dots, m_L, \mathbf{b}_1, \dots, \mathbf{b}_n) = (x_1, x_2, \dots, x_L) \quad (3.6)$$

for $l \in \{1, 2, \dots, L\}$, where the vectors $\mathbf{b}_1, \mathbf{b}_2, \dots, \mathbf{b}_n$ are given by (3.2) for $j = 1, 2, \dots, n$. Based on these generated data we interpolate a machine learning algorithm such as a random forest which is an ensemble of decision tree

algorithms and Gaussian process and produce six demand functions, one for each commodity contained in the closed set $\mathcal{C} = \{x_1, x_2, \dots, x_6\}$.

Agents are assumed to be rational. Their behavior is characterized by utility maximization expressed in the indifference equation

$$\frac{\frac{u_j(x_{jg}^* + \Delta x_{jg}, x_{jh}^*; \mathbf{b}_j^*) - u_j(x_{jg}^*, x_{jh}^*; \mathbf{b}_j^*)}{\Delta x_{jg}}}{p_g} = \frac{\frac{u_j(x_{jg}^*, x_{jh}^* + \Delta x_{jh}; \mathbf{b}_j^*) - u_j(x_{jg}^*, x_{jh}^*; \mathbf{b}_j^*)}{\Delta x_{jh}}}{p_h} \quad (3.7)$$

for any two commodities $g, h \in \{1, 2, \dots, L\}$ with $g \neq h$. Equation (3.7) is the discrete analogue of Gossen's second law. We use $\mathbf{b}_j^*$ to denote a fixed value of $\mathbf{b}_j$. If

$$\frac{\frac{u_j(x_{jg}^* + \Delta x_{jg}, x_{jh}^*; \mathbf{b}_j^*) - u_j(x_{jg}^*, x_{jh}^*; \mathbf{b}_j^*)}{\Delta x_{jg}}}{p_g} > \frac{\frac{u_j(x_{jg}^*, x_{jh}^* + \Delta x_{jh}; \mathbf{b}_j^*) - u_j(x_{jg}^*, x_{jh}^*; \mathbf{b}_j^*)}{\Delta x_{jh}}}{p_h} \quad (3.8)$$

then agent j will choose the consumption bundle $(x_{jg}^* + \Delta x_{jg}, x_{jh}^*)$. If

$$\frac{\frac{u_j(x_{jg}^* + \Delta x_{jg}, x_{jh}^*; \mathbf{b}_j^*) - u_j(x_{jg}^*, x_{jh}^*; \mathbf{b}_j^*)}{\Delta x_{jg}}}{p_g} < \frac{\frac{u_j(x_{jg}^*, x_{jh}^* + \Delta x_{jh}; \mathbf{b}_j^*) - u_j(x_{jg}^*, x_{jh}^*; \mathbf{b}_j^*)}{\Delta x_{jh}}}{p_h} \quad (3.9)$$

then agent j will choose the consumption bundle $(x_{jg}^*, x_{jh}^* + \Delta x_{jh})$. Inequalities (3.7)-(3.9) are used in order to generate 5,000 data points which are then interpolated by the random forest algorithm to produce the demand schedules. In particular, the graphs of the demand functions for the six commodities in the set $\mathcal{C} = \{x_1, x_2, \dots, x_6\}$ for the third group of agents are shown in Figures 1 and 2. The quantity demanded is depicted on the vertical axis. The price of the commodity is depicted on the horizontal axis. The values of the parameters are kept constant and only the price of the commodity varies.

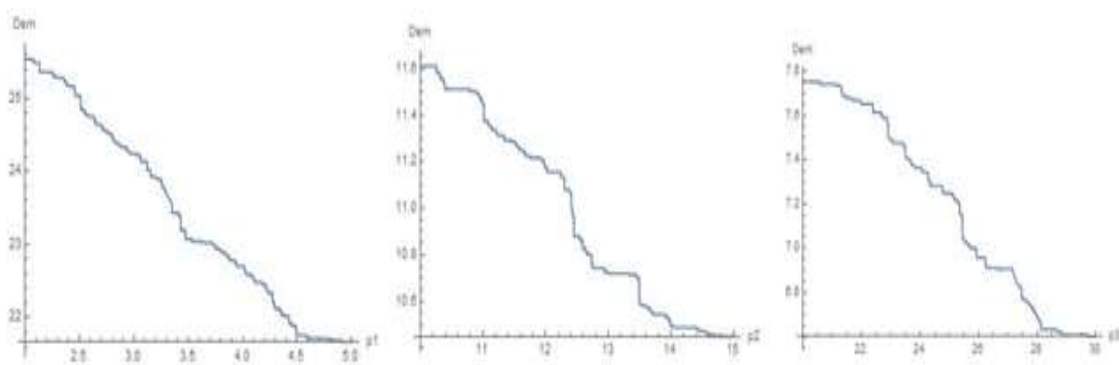


Figure 1: Demand functions for the third group of agents for the necessity commodities.

Commenting on the results in Figure 1, we see that the demand curve for the necessity commodities has a much more ‘regular’ shape compared to the same curve for the luxury commodities. The change in quantity, depicted on the vertical axis, is more or less nonzero as opposed to the case of luxury commodities for which the quantity demanded seems to be unaffected by changes in price for an initial range of values. This seems to contradict the idea that luxury goods are much more price-elastic compared to necessity goods. However, this result is not ‘global’ in the sense that it does not hold in the entire price range. Indeed, as the price increases further beyond this initial interval, the price elasticity of demand assumes large values with the demand curve being close to vertical before it flattens out again.

This variation in price elasticity reflects on factors such as the rate of growth in an economy and exchange rate dynamics (Gordon et al., 2013; Fouquet, 2014; Corsetti et al., 2006). In this respect, one may discern between short-run and long-run price elasticity of demand. A similar pattern is evidenced for the remaining groups of agents in Figures 8-11 in the Appendix. Figure 3 plots a three-dimensional graph with the price of the commodity on the x-axis, income on the y-axis, and quantity on the z-axis. The cross-sections of the demand function with the price of the commodity held fixed and the level of income held fixed are also displayed. The quantity-income curves correspond to the Engel curves. In this framework, the consumption of a particular commodity is depicted on the horizontal axis while the level of income is depicted on the vertical axis.

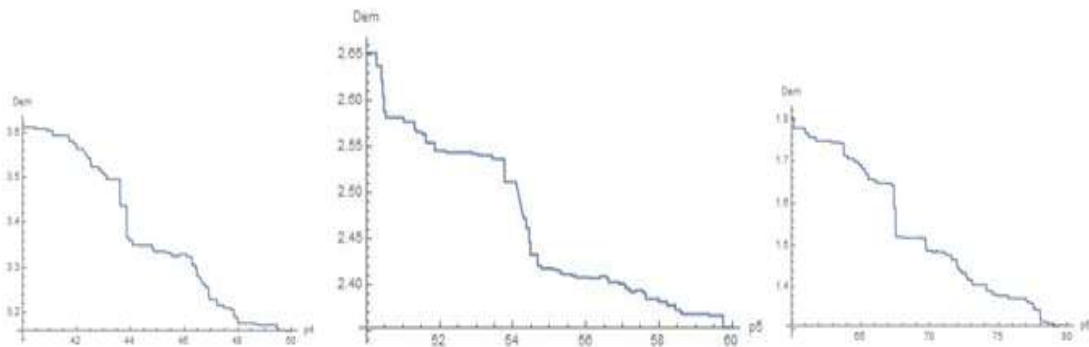


Figure 2: Demand schedules for the third group of agents for the luxury commodities.

The graphs of the demand functions for the first, second, fourth, and fifth group of consumers are given in Appendix A. Figure 3 plots the aggregate demand of the three necessity commodities as a function of the price of each such commodity and group income for the third group of agents. Holding income fixed and letting demand vary yields the demand schedules in Figures 1 and 2.

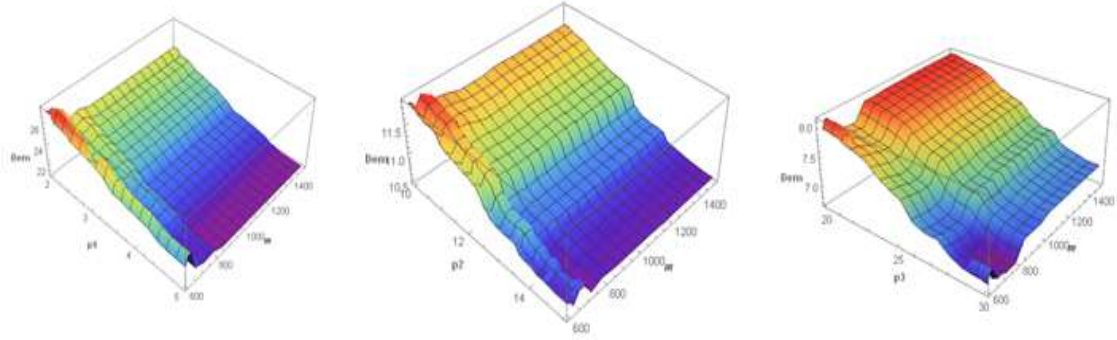


Figure 3: Demand schedules for the third group of agents for the three necessity commodities. Price is depicted on the x -axis. Income is depicted on the y -axis. Demand is depicted on the z -axis.

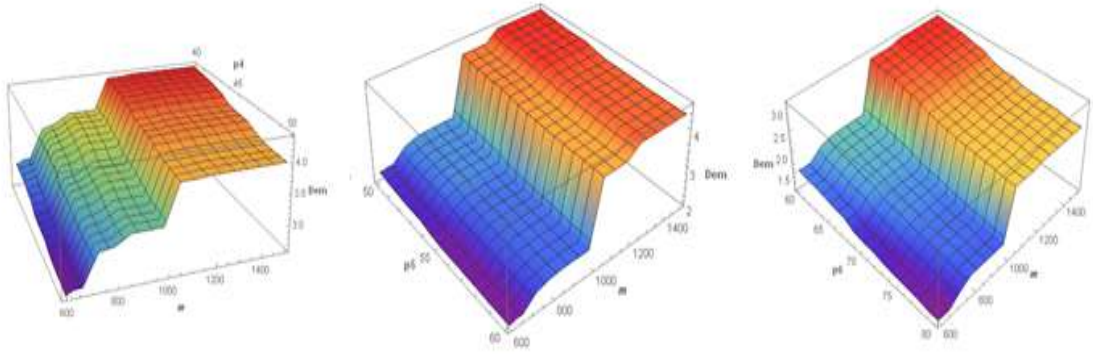


Figure 4: Demand schedules for the third group of agents for the three luxury commodities. Price is depicted on the x -axis. Income is depicted on the y -axis. Demand is depicted on the z -axis.

Holding the price of each commodity fixed and letting income vary yields the Engel curve for each commodity. A positive slope for the Engel curve implies that the commodity is normal and vice versa.

Random forest interpolation allows us to explore relationships between different economic variables keeping the rest of the variables constant. One such relationship is the Engel curve that relates an agent's income to the demand for a commodity. For a normal commodity, one expects that this relationship is increasing. For the demand functions we interpolate, this actually happens to all commodities and groups of agents, as depicted in the graphs which follow.

Due to the nature of the random forest algorithm, these curves are piecewise linear or in some cases piecewise constant which practically means that these

functions are almost *concave and increasing*, i.e., on the one hand, an increase in income implies an increase in demand but on the other hand it means that this appears with sharp jumps, i.e., changes, and also it means that the percentage increase in demand is smaller than that of income.

These assertions are demonstrated in the following examples.

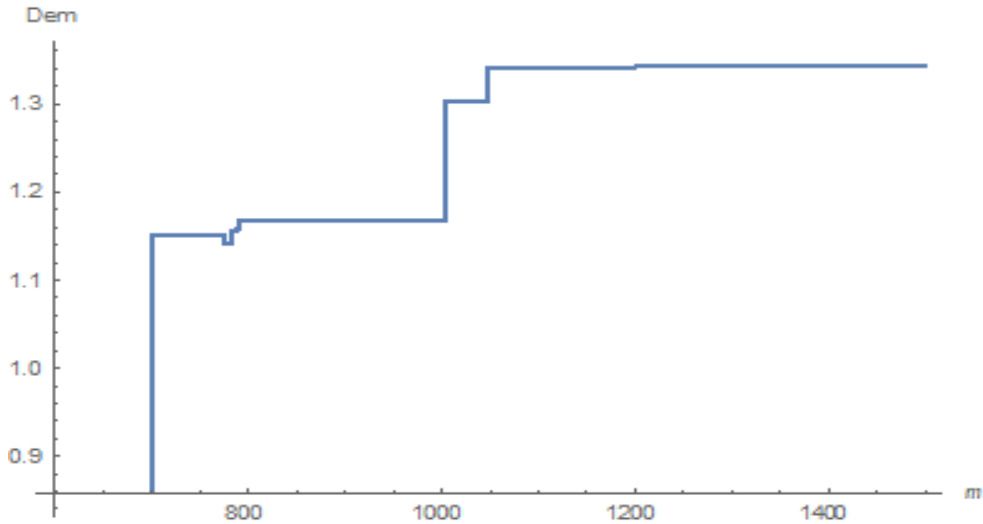


Figure 5: Engel curve for the first group of agents and the fourth (luxury) product.

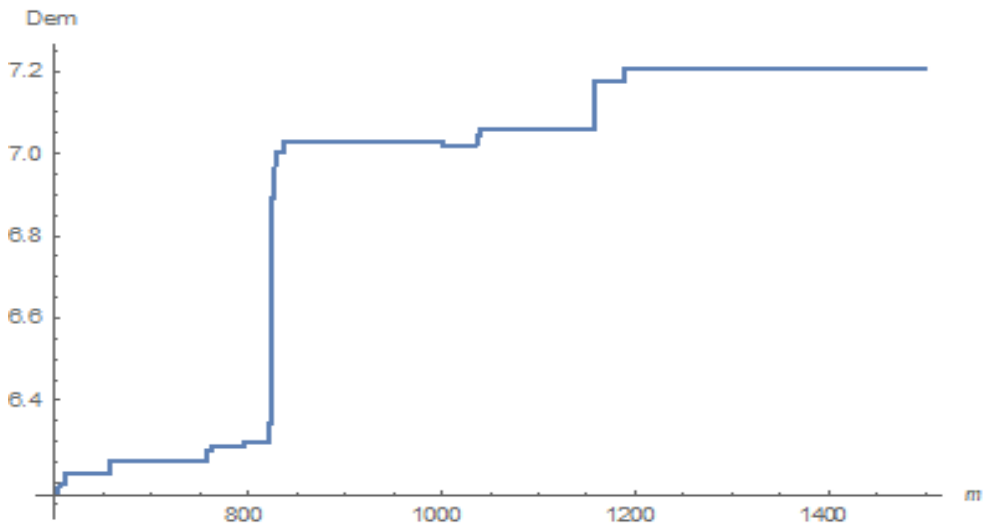


Figure 6: Engel curve for the second group of agents and the third (necessity) commodity.

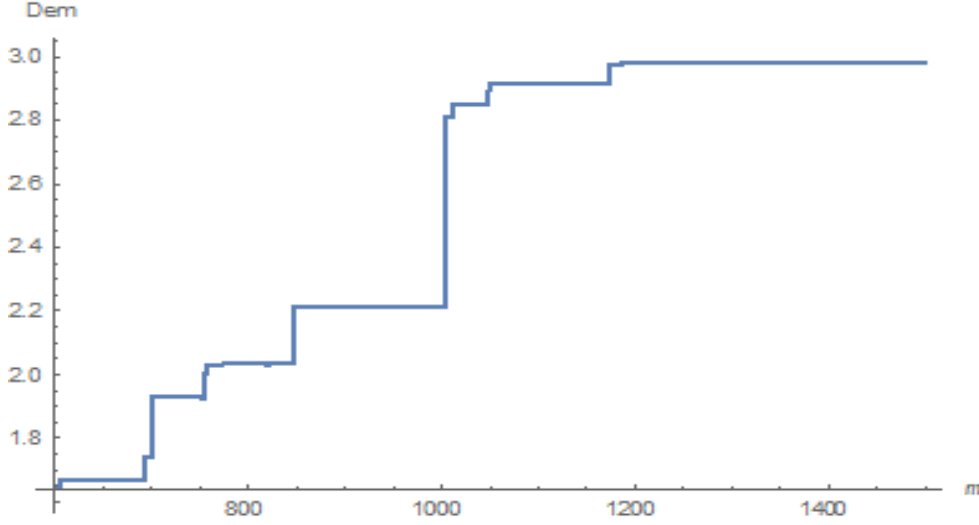


Figure 7: Engel curve for the fourth group of agents and the sixth (luxury) commodity.

The limitations of the method we apply are: (1) The random forest interpolation does not extend out of sample. (2) The derived functions are not smooth.

4 Remarks on the data generating methodology

The primary goal of the present study has been to model basic relations between variables that are prevalent in demand theory from the point of view of *data-driven modeling*. In order to generate the data required for the application of the random forest algorithm, or any other machine learning algorithm for that matter, we solved a nontrivial constrained maximization problem. In particular, the utility drawn *separately* from each commodity indexed by $l \in \{1, 2, \dots, L\}$ is given by

the sum $\sum_{k=0}^{x_l} a_l b_l^{1-k}$ where x_l denotes the amount, x , consumed from commodity

l . For example, if $x_l = 3$, then the level utility in this case is equal to the sum $a_l b_l + a_l + a_l \frac{1}{b_l} + a_l \frac{1}{b_l^2}$. Similarly, if $x_l = 4$ the level of utility is equal to the sum $a_l b_l + a_l + a_l \frac{1}{b_l} + a_l \frac{1}{b_l^2} + a_l \frac{1}{b_l^3}$. The utility drawn from all L commodities is equal

to the double sum $\sum_{l=1}^L \sum_{k=0}^{x_l} a_l b_l^{1-k}$ where the number of terms in the inner sum is

not fixed but varies according to the amount of commodity $l \in \{1, 2, \dots, L\}$ that is consumed. The maximization problem for the data generating process then

becomes

$$\begin{aligned}
& \max_{x_1, x_2, \dots, x_L} \sum_{l=1}^L \sum_{k=0}^{x_l} a_l b_l^{1-k} \\
& \text{s.t.} \quad p_1 x_1 + p_2 x_2 + \dots + p_L x_L \leq m \\
& \quad x_1 \geq 0, x_2 \geq 0, \dots, x_L \geq 0
\end{aligned} \tag{4.1}$$

Problem (4.1) is rather nontrivial for three main reasons

1. The inner sum in the objective function can vary according to the amount of commodity x_l that is consumed.
2. Solutions need to be integer.
3. Solutions need to be nonnegative.

Under these conditions, classical optimization algorithms like steepest descend cannot be applied since they require differentiability of the objective function which in turn requires that the control variables be continuous rather than discrete-valued. To overcome these restrictions, we applied the methodology described in the previous section.

5 Conclusion

We applied an *agent-based data-driven* method to calculate demand functions of a heterogeneous set of agents and of a market consisting of different types of commodities. Agents are characterized by preference and income heterogeneity. We calculated demand functions of these commodities by using the prices of the commodities and the preferences and income of the agents and interpolated these data with random forest interpolation.

The demand functions we calculated are multi-parametric. We depicted them graphically in various forms by using alternatively the type of agent, the price of the product, and a range of incomes for the agents. We constructed Engel curves and we drew conclusions about the market and the economy we simulated. It was shown that our data which are governed by highly nonlinear relations can be interpolated with the random forest algorithm. Moreover, the limitations of this interpolation came to the fore.

In this paper the data are constructed by us; however our data-driven method can be applied to any relevant given set of data and so provide a reliable model for forecasting the demand preferences of agents given some characteristics of their and the commodities' prices.

Appendix. Demand functions for necessity and luxury commodities

We give here some of the results of the simulations for the demand functions for the necessity and luxury commodities for the first, second, fourth and fifth groups of agents.

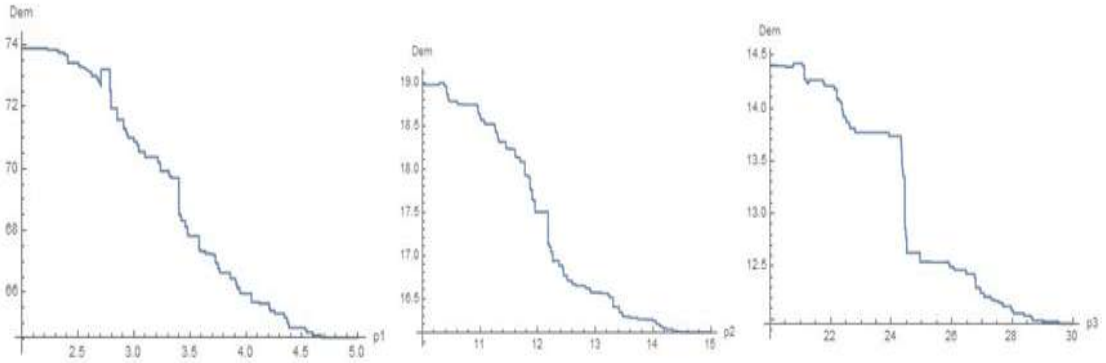


Figure 8: Demand functions for the first group of agents for the necessity commodities.

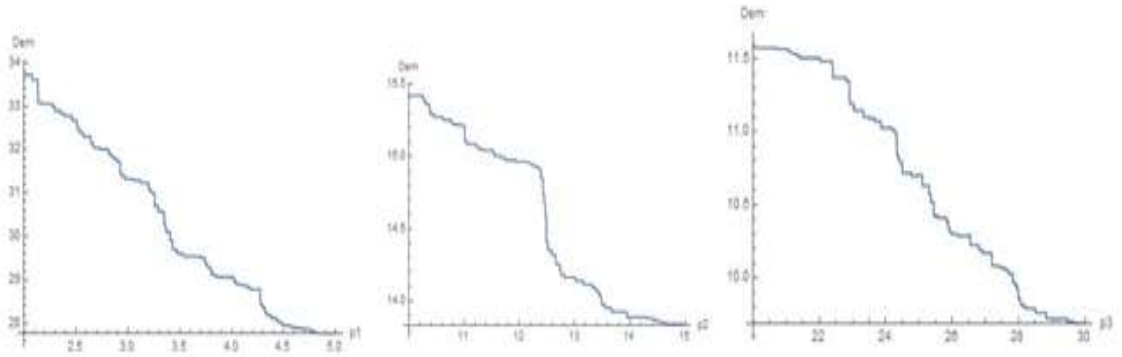


Figure 9: Demand functions for the second group of agents for the necessity commodities.

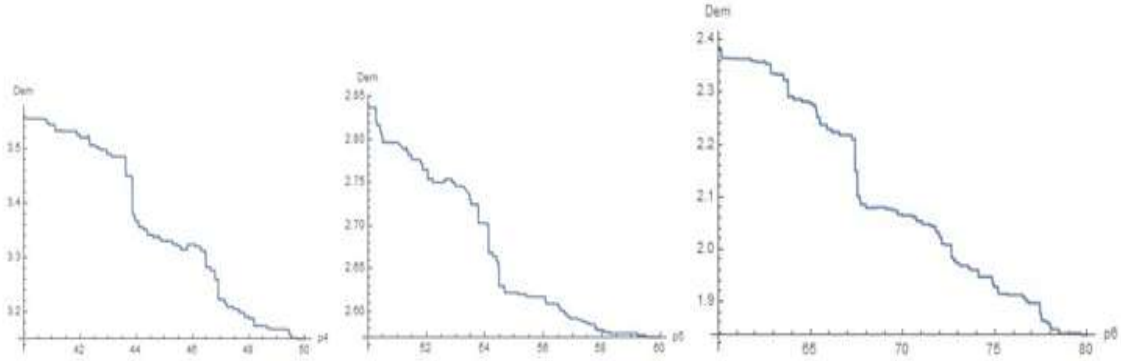


Figure 10: Demand functions for the fourth group of agents for the luxury commodities.

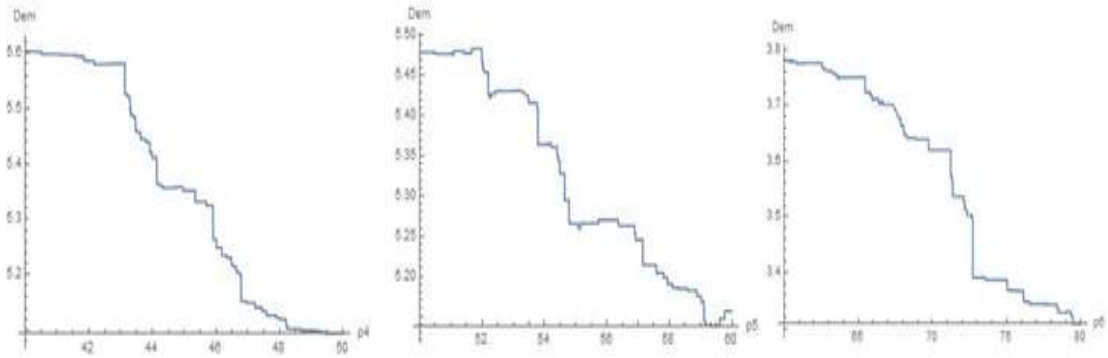


Figure 11: Demand functions for the fifth group of agents for the luxury commodities.

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Biology Perspective: An uprising perspective in the OB and HRM fields

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Abstract

For decades, social theories were dominant in organization/managerial behavior and human resource management (HRM) studies (Timming, 2018). Consequently, organizational practices, were predominantly founded on old-fashioned tools and methods with the exception of some recent attempts that deviate from this path of thinking (Dundon and Rafferty, 2018). The purpose of the present work is to provide an inside into the non conventional, biology, perspective of organizational/managerial behavior and HRM.

Key words: genetics, hormone, management, neuroscience, physiology

JEL classification: M10 General, M14 Corporate Culture, Diversity , Social Responsibility, M19 Other

Introduction

For decades, social theories were dominant in human behavior and human resource management (HRM) studies (Timming, 2018). These theories assume human conscious control over attitudes and actions. For example, Ajzen's (1991) Theory of Planned Behavior suggests that the best predictors of people's behaviors are their explicit behavioral intentions and that these intentions, in turn, result from people's explicit attitudes, subjective norms, and behavioral control. Expectancy–valence theory suggests that motivation results from at least three conscious cognitions — expectancy that we can perform the action in question, valence or desire for the consequences, and the belief that successful performance will lead to outcomes that we desire (VanEerde & Thierry, 1996).

The underlying assumptions of these theoretical perspectives are based on a traditional model of the human brain that posits individuals as active agents who consciously deliberate over each of their attitudes, emotions, and behaviors (Brief, 1998; Simon, 1976). Consequently, the main theories around organizational behavior and people management are almost always self-evident, and the empirical work is mostly predictable (Timming, 2018). Indeed, the main conclusion is that appropriate employee treatment enhances productivity and prevents attrition (Timming, 2018). Therefore, HRM as an academic field of study and a set of professional practices evolved based mainly on old-fashioned tools and methods (Dundon and Rafferty, 2018). So, even an outsider to the field might reasonably conclude that both OB and HRM are nearing a saturation point.

However, in recent years, experimental and cognitive methods, as well as neuroscience, are taking over in organizational/managerial behavior and HRM research. Evolutionary approaches, i.e., studies that adopt a biology perspective, are increasingly visible in the social science literature.

The purpose of the research is to study organizational behavior from a biology perspective. For that purpose, the literature review, following below, will present what is biological perspective in organizational behavior and the main studies' categories of biology perspective. Moreover, the most important studies that have taken place so far upon biological perspective upon OB will be mentioned as well.

Methodology and Data

For the paper, a secondary research was conducted. We had a literature synthesis by using as research base the Scopus. The articles studied were separated in three main categories, using the Nofal et al (2018). format. Therefore, we made a set of studies that The set of OB/HRM studies that examine: a) genetics, b) physiology c) neuroscience, (Nofal et al, 2018). The search was conducted in June 2023. In total, 15 research papers were collected and 8 were used in this research.

Literature review

For the reasons explained previously , the present research will build its theoretical underpinnings on biology, neuroscience, and physiology perspectives as well as evolutionary psychology. Based on those research findings we will attempt to step forward in organizational behavior and HRM research.

To begin with we are going to have an overview in research that has taken place from an organizational perspective. Nofal et al. suggest that the biology perspective on management is the set of studies that examine (a) genetic influences (b) physiology, and (c) neuroscience. These studies introduce biology into explanations of management behavior (Shane, 2009; Nofal et al, 2018).

To begin with, Nofal et al. (2018) suggest that research on genetics examine the influence of factors that “are encoded in DNA and transmitted biologically” (Nicolaou, Shane, Cherkas, & Spector, 2008) on management behavior. For instance, studies have shown that twin studies have demonstrated that there are genetic predispositions to numerous management phenotypes, such as the tendency to engage in entrepreneurship, opportunity recognition, leadership role occupancy, job control, social support at work, income and job satisfaction (Nofal et al., 2018).

Following this classification, research on genetics examines the influence of factors that “are encoded in DNA and transmitted biologically” (Nicolaou & Shane, 2009) on managerial behavior. For instance, twin studies have demonstrated that there are genetic predispositions to numerous management phenotypes, such as the tendency to engage in entrepreneurship, opportunity

recognition, leadership role occupancy, job control, social support at work, income and job satisfaction (Nofal et al., 2018).

Under this stream of research, empirical studies have examined the influence of hormones such as testosterone and cortisol (Nofal et al., 2018) underlying significant positive associations between testosterone and numerous variables, such as entrepreneurial intention, self-employment (Greene, Han, Martin, Zhang, & Wittert, 2014; Nicolaou et al. 2008), earnings (Gielen, Holmes, & Myers, 2016), leaders' corruption (Bendahan, Zehnder, Pralong, & Antonakis, 2015) and, entrepreneurial performance.

The second aspect of biology perspective in organizational management research is physiology, "the study of the normal functioning of a living organism and its component parts, including all its chemical and physical processes" (Silverthorn, 2001, p. 23). Following Nofal et al. (2018) we perceive physiology in this study as the set of studies that examine the relationship between hormones, physical characteristics, medical conditions, and dimensions of management.

The first field that physiology research has studied is the influence of hormones in management. In the field of management, empirical studies have studied testosterone and cortisol (Nofal et al., 2018) Those researches has found significant associations between testosterone and numerous organizational phenotypes, such as entrepreneurial intention (Bönte, Procher, & Urbig, 2015), self-employment (Greene, Han, Martin, Zhang, & Wittert, 2014; Nicolaou, 2) earnings (Gielen, Holmes, & Myers, 2016), leaders' corruption (Bendahan, Zehnder, Pralong, & Antonakis, 2015), entrepreneurial performance.

The second aspect of physiology studies physical traits including "height, weight, physique, athletic prowess, energy and energy level" (Arvey, Wang, Song, & Li, 2014: 80). Empirical evidence has shown that physical characteristics, such as physical attractiveness and facial cues, influence management phenotypes, such as entrepreneurial performance (Baron, Markman, & Bollinger, 2006) and leadership (Alrajih & Ward, 2014). Researchers have also found a relationship between body weight (Dzhelyova, Holzleitner, Tigue, Feinberg, & Perrett, 2012) and voice (Klofstad, Anderson, & Nowicki, 2015) and various organizational phenotypes.

For instance, Re et al. (2012) found that there is a negative relationship between leadership and body weight, explaining that a higher body mass index raises negative perceptions about leaders' abilities, which in turn influences their leadership. Klofstad et al. (2015) found that individuals with lower-pitched voices are perceived as strong, competent, and having high physical prowess and thus more likely to be selected as leaders than their counterparts. Facial cues and attractiveness were frequently related to leadership (Alrajih & Ward, 2014).

Regarding the study of physiological traits and organizational behavior, Timing (2020) conducted a series of studies in order to examine how phenotype and physiological traits can have an effect on human resources management. To be more precise, he has studied the influence of physiological traits such as skin tone and the symmetry of the face can have an influence on managers' choices upon job candidates. The study has shown that people with the most symmetrical face traits and the darker skin tone among cuacasians (people with white skin color) are more likely to be selected for a job position than people with less symmetric face traits and lighter skin tones. Those findings raise questions of how human physiology traits can have an influence in people choices and choices criteria in corporate environments. Therefore, more studies

are needed in studying if traits of humans faces and bodies have an influence in human resources management. Moreover, it is also needed to study what traits and to what extent those traits can have an influence on human resources management.

Lastly, neuroscience indicates that much of the brain processing that shapes workplace attitudes, emotions, and behavior takes place outside of conscious awareness (e.g. Barsade, Ramarajan, & Westen, 2009); Becker, Cropanzano, & Sanfey, 2011). Empirical studies has shown, that people with attention-deficit/hyperactivity disorder and dyslexia (Nofal, 2018) have a higher tendency to engage in entrepreneurial activities. Other empirical studies have shown several associations between neurological activations in the brain and management. For instance, Dulebohn, Davison, Lee, Conlon, McNamara, and Sarinopoulos (2016) found that the activations of the insula, ventral striatum, ventromedial prefrontal cortex, and anterior cingulate cortex regions of the brain are associated with procedural justice, while the activations of the dorsal medial prefrontal cortex and the precuneus/posterior cingulate regions are related to distributive justice, with these findings varying from males to females. In leadership, Waldman, Balthazard, & Peterson (2011) found that the right frontal coherence is associated with the formation of a socialized visionary communication, which in turn builds followers' perceptions of the leader's inspirational capabilities. In another leadership study, (Boyatzis, Passarelli, Koenig, Lowe, Mathew, Stoller, & Phillips, 2012) found that recalling experiences with resonant leaders was associated with the activation of regions such as the bilateral insula, right inferior parietal lobe, and left superior temporal gyrus.

Results and Discussion

To sum up, research on OB, Management, HRM and Leadership uses new approaches: neuroscience, physiology and genetics have appeared to underline several factors that influence managerial behavior and choices that "typical" research has not approached. For example, genetic factors seems to explain more than one third of the variance in many phenotypes, such as work values (Arvey et al., 1994), creativity (Shane & Nicolaou, 2015), job switching (McCall, Cavanaugh, Arvey, & Taubman, 1997), transactional leadership (Johnson et al., 1998), and the propensity to engage in entrepreneurship (Nicolaou et al., 2008). What is more, brain function is associated with managerial behavior, as demonstrated by neuroscience studies in leadership, decision making, entrepreneurship, and work stress (Nofal et al., 2018). Ignoring our biology, management researchers are missing an important part of the explanation for managerial behavior (Nofal, 2018). A biological approach provides a new set of theories, methodologies and tools to understand leadership and followership more completely, help overcome biases and blind-spots in the literature, and turn our attention to investigate novel leadership trends and phenomena as well as HRM practice (Van Vugta & von Ruedenb, 2020).

In agreement with Nofal et al. (2018), we conclude that although a growing body of research on the biology perspective on organizational/managerial behavior and HRM exists, there has been little research that connects the three main biology stands (i.e., genetics, physiology and neuroscience) to each other and no organizing framework. Additionally, research does not take into account how environment and biology jointly interact to influence management. Previous work has also neglected dynamic considerations, as evidenced by the lack of longitudinal studies.

As, Nofal et al. (2020) review shows that research on the implications of the biology perspective for the practice of management is strikingly limited.

Conclusion

Research on Organizational Behaviour & Human Resources Management focus more and more in biology perspective: neuroscience, physiology and genetics. Several studies have been published, but it is necessary to make the research more systematic and connected. HRM/OB phenomena (i.e., leadership) it is needed to be studied under physiology, genetics and neuroscience factors separately. Therefore, It's important to develop and use models, methods and tools thus we can measure the impact of biology factors upon OB & HRM and compare it and combine it with social studies. On the other hand, it's important to use this knowledge for making HRM practice to step forward, as recruiters, and HR practitioners have to take into consideration the data driven from new researches. Therefore, HRM can be more inclusive in recruitment and HRM administrative practice. However, it's critical to keep in mind that biology perspective cannot be taken as the only perspective for explaining HRM/OB (i.e., leadership) phenomena.

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ECONOMIC GROWTH FROM A DEGROWTH PERSPECTIVE

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Abstract.

The term degrowth has emerged within ecological and heterodox school of economics as a critique of the idea of economics growth. Degrowth argues that economic growth is no longer desirable and advocates a transformation so that we produce and consume less, differently and better.

This paper aims to explain how the degrowth economists and social scientists understand the economy and the contested matter of economic growth. The view of these researchers differs fundamentally from the mainstream approach, anticipating the economy as a circular flow of money, goods and services between firms and households.

The present paper provides insights from economic anthropology, ecological and feminist economics, Marxian and institutional political economics combining, comparing and contrasting their standpoints to those of neo-liberal thoughts

JEL Code: Q

Keywords: degrowth, transition, consumption

Introduction.

How do we approach income equality? How should we reduce employment rates? How could we increase GDP ? Since the very beginning of economics as a concrete science some specific questions emerged absorbing the most prevailing economists at the time. Until the latest decades of 20th century the range of the predominant issues concerning economists may have varied, but almost none of them had questioned the very foundation of the modern day economy, economic growth. The growth paradigm, although recent phenomenon of industrial capitalism (Economists first measure growth in the 1930s, and its pursuit became universal only in 1950s), was well established in a global scale from every government promising a prosperous and equal society.

However, the latest decades there are some economists and social scientists disputing the grassroots of capitalism, introducing another crucial research field leading to substantial debates. Degrowth researchers, as they usually have been referred, have ardently criticized the growth dogma researching and published numerous papers concerning this particular matter. Following the early findings of environmentalists about the proliferation of human activities causing grave environmental problems including climate change that already threaten the survival of humankind, degrowth scientists started forming a critique of the ecological consequences of economic growth. They advocate that growth, besides being ecologically disastrous, is not natural or socially desirable.

The present paper will attempt to briefly illustrate these assertions as an effort to present the degrowth perspective of economic growth.

Growth is not socially desirable.

What constitutes the source of satisfaction derived from an iPhone, a new bicycle, a holiday abroad, or a birthday gift for a loved one? Answering these questions is nearly impossible. Economics tackles this challenge by assuming that their value corresponds to the price individuals are willing to pay for them in functioning markets. It defines utility as the monetary value obtained through market transactions. The GDP, in turn, aggregates all these market transactions, essentially quantifying the total expenditure by households, government, and investment within a nation. Expenditure is used as a proxy for utility, forming the basis for arguing that GDP is a meaningful measure of well-being.

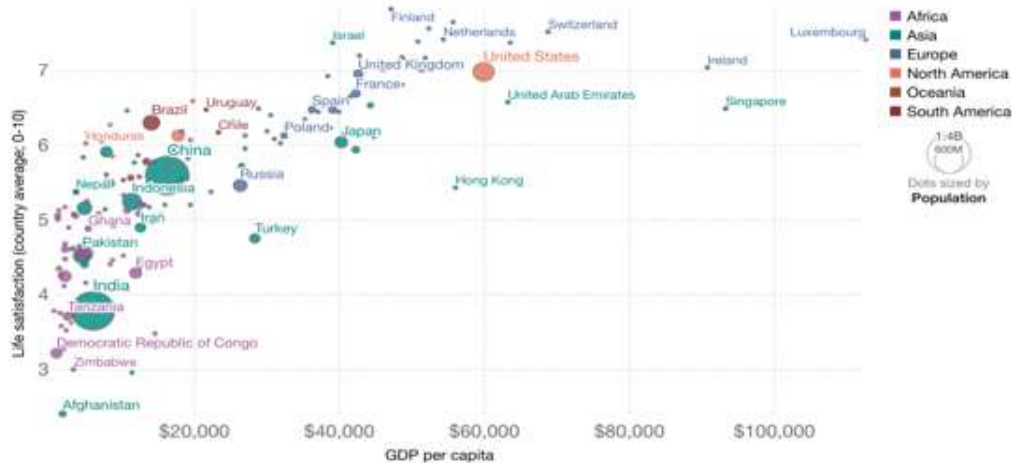
However, this argument is deeply problematic, at best. There exists a substantial body of literature criticizing the efficacy of GDP as an indicator of well-being. Obvious limitations include its failure to account for non-market services (such as household or voluntary labor) or negative utilities like pollution.

Some proponents contend that the fundamental concept of utility as exchange value is inherently flawed. They point to the "happiness paradox" or the paradox of life satisfaction as a significant finding in this regard. This paradox is primarily observed in advanced economies. It suggests that once an income level of approximately \$20,000 per capita is reached, increases in GDP have a minimal effect on life satisfaction scores, one noticeable observation evident in the diagram provided below.

Conversely, at very low income levels, there is a wide range of life satisfaction levels, but the general trend shows a steeply rising curve. Even a small increase in GDP leads to a substantial rise in life satisfaction.

Self-reported life satisfaction vs GDP per capita, 2021

The vertical axis shows the national average of the self-reported life satisfaction on a scale ranging from 0-10, where 10 is the highest possible life satisfaction. The horizontal axis shows GDP per capita adjusted for inflation and cross-country price differences.



Source: World Happiness Report (2023); Data compiled from multiple sources by World Bank
OurWorldInData.org/happiness-and-life-satisfaction/ • CC BY

1

While developed nations may have a compelling argument to prioritize fostering growth in poorer countries, it is in these economically disadvantaged nations where growth can have a truly transformative impact. In wealthier countries, the benefits of additional growth seem considerably more constrained. Using economic terminology, the marginal utility (in this case, measured as subjective well-being) diminishes rapidly as income levels rise.

It is logical that long-term personal well-being is not significantly influenced by economic growth. In the class system, social status is determined by one's position relative to others. Economic growth primarily raises average incomes and positions, rather than relative ones (Hirsch, 1976). While attaining what a wealthier person had in the past may offer temporary satisfaction, it still leaves you with less than others in the future. As your preferences adjust to your current possessions (Frank, 2001), and as you compare yourself to others and continue to desire more, frustration resurfaces.

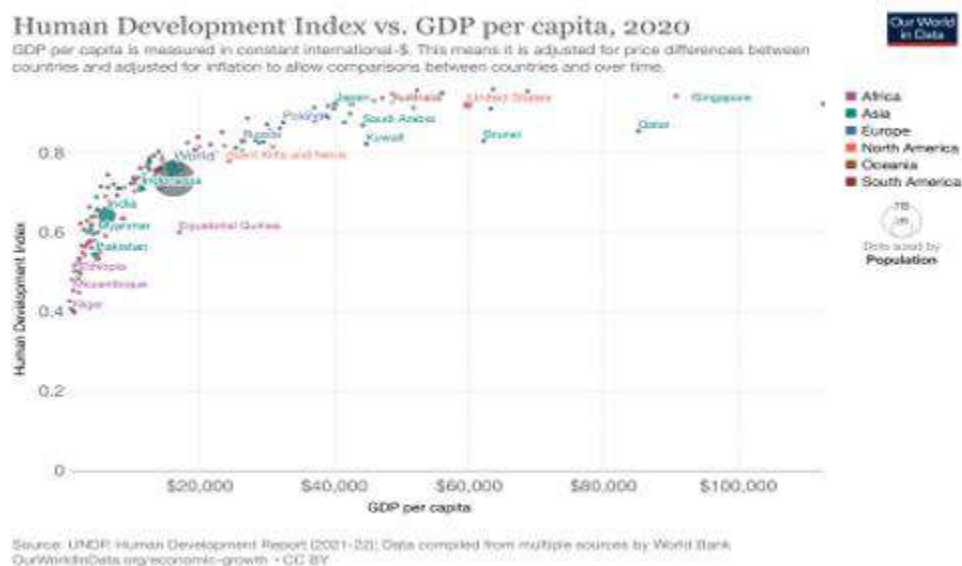
In fact, the remarkable growth experienced by China in the 2000s resulted in a decline rather than an increase in happiness, likely due to rising inequality and the resulting frustration among those left behind (Brockmann et al., 2009). For both affluent and impoverished nations, greater income equality leads to higher levels of happiness among individuals (Reyes-Garcia et al., 2016).

Undoubtedly, these data provide a basis for considering the decoupling of prosperity from economic growth. However, it is crucial to supplement subjective well-being data with objective

¹ Life evaluations from the Gallup World Poll provide the basis for the annual happiness rankings. They are based on answers to the main life evaluation question. The Cantril ladder asks respondents to think of a ladder, with the best possible life for them being a 10 and the worst possible life being a 0. They are then asked to rate their own current lives on that 0 to 10 scale. The rankings are from nationally representative samples over three years.

well-being indicators. One widely recognized index in the United Nations' efforts to assess human development is the Human Development Index (HDI).

While subject to some debates, the HDI is widely regarded as a valuable tool for measuring human development. International comparisons of human development reveal a gamma-shaped curve that resembles the pattern observed in subjective well-being, as demonstrated below. Beyond a certain threshold of GDP, further economic growth only brings marginal improvements to human development.



2

When examining other vital indicators of human prosperity, similar patterns emerge. Specifically, life expectancy has shown a consistent increase over time and tends to be higher in wealthier nations. However, the relationship follows a gamma-shaped curve once again. Among countries that have reached a certain income level, there are no noticeable disparities in life expectancy between wealthier and less affluent nations, as illustrated in the figure below. For affluent countries, it is not solely income that influences life expectancy but rather the level of equality within those societies (Wilkinson & Pickett, 2011).

²² HDI is an index that measures key dimensions of human development. The three key dimensions are:¹

– A long and healthy life – measured by *life expectancy*.

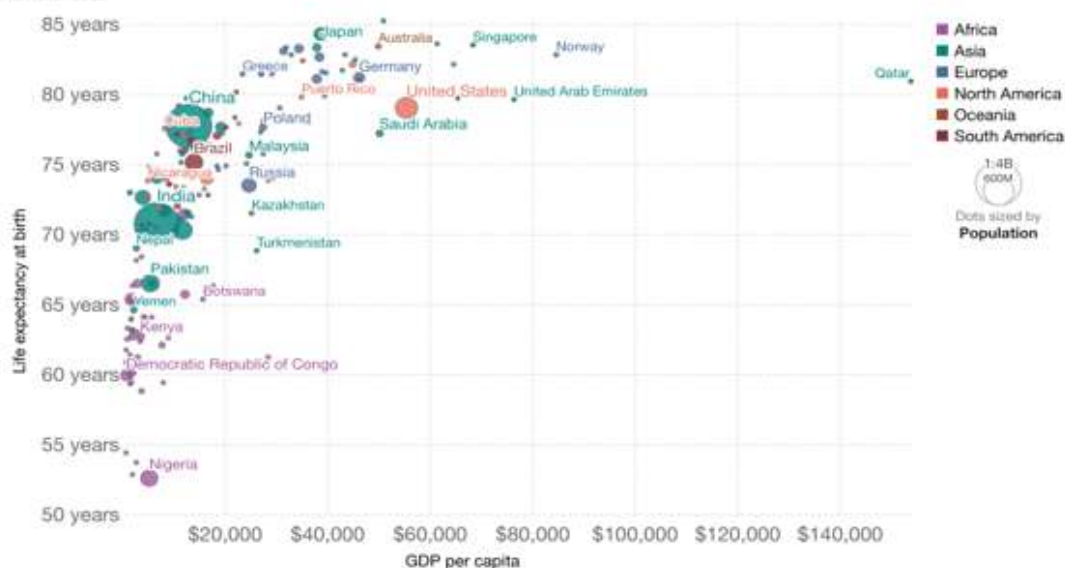
– Access to education – measured by *expected years of schooling* of children at school-entry age and *mean years of schooling* of the adult population.

– And a decent standard of living – measured by *Gross National Income per capita* adjusted for the price level of the country.

This particular index has been ardently criticized as a distorted perception of human development. Specifically the adversaries of the index doubt that Access to education should be measured by *expected years of schooling*, as these number does not depict the quality of education received. Secondly, does *Gross National Income per capita* indeed correspond to *decent standard way of*

Life expectancy vs. GDP per capita, 2018

GDP per capita is measured in 2011 international dollars, which corrects for inflation and cross-country price differences.



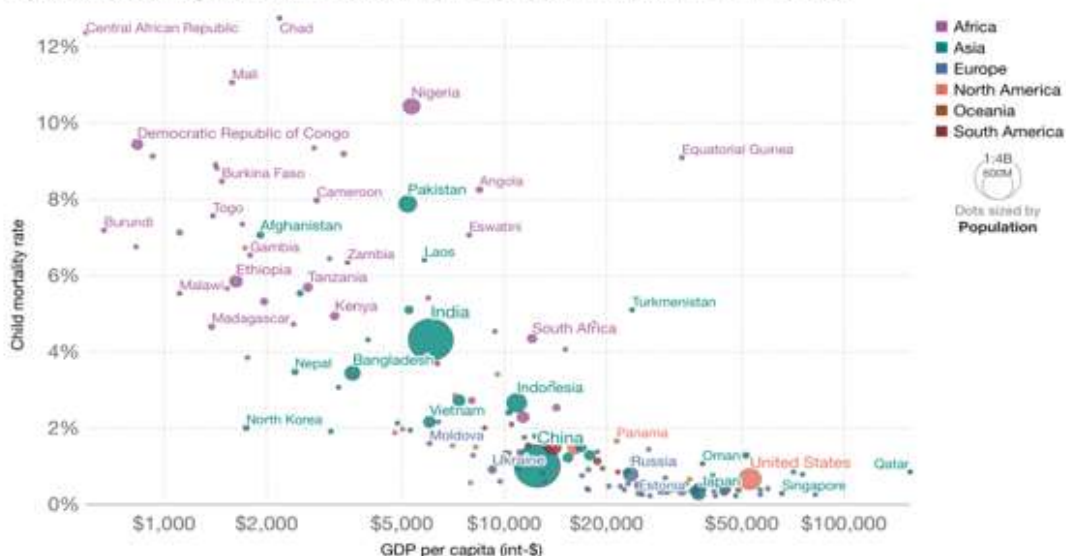
Source: Maddison Project Database (2020); UN WPP (2022); Zijdeman et al. (2015)

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Pointing to yet another vital well-being factor, the inverse-gamma shaped distribution is one more evidence of decoupling prosperity and growth.

Child mortality vs GDP per capita, 2016

Child mortality is defined as the number of children born alive that die before their 5th birthday. GDP per capita is adjusted for price changes over time and between countries (measured in international-\$ in 2011 prices).



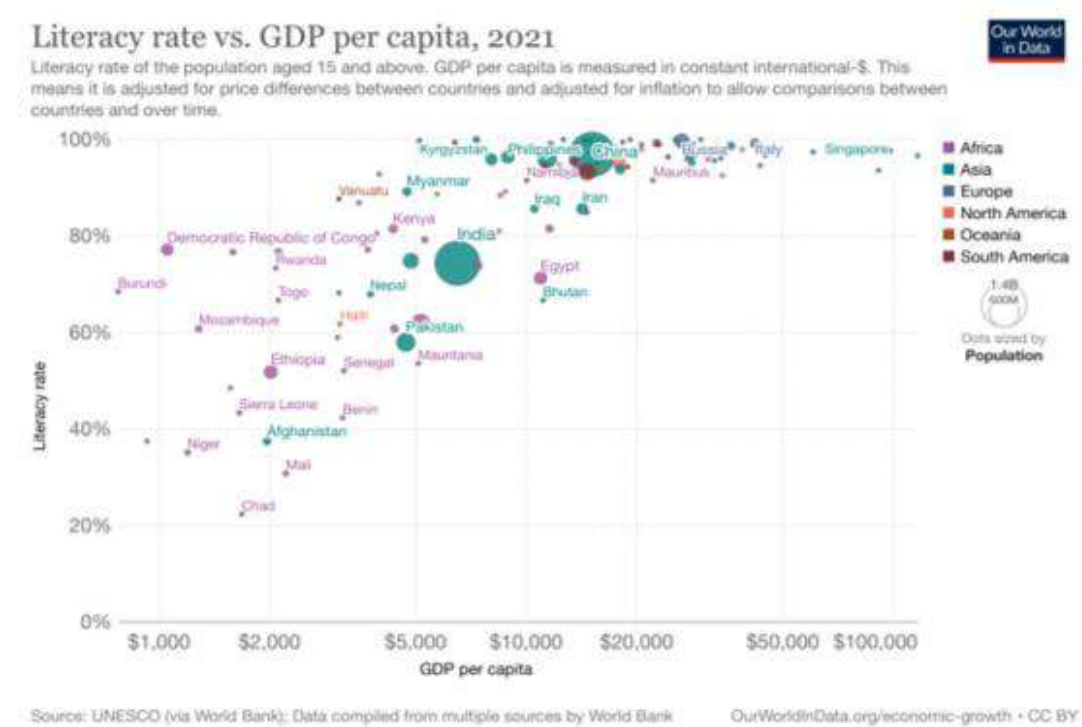
Source: Gapminder (v10); Maddison Project Database 2020 (Bolt and van Zanden (2020))

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In 2021, the child mortality rate in sub-Saharan Africa was alarming, with 1 in 14 children dying before reaching their fifth birthday. This rate is 15 times higher compared to children born in high-income countries and lagging behind the world average by 20 years, as the world achieved a 1 in 14 rate by 2001.

However, once again, it can be observed that as incomes increase, the benefits derived from economic growth diminish rapidly. An interesting example is Cuba, where in 2016, despite having a GDP per capita of \$8,000, slightly lower than that of the United States of America (\$53,015), the child mortality rate in Cuba was 0.55%, while that of the United States was 0.65%. This showcases that economic factors alone do not determine child mortality rates, and other socio-economic and healthcare factors come into play.

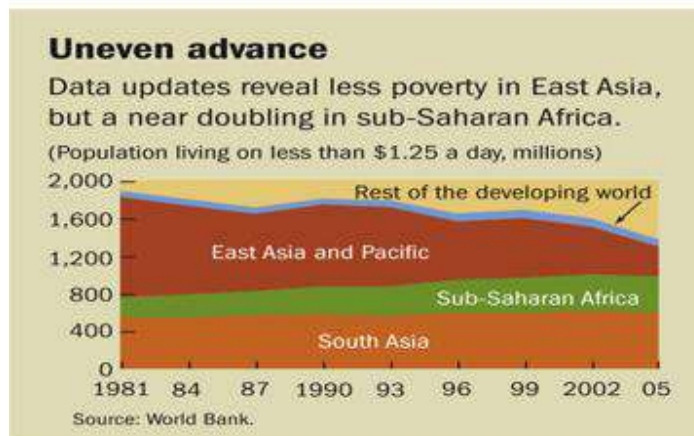
The pattern of diminishing returns in relation to income growth is evident once again when examining the literacy rate, which highlights the persistent disparity between extremely impoverished and highly affluent countries.



3

³ Adult literacy rate is the percentage of people ages 15 and above who can both read and write with understanding a short simple statement about their everyday life.

Regarding poverty, it can be argued that stating the necessity of growth to reduce poverty is a tautology since absolute poverty is measured in terms of GDP. While the total number of people in poverty and the share of the population living in absolute poverty have decreased, this "convergence" is primarily driven by the progress in China (Hickel, 2017). Assuming that the current relationship between GDP growth and poverty reduction persists, eliminating poverty through growth would require unrealistically high global output increases (Woodward, 2015).



Growth is ecologically disastrous.

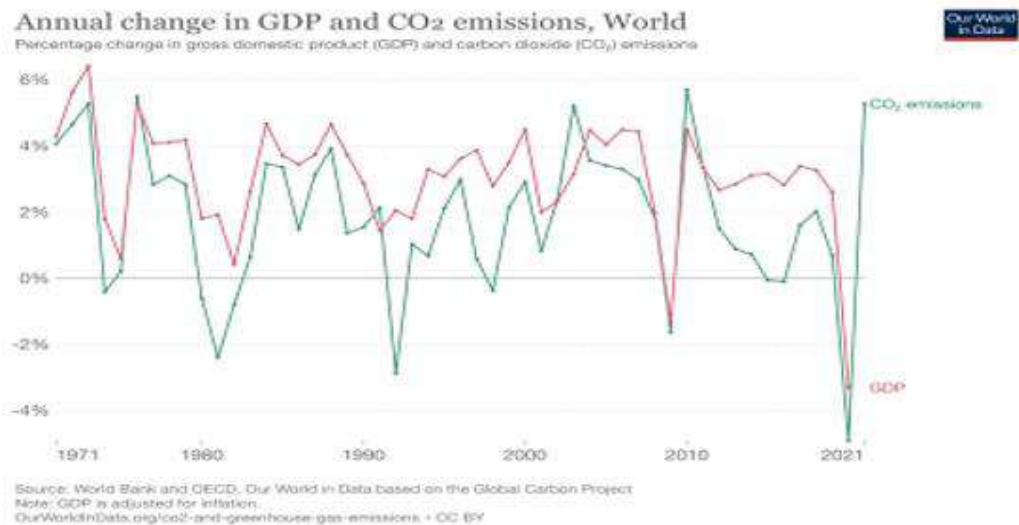
Ecological footprint and material flows.

No single indicator can comprehensively capture the overall health of the planet, similar to how there is no singular indicator for measuring well-being. Any attempt to condense complex and diverse information into a single numerical value is inherently flawed (Giampietro & Satei). However, despite the limitations of individual indicators, they collectively indicate a consistent trend: growth has detrimental effects on the environment.

The ecological footprint serves as a significant measure of the planet's state. It represents the amount of land needed to support a nation's resource consumption and waste generation (York et al., 2004; Wackernagel & Rees, 1998). Population size and level of affluence are key factors influencing a country's ecological footprint, and GDP plays a crucial role in this relationship (Dietz et al., 2007).

Limitations and exceptions: In practice, literacy is difficult to measure. Estimating literacy rates requires census or survey measurements under controlled conditions. Many countries report the number of literate people from self-reported data. Some use educational attainment data as a proxy but apply different lengths of school attendance or levels of completion. And there is a trend among recent national and international surveys toward using a direct reading test of literacy skills. Because definitions and methods of data collection differ across countries, data should be used cautiously.

The quantity of minerals extracted from the Earth serves as another indicator of environmental pressure. The extraction process damages land, watercourses, habitats, and the livelihoods of people residing in these extraction areas. Additionally, the materials extracted often end up as waste, causing pollution in water, land, and the atmosphere. Global material usage has witnessed a significant increase, rising from 22 billion tonnes in 1970 to 70 billion tonnes in 2010, with a notable acceleration in material extraction since 2010. The increase in global material usage aligns with the trajectory of GDP. It is not coincidental that both the global economy and material flows have grown concurrently. When observing a cross-sectional set of countries and examining material usage and GDP over time, a 1 percent increase (or decrease) in the size of the economy corresponds to an 0.8 percent increase (or decrease) in material usage (Steinberger et al., 2013). This confirms that the economic process fundamentally involves the transformation of materials. In the diagram demonstrated below it is clearly observed the aforementioned high correlation between GDP and CO₂ emissions in a global scale.



Planetary disaster 1: biodiversity

According to the influential Millennium Ecosystem Assessment conducted in 2005, human activities have brought about ecosystem transformations at an unprecedented pace over the past five decades. These changes have heightened the risks of abrupt and irreversible alterations to the environment. The degradation caused by human actions is resulting in the rapid loss of species, surpassing the rates observed during any previous era since the mass extinction event that led to the demise of dinosaurs. By the year 2100, it is projected that one out of every ten species on Earth will cease to exist.

Economic growth correlates directly with changes in ecosystems and the loss of biodiversity. As the economy expands, it leads to increased land occupancy and intensified land use, which in turn displaces other species. Higher incomes contribute to dietary shifts favoring meat consumption, which becomes a significant driver of agricultural land-use change and the decline of biodiversity.

The growth of infrastructure and human-made structures also accompanies economic growth, with the current stock of buildings, roads, and factories rivaling the biomass of all land plants. The expansion of agriculture and the development of infrastructure lead to the destruction and fragmentation of natural habitats. Additionally, trade, which is both influenced by and a result of economic growth, contributes to the spread of invasive species, often causing harmful impacts on local ecosystems (Otero et al., 2018)

Planetary disaster 2: climate change

Climate change poses a threat not only to other species and biodiversity but also to the very conditions necessary for human existence. The probability of a 2°C rise in global temperatures above preindustrial levels is highly likely. Already, two-thirds of the available "carbon budget" required to maintain a 66% chance of staying within the 2°C limit has been emitted. A 2°C increase will have significant impacts on crops and food supply in vulnerable regions, leading to the melting of glaciers and a rise in sea levels that will result in the inundation of coastal areas and the submergence of many small islands.

To have a reasonable probability of staying within the temperature rise limit, wealthier nations, which have been responsible for higher carbon emissions, must commence immediate reductions in carbon emissions at a rate of 8-10% per year. It is worth noting that reductions exceeding 3-4% per year, as depicted in the diagram below, have typically occurred during economic downturns and are unlikely to be compatible with economic growth (Anderson & Bows-Larkin, 2013).

In the long run, the rate of carbon emission reduction is determined by the difference between the decline in carbon intensity and the rate of economic growth. For instance, if an economy is growing at a rate of 2% per year and reductions of 4% per year are desired, the carbon intensity of the economy must continuously improve at an approximate rate of 6% per year (Anderson & Bows-Larkin, 2013)

Between 1970 and 2013, the average annual reduction in carbon emissions was only 1.5%. The rate of decarbonization is influenced by the pace of economic growth, with slower-growing economies providing more time for decarbonization efforts. Carbon emissions are closely linked to economic growth, as they both tend to increase together. Moreover, larger economies tend to emit more carbon. Studies have shown that a 1% increase in income is associated with a 0.5-0.8% increase in CO₂ emissions in the same year (Burke et al., 2015). There is no evidence to suggest that carbon emissions start declining after a certain level of GDP is reached (Stern, 2017).

Conclusion

Economic growth as it was briefly illustrated in this paper, is not natural or inevitable and does not contribute substantially to prosperity rates after a certain level of GDP per capita is reached. Although, without a doubt the loudest argument for the advocates of degrowth is that the perpetual growth will lead accurately to an extremely hostile environment for humankind on planet earth. The economic science should prioritize the research on fundamental alterations in the way we produce and consume as a duty for the generations to come considering at the same time the ever-present demand for social justice and equality.

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**Greek companies' compliance with the requirements of Law
4528/2018 for reporting on environmental, social and governance
issues (ESG) in the board of directors' management report.
The case of the companies in printing, graphic arts and packaging
sector for the period 2020 – 2021**

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Abstract

We examine the extent to which a sample of 129 companies, active in lithography, packaging, labeling and paper bagging, comply with the requirements of Greek legislation (L.4548/2018, C.62784/2017) for reporting information on ESG issues.

The total average compliance rating of the sector is 46,25%, lower than 50%, therefore the sector needs improvement in reporting information on ESG issues.

There is a positive correlation of the compliance rating with the total assets, turnover, profits, number of employees, possession of ISO certificates and involvement of an external auditor.

The finding supports the agency theory, because the largest companies, with ISO certifications and statutory, external auditors, i.e. the companies with the best corporate governance, present better results in reporting information on ESG issues.

Keywords: Agency, Compliance, ESG Issues, Legitimacy, Management Report, Sustainability.

JEL Classification: Q56, M10, M14, M40, M48

1. Introduction

Despite the growing interest in the ESG issues and ESG reporting practices (sustainability reports), all relevant studies present that the ESG issues reporting is poor, especially in developing countries (Taurigana, 2021).

The sustainability reports provide (qualitative) information on the social and environmental performance of the companies, while the traditional financial reports provide only (quantitative) information on financial performance (De Villiers and Sharma, 2020). Sustainability reporting is an important accountability mechanism of the companies' management to the stakeholders, that improves the company's image, motivates its workforce and creates a comparative advantage (Journeault et al., 2021; Orazalin and Mahmood, 2018; Cho et al., 2015).

The ESG reporting practices present inconsistency (Bradford et al., 2017). The ESG reports are typically voluntary and are not be ruled by mandatory reporting principles or standards (Pinnuck et al., 2021), thus they present lack of standardization and scrutiny. The pre-mentioned lacks, in combination with the diversity of data and the complex key performance indicators, increase the need for assurance, accountability and holistic oversight of information on ESG issues (Kotsantonis & Serafeim, 2019).

In this study, we will examine whether the Management Report of Directors' Board contains information on ESG issues. According to Law 4548/2018 (article 150) and circular 62784/2017 the Management Report must be prepared annually for the General

Meeting of Shareholders and must include a comprehensive analysis of the evolution and performance of the company, related to the size and complexity of its activities. This report should also include financial and non-financial key performance indicators, relevant to the activities of the company, with particular emphasis on information relating to ESG issues.

It should be noted that if the Management Report does not include the above information, the penalties, in accordance with L.4548/2018 (article 179), are imposed on the members of Directors' Board.

In the context of this study, we examine how a category of companies, more specifically the companies of the packaging, printing, graphic arts sector, comply with the requirements of Greek legislation (L.4548/2018 and C.62784/2017) for reporting information on ESG issues. The research was based on the published financial statements of these companies for the years 2020 - 2021 in the Register of Greek General Chamber (G.E.MI).

The rest of the paper is structured as follows:

- Section 2, literature review.
- Section 3, research methodology, including data.
- Section 4, results and discussion.
- Section 5, conclusion.

2. Literature review

We employ the theories of agency and legitimacy to justify the need for reporting information on ESG issues.

The agency theory, Jensen and Meckling (1976), assumes that all human beings have selfish interests, this results in conflicts between resource owners and resource managers. There is, also, a significant information asymmetry problem, because the resource managers have a lot more information than the resource owners.

The resource owners, i.e. the shareholders, appoint the board of directors to control and monitor the actions of the resource managers, i.e. the company's management. The board of directors tries to minimize the above problems by adopting a system of internal audit and control monitoring procedures. One of these monitoring procedures is to check, whether the company's management complies with the requirements of L.4548/2018 and C.62784/2017, thus the Management Report should contain information on ESG issues.

The basis of the agency theory is the maximization of the shareholders wealth, therefore the managers must disclosure the annual performance of the company to the shareholders and this achieved by the submission of the Management Report to the Annual General Meetings of Shareholders, which is going to approve it. However, the decisions and actions of the company's management concern not only the shareholders, who want to increase their wealth, but also the society in which the company operates and is significantly influenced by the company's activities. The social and environmental disruptions are increasing the society's interest in information and management practices for ESG issues. Reporting information on ESG issues is an

important accountability mechanism of the company's management to the societies, in which they operate. The company's management can decrease the information asymmetry with stakeholders on ESG issues, by demonstrating their engagement through reporting ESG information (Zorio et al., 2013).

The basic assumption of legitimacy theory, as described by Suchman (1995), is that the company's actions must be desirable, appropriate and socially well-accepted by a system of values and beliefs. The company's activities should be continually complied to the criteria set by the society, in which it operates. The only way to ensure, that these activities are acceptable by the involved communities, is to provide them adequate, relevant and meaningful information. If the activities do not meet the expectations of society, there is a legitimacy gap (Guthrie et al., 2007), which must be filled not only by the legislators, who draft the relevant laws and regulations, but also by the corporate governance bodies, who must continuously monitor, if the companies are complying with the relevant laws and regulations.

3. Data and Methodology.

In accordance with the provisions of L.4548/2018 and c.62784/2017 the Management Report must contain, at least, the following issues, classified into three categories:

1. Environmental issues (E).

E.1. Actual and potential impact of the company on the environment.

E.2. Disclosure on the company's procedures to prevent and control environmental impacts.

E.3. Development of green products.

2. Labor issues (S).

S.1. Diversity and equal opportunities policy (irrespective of gender, religion, disadvantage or other aspects).

S.2. Respect for workers' rights and freedom of association.

S.3. Health and safety at work.

S.4. Training systems, related to promotion.

3. Governance issues (G).

G.1. Summary description of the business model.

G.2. Objectives, values and key strategies.

G.3. Management principles and internal audit systems.

G.4. Performance analysis.

G.5. Value chain.

In accordance with C.62784/2017 all companies in Greece, which keep a double-entry bookkeeping system, should publish their financial statements within 20 days, after their approval by the Annual General Meetings of Shareholders, in the Register of the General Chamber of Greece (G.E.MI.), which is a database easily accessible to any stakeholder.

The financial statements, which should be published, include:

- Balance Sheet
- Profit and Loss Statement
- Notes
- Management Report

This study, we examine the extent to which companies, active in lithography, carton manufacture, labeling and paper bagging, comply with the requirements of Greek legislation for reporting information on ESG issues.

We select to review this sector, because:

- It is a heavy industrial and energy-intensive sector.
- It uses a lot of chemical materials (inks, etc.) and for this reason its workers belong to the special category of heavy and unhealthy professionals.
- It employs a large number of workers, who usually work in 3 shifts, per day.
- The major raw material, i.e. the paper, is originated from the forests.
- It is actively involved in the food chain through the packaging.

We selected all companies of this sector, which have published their financial statements for the years 2020 - 2021 in the Register of Greek General Chamber (G.E.MI). Our sample consists of 129 companies throughout Greece. We retrieved the above data in December 2022.

We have examined to what extent the Management Report complies with the minimum requirements of Greek legislation for reporting information on ESG issues and, in particular, we have examined whether information is provided on the three environmental issues, the four social issues and the five corporate governance issues. Each firm was given a score rating, according to its compliance with the required reporting, e.g. if the Management Report covers all above twelve topics, the company will receive a 100% compliance rating.

We have, also, retrieved from G.E.MI database the following data, in order to correlate them with the compliance rating:

- Total assets
- Total turnover
- Results
- Number of employees
- Establishment year
- Location
- ISO certificates
- External auditor.

We used stratified analysis (Saunders et al., 2016). We selected some criteria to define various categories and then we classified the whole sample into these categories (groups).

4. Results and Discussion.

Having completed the scoring of all companies of the sample, depending on the information they have provided on the above twelve topics, as required by Greek legislation, we classified the companies according to their compliance rating achievement, in 4 groups:

- The group A includes the companies with a compliance rating up to 25.00%. Their performance is considered unsatisfactory. This group includes 50 companies with an average compliance rating 10,17%.
- The group B includes companies with a compliance rating from 25.01% to 50.00%. Their performance needs improvement. This group includes 24 companies with an average compliance rating 43,06%.
- The group C includes companies with a compliance rating from 50,01% to 75,00%. Their performance is considered satisfactory. This group includes 25 companies with an average compliance rating 67,00%.
- The group D includes companies with a compliance rating from 75,01% to 100,00%. Their performance is considered very good. This group includes 30 companies with an average compliance rating 91,67%.

The total sample has an average compliance rating 46,25%, this means that the sector, in general, needs improvement in reporting on ESG issues.

The Table 1 presents the four pre-mentioned groups and correlates them with the average total assets, the average turnover, the average results (profit – loss) and the average number of employees, corresponding to each group. In addition, the Table 1 presents the number of companies, as well as the average compliance rating per ranking group.

Table 1. Report on ESG Issues in accordance with Greek Legislation - Compliance Rating						
Compliance Rating	Number of Companies	Average Compliance Rating	Average Total Assets 2021	Average Turnover 2021	Average Results for 2021. Profit - (Loss)	Average Number of Employees 2021
Group A. Rating 0 - 25,00%	50	10,17%	2.874.689,49	2.322.754,40	159.164,27	21
Group B. Rating 25,01% - 50,00%	24	43,06%	4.347.590,14	4.473.002,40	180.011,41	26
Group C. Rating 50,01% - 75,00%	25	67,00%	7.876.344,63	4.800.146,92	305.561,85	49
Group D. Rating 75,01% - 100,00%	30	91,67%	7.957.072,25	5.887.497,56	700.020,80	51

Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021.

We observe that there is an obvious positive correlation of the compliance rating with the total assets, turnover, results and employees.

In addition, we observe that in the first two groups there are 74 companies, i.e. 57,36% of the sample, which need improvements. We must focus on the 50 companies of group A, which have a very low compliance rating, 10,17%. In actual they report only a comparison between two years (2021-2020) figures.

The Table 2 presents the total assets of the companies of the sample, classified in four groups, and correlates them with the average compliance rating per group. There is an obvious positive correlation of the average compliance rating with the total assets.

Table 2. Correlation of Total Assets with Compliance Rating		
Total Assets Classified per Group	Number of Companies	Average Compliance Rating
Up to € 2.000.000	48	36,98%
From € 2.000.001 up to € 5.000.000	47	43,79%
From € 5.000.001 up to € 10.000.000	20	61,67%
€ 10.000.001 plus	14	64,29%
Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021		

The Table 3 presents the turnover of the companies of the sample, classified in four groups, and correlates them with the average compliance rating per group. There is a positive correlation of the average compliance rating with the turnover.

Table 3. Correlation of Turnover with Compliance Rating		
Turnover Classified per Group	Number of Companies	Average Compliance Rating
Up to € 2.000.000	65	38,21%
From € 2.000.001 up to € 5.000.000	37	50,90%
From € 5.000.001 up to € 10.000.000	17	49,51%
€ 10.000.001 plus	10	75,83%
Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021		

The Table 4 presents the number of employees per companies of the sample, classified in three groups, and correlates them with the average compliance rating of the group. There is, also, an obvious positive correlation.

Table 4. Correlation of Number of Employees with Compliance Rating		
Number of Employees Classified per Group	Number of Companies	Average Compliance Rating
Up to 24 Employees	69	35,63%
From 25 up to 49 Employees	44	54,73%
50 Employees plus	16	68,75%
Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021		

The Table 5 presents the results (profit or loss) of the companies of the sample, classified in five groups, and correlates them with the average compliance rating of the group. There is an obvious positive correlation between the average compliance rating and the profits per category, since an increase in the profits implies an increase in the

average compliance rating. The companies of the group “Loss” present higher compliance rating than the next group, but this exception is explained because some extraordinary events caused losses to some companies with high compliance rating.

Table 5. Correlation of Results with Compliance Rating		
Results Classified per Group	Number of Companies	Average Compliance Rating
Loss	14	47,02%
Profits up to € 200.000	71	41,31%
Profits from € 200.001 up to € 500.000	24	47,27%
Profits from € 500.001 up to € 1.000.000	10	53,33%
Profits € 1.000.001 plus	10	70,83%
Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021		

The Table 6 presents the relationship of the ISO certificates, which is a qualitative feature, with the average compliance rating. There is an obvious positive correlation.

Table 6. Correlation of ISO Certifications with Compliance Rating		
Number of ISO Certifications per Group	Number of Companies	Average Compliance Rating
Holders of up to 2 ISO Certifications	43	49,03%
Holders of more than 2 ISO Certifications	32	60,16%
No ISO Certification	54	35,80%
Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021		

The Table 7 presents the relationship of the auditor’s involvement, which is another qualitative feature, with the average compliance rating. There is, also, an obvious positive correlation.

Table 7. Correlation of External Auditor with Compliance Rating		
Involvement of External Auditor	Number of Companies	Average Compliance Rating
Statutory Audit of Financial Statements from Certified Auditor	27	69,14%
None Statutory Audit	102	40,20%
Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021		

Finally, the Table 8 presents the relationship of the activity with the average compliance rating.

Table 8. Correlation of Activity with Compliance Rating		
Compliance Rating	Number of Companies	Average Compliance Rating
Carton Manufacture	25	52,00%
Labels	25	42,33%
Lithography	61	43,72%
Paper Bagging	18	53,25%

Source: Register of Greek General Chamber (G.E.MI) - Published Financial Statements and Reports for year 2021

We observe that the activity of the paper bagging, which is going to replace plastic bags and therefore is the greenest activity in the sector, has the highest compliance rating (53,25%), in relation to the other activities.

5. Conclusion

The total sample has an average compliance rating 46,25%, i.e. lower than 50%, this means that the sector, in general, needs improvement in reporting information on ESG issues. We observe that there are 74 companies, i.e. 57,36% of the sample, which need improvements, but we must focus on the 50 companies of group A, which have a very low compliance rating, 10,17%. Considering that Greek legislation requires simple reports and information on ESG issues and not complex benchmarks and KPIs, we verify the poor results in ESG issues reporting, like the previous researches on this subject (Tauringana, 2021).

We found that there is a positive correlation of compliance rating with the total assets, turnover, profits, number of employees, possession of ISO certificates and involvement of external auditor.

The findings support the agency theory, Jensen and Meckling (1976), because they present that the largest companies of the sector, which have ISO certifications and audited by an external auditor, i.e. the companies of the sector with the best corporate governance, have better results in information on ESG issues.

Concerning the theory of legitimacy, Suchman (1995), this study proves that the legislators have filled the legitimacy gap, but this is not enough, because the supervisory authorities must check, whether the companies apply the legislation requirements to fill up this gap (Guthrie et al., 2007).

Like any other study, this study has limitations, because we have focused the companies of a specified sector, thus an extension of the research to other sectors is not only desirable, but also necessary.

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Data set from a database

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THE CAUSES THAT LED TO THE INCREASE IN INFLATION IN ALBANIA, AND ITS IMPACT ON FAMILY ECONOMIES

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ABSTRACT

Inflation is a persistent increase in the prices of goods and services, caused by the imbalance created by a small amount of material goods in the market and a large amount of money in circulation. The link between money and inflation is old and the fact that the amount of money in circulation determines the level of prices in the economy was recognized by the ancient Greeks. In the 20th century, theoretical views on the relationship between money and inflation have been constantly changing. Irving Fischer (1922) concluded that changes in the quantity of money caused changes in the price level, a theory which was supported and further developed by other monetarists. Milton Friedman (1963) argued that inflation begins to accelerate whenever the money supply increases. In this perspective, he came to the conclusion that "Inflation is always and always a monetary phenomenon". Meanwhile, Keynes (1959) attributes a slightly weaker role to money, emphasizing other factors such as fiscal policy, shocks in aggregate supply, etc. The most concrete case related to aggregate supply is the Russia-Ukraine conflict, a conflict which is negatively affecting the world economy through supply constraints, increased uncertainty and, most importantly, increased prices. High inflation hurts the economy and is costly for companies and individuals. It generates economic uncertainty and these uncertainties affect the slow functioning of the market. The Russia-Ukraine conflict has caused turmoil in financial markets and drastically increased uncertainty about the recovery of the global economy. The biggest impact of this conflict is on rising commodity prices, which have reached new multi-year highs, reflecting the important role of Russia and Ukraine as producers of fuels, grain and vegetable oils. Higher commodity prices intensify the threat of long-term high inflation, which increases the risks of stagflation and social unrest. But how and how much has this conflict affected inflation in Albania? Is it the only cause of the increase in inflation during the last year? The current increase in inflation in most prices in Albania is not driven by internal factors, in other words, by a rapidly growing economy. Demand remains below its pre-crisis trend. Instead, the economy is experiencing a series of imported supply shocks that are pushing up inflation and reducing demand. The ultimate objective of the central bank is to make the best possible contribution to the good functioning of the economy and to the well-being of the citizens. Central banks are unable to directly influence variables other than inflation, especially for a long period of time. It is one of the most important variables in the economic sector to the point that it is decisive for making many decisions in this disciplinary field. However, the central bank and the government can influence the course of inflation, through monetary policy, fiscal policy and other restrict

Introduction:

The inflation rate is one of the main indicators that provide information about the state of the economy. If inflation rises beyond the predicted value, there will be negative consequences in the economy and of course there are costs. The costs of inflation are varied and often difficult to measure and classify. Indeed, inflation affects people in different ways, some suffer while others benefit.

Prices can constantly increase as a result of "wrong" economic policies, but not only. Uncertainty surrounding the Covid pandemic since the first lockdowns were imposed in early 2020 led to problematic economic consequences, which in turn led to inflation.

The Russia-Ukraine conflict showed that the inflation of a country can be caused by events in other countries. The main effect of the Russia-Ukraine conflict was the increase in prices on a global scale, as a result of the lack of supply for goods exported by Ukraine and Russia. This conflict caused turmoil in financial markets and drastically increased uncertainty about the recovery of the global economy.

The purpose of this paper is to get to know the inflation during the last years and the impact it has had in Albania.

Objectives:

- Familiarity with the term inflation.
- Familiarity with its positive and negative effects.
- Getting information about the inflation rate during the years 2019-2023
- Identifying the economic consequences brought about by the COVID-19 pandemic and the Russia-Ukraine conflict
- Knowing the current situation that inflation is causing in our country, through a direct survey of citizens.

METHODOLOGY

The methodology used in this paper is that of the empirical form, which means the collection and analysis of data.

This research was conducted in the region of Korça. To study the issue as best as possible in question, questionnaires were drawn up and sent to the city regarding the impact of inflation on their families.. So, this research was addressed from the perspective of analysis of the behavior of individuals.

Type of search

This research is based on primary and secondary data. ABOUT quantitative research methods were used to collect primary data. WHEREAS secondary data were collected from a detailed literature of the field. Following we will see the whole detailed process of the research methodology.

☐ Data collection method:

- Collection of secondary data:

A detailed literature of the field was used to collect these data.

These materials were obtained through the Internet and books by various authors.

- Primary data collection:

Primary data were collected from structured questionnaires that were distributed in the city of Korça.

☐ Designing and administering questionnaires.

Questionnaire design: The questionnaires are designed in such a way that they collect information on the impact of inflation on the income and consumption of individuals, and how this inflation has generally affected household economies

- The questionnaire addressed to citizens is composed of 11 questions which receive general information without violating the privacy of each of the respondents. Regarding the administration of the questionnaires, the technique of their personal administration was followed.

Questionnaires were distributed among random individuals of different professions, ages (+18) and different genders.

☐ Data analysis

A total of 100 questionnaires were completed.

Data were analyzed using descriptive statistics.

The data extracted from the questionnaires were analyzed by means of the SPSS program and with the help of other programs such as EXEL for the construction of graphs.

I Inflation

I.1 The meaning of inflation

Inflation is the decline in purchasing power of a given currency over time. A quantitative assessment of the rate at which the decline in purchasing power occurs can be reflected in the increase in an average price level of a basket of selected goods and services in an economy over a period of time. The increase in prices, often expressed as a percentage, means that a unit of currency effectively buys less than in previous periods. Inflation can be compared to deflation, which occurs when the purchasing power of money increases and prices fall.

Inflation aims to measure the overall impact of price changes for a diverse group of products and services and allows a single-valued representation of the increase in the price level of goods and services in an economy over a period of time.

As a currency loses value, prices rise and you buy fewer goods and services. This loss of purchasing power affects the overall cost of living for the common public, which eventually leads to a slowdown in economic growth. The consensus view among economists is that sustained inflation occurs when a country's money supply growth exceeds economic growth..

It should be emphasized that inflation is an economic phenomenon that expresses the increase in the general level of prices and not the prices of specific goods or services, while the increase in the general level of prices will mean the increase in their average level. Not all prices rise at the same rate during a period of inflation. Some prices increase more, some less; in essence, in an inflationary situation, their average level increases.¹

I.2 Types of inflation

Based on its level, three types of inflation are distinguished: moderate inflation, galloping inflation and hyperinflation.

Moderate inflation occurs when prices rise slowly and usually remain at single-digit levels, sometimes even at double-digit levels, but not more than 20%. In conditions of moderate inflation, people have confidence in money, they keep money in banks, sign long-term contracts expressed in value, and the monetary system generally works well. Moderate inflation is usually found in developed countries with economic stability.²

¹Hadëri S, Kule Dh, Mançellari A, Qirici S. (2002) Introduction to economics, Tirana, Publications Pegi, page 337

²Bani A, Bërhami L, Hadëri S, Mançellari A, Qirici S. (2018) Ekonomia 12, Tirana, Botime Pegi, page 153

Galloping inflation occurs when it reaches double and triple digit levels, usually from 20% to close to 1000%. Rampant inflation is encountered in both developed and developing countries and is associated with serious concerns in the economy. In these conditions, there is a need to index contracts and people try to keep as little money as possible, buying real estate and never lending at low interest rates.³

hyperinflationary inflation is considered at very high levels, over 1000% per year. This phenomenon has appeared on several occasions since early human history. Unfortunately, there are examples of hyperinflation even in the 20th century. Examples of Germany and Poland in 1923, Hungary in 1945-1946 and some Eastern European countries, after the fall of dictatorial regimes, during the 90s, can be mentioned here.

During hyperinflation, people use money rapidly by buying goods. The biggest effects of hyperinflation are in the distribution of wealth. It brings its destruction and economic instability, creating conditions for the establishment of dictatorships, as happened in Germany in the 30s, when Hitler came to power. Hyperinflation is not a frequent occurrence. It mainly occurs in times of war or as a result of war or revolution.⁴

I.3 Causes of inflation

Demand-driven inflation it can arise in those situations when in the economic system there is a lot of money in circulation, but few goods. When the demand for goods and services increases faster than the industry's ability to meet this demand, prices rise. An example of demand-driven inflation was the increase in inflation in 1996 in our country. The increase in government spending for electoral effects increased the purchasing power of Albanians. In conditions where the industry was unable to cope with this increase in demand, there was an increase in prices.⁵

Cost inflation. Inflation caused by the increase in the cost of products is called cost inflation. This type of inflation can be caused by one or more of the following factors.

Increase in the costs of raw materials. Limiting the production of certain raw materials may lead to their reduction or absence. This shortage increases their price and the products that are produced with them.

³Bani A, Bërhami L, Hadëri S, Maçellari A, Qirici S. (2018) Ekonomia 12, Tirana, Botime Pegi, page 154

⁴Bani A, Bërhami L, Hadëri S, Maçellari A, Qirici S. (2018) Ekonomia 12, Tirana, Botime Pegi, page 154

⁵Bani A, Bërhami L, Hadëri S, Maçellari A, Qirici S. (2018) Ekonomia 12, Tirana, Botime Pegi, page 155

The wage-price spiral. Whenever unions achieve wage increases that exceed increases in productivity, firms raise prices to maintain profit levels. As prices rise, unions demand further wage increases, thus creating an inflationary spiral.

The price-wage spiral. Firms that are not afraid of competition can raise prices. This drives demands for wage increases to maintain living standards and the cycle continues anew, creating the inflationary spiral.⁶

I.4 How is inflation measured?

Inflation is measured through the inflation rate, which expresses the percentage increase in the general level of prices from one period to another. Consumer Price Index⁷ is the official gauge of inflation in Albania. The index measures the relative price changes of goods and services used by households for personal consumption and is calculated using the final consumption structure of Albanian households. It measures the change in consumer prices of a fixed basket of goods and services in the current period compared to another period considered as the base period. The main source of information on expenditure is the Household Budget Survey⁸.

The index is calculated according to the structure of the classification of individual expenditures by purpose, fully compatible with the structure of expenditures used by EUROSTAT. Based on this classification, expenses are classified into 12 main groups⁹:

1. Food, alcoholic beverages and tobacco
2. Alcoholic beverages and tobacco
3. Clothing and shoes
4. Rent, water, fuel and electricity
5. Furniture, home appliances and maintenance
6. Health
7. Transportation
8. communication
9. Education and culture
10. Educational service
11. Hotels, cafes and restaurants

⁶Bani A, Bërhami L, Hadëri S, Mançellari A, Qirici S. (2018) *Ekonomia* 12, Tirana, Botime Pegi, page 155

⁷<http://www.instat.gov.al/al/temat/%C3%A7mimet/indeksi-i-%C3%A7mimeve-t%C3%AB-konsumit/#tab4>

⁸The Household Budget Survey was conducted in 2000 by INSTAT and was used to update the basket of items.

⁹<http://www.instat.gov.al/al/temat/%C3%A7mimet/indeksi-i-%C3%A7mimeve-t%C3%AB-konsumit/#tab4>

12. Other goods and services

Weights for each group are calculated taking into account urban and rural areas, while prices are collected only in urban area stores.

I.5 Social consequences and economic costs of inflation

The costs of inflation are varied and often difficult to measure and classify. Indeed, inflation affects people in different ways, some suffer while others benefit.

I.5.1 Who loses in inflation?¹⁰

People with relatively fixed incomes. During periods of inflation, the cost of living increases, so it is necessary to earn more to maintain the existing standard of living. Income must increase at least as much as the rate of inflation, which is the same as the increase in the cost of living. For example, if in 2022, the cost of living increased by 6%, an individual with a monthly income of 50,000 ALL per month would have to receive 53,000 ALL per month ($50,000 + 6\% \cdot 50,000$) to maintain the same purchasing power. Certain classes living on fixed incomes, such as pensioners, cannot afford to increase their income to the extent necessary to offset the effects of inflation. For this reason, their standard of living falls. It is for this reason that in order to protect the strata with fixed incomes,

Savers. Many people put their savings in bank accounts or buy bonds, which guarantee them a fixed income from interest. The interest rate must be at least as high as the inflation rate, otherwise the money saved would be worth less than its amount. Any increase in the inflation rate hurts those who save and hold savings with fixed interest rates.

LENDER. Those who borrow money are in the same position as those who save money. If during the time they gave the loan, inflation increases, then the money returned when the loan term ends will be worth less than the initial value. There can be an exception only if the interest rate for the loan is greater than the inflation rate.

Businesses. Businesses are hit by inflation because it introduces uncertainty and makes it difficult for the firm's managers to predict future costs. Inflation also increases production costs.

I.5.2 Who benefits from inflation?¹¹

¹⁰Bani A, Bërhami L, Hadëri S, Maqcellari A, Qirici S. (2018) Ekonomia 12, Tirana, Botime Pegi, page 157

¹¹Bani A, Bërhami L, Hadëri S, Maqcellari A, Qirici S. (2018) Ekonomia 12, Tirana, Botime Pegi, page 158

Those who benefit from inflation belong to the classes that can easily increase their incomes, borrowers and the government:

The layer that can increase the income. There are certain occupations, branches of production, and groups of workers that find it easier to raise wages and prices during inflationary periods. If the increase is greater than the rate of inflation, these people will be better off than they were before the price increase. A typical example is the jewelry trade. During inflationary periods, the price of jewelry generally rises faster than inflation. As a result there will be higher profit rates for jewelry dealers.

Borrowers. Individuals and firms that borrow during an inflationary period will, at the end of the period, pay back money that is worth less than the money they borrowed. If the interest rate for the loans taken is less than the inflation rate, the borrowers will benefit to the extent of the difference between them.

Government. The government collects progressive personal income taxes. This means that the tax coefficient increases as income increases. During inflationary periods, people try to get higher incomes, moving to income levels that are taxed more. For example, people with a 15% increase in income may find their taxes increase by 20% or 22%.

II. The COVID-19 pandemic and inflation (year 2020 – 2021)

II.1 What is the coronavirus?

Coronaviruses (CoV) are a large family of viruses that cause diseases ranging from mild to severe. They are widespread in many animal species and rarely evolve, transmit, infect humans and then spread among them.

Human coronaviruses were identified for the first time in 1960 and until 2019, 6 such were known of which 4 are common as: 229E (alpha coronavirus), NL63 (alpha coronavirus, OC43 (beta coronavirus) and HKU1 (beta coronavirus) .

In the 21st century, two highly pathogenic coronaviruses such as SARS-CoV causing Severe Acute Respiratory Syndrome and MERS-CoV causing Middle East Respiratory Syndrome were transmitted from animal reservoirs such as: one species of wild cats and camels to humans, causing global epidemics with high morbidity and mortality.¹²

II.1.1 The new coronavirus COVID-19

On December 31, 2019, there were several cases of pneumonia in Wuhan, Hubei Province, China with most of them reporting exposure to a large seafood market selling many types of live animals. Preliminary data indicate that 2019-nCoV shares some amino acid homology with SARS-CoV and may use ACE2 as a receptor. Since February 11, 2020, the disease caused by this virus was called COVID-19 (CO- related to the Coronavirus; VI- related to the virus; D- related to the disease (Disease) and '19 related to the year) while the virus was named SARS-CoV-2.¹³

Infectious diseases are one of the leading causes of death responsible for a quarter to a third of mortality worldwide. Despite major developments in the pharmaceutical industry, the spread of infectious diseases is increasing due to globalization, increased travel and trade, urbanization, populated cities, changes in human behavior, resurgence of pathogens, and inappropriate use of antibiotics. The recent outbreak of the Covid-19 virus shows that infectious diseases spread easily due to open economies and easily threaten the economic stability of nations. Previous infections such as the Black Death, SARS, H1N1 and swine flu had caused similar economic impacts around the world. Covid-19 is more contagious and its ability to stay on surfaces makes it more challenging to contain. It is considered more contagious than influenza and swine flu as it is easily transmitted between people. The second characteristic is the delay in the development of treatment drugs and their approval, because the initial infection causes significant mortality and damage to the economy. Another feature of Covid-19 is the continued evolution and resistance of microbes to antibacterial agents, making them a constant and recurring threat. Most outbreaks are recurrent, and the current outbreak of Covid-19 may evolve and recur as it is considered to be the second type of severe acute respiratory syndrome (SARS-CoV-2), the first of which occurred in 2002 - 03 (SARS-CoV-1). It is considered more contagious than influenza and swine flu as it is easily transmitted between people. The second characteristic is the delay in the development of treatment drugs

¹²<https://www.ishp.gov.al/pyetje-dhe-perzpizi-te-shpeshta-virusi-dhe-semundja-nga-covid-19/>

¹³<https://www.ishp.gov.al/pyetje-dhe-perzpizi-te-shpeshta-virusi-dhe-semundja-nga-covid-19/>

and their approval, because the initial infection causes significant mortality and damage to the economy. Another feature of Covid-19 is the continued evolution and resistance of microbes to antibacterial agents, making them a constant and recurring threat. Most outbreaks are recurrent, and the current outbreak of Covid-19 may evolve and recur as it is considered to be the second type of severe acute respiratory syndrome (SARS-CoV-2), the first of which occurred in 2002 - 03 (SARS-CoV-1). It is considered more contagious than influenza and swine flu as it is easily transmitted between people. The second characteristic is the delay in the development of treatment drugs and their approval, because the initial infection causes significant mortality and damage to the economy. Another feature of Covid-19 is the continued evolution and resistance of microbes to antibacterial agents, making them a constant and recurring threat. Most outbreaks are recurrent, and the current outbreak of Covid-19 may evolve and recur as it is considered to be the second type of severe acute respiratory syndrome (SARS-CoV-2), the first of which occurred in 2002 - 03 (SARS-CoV-1). The second characteristic is the delay in the development of treatment drugs and their approval, because the initial infection causes significant mortality and damage to the economy. Another feature of Covid-19 is the continued evolution and resistance of microbes to antibacterial agents, making them a constant and recurring threat. Most outbreaks are recurrent, and the current outbreak of Covid-19 may evolve and recur as it is considered to be the second type of severe acute respiratory syndrome (SARS-CoV-2), the first of which occurred in 2002 - 03 (SARS-CoV-1). The second characteristic is the delay in the development of treatment drugs and their approval, because the initial infection causes significant mortality and damage to the economy. Another feature of Covid-19 is the continued evolution and resistance of microbes to antibacterial agents, making them a constant and recurring threat. Most outbreaks are recurrent, and the current outbreak of Covid-19 may evolve and recur as it is considered to be the second type of severe acute respiratory syndrome (SARS-CoV-2), the first of which occurred in 2002 - 03 (SARS-CoV-1). making them a constant and recurring threat. Most outbreaks are recurrent, and the current outbreak of Covid-19 may evolve and recur as it is considered to be the second type of severe acute respiratory syndrome (SARS-CoV-2), the first of which occurred in 2002 - 03 (SARS-CoV-1). making them a constant and recurring threat. Most outbreaks are recurrent, and the current outbreak of Covid-19 may evolve and recur as it is considered to be the second type of severe acute respiratory syndrome (SARS-CoV-2), the first of which occurred in 2002 - 03 (SARS-CoV-1).¹⁴

¹⁴<https://www.frontiersin.org/articles/10.3389/fpubh.2021.632043/full>

II.1.2 Social impacts

To slow the spread of the virus, schools were closed all over the world. A year after the pandemic, almost half of the world's students were affected by school closures.

Businesses also closed, leading to the loss of the equivalent of 255 million full-time jobs, in terms of hours worked, in 2020. Among the worst hit are workers in the informal economy, youth and women. Any economic recovery is likely to be uneven, leading to greater inequality in the coming years.

Women have been hardest hit economically by the pandemic because they are a large proportion of workers in sectors hit hard by Covid-19, including accommodation and food services, as well as in front-line occupations such as the health and social care.

With schools closed, they have had to take on even more responsibility for care at home. Whether through job losses or school closures, the pandemic threatens to undo decades of progress on gender equality.

Covid-19 has also slowed progress in clean energy, at least temporarily, curbing investment and delaying the expansion of clean energy technologies.¹⁵

II.1.3 Economic impacts

Pandemics cause a short-term fiscal impact and a long-term economic impact on nations around the world. Efforts to contain the pandemic include establishing quarantine, preparing health facilities, isolating infectious cases, and tracing contacts that involve public health resources, human resources, and enforcement costs. It also includes health system costs for providing health facilities for infectious cases and arranging consumables such as antibiotics, medical supplies and personal protective equipment.

Pandemics can also result in lower tax revenues and increased spending, which causes fiscal stress, especially in lower-middle-income countries where fiscal constraints are higher and tax systems still need improvement. This severity of the economic impact was seen during the Ebola virus in Liberia due to increased public health spending, economic decline, and

¹⁵<https://wellcome.org/news/equality-global-poverty-how-covid-19-affecting-societies-and-economies>

decreased revenue due to the government's inability to raise revenue due to quarantine and curfew. Economic shocks are common during pandemics due to labor shortages due to illness, increased mortality, and fear-induced behavior. In addition to the lack of manpower, the disruption of transport, the closure of workplaces,¹⁶

III. The Russia-Ukraine conflict and its impact on inflation (2022-2023)

On February 24, 2022, Russia began a full-scale invasion of Ukraine, marking a major escalation of the ongoing Russian-Ukrainian war that began in 2014. The invasion was preceded by a prolonged Russian military buildup and crisis that began in early 2021, during which Russian President Vladimir Putin criticized NATO's post-1997 expansion as a security threat, demanded that Ukraine be legally barred from joining the military alliance.¹⁷

The invasion triggered Europe's biggest refugee crisis since World War II, with more than 8.4 million Ukrainians fleeing the country and a third of the population displaced.

In 2021, Russia began a major military buildup along its border with Ukraine, amassing up to 190,000 troops and their equipment. In a televised address shortly before the invasion, Russian

¹⁶<https://www.frontiersin.org/articles/10.3389/fpubh.2021.632043/full>

¹⁷https://en.wikipedia.org/wiki/Pushtimi_rus_i_Ukrain%C3%ABs_n%C3%AB_2022

President Vladimir Putin challenged Ukraine's right to statehood, and falsely claimed that Ukraine was ruled by neo-Nazis who persecuted ethnic Russians. On February 21, 2022, Russia recognized the Donetsk People's Republic and the Luhansk People's Republic, two self-proclaimed separatist states in Donbas. The following day, the Russian Federation Council authorized the use of military force, and Russian troops openly entered both territories.

The invasion began on the morning of February 24, when Putin announced a "special military operation" to "demilitarize and denazify" Ukraine. Minutes later, rockets and airstrikes hit all of Ukraine, including the capital Kiev. A major land invasion ensued from multiple directions. Ukrainian President Volodymyr Zelenskyy enacted martial law and a general mobilization of all Ukrainian male citizens between the ages of 18 and 60, who were banned from leaving the country.

The invasion has received widespread international condemnation. The United Nations General Assembly passed a resolution condemning the invasion and demanding the full withdrawal of Russian forces. The International Court of Justice ordered Russia to suspend military operations and the Council of Europe expelled Russia. Many countries imposed sanctions on Russia, which have affected the Russian and world economies and provided humanitarian and military aid to Ukraine. Protests took place around the world; those in Russia faced mass arrests and increased media censorship, including a ban on the words "war" and "occupation". The International Criminal Court has opened an investigation into crimes against humanity in Ukraine since 2013, as well as war crimes in the 2022 invasion.¹⁸

III.2 The importance of Russia and Ukraine in the global economy

Ukraine is among the largest agricultural producers and exporters in the world and is often described as the "breadbasket of Europe". During the 2020/21 international wheat marketing season (July–June), it ranked as the sixth largest wheat exporter, accounting for 9% of world wheat trade. The country is also a major global exporter of maize, barley and rapeseed. In 2020/2021, it accounted for 12% of global maize and barley trade and 14% of world rapeseed exports. Its trade share is even greater in the sunflower oil sector, where the country accounts for around 50% of world exports in 2020/2021.

Disruptions to Ukraine's grain and oilseed sectors were thought inevitable. On the eve of the invasion, about 6 million tons of wheat and 15 million tons of corn were prepared for export.

¹⁸https://en.wikipedia.org/wiki/2022_Russian_invasion_of_Ukraine

According to the Food and Agriculture Organization of the United Nations, this would cause further loss of life and increase humanitarian needs. In addition, potential food and fertilizer export difficulties encountered by the Russian Federation, which is a major exporter of potash, ammonia, urea and other soil nutrients, as a result of economic sanctions could jeopardize the food security of many countries. Rising natural gas prices are pushing agricultural fertilizer prices higher, contributing to rising food prices globally. Particularly vulnerable are those that depend heavily on Ukraine and the Russian Federation for their food and fertilizer imports. Some of these countries belong to the group of least developed countries, while many others belong to the group of low income food deficit countries. Overall, more than 30 countries depend on Ukraine and Russia for over 30% of their wheat import needs, with many located in North Africa and West and Central Asia.

Ukraine's Defense Ministry accused Russia of stealing "hundreds of thousands of tons of grain" from grain elevators and other storage facilities across occupied Ukraine, and transporting the grain to occupied ports for export. Significant amounts of agricultural equipment, combines and tractors have also been stolen from farms and vendors and transported to Russia, as far as Chechnya in some cases. Grain theft from occupied regions of Ukraine has the potential to intensify food crises, with Ukraine's agriculture minister and the UN's World Food Program warning that it could worsen Ukraine's food crisis and even exacerbate global hunger.

The Ukrainian wheat harvest in 2022, according to the UK Ministry of Defence, will be 35% of the 2021 harvest.

The sharp rise in commodity prices has been the most immediate economic impact of the conflict in Ukraine, the WTO says. The war also threatens supplies of essential goods from Russia and Ukraine, including food, energy and fertilizers.

Stopping grain shipments through Black Sea ports could have "potentially serious consequences" for food security in poor countries, the WTO warns.

China's new COVID-19 lockdown is also hampering trade by sea. This could lead to new shortages of raw materials and higher inflation.¹⁹

III.3 The impact of the conflict on the global economy

The effects of war on the economy from decades of experience have shown that:

¹⁹<https://www.weforum.org/agenda/2022/04/ukraine-war-global-trade-risk/>

1. Public debt and tax levels have increased during most conflicts;
2. Consumption as a percentage of GDP has decreased during most conflicts;
3. Investment as a percentage of GDP has decreased during most conflicts;
4. Inflation has increased during or as a direct result of these conflicts.²⁰

The Russia-Ukraine conflict has caused turmoil in financial markets and drastically increased uncertainty about the recovery of the global economy.

The biggest impact of this conflict is on rising prices. Higher commodity prices intensify the threat of long-term high inflation, which increases the risks of stagflation and social unrest.

Some sectors such as automobiles, transport or chemicals are more likely to suffer.

III.3.1 The conflict threatened to squeeze energy and commodity markets

Russia is the third largest producer of oil in the world, the second producer of natural gas and among the top 5 producers of steel, nickel and aluminum. It is also the world's largest wheat exporter (almost 20% of global trade). For its part, Ukraine is a leading producer of corn (6th largest), wheat (7th), sunflower (1st) and is among the top ten producers of sugar beet, barley, soy and rapeseed.

On the day the invasion began, financial markets around the world fell sharply and the prices of oil, natural gas, metals and food commodities rose. Following recent developments, oil prices surpassed \$100 a barrel for the first time since 2014, while gas prices in Europe rose to a record high of 192 euros on March 4.

While high commodity prices were one of the risks already identified as potentially damaging to the recovery, the escalation of the conflict increases the likelihood that commodity prices will remain higher for much longer. On the other hand, it intensifies the threat of long-term high inflation, thus increasing the risks of stagflation and social unrest in both advanced and developing countries.²¹

III.3.2 Automotive, transport, chemical sectors, the most affected sectors

The crisis is undoubtedly strongly affecting the automotive sector due to various shortages and high prices of goods and raw materials: metals, semiconductors, cobalt, lithium, magnesium.

²⁰<https://altax.al/efektet-ekonomikike-te-luftes-ne-ukraine-rrathet-e-ndikimit-dreit-shqiperise-dhe-botes/>

²¹<https://www.weforum.org/agenda/2022/04/ukraine-war-global-trade-risk/>

Ukrainian car factories supply major carmakers in Western Europe: some announced plant shutdowns in Europe, while other factories around the world are already planning shutdowns due to chip shortages.

Airlines and shipping companies also suffer from higher fuel prices, with airlines most at risk. First, fuel is estimated to make up about a third of their total costs. Second, European countries, the USA and Canada have banned entry into their territories for Russian airlines, and on the other hand, Russia has banned European and Canadian aircraft from its airspace. This means higher costs as airlines will have to take longer routes. Ultimately, airlines have little room for cost increases as they continue to face lower revenues due to the impact of the pandemic.

Rail transport is also affected: European companies are banned from doing business with Russian railways, which is likely to disrupt the movement of goods between Asia and Europe, transiting through Russia.²²

III.3.3 Deep recession for the Russian economy

The Russian economy is expected to be in deep trouble in 2022, falling into a deep recession.

The sanctions specifically target large Russian banks, the Russian central bank, Russian sovereign debt, elected Russian public officials and oligarchs, and control of the export of high-tech components to Russia. These measures put significant downward pressure on the Russian ruble, which has already fallen sharply, and will fuel an increase in consumer price inflation.

Russia has established relatively strong finances: a low level of external public debt, a current account surplus, as well as significant foreign reserves (about \$640 billion). However, the freeze imposed by Western depository countries on the latter prevents the Russian central bank from depositing them and reduces the effectiveness of the Russian response.

The Russian economy could benefit from higher commodity prices, especially for its energy exports. However, EU countries announced their intention to limit their imports from Russia. In the industrial sector, limited access to Western-made semiconductors, computers, telecommunications equipment, automation and information security will be detrimental, given the importance of these inputs to Russia's mining and manufacturing sectors.

III.3.4 Europe's economy is the most endangered

²²<https://www.weforum.org/agenda/2022/04/ukraine-war-global-trade-risk/>

Due to its dependence on Russian oil and natural gas, Europe appears to be the region most exposed to the consequences of this conflict. Replacing all of Russia's natural gas supply to Europe is impossible in the short to medium term, and current price levels will have a significant effect on inflation.

While Germany, Italy or some countries in the Central and Eastern European region are more dependent on Russian natural gas, the trade interdependence of Eurozone countries suggests a general slowdown.²³

Unlike the United States, the European economy is not experiencing excess domestic demand. Nominal household income has not recovered its pre-pandemic trend, and households are saving more of their income than before the pandemic. Consumer spending and investment remain well below their pre-crisis trends. About 60% of inflation in January was energy, of which the eurozone is a net importer. This is a consequence of the recent extraordinary increases in oil and gas prices. These in turn largely reflect shocks that suppress energy supply, rather than stronger aggregate demand. The increase in the cost of energy has accelerated further after the Russian aggression against Ukraine.²⁴

III.3.5 No region was spared from imported inflation and global trade disruptions

In the rest of the world, the economic consequences are felt mainly through rising commodity prices, which fuels existing inflationary pressures. As always when commodity prices rise, net importers of energy and foodstuffs are particularly affected, with the specter of major supply disruptions in the event of a further escalation of the conflict. Falling demand from Europe also hampers global trade.

In Asia-Pacific, the impact was felt almost immediately through higher import prices, particularly energy prices, with many economies in the region being net energy importers, led by China, Japan, India, South Korea, Taiwan and Thailand.

Since North America's trade and financial ties with Russia and Ukraine are quite limited, the impact of the conflict was felt mainly through the price channel and through the slowdown in

²³<https://www.weforum.org/agenda/2022/04/ukraine-war-global-trade-risk/>

²⁴ <https://altax.al/efektet-ekonomikike-te-luftes-ne-ukraine-rrathet-e-ndikimit-dreit-shqiperise-dhe-botes/>

European growth. Despite the prospect of slower economic growth and higher inflation, recent geopolitical events are not expected to disrupt monetary policy in North America at this stage.²⁵

III.4 What about Albania, how and where is it affected by the Russia-Ukraine conflict?

When Russia's attacks on Ukraine began at dawn on Thursday, February 24, beyond security, states around the world began to calculate the economic costs of the war. Global markets that had just begun a fragile post-pandemic recovery came under stress. The prices of goods, especially oil and wheat, immediately increased by 5-8% within the day.

As history has shown, crises do not affect all countries equally. In times of war, supply chains are damaged, so countries with large reserves of supplies suffer less, as monetary power is often not enough if goods are lacking.

With the prolongation of the war, Albania was affected by it with the supply of the main goods in the country, bread and oil. The other challenge that is still being faced today is the impossibility of curbing the increase in prices that the war will bring for all import items as a whole.

It affected our country directly, due to the dependence of oil and grain supplies from Russia, and indirectly, with the increase in commodity prices, since Ukraine is the main global exporter of raw materials for the food industry (cereals, sunflower oil, etc.).

Albania provides 47% of its annual wheat needs from the Russian market and 3.3% from Ukraine, according to INSTAT

Luigj Aliaj, from the Association of Hydrocarbon Companies, claimed that fuel reserves are enough for three months, but added that the situation in supplies and prices will evolve depending on the situation.

The economic isolation of Russia from the sanctions imposed by the Western countries blocked the 11th largest economy in the world, whose weakening made it difficult to supply the world with raw materials, especially oil.

²⁵<https://www.coface.com/News-Publications/News/Economic-consequences-of-the-Russia-Ukraine-conflict-Stagflation-ahead>

In the worst scenario, which means a total cutoff of gas from Russia, Europe's economy would suffer a decline of 3%, according to an analysis made for this purpose by the US news agency, "Bloomberg". The war also affected the tourism sector in Albania, as Ukrainians accounted for 22% of charter movements to Albania.

Albania, 2.7% of trade with conflict zones

During 2021, Albania realized 2.7% of foreign trade with conflict zones, Russia and Ukraine. Albania's trade volume reached 701 billion ALL, while with Russia and Ukraine, the value of trade was 19 billion ALL, or 2.7% of the total.

The trade volume is dominated by imports of goods from these two countries. In 2021, Albania imported from Russia and Ukraine 19 billion ALL of goods, which constitutes 99.5% of the trade volume and the rest, 0.5%, is represented by Albanian exports to these countries, mainly agricultural products.

Despite the fact that the trade volume in these countries is low, Albania has a high dependence on the import of vital materials, such as cereals and oil from Russia. From these countries we import 50% of the annual quantities of cereals and 12% of oil.

But the indirect dependence on the markets of Ukraine and Russia is higher. Ukraine is the world's largest producer and exporter of sunflower seeds and oil, which Albanian wholesalers buy processed from other countries, mainly Italy.

50% of grain from Russia and Ukraine, local reserves are enough for 45 days

The attacks in Ukraine were the blackest day for grain importers, who depend their business directly on Russian supplies. Adi Haxhiymeri, one of the main wheat importers, said the conflict between the world's top grain producers, Russia and Ukraine, would strain supplies worldwide.

Data from customs show that in 2021 a total of 326,000 tons of grain were imported, 50% of which were supplies from conflict areas. Albania imported 47% of cereals from Russia in

2021, 36% from Serbia, 4% from France and 3% from Ukraine. Sources of cereal imports are dominated by Russia, Ukraine and Serbia at 86% of the total consumption need.

The wholesalers claim that the reserves are not large, as some of them were emptied due to the pandemic, while in the last two years there have been supply problems due to the drop in production.

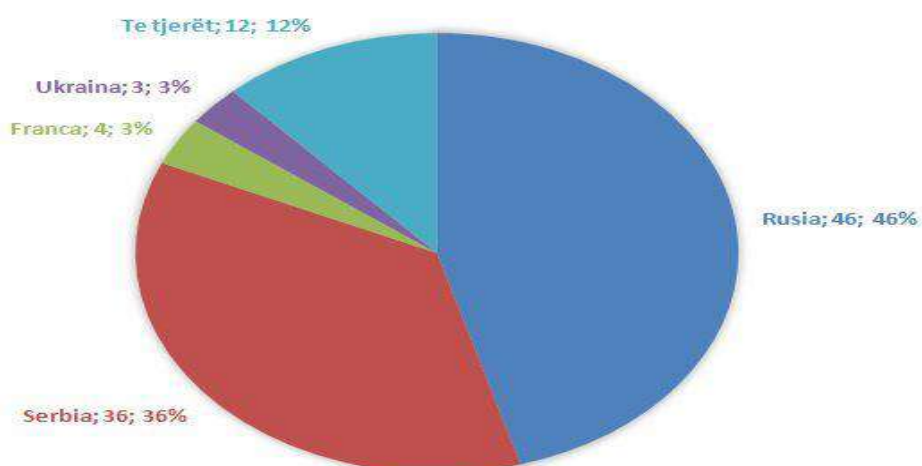
Adi Haxhiymeri said that the war in Ukraine came at a time of multiple crises, created by the drop in wheat production and high energy prices. He said that the wholesalers have enough reserves in their warehouses to cover 1.5 months of imports, but in the meantime the government does not have any grain reserves, as other countries have in these situations.

According to Mr. Haxhiymeri, wholesalers are trying to find new sources of supply such as from France, Argentina, Romania, etc. The possibility of not having supplies, according to him, is very low, but the price of new imports will be higher. Meanwhile, at this moment, importers need large liquidity in order to change sources of supply and withstand high prices.

Actors of the bread market claim that, if the conflict lasts and the sanctions too, it will no longer be a question of prices, but of the existence of the product. Russia is the world's largest supplier of wheat and, together with Ukraine, accounts for nearly a quarter of total global exports. In countries like Egypt and Turkey, Russian grains meet 70% of domestic needs.

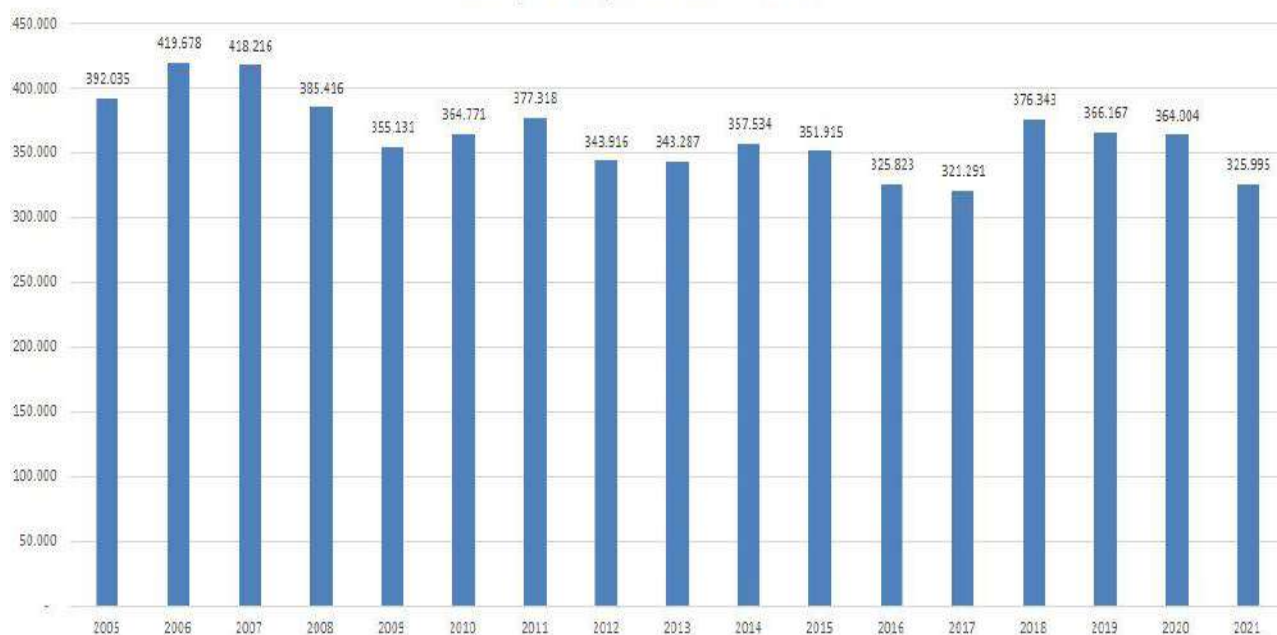
Graph 1. Import of cereals in Albania

PESHA E SHTETEVE NË IMPORTIN E DRITHËRAVE NË SHQIPËRI ME 2021



Source: INSTAT

Ecuria vjetore e importeve të drithërave në tonë



Source: INSTAT

12% of oil in Albania, from Russia

Russia is one of the world's largest suppliers of grain, gas and oil. In 2021, our country imported 12% of oil quantities from Russia. Oil imported from Italy also originates from Russia, but is simply processed in its refineries. In 2021, imports of fuels and minerals (oil, gas) reached about 1 million tons, but almost 70% of the amount is dominated by oil.

Albania, recently, destroyed the only oil processing refinery in the country, which despite all the problems it had could amortize to some extent the acute situation due to the lack of supplies. Oil produced and processed in the country, according to the earliest estimates, met almost 30% of the needs of the domestic market. During 2022, oil was traded at 250 lek, while currently it is traded at 180-200 lek.

Graph 3.2 Import of fuels in Albania



Source: INSTAT

Negative effects on tourism

In the last year, the weight of Ukrainian tourists in domestic tourism had increased. According to data from TIA, last year, in July-August, 38.5 thousand passengers from

Ukraine flew to Rinas and vice versa, or 65% more than the same period before the pandemic. Tourists from Ukraine accounted for 22% of charter movements and were the second largest group after Poles.

Albania was expected to be an important destination for tourists from Russia and Ukraine in 2022. Ukrainians have been discovering the Albanian land for several years, with very attractive tourist offers, among which the undiscovered Albanian nature was the strongest point.

Besnik Vathi, head of the tourist agency ATHS, with long experience in the market, tells Monitor that this war is expected to have catastrophic consequences, in all tourist markets where Ukrainians make up the majority.

Rahman Kasa, from the Albanian Tourist Union, says that, due to the escalation of the Russia-Ukraine conflict, the negative effect is not only on the cancellation of bookings, but on how the schemes work.

Commodity prices rose

For Russia, Ukraine is known as an industrial base, producing everything from cars, ships, helicopters, weapons, to nuclear power plants, while for Europe, Ukraine is the main supplier of the food basket.

The occupied country is one of the world's top ten producers of several crops such as wheat and corn. Ukraine is the world's largest producer of sunflower oil, a major global producer of cereals and sugar, and a global player in the meat and dairy markets. It is also one of the largest producers of nuts, natural honey, etc.

Ukraine's weight in Europe's food supply is very high. For this reason, the prolongation of the conflict brought difficulties to European markets, or at best, increased the price of basic basket items, as Europe tried to find new sources of supply in more distant continents and increased the cost.

They were also reflected in Albania, given that our country is a net importer of food.²⁶

²⁶<https://www.monitor.al/lufta-rusi-ukraine-4-frontet-ku-goditet-ekonomia-shqiptare/>

III.4.1 Inflation during 2023 in Albania

January 2023. The Consumer Price Index in January 2023 reached 112.6 compared to December 2020. The annual change in the Consumer Price Index in January 2023 is 7.2%, a year ago this change was 3.7%. The monthly change of the consumer price index in January 2023 compared to December 2022 is 1.1%.

Monthly changes of the main groups Monthly changes of the main groups: Compared to December 2022, the prices of the group "Food and non-alcoholic beverages" increased by 2.6%, followed by the groups "Transportation" by 0.7%, "Hotels, cafes and restaurants" by 0.6%, "Alcoholic beverages and tobacco" and "Furniture, home appliances and home maintenance" with 0.5% each, "Entertainment and culture" with 0.4%, "Rent, water, fuel and energy" with 0.3% and "Miscellaneous goods and services" with 0.2%. On the other hand, the prices of the "Clothing and shoes" and "Health" groups decreased by 0.1% each.²⁷

February 2023. : The Consumer Price Index in February 2023 reached 113.9 compared to December 2020. The annual change of the Consumer Price Index in February 2023 is 7.1%, a year ago this change was 3.9%. The monthly change of the consumer price index in February 2023, compared to January 2023, is 1.1%.

Monthly changes of the main groups: Compared to the month of January 2023, the prices of the group "Food and non-alcoholic beverages" increased by 3.3%, followed by the groups "Furniture, household appliances and home maintenance" by 0.7%, "Alcoholic beverages and tobacco", "Entertainment and culture" and "Miscellaneous goods and services" with 0.3% each, "Hotels, cafes and restaurants" with 0.2% and "Health" with 0.1%. On the other hand, the prices of the "Transport" group decreased by 2.8%, followed by "Clothing and shoes" by 0.2%.²⁸

March 2023. The Consumer Price Index in March 2023 reached 114.7 compared to December 2020. The annual change of the Consumer Price Index in March 2023 is 5.3%, a year ago this change was 5.7%. The monthly change of the consumer price index in March 2023, compared to February 2023, is 0.7%.

²⁷http://www.instat.gov.al/media/9536/ick_janar_2023.pdf

²⁸http://www.instat.gov.al/media/9651/ick_shkurt_2023.pdf

Monthly changes of the main groups: Compared to February 2023, the prices of the group "Food and non-alcoholic beverages" increased by 1.7%, followed by the groups "Entertainment and culture" by 1.6%, "Alcoholic beverages and tobacco" and "Furniture, household appliances and housekeeping" with 0.6% each, "Hotels, cafes and restaurants" with 0.4%, "Miscellaneous goods and services" with 0.3% and "Communication" with 0.1%. On the other hand, the prices of the group "Transport" decreased by 1.0%, followed by the group "Educational service" by 0.1%.²⁹

April 2023. : The Consumer Price Index in April 2023 reached 114.7 compared to December 2020. The annual change of the Consumer Price Index in April 2023 is 4.6%, a year ago this change was 6.2%. The monthly change of the consumer price index in April 2023, compared to March 2023, is 0.03%.

Monthly changes of the main groups: Compared to the month of March 2023, the prices of the group "Furniture, household appliances and home maintenance" increased by 0.9%, followed by the groups "Miscellaneous goods and services" by 0.6%, "Alcoholic beverages and tobacco" and "Entertainment and culture" with 0.5% each, "Hotels, cafes and restaurants" with 0.4%, "Health" with 0.3%, "Communication" with 0.2%, "Clothing and shoes" and "Educational service" with 0.1% each. On the other hand, the prices of the "Transport" group decreased by 1.1%, followed by the "Food and non-alcoholic beverages" group by 0.2%,³⁰

May 2023. The Consumer Price Index in May 2023 reached 114.3 compared to December 2020. The annual change of the Consumer Price Index in May 2023 is 4.7%, a year ago this change was 6.7%. The monthly change of the consumer price index in May 2023, compared to April 2023, is -0.3%.

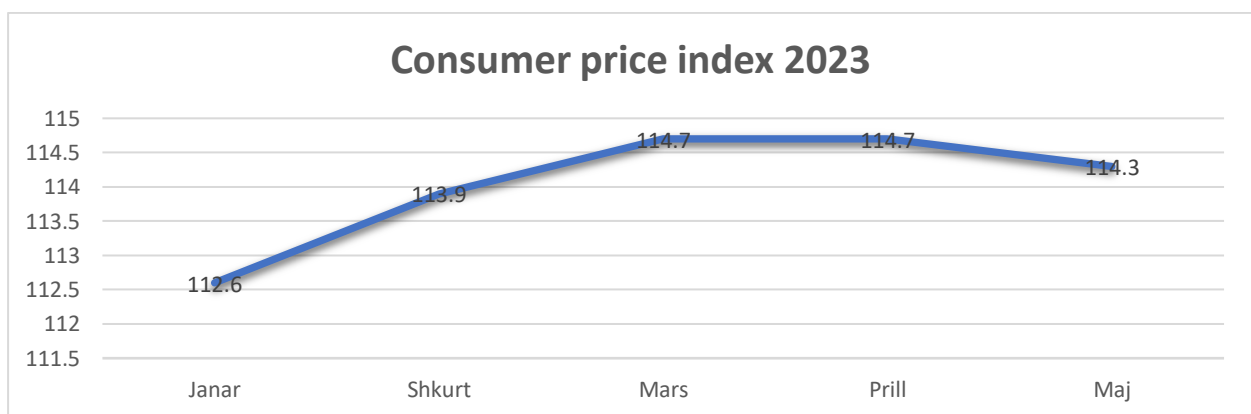
Monthly changes of the main groups: Compared to April 2023, the prices of the groups "Food and non-alcoholic beverages" and "Transport" decreased by 1.2% each. On the other hand, the prices of the "Entertainment and culture" group increased by 1.2%, followed by "Hotels, cafes and restaurants" by 0.9%, "Clothing and shoes" by 0.5%, "Alcoholic beverages and tobacco" and "Miscellaneous goods and services" with 0.4% each, "Furniture, home appliances and

²⁹http://www.instat.gov.al/media/9791/ick_mars_2023.pdf

³⁰http://www.instat.gov.al/media/9948/ick_prill_2023.pdf

home maintenance" with 0.3%, "Rent, water, fuel and energy" with 0.2% and " Educational service" with 0.1%.³¹

Chart 3.3 Consumer Price Index 2023



Source: Chart built with data from INSTAT

III.5 Inflation në Korçë, study

III.5.1 Inflation in family economies

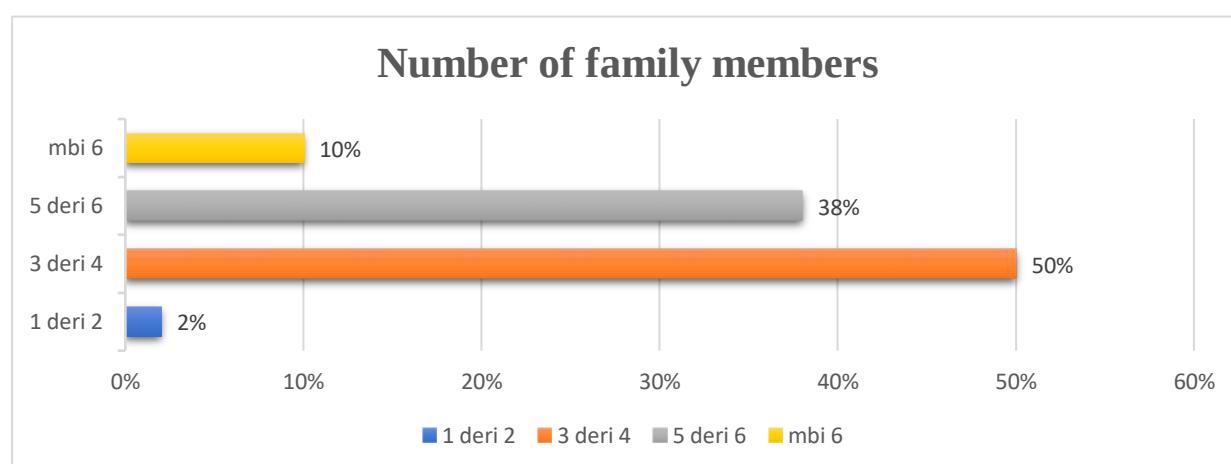
In order to develop this study, families in Korçë and the surrounding villages were asked, getting their opinions regarding the progress of inflation during the last months. (The data is illustrated with graphics.) Among the people asked, 50% of them have 3 to 4 people in their family, 38% of them have 5 to 6 people, only 10% have more than 6 people and 2% have 1 to 2 people.

³¹http://www.instat.gov.al/media/10074/ick_maj_2022.pdf

In these families, in 52% of them 2 people work, in 33% only 1 person works, in 10% of them 3 people work and in only 5% more than 3 people work.

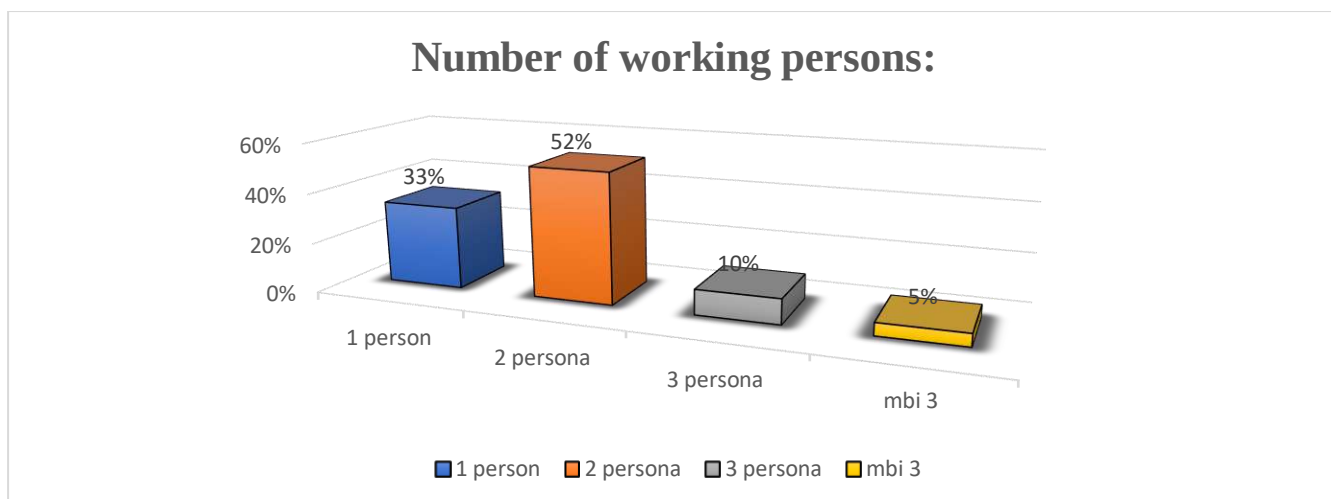
The monthly income of these families varies from less than 15,000 new alleks to over 60,000 new alleks. 36% of families have a monthly income of over 60,000 new ALL. 20% of them have an income of 15,000 - 30,000 new ALL. 14% of them have a monthly income of 30,000 - 45,000 ALL, 19% 45,000 - 60,000 ALL, while 11% of them have less than 15,000 ALL monthly income.

Chart 3.4 Number of members in the surveyed families



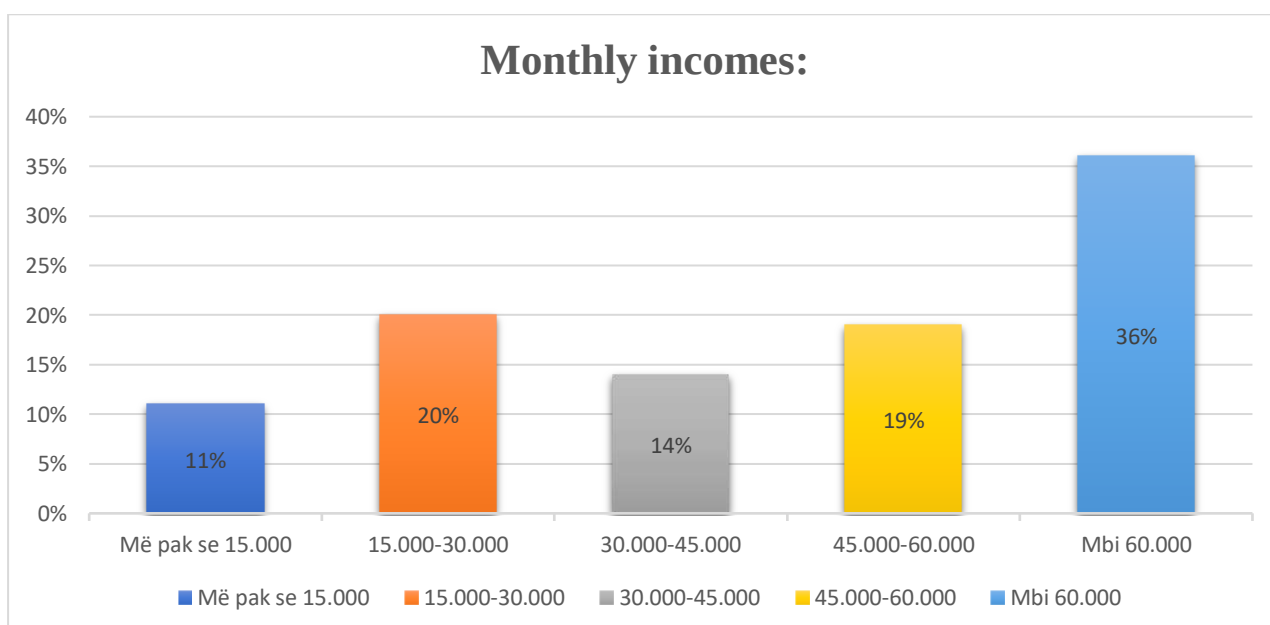
Source: Chart built based on data from questionnaires

Chart 3.5 Number of working persons



Source: Chart built based on data from questionnaires

Graph 3.6 Monthly income of families



Source: Chart built based on data from questionnaires

50% of families today have less income than they had a year ago, when inflation was lower, 32% of them have the same income compared to a year ago, and only 18% of them have higher income.

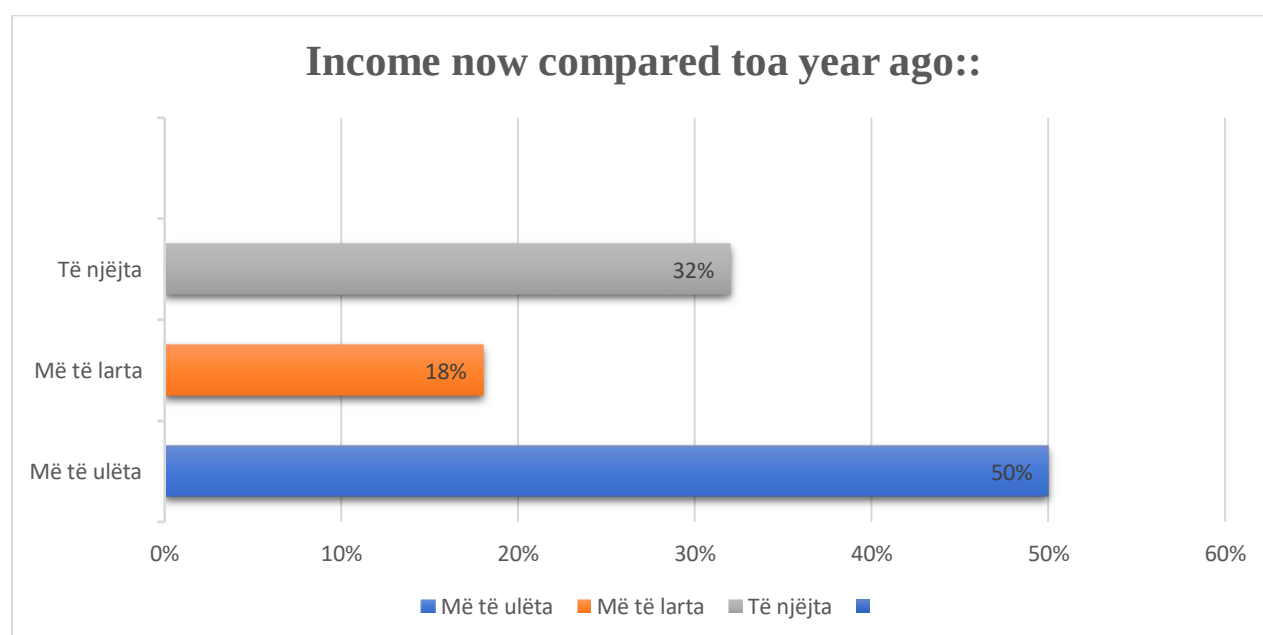
Of the people questioned, 79% were familiar with the term inflation, while 21% of them did not know it as a term.

While some did not recognize inflation as a term, all (100%) of citizens were aware of price increases.

65% of families have kept the same consumption of basket goods, basic goods of life, while 35% of them have reduced their consumption as a result of the decrease in their real income.

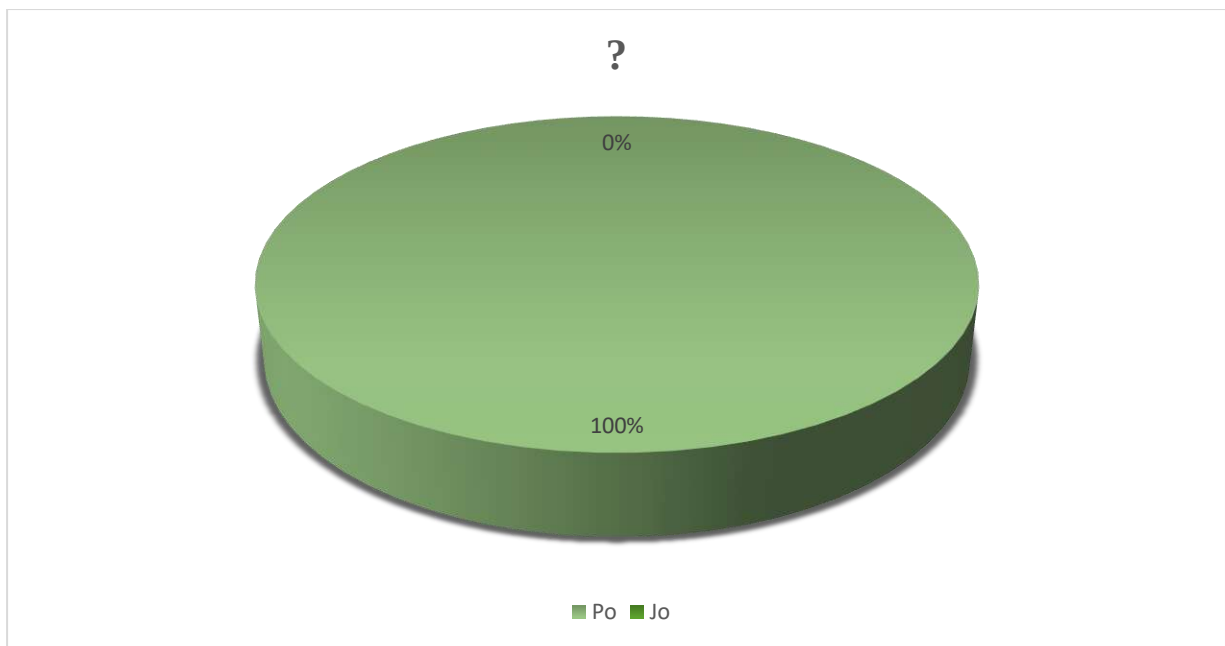
As far as luxury goods are concerned, 88% of families have reduced their consumption with the increase in prices, only 12% of them state that the consumption of luxury goods has remained the same.

Chart 3.7 Income of individuals now compared to a year ago.



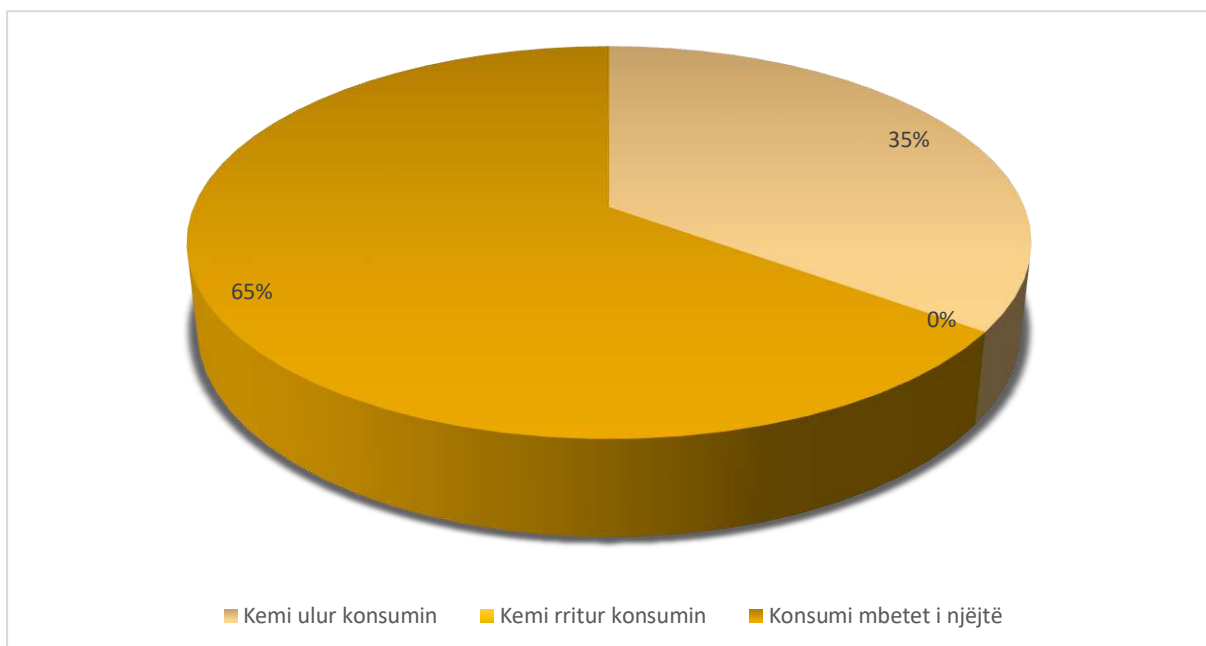
Source: Chart built based on data from questionnaires

Graph 3.8 Individuals' awareness of price increases



Source: Chart built based on data from questionnaires

Chart 3.9 Price increase and consumption of basket products



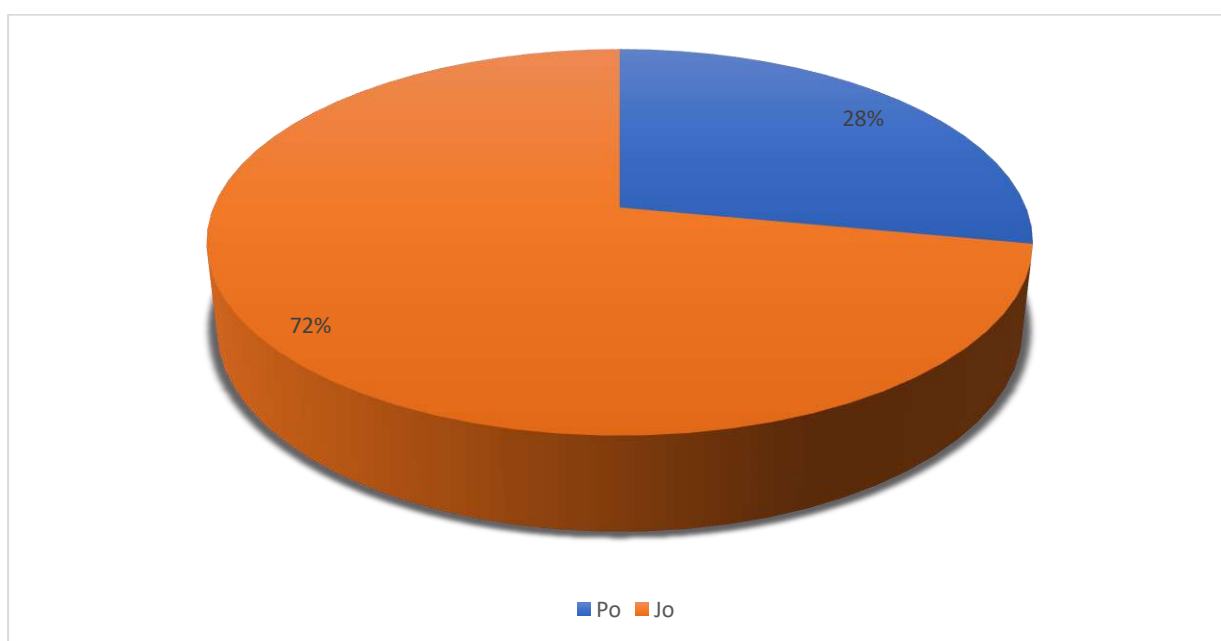
Source: Chart built based on data from questionnaires

Of the people asked, 28% of them had to borrow during the last months.

The people who had to borrow, answered about the interest rates of the loans received. 73% of them indicate that interest rates were higher during the inflationary period, while 27% of them state that there were no changes in interest rates.

Individuals were also asked about the measures they think the Government and the Central Bank should take in such times. 65% of them think that the Government should limit the increase in prices. 12% of them think that there should be a reduction in government spending. 2% think that salaries should not be increased in inflationary periods. 6% think that it is necessary to intervene with tax policies. 9% consider other measures, while 6% of them do not know about the measures to be taken.

Graph 3.10 Loans during the last months



Source: Chart built based on data from questionnaires

CONCLUSIONS

- Inflation is an economic phenomenon that expresses the continuous increase in the general level of average prices.
- Not all prices rise at the same rate during a period of inflation. Some prices increase more, some less; in essence, in an inflationary situation, their average level increases.
- Based on its level, three types of inflation are distinguished: moderate inflation, galloping inflation and hyperinflation.
- The costs of inflation are varied and often difficult to measure and classify. Indeed, inflation affects people in different ways, some suffer while others benefit.
- The main objective of monetary policy in Albania is to achieve and maintain price stability.
- The average inflation of 2019 resulted in the level of 1.4%, coming down from 2018. The reduction of inflation reflected the fuller follow-up of the appreciation of the exchange rate and the decline of the inflation of goods in the international markets.
- The year 2020 was a difficult year for the world and the Albanian economy.
- The COVID-19 pandemic dominated the economic developments of 2020. The measures taken to curb it and the increase in uncertainty caused a drop in demand and

production, an increase in unemployment, and financial difficulties for Albanian businesses and families.

- More than 90% of global economies recorded economic downturns, rising unemployment and weak inflationary pressures. Indicators of the main economic balances worsened and fiscal deficits and public debts grew rapidly.
- The average inflation for the year 2020 resulted in the level of 1.6%, remaining below the target of BSH.
- BSH increased the monetary stimulus and took other regulatory measures, including reduction at the level of 0.5% of the basic interest rate.
- The year 2021 was the year of economic recovery. This recovery was present in the increase in the volume of economic activity, in the improvement of business balances, in the expansion of employment, in the increase of wages, as well as in the strengthening of internal inflationary pressures.
- Economic growth was accompanied by an increase in employment and wages.
- Inflation increased during 2021, reflecting the strengthening of internal inflationary pressures and the increase in prices in international markets.
- The average inflation of 2021 resulted in the level of 2.0%, against the 1.6% value of the previous year.
- On February 24, 2022, Russia began a full-scale invasion of Ukraine, marking a major escalation of the ongoing Russian-Ukrainian war that began in 2014.
- The Russia-Ukraine conflict has caused turmoil in financial markets and drastically increased uncertainty about the recovery of the global economy.
- The conflict threatened to squeeze energy and commodity markets.
- The automotive, transport, chemical sectors are the most affected sectors.
- Due to its dependence on Russian oil and natural gas, Europe appears to be the region most exposed to the consequences of this conflict. Replacing all of Russia's natural gas supply to Europe is impossible in the short to medium term, and current price levels will have a significant effect on inflation.

- In Albania, the current increase in inflation in most prices is not driven by internal factors, in other words, by a rapidly growing economy. Demand remains below its pre-crisis trend. Instead, the economy is experiencing a series of imported supply shocks that are pushing up inflation and reducing demand.
- The Consumer Price Index in January 2023 reached 112.6 compared to December 2020, which was taken as the base year.
- The Consumer Price Index in February 2023 reached 113.9 compared to December 2020.
- The Consumer Price Index in March 2023 reached 114.7 compared to December 2020.
- The Consumer Price Index in April 2023 reached 114.7 compared to December 2020.
- The Consumer Price Index in May 2023 reached 114.3 compared to December 2020.

RECOMMENDATIONS

- Inflation must be controlled by the Central Bank and/or the government. The main policy that can be used is monetary policy (changing interest rates).
- To control the money supply, through monetary policy – Monetarism seeks to control inflation by controlling the money supply. Monetarists believe that there is a strong relationship between the money supply and inflation. If you can control the growth of the money supply, then you should be able to control inflation. Monetarists would emphasize policies such as:
 - a. Higher interest rates (tightening of monetary policy)
 - b. Reduction of the budget deficit (deflationary fiscal policy)
 - c. Money control is being created by the government.
- Raise tax rates, through fiscal policy – The government can raise taxes (such as income tax and VAT) and cut spending. This improves the government's budgetary situation and helps reduce demand in the economy. A higher income tax rate can reduce spending, demand and inflationary pressures.

- Control wages – If inflation is caused by wage inflation, then limiting wage growth can help moderate inflation. Lower wage growth will reduce costs for firms and lead to less excess demand in the economy.
- Control prices – In periods of inflation, firms try to raise prices as much as possible to maintain profitability and cope with rising costs. One way to try to avoid this 'profit push' inflation is to introduce price controls. Here the government sets limits on price increases. This could help reduce inflationary pressures.
- Fixing the exchange rate – Fixing the exchange rate is related to monetary policy. It forces a tightening of monetary policy when there is a tendency to depreciate the domestic currency or an easing of policy when there is a tendency to appreciate the domestic currency. Fixing the exchange rate is simple and very clear, which makes it easily understood by the public: a "sound currency" is an easy call to understand for monetary policy. A strong form of commitment mechanism for a pegged exchange rate is a currency board. The currency board requires that the issuing authority, whether the Central Bank or the government, announce a fixed exchange rate against a specified foreign currency and then be ready to exchange the domestic currency for foreign currency at that rate whenever the public demands it. To reliably meet these requirements, a currency board typically has more than 100% foreign reserves backing the local currency and allows monetary authorities absolutely no discretion.

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supplement

QUESTIONNAIRE

"INFLATION AND FAMILY ECONOMY"

Circle the answers you think are appropriate (in some questions you can circle more than one alternative)

1. The number of members in your family is:

- a) 1-2
- b) 3-4
- c) 5-6
- d) More than 6

2. Among the persons in the family, those who work are:

- a) 1
- b) 2
- c) 3
- d) More than 3

3. Your monthly income is:

- a) Less than 15,000 ALL (new)
- b) 15,000-30,000 ALL (new)

- c) 30,000-45,000 ALL (new)
- d) 45,000-60,000 lek (new)
- e) More than 60,000 ALL (new)

4. Your income now compared to a year ago is:

- a) Lower
- b) Higher
- c) The same

5. Are you familiar with inflation?

- a) yes
- b) not

6. Are you aware of price increases?

- a) yes
- b) not

7. How has the increase in the prices of basket products affected their consumption?

- a) We have reduced consumption
- b) We have increased consumption
- c) Consumption remains the same

8. How has the increase in the prices of luxury goods affected their consumption?

- a) We have reduced consumption
- b) We have increased consumption
- c) Consumption remains the same

9. Have you had to take out a loan in the last few months?

- a) yes
- b) not

10. If yes, how were the borrowing interest rates compared to the pre-inflationary period?

- a) Lower
- b) Higher
- c) There was no change

11. What are some of the anti-inflation measures that can be taken by the Government and the Central Bank?

- a) Reduction of government spending
- b) Limiting salary increases
- c) Limitation of price increases
- d) Tax policy
- e) Others

“Microfinance - Its role in the development of small businesses”

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Abstract

The microfinance sector has entered a new stage of its development. In line with the socio-economic developments of the country, as well as the growing market demands not only for products and services that serve to raise living standards for individuals and enable free enterprise for micro-businesses, but to ensure sustainability in quality of life and consolidation of local business activity, especially family business. Microfinance is a very necessary link to increase financial inclusion and strengthen low-income segments. It refers to financial services provided to individuals or low-income groups, who are usually excluded from traditional banks.

Competition in the microfinance market is increasing, also from a greater interest of banks for this segment, mainly in terms of small and agribusiness financing. The purpose of this study is to analyze the role of microfinance in small businesses, the conditions in which it finds itself before receiving funding and then how this funding impacts business development. What is attempted to be shown in this study is the correlation of variables with each other to come to conclusions whether microfinance is the right tool for business performance. In a dynamic business environment, the competitive advantage of most businesses is differentiation and liquidity in order to adapt to change as easily as possible. The most adequate methods for this financing are provided by Microfinance.

Keywords: Microfinance, entrepreneurship, credit, competitive advantage, financing, pandemic.

JEL classification: G1, G2, G21.

1. Introduction

The economic atmosphere in Albania offers a wide range of branches that should not only be recognized but also analyzed, taking into account the impact they have on business growth. One of them is microfinance.

Microfinance is the provision that provides access to various financial services such as: lending, savings, microinsurance, remittances, leasing for low-income clients, including consumers and the self-employed, who traditionally do not have access to banking services. Microfinance in Albania has evolved over the last decade offering a wide range of services and great opportunities for expansion. These services fundamentally affect the creation of development opportunities for family businesses, handicrafts, agriculture or other types of enterprises, especially for marginalized groups, which otherwise would not be given the opportunity to develop their business. Microfinance institutions have supported their clients, whether they are individuals or small businesses, by offering a wide range of contact points, from on-site visits to business premises for farmers, micro-businesses and family businesses, a network of 267 branches spread across

throughout the country, 881 loan officers as well as a large number of payment service points for the repayment of installments through the network of established agents in addition to the presence of branches.

Throughout its existence, microfinance has been accompanied by its social mission, the support of the weaker sections, without access to financing and without opportunities for financial development. For more than 30 years, microfinance has been portrayed as a key policy and intervention program for poverty reduction and local economic and social development. Microfinance is the provision of small loans to the poor, helping them to create or expand an activity that generates income, thus enabling these people to get out of poverty.

The focus in this study is on the importance of microfinance in small businesses by comparing them before and after the integration of microfinance models. Also, the challenges that microfinance and businesses or individuals face are also identified.

2. Literature Review

The sampling target is small businesses. Random businesses have been selected. The reason why this choice was made was precisely the intention to see the role of microfinance in small businesses and in their further development. Mainly businesses in the city of Korca were chosen. The sample of choice was small and the purpose of the study was exploratory and analytical. Due to the small sample, the results of this study are not intended to be representative. Each individual who responded was informed that anything they shared would be used for academic purposes only and that the information would be kept confidential. Consequently, any information reported in this study adheres to ethics.

For many, microfinance means providing very poor or low-income families with very small loans (microcredit) to help them engage in profitable activities or grow their very small businesses. . Over time, microfinance has come to include an increasingly wide range of financial services (loans, savings, insurance, etc.), since it has been implied for years that the poor and very poor lack access to financial institutions formal and traditional, require a variety of financial products.

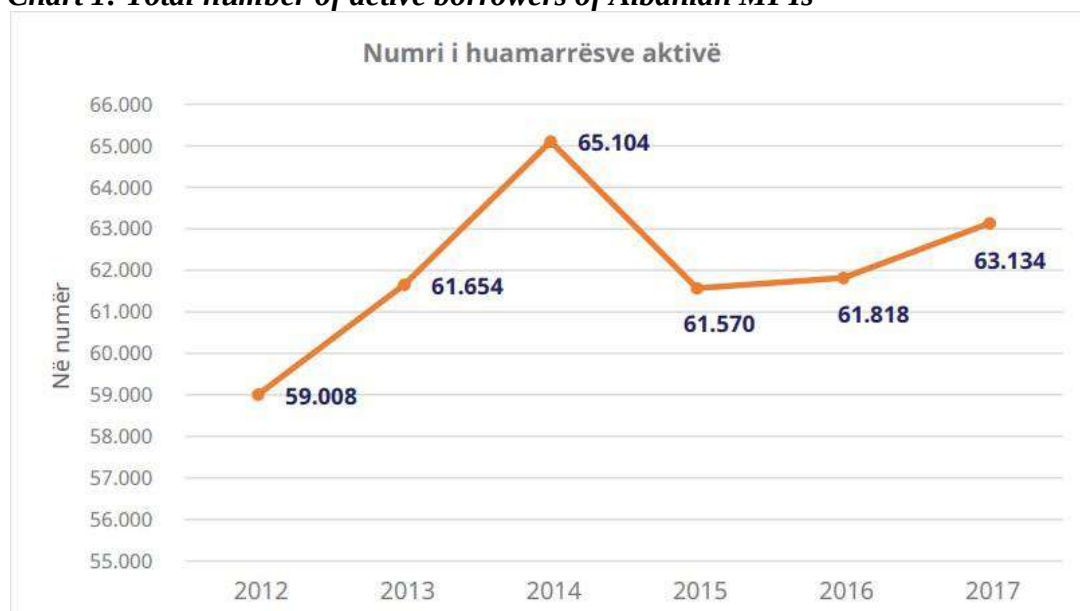
The role of microcredit in economic development is one of the areas that has recently created heated debate among researchers. Specifically, two opposing schools of thought have emerged and the central question is; Does microcredit contribute to improving the welfare of borrowers? On the one hand, there is a large body of empirical literature showing that microcredit can play a very important role in reducing poverty and that it has improved the economic and social well-being of beneficiaries. The role of microcredit for poor entrepreneurs, especially women, for poverty alleviation was highlighted in many research groups from many scientific institutions. Most of them always seek to increase the number of households that have access to microcredit from less than 10 million households in 1997 to about 91 million clients in 2014. Since its inception, some 30 years ago, microfinance has had many years productive, illustrated by strong growth, by the positive

impression it has had on development professionals and on public opinion in general, and finally by the attribution in 2006 of the Nobel Peace Prize. for Muhamed Yunus, the founder of microcredit⁵⁴. There are more than 10,000 microfinance institutions (MFIs) worldwide. They include a wide range of institutions, from credit unions and cooperatives to non-governmental organizations (NGOs), government agencies, private companies and commercial banks.

Although it is thought that the immediate channel of impact of microfinance is through the reduction of income inequality and poverty, such an impact is long-term. Financial development through microfinance can be seen in four ways:

- a) First, financially stable MFIs can promote market deepening which in turn advances financial development.
- b) Second, microfinance is seen as a powerful tool in countries with weak governance that hinders development programs.
- c) Third, microfinance can facilitate financial market maturation in both developed and developing countries.
- d) Finally, microfinance can help to support domestic financial reforms by breaking down constraints.

Chart 1: Total number of active borrowers of Albanian MFIs



Source: AMA

Credit is precisely the necessary instrument for financing agriculture, to encourage, develop and increase it, and more effective compared to grants. The credit for the agricultural sector in the bank

loan portfolio represents the least credit sector compared to other sectors, benefiting about 2% of the total loan portfolio, while agriculture brings about 20% of the GDP of the Albanian economy. Given the need of the agricultural sector for financing or credit, today there are financial institutions that provide financial services to the agricultural sector, such as microfinance institutions that provide loans, but nowadays many second-tier banks are promoting and competing with each other in terms of the new microfinance/credit service of the agricultural sector. Nowadays, there is an increasing trend in the presence of banking and microfinance institutions that provide various financial services for the benefit of farmers and poor people. This initiative has a positive impact on the development of the country, because in this way we will have an increase in local production, an incentive to open small enterprises.

3. Data and Methodology

In order to achieve and concretize the objectives, we had to carry out a primary research through questionnaires. The questionnaire is certified and reliable, it has been translated into Albanian and is based on the existing questionnaire conducted by Stanford University and an AMA questionnaire on the topic "Consumer behavior of customers during the pandemic", but since their field of application was greatly expanded a part of it that suited and helped more the purpose of my study. It is made up of 16 questions. These questions are built on the basis of the objectives formulated for the purpose of this study. Each question contains an important element which serves as an input in the process of deriving results.

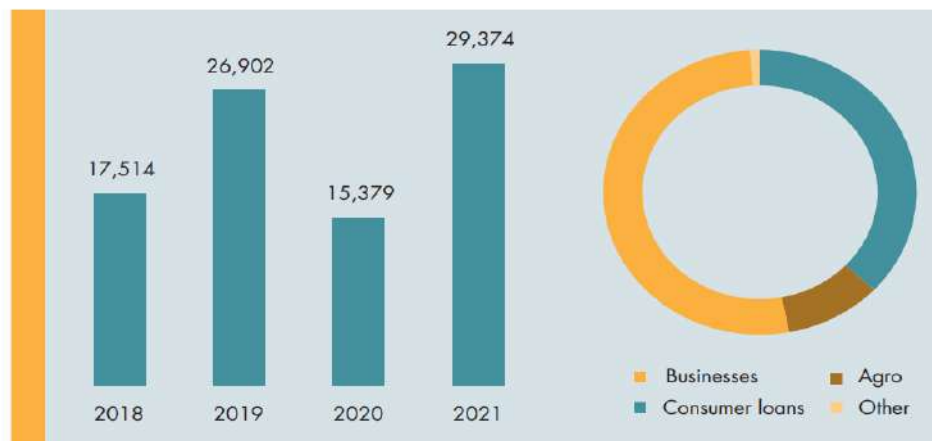
4. Results and Discussion

In Albania, microfinance has been instrumental in supporting the development of small businesses and fostering economic growth. Many entrepreneurs and small business owners face challenges in accessing traditional banking services due to lack of collateral or credit history. Microfinance institutions have stepped in to fill this gap by providing smaller loans without requiring extensive documentation.

By offering financial services such as microloans, savings accounts, and financial education, microfinance institutions have empowered Albanian entrepreneurs to start and expand their businesses. These funds have been used for various purposes, such as purchasing inventory, upgrading equipment, and hiring additional staff, all of which contribute to business growth and job creation. Moreover, microfinance has played a role in promoting financial inclusion, reaching individuals who were previously excluded from the formal banking sector. This inclusivity has not only benefited the entrepreneurs

themselves but has also had a positive impact on their families and communities. Overall, microfinance in Albania has proven to be a catalyst for economic development, helping to uplift small businesses and improve the standard of living for many people throughout the country.

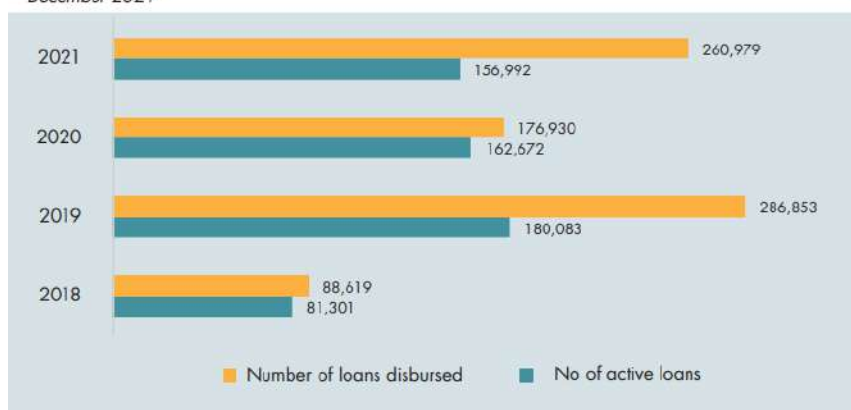
Chart 4 - The volume of loans during the years 2018 - 2021 and the division by sectors of the economy (figures in millions ALL)



Source: Albanian Microfinance Association

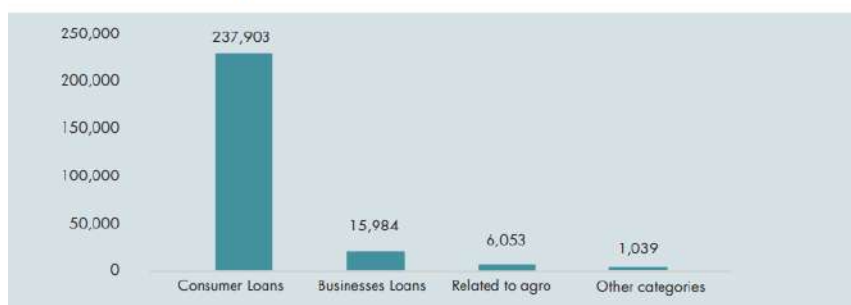
Loans granted in total number for 2021 were 260,979, of which 156,992 were active at the end of December 2021. Meanwhile, the first in loans granted according to market segments, loans granted to individuals lead, which account for about 91% of the total number of loans granted during 2021. They are followed by loans for small businesses and those for agriculture, respectively, which account for 6.1% and 2.3% respectively, while about 0.6% of the number of loans granted are allocated to other categories.

Chart 5 – Loans granted and active loans in number for members of Albania Microfinance Association, December 2021



Source: Albanian Microfinance Association

Chart 6 – Number of loans granted by type of client, 2021



Source: Albanian Microfinance Association

Regarding the quality of the loan portfolio, according to the figures reported by the members, during 2021 there was a decrease in portfolios in arrears of more than 30 days, an indicator that remained at the value of 11.00% for the end of 2021 against the figure of 13.23% for the end of 2020 (the figures refer only to the members of the AMA). The member institutions have taken the relevant measures by increasing the provisioning level for problem loans, mainly financed by own capital and shareholders' contributions in the form of new injections.

The financing structure of the member institutions of the Albanian Microfinance Association changed significantly during 2020, in favor of higher capitalization compared to financing and donations, as well as savings and credit company deposits. Currently, during 2021, the sector appears well-capitalized and in a position to withstand the losses calculated according to conservative, neutral and optimistic credit risk management scenarios. This is also proven by the ongoing financial indicators, where most institutions are in accordance with the regulatory standards normally applied. We have a slight increase in the level of shareholders' capital for 2021, while the increase in total liabilities has been realized to the extent of 35.6% to support lending activity. Also, the increase in assets to the extent of 11.8% proves the positive performance of the loan portfolio as well as the investments made by the member institutions to increase the quality standard of customer service and support digitalization.

5. Conclusions

Here are some suggestions to foster small business development in Albania:

Access to Finance: Continue to promote and support microfinance institutions to ensure that small businesses have access to affordable and accessible financial services. Encourage collaboration between the government, financial institutions, and non-governmental organizations to expand funding opportunities for startups and established small businesses.

Business Incubators and Support Programs: Establish and enhance business incubators and support programs that offer mentorship, training, and resources for aspiring entrepreneurs. These initiatives can help them refine their business ideas, develop business plans, and navigate the challenges of starting a new venture.

Streamlined Regulatory Environment: Simplify and streamline the regulatory processes and licensing requirements for small businesses. A business-friendly environment can encourage more entrepreneurs to start and grow their ventures without unnecessary bureaucratic hurdles.

Digitalization and E-commerce: Encourage small businesses to embrace digital technologies and e-commerce platforms to expand their customer base beyond local markets. Providing training and support in adopting online business strategies can open up new opportunities for growth.

Education and Skills Development: Invest in education and skills development programs that equip the local workforce with relevant skills and knowledge needed to support various industries. This will create a more qualified labor pool for small businesses and attract investments.

Infrastructure Development: Improve infrastructure, including transportation, energy, and communication networks, to facilitate the movement of goods and services across the country. A robust infrastructure can reduce logistics costs and make it easier for small businesses to operate efficiently.

Access to Markets: Facilitate market access for small businesses by organizing trade fairs, networking events, and business matchmaking initiatives. This will help small businesses connect with potential customers, suppliers, and partners both domestically and internationally.

Entrepreneurial Culture: Foster an entrepreneurial culture by celebrating success stories and promoting entrepreneurship as a viable career path. Encourage the exchange of ideas and experiences among entrepreneurs to inspire innovation and creativity.

Support for Women Entrepreneurs: Create targeted support programs for women entrepreneurs to address specific challenges they may face and encourage their participation in business ventures.

Sustainable Practices: Promote sustainable business practices, including environmental and social responsibility, as they can contribute to long-term success and reputation-building for small businesses.

Implementing these suggestions can contribute to a thriving ecosystem for small business development in Albania, stimulating economic growth and job creation across the country.

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Building a sustainable future: impact of the tourism industry on the macroenvironment

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Abstract

The concept of sustainability in the tourism industry is currently on the rise due to the end of the pandemic period, when tourism strategies were reassessed, leading to a shift towards responsible practices. Hence, this study will take a holistic approach and present the environmental, social and economic impacts of the tourism industry. The aim of the research is to explore the opportunities and threats encountered by the Romanian tourism sector in order to help anticipate and mitigate harmful activities and behaviours. Using a qualitative research approach, stakeholders in the tourism industry gathered valuable information and provided pertinent recommendations for a responsible and resilient tomorrow.

Keywords: Macro-environment, Stakeholders, Sustainability, Tourism

JEL Classification: L83, Q01, Q56, Z31, Z32

1. Introduction

Corona Virus (COVID-19) has become a pandemic characterised by localised transmission in many countries (Anderson et al., 2020). To stop the widespread spread, a number of measures have been considered, including social distancing, movement restrictions and lockdowns (WHO, 2020). As a result, profound consequences for global economic, political and socio-cultural systems have emerged (Sigala, 2020). As tourism involves interpersonal interaction (Blomstervik et al., 2021), tourism industry was the most affected sector of the global economy during the pandemic (Florencio et al., 2021). According to the United Nations World Tourism Organization (UNWTO, n.d.), the negative effects have ranged from a decrease in tourist arrivals to loss of tourism export revenues, business closures, layoffs and financial instability. However, the measures taken during the pandemic have also led to positive effects, such as non-overcrowding, reduction of greenhouse gas emissions, the development of form of six-foot tourism, which implies maintaining a safe distance from others to minimize the risk of transmitting the virus or even new marketing trends in the industry, such as online tours (Seabra et al., 2022). All this has made the concept of sustainable tourism a serious matter for the first time, turning the crisis into an opportunity to promote responsible change (Higgins-Desbiolles, 2021).

Sustainable tourism refers to all forms of tourism that protect the environment and use of natural resources in a way that does not endanger future generations (WTO, 2005). However, sustainable tourism is not only about nature conservation, but also about economic aspects, generating up to 10.4% of global GDP, as well as social aspects, promoting inclusion and improving people's

quality of life (Streimikiene et al., 2021). In this regard, it can influence a series of external factors. Therefore, this study proposes a holistic, macro-environmental approach that aims to predict and mitigate harmful activities while emphasizing the importance of sustainability in the tourism industry.

Although there are studies in the field that refer to different countries worldwide (Mir & Mir, 2019; Yaw, 2005; Sihombing et al., 2006), each country has its own specificity in terms of the tourism industry (Haller & Tacu Hârșan, 2023). This paper is a case study of the situation in Romanian tourism, whose impact on the macro-environment is still insufficiently explored. The growing number of tourist destinations, together with measures such as increasing their quality, puts strong pressure on Romanian stakeholders to reach sustainable performance in the tourism sector (Burghilea, 2015). Even if Romania has an advantage over other tourist destinations, as it has a generous geographical setting, the economic crisis and globalization are becoming more and more present, which is why tourism is forced to resort to all kinds of innovations, sustainability being one of them (Mazilu & Gheorgheci, 2015).

Thus, the three objectives of the present study are: to identify the different dimensions of the impacts generated by the tourism industry on the macro-environment in Romania; to identify current strategies and measures reduce negative impacts on the macro-environment; to analyse the challenges and opportunities generated by stakeholders implementing sustainable tourism practices. Not only will the findings contribute to the academic debate, they will also provide recommendations for policy makers, tourism industry stakeholders and local communities to promote a sustainable future and integrate practices into the national tourism industry.

2. Literature Review

The tourism industry is one of the largest and most profitable industries in many countries and includes all businesses that directly provide products or services to facilitate commercial and leisure activities beyond the home environment (Goeldner & Ritchie, 2011). Transport, accommodation, ancillary services as well as sales and distribution are the four sectors that are part of the tourism industry (Camilleri, 2018). The performance and development of these sectors impact on the macro-environment. Macro-environment refers to external factors which are hard to control, that have a direct or indirect impact on the industry (Mir & Mir, 2019). On the one hand, according to Perera (2017), the analysis of these factors is called PESTE, which stands for political, economic, social, technological and legal and is used to identify threats and weaknesses in the industry. On the other hand, additional views have been critical of the limitations of the PESTLE framework, as it can be costly to analyse and can lead to information overload (Mir & Mir, 2019).

In this regard, Conrady, Ruetz and Aeberhard (2020) highlight key players in their analysis. Thus, they identify political-legal aspects such as legal certainty, governance, legislation; economic factors such as development, finance, investment, fluctuations; social elements such as population, values, consumption, leisure; technological components such as energy, information,

infrastructure, construction; and environmental considerations such as conservation, pollution, disaster preparedness, biodiversity, soil, food supply.

However, the tourism industry has both negative and negative impacts. In this regard, Mason (2003) highlights the situation in Nepal and the Indonesian island of Bali, where tourism has led to significant economic development through the creation of new jobs, the generation of new income for residents and the revival of artisanal products. Moreover, the author mentions that later there were effects such as inflation, rising land prices, disruption of religious rituals, violence, and even dependence on the tourism industry exclusively.

Regarding the situation of Romania, more than half of the territory has tourism potential due to the diversity. Tourism has grown, offering opportunities such as lower travel prices and the exploitation of resources (landscape, balneal and ethnographic tourism), while at the same time the country faces challenges such as insufficient accommodation infrastructure, the need to create centres for transit tourism, the importance of preserving the natural and social heritage, as well as meeting European standards and promoting sustainable tourism (Agheorghiesei & Bedrule-Grigoruta, 2007).

To mitigate all these threats, we must rely on sustainability. The concept of sustainable tourism development concerns all forms of tourism and involves conserving natural resources, respecting cultural authenticity, generating economic benefits, involving stakeholders, monitoring impacts and providing meaningful experiences to ensure a meaningful experience for tourists (WTO, 2005). In addition, in 2015 the United Nations set the target of achieving the 17 development goals, which aim to achieve inclusive and sustainable growth, consumption and production by 2030 (Hák et al., 2016).

In order to develop sustainable tourism, it is essential to understand local residents' perceptions and attitudes towards tourism. In this regard, social exchange theory suggests that the more benefits residents perceive from tourism, the more likely they are to support its development (Vinerean et al., 2021). To achieve sustainable results in the tourism industry, the following stakeholders are included: government bodies, tourism businesses, non-governmental organizations, research institutions, tourists and travelers, financial investors and international organizations (Mason, 2003).

Concepts such as slow (Dickinson et al., 2011), indigenous (Scheyvens et al., 2021), domestic tourism (Lee et al., 2020), and even virtual and augmented reality (Streimikiene et al., 2021) underpin the emerging trends and future challenges in the context of building a sustainable future for the tourism industry.

3. Methods

This research adopted a qualitative approach and used the case study method. The case study aims to gain a thorough and comprehensive understanding of a case in its actual setting (Bromley, 1986).

In this paper, the case study will focus on the situation of Romania in order to examine the impact of the tourism industry on the macro-environment as well as to explore sustainable development practices in the context of Romanian tourism. This research is designed to be descriptive and exploratory because it combines describing existing practices with exploring new perspectives in order to provide a clear picture of the phenomenon (Chopard & Przybylski, 2021). Thus, the descriptive design presents specific examples of the impact of the tourism industry on the macro-environment in Romania, measures and strategies currently implemented or challenges faced by stakeholders, while the exploratory design aims to determine changes over time, examine influencing factors and explore collaboration between stakeholders.

The research used an inductive approach, which works under the assumption that all concepts are interconnected and ultimately explained (Levy, 2008). Therefore, we set out to explore the different dimensions of the impact of the tourism industry on the macro-environment in order to generate new insights based on the Romanian case.

Thus, in this study we aim to investigate and answer the following research questions (RQ):

RQ1. What are the different dimensions of the impact generated by the tourism industry on the macro-environment in Romania, and how do they contribute to sustainable development?

RQ2. What strategies and measures are currently implemented by Romanian tourism stakeholders to prevent or reduce harm to the macro-environment?

RQ3. What are the key challenges and opportunities faced by stakeholders who implement sustainable tourism practices in Romania?

As a methodology we have used the singular case study, as it is presented strictly the case of Romania. Moreover, according to Dyer and Wilkins (1991), single case studies are more effective than multiple case studies because they generate a more solid and advanced theory.

3.1. Sampling techniques

Fifteen subjects participated in the study, all of Romanian nationality, working in different areas of tourism (e.g. academics, tourists, individuals involved in NGOs, hotel managers, restaurant managers, local residents) as there is no pre-determined minimum requirement for the minimum number of subjects used in a good case study.

The sampling strategy used was non-probability sampling: the snowball technique, which means that subjects who agreed to participate in the study will recommend other competent subjects (Etikan & Bala, 2017). In this regard, subjects who have agreed to participate in the study will recommend other qualified subjects. Therefore, not every unit in the target population has an equal chance of being included. In this case study, the sample was used taking into account a specific characteristic (Etikan & Bala, 2017), namely the expertise of the stakeholders. Therefore, no individuals without knowledge of the tourism industry or sustainability were included in the study, as the research sought to provide greater depth of information.

3.2. Data collection

We used qualitative surveys, which involved 10 open-ended questions, presented in a fixed order to all participants, collected online via Google Forms, all of them being developed by the researcher. On average, three questions were given for each research objective. Among the questions that were included in the questionnaire, we list: “In your opinion, what are the most significant ways that the tourism industry impacts the macro-environment in Romania?”, “What policies do you think could be put in place to better support stakeholders in their efforts to implement sustainable tourism practices?”. As participants respond by writing their answers in their own words, fully qualitative surveys can produce rich reports that capture what is important to the subjects (Braun et al., 2020). This method was more appropriate as the study seeks a wide variety of perspectives, so subjects from diverse fields may have been more difficult to access.

3.3. Data analysis

The data obtained from the qualitative surveys was processed through thematic analysis. The thematic analysis requires looking for consistent ideas in the dataset and it provides the flexibility to explore and identify themes or patterns within a dataset. According to Jason and Glenwick (2016), we followed the six stages in thematic analysis: reading and identifying possible codes, organizing data into meaningful units, identifying broader themes and their connections, removing irrelevant themes, identifying central ideas, reporting analysis, including data extracts.

4. Results & Discussions

In presenting the results we will address each objective of the study set at the beginning to provide a deeper understanding of the impact of the Romanian tourism industry on the macro-environment. Thus, the first objective is to identify the different dimensions of the impact. One of the most specific areas in which respondents felt the impact of tourism was in the economic sphere, through the labour dynamism, i.e. the creation of new jobs, especially during peak seasons (e.g. summer on the Black Sea coast), or through the attraction of foreign investors, which helped culturally rich but underdeveloped areas. Negative effects were also mentioned in the peak season, but in the environmental sphere, due to increased carbon emissions and air pollution caused by transport activities. Increased tourist activity may also lead to soil erosion in Carpathian destinations where activities such as hiking and skiing take place.

Asked to describe some concrete examples of how the tourism industry has influenced the macro-environment in Romania, they addressed both positive and negative impacts. Among the positive ones, we list targeted areas such as: Rosia Montana and its recognition as a UNESCO World Heritage Site that contributes to the preservation and promotion of cultural and historical value; the Danube Delta by limiting development to protect the wetland ecosystem, visited by tourists

looking for places where nature is untouched by human intervention.; the Figa Spa Complex in Bistrita-Nasaud as it played an important role in the development of the city due to the influx of tourists that led to the growth of the economy in that area; The Bran-Rucar area and its cultural landmarks, such as Bran Castle, often associated with the legend of Dracula, whose entrance fee helped generate revenue that was later used to preserve the castle. Among the negative effects, subjects named: lack of investments in modernization works of the balneal resorts, which leads to the non-exploitation of places with tourist potential (e.g. Herculane Baths); excessive waste generation in overcrowded tourist destinations (e.g. Bucharest's Old Town).

Regarding the changes observed over time in the tourism industry in Romania, the vast majority of respondents reported: adopting more energy-efficient practices (e.g. LED lighting, solar panels) because of the energy crisis; changes in terms of increasing the number of tourists, due to promotion of touristic destinations across social-media platforms and keeping prices relatively low compared to other countries, meaning that hospitality needs to be transformed into economic well-being.

The second objective involves identifying current strategies and measures to reduce negative impacts on the macro-environment. The subjects of the present study mentioned: Partnering with local farmers, producers and restaurants to promote local food and drink, organisation of events focused on tradition, implementing new technologies to save energy (e.g. photovoltaic panels), marketing of organic and traditional artisanal products.

A more concrete example, according to a subject in the horeca sector:

“...A measure being implemented by Romanian tourism would be the existence of an eco-certification system granted by the Romanian Ecotourism Association for accommodation structures and tourist services - operators. Preservation of the architectural landscape is encouraged by local councils, as is the case in Ciocănești, Suceava, where the decoration of houses and public institutions with traditional motifs has been taken from folk costumes. In this case, the town hall covers the cost of the materials needed to create these decorative motifs, and the owners of the houses cover the manual labour.”

Being asked how different stakeholders could collaborate to implement effective sustainability measures in the tourism industry, we identify as general answers among those given by the subjects: making conscious choices and supporting only those businesses that are environmentally friendly, establishing partnerships with environmental organisations (e.g. WWF Romania or Greenpeace Romania) and partnering with local communities to support community-based tourism initiatives.

The third objective concerns the analysis of challenges and opportunities for stakeholders implementing sustainable tourism practices. For this part, all subjects stated that Romania faces bureaucratic obstacles, limited knowledge and understanding of sustainable practices, resistance to change from some stakeholders and insufficient financial resources to invest in sustainability. A balance needs to be struck between sustainability and cost-effectiveness.

According to one subject:

“...The tourism industry like any other industry is based on the principle of supply and demand. As long as tourists want to be accommodated in sustainable and environmentally friendly buildings, those who actually work in the industry will do their best to attract them.”

Even as we try to implement new technologies and innovations in today's tourism industry, another subject from the horeca sector states:

“...Implementing intelligent infrastructure solutions will optimise resources, but much depends on the industry's ability to adapt to these transformations. Moreover, the lack of support mechanisms will delay this transformation process.”

Respondents were asked what policies they think could be put in place to better support the implementation of sustainable tourism practices, and all responses signaled the same, according to one academic:

“...Violation of environmental protection rules should be made an infraction, not a contravention as it is now. Even more so, there should be organs to perpetually protect Romania's forests, lakes, pastures, etc., so that appropriate sanctions can be applied in proportion to the seriousness of the offences.”

5. Conclusion

The Romanian tourism industry has both positive and negative effects on the macro-environment. Positive impacts include cultural preservation, increased numbers of tourists and economic growth, while negative impacts include environmental degradation, overcrowding during peak periods and inadequate waste collection. Involving Romanian stakeholders in the tourism industry as subjects ensures the implications of this study in areas such as academic debate, formulating recommendations for stakeholders or promoting sustainable practices. Novel aspects to be considered in the present research include the focus on the Romanian case, the perspective of different stakeholders, specific examples relevant to the Romanian situation and the emphasis on sustainability.

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Private pensions in Albania (Casestudy- Credins Pensions)

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Abstract

The first section introduces the concept of state pension funds and also private pension funds, highlighting their role as alternative retirement savings vehicles managed by private entities. The second section focuses on the need for a reform, the pros and cons of PAYG system and the challenges of pension funds. The third section focuses on the current situation in Albania and a general analysis about it. The abstract also examines a specific study case about Credins Pension and a hypothetical case illustrating the diversity of approaches and their impact on retirement outcomes.

Keywords; private pension schemes, PAYG, reform, pension funds, challenges.

Pension Fund Schemes: Evolution, Challenges, and Future Prospects

Pension fund schemes play a critical role in providing financial security to retirees. These funds are established to accumulate contributions during a person's working years and then distribute regular payments to them during their retirement. The history of pension funds dates back centuries, and they have evolved significantly over time to meet the changing needs of societies. However, despite their essential role, modern pension funds face various challenges that require careful consideration and innovative solutions.

Historical Evolution

The origins of pension fund schemes can be traced back to ancient civilizations. The concept of providing financial support to elderly or retired members of society existed in early Mesopotamia, Ancient Rome, and China. However, formal pension systems as we know them today started to emerge during the late 19th and early 20th centuries.

In 1889, Germany introduced the world's first state-sponsored pension program under Chancellor Otto von Bismarck. This revolutionary scheme aimed to provide retirement benefits to German workers, encouraging economic stability and social welfare. Following Germany's lead, many other countries introduced their own national pension programs, such as the Old

Age Pension Act in the United Kingdom in 1908 and the Social Security Act in the United States in 1935.

Evolution in Modern Times

Throughout the 20th century, pension fund schemes expanded and diversified. Private sector companies began offering employer-sponsored pension plans, which provided retirement benefits to their employees. These plans were often funded through a combination of employer contributions, employee contributions, and investment returns.

In the latter half of the 20th century, the focus shifted towards defined contribution plans, such as 401(k) plans in the United States, where employees contributed a portion of their income, and employers often matched these contributions up to a certain percentage. This change shifted more responsibility onto the individual for managing their retirement savings and exposed them to market risks.

Challenges Facing Pension Funds Today

1. **Aging Population:** One of the significant challenges facing pension funds today is the aging population. As life expectancies increase and birth rates decline, there is a larger proportion of retirees compared to the working-age population. This demographic shift puts strain on pension funds, as they must support more retirees with fewer contributors.
2. **Funding Shortfalls:** Many pension funds are grappling with funding shortfalls. Economic downturns, low-interest rates, and volatile financial markets can result in diminished investment returns, which may lead to pension funds having insufficient assets to fulfill their pension obligations.
3. **Longevity Risk:** As people live longer, pension funds face longevity risk. They must pay out retirement benefits for extended periods, and accurately estimating future life expectancies is challenging. Failure to account for longevity risk can lead to pension funds becoming financially unsustainable.
4. **Regulatory and Accounting Challenges:** Pension funds operate within complex regulatory environments, and compliance with changing regulations can be burdensome. Additionally, accounting standards for pension funds can affect their financial reporting and may impact perceptions of their financial health.

5. **Investment Risks:** Pension funds must navigate investment risks to generate adequate returns while managing risk exposure. Economic uncertainty and market fluctuations can impact the value of their investments, affecting the fund's ability to meet future pension obligations.

Pension fund schemes have evolved significantly from their historical roots to become vital pillars of financial security for retirees in modern societies. However, the challenges they face today require careful attention and innovative solutions. Policymakers, employers, and individuals must work together to ensure the long-term sustainability and effectiveness of pension funds. Adapting to changing demographics, managing investment risks, and promoting financial literacy are essential steps to secure a robust and sustainable retirement system for future generations.

The Evolution and Significance of Private Pension Funds in Modern Times

Private pension funds have played a crucial role in shaping retirement planning and financial security for individuals across the globe. These funds, created and managed by private institutions, have evolved significantly over the years to adapt to changing economic landscapes and individual needs. This essay explores the creation, evolution, and contemporary importance of private pension funds in modern times.

1. Creation of Private Pension Funds

The concept of pension funds can be traced back to ancient Rome, where soldiers and civil servants received lifetime stipends after retirement. However, the formal creation of private pension funds as we know them today began during the industrial revolution in the 19th century. In response to the inadequacy of state-provided pensions and the growing need to support an aging workforce, private employers and labor unions started establishing pension schemes to ensure their employees' financial well-being during retirement.

Initially, private pension funds were defined benefit plans, which guaranteed a fixed income based on salary and years of service. As these plans gained popularity, they provided workers with much-needed financial stability, encouraging loyalty to employers and enhancing overall workforce productivity.

2. Evolution of Private Pension Funds

The mid-20th century witnessed significant changes in the pension landscape, with the emergence of defined contribution plans. Instead of offering fixed benefits, these plans involved employees and employers contributing to individual accounts, with the eventual retirement benefits dependent on the investment performance of these funds. This shift transferred the investment and longevity risks from employers to employees.

Moreover, with the enactment of Employee Retirement Income Security Act (ERISA) in the United States in 1974, private pension funds came under regulatory scrutiny, leading to improved governance and protection for pension fund participants. Similar reforms were adopted in other countries to ensure transparency, prudent investment practices, and accountability.

3. Importance of Private Pension Funds in Modern Times

Private pension funds remain vital in modern times due to several reasons:

- a. Retirement Security: With life expectancies increasing and the uncertain future of government-funded retirement programs, private pension funds offer a stable source of income during retirement. They help individuals maintain their standard of living and reduce the risk of poverty among senior citizens.
- b. Investment and Economic Growth: Pension funds manage substantial financial assets, which are invested in various financial instruments like stocks, bonds, and real estate. These investments contribute to economic growth, job creation, and infrastructure development.
- c. Diversification: Private pension funds provide individuals with access to a diversified portfolio, reducing risk and enhancing overall returns on investments. This diversification is particularly advantageous for those with limited financial knowledge or resources.
- d. Individual Empowerment: Defined contribution plans offer employees greater control over their retirement savings, enabling them to make investment decisions according to their risk tolerance and financial goals.
- e. Support to Capital Markets: Pension funds serve as significant players in capital markets, fostering liquidity and stability by providing long-term investment commitments.

Private pension funds have come a long way since their inception during the industrial revolution. Their evolution from defined benefit plans to defined contribution plans and the subsequent regulatory reforms have significantly improved retirement security for millions of

individuals worldwide. In modern times, private pension funds remain crucial in ensuring financial stability during retirement, supporting economic growth, and empowering individuals to plan for their future effectively. As the global population continues to age, the role of private pension funds is likely to become even more critical in fostering financial well-being in old age.

The necessity for a reform in Social Security Scheme of Albania

Pension systems evolve as the economy and labor market change. Maintaining their adequacy and sufficiency may require re-examination of funding sources.

While many reforms have continued to promote longer working lives, a number of neighboring countries and in the EU have taken action to promote later retirement through incentives, improving income retention capacity and inclusiveness of pension systems, the efforts of continued to expand anti-poverty measures such as minimum benefits and pension funding reform.

In countries where reforms are in the development stages, it is seen that private pension systems are helping to optimize labor supply during the working life, especially for older workers, by placing strong work incentives in their entitlement rules and limiting access to early retirement.

Postponing retirement and taking a pension by working longer and thus contributing and building up rights for a longer time has contributed significantly to simultaneous improvements in the sustainability and adequacy of pensions.

Private pensions are playing an important and growing role in providing income in old age, as well as a significant asset base in many of the countries where they operate.

Private sources of income range from over half in the United States to just over a fifth in Germany. In many countries, the importance of private resources has been increasing.

Albania has not yet defined any comprehensive strategy for the reform of the pension system. The only strategic approach in this field has remained that of the public system, which, for its part, not only does not foresee significant results in the increase of pensions, but on the other hand, does not undertake reforms of the parametric recalculation of the basic system, such to be successful for a period of less or up to ten years.

In 2015, Albania implemented a pension reform package with the objectives of improving the fiscal sustainability of the system, strengthening the link between contributions and benefits, and improving coverage.

The data of the state scheme show that the 2015 reform had an improving effect on the statistical indicators of the state pension scheme.

It is noted that there is a decrease in the dependence of the scheme on the state subsidy, where already (in 2022) the dependence on the subsidy has gone to the level of 1.04%, very close to the goal of a PAYG scheme, to have complete self-financing. However, considering the data that come from the composition of the population, the migratory movement, the decrease in the number of births, the increase in the life expectancy of individuals (and consequently the increase in the pension benefit period), it can be concluded that this improvement of the situation is not permanent and that the reform has given a temporary effect in improving the economy, this has also helped with the increase in salaries in recent years and the increase in pensions to a lower level, which has helped to increase income to a higher level higher than the expenses.

Although the progress of the reform continues to perform, from the analyzes carried out recently it is observed that the existing systems are not always able to protect in an acceptable way the elderly of today, as well as those who will age in the future, and often starting from the fiscal issues of the schemes (current deficit), have distributed the benefits unevenly, creating "financial gaps" and obstacles to economic growth as a result of the return of the pension scheme to the main burden of the budget.

To avoid these problems, from the analyzes carried out, it is recommended to move to mixed systems that are partly defined contribution, capitalized and privately administered, coordinated with the system with fully defined benefits PAYG and administered in a public way.

This way we will be able to reach a system with three columns:

- The first column, mandatory, publicly administered and funded by contributions, aimed at redistribution. This pillar creates a social safety net, especially for the elderly whose living income is low and is called PAYG for short.

- The second column, mandatory, privately administered and fully capitalized, covering the savings objective. It links benefits actuarially [3] to contributions as in a defined contribution (DC) scheme, it is fully capitalized and competitively privately administered. The construction of this column is one of the most important points of the reforms undertaken in the field of social security.

-The third column, voluntary for people who want more financial benefits in old age.

Analyzes on the stimulation of the private pension scheme based on several funding sources are determined as an influencing factor in function of the general economic development. Meanwhile, the practice of other countries has shown that the successful management of the pension system through investment funds does not have as a determining element only the general economic development, but the creation of sufficient spaces for private management and investments. It is precisely these indicators that significantly affect economic growth, but not only that.

This is why from the study of pension schemes in the surrounding countries, but also from exercises developed for the economic and social context of Albania, it repeatedly results that the main advantage of a multi-column system is risk diversification. In the mixed system, there are different financing methods, which minimize the risks of political, economic and demographic fluctuations.

The second and third columns provide additional capital accumulation, which makes it possible to cope with the demographic trend;

- The financial sustainability of the scheme increases, against demographic risks, budget deficit and social risks;
- Enables a distinction to be made between poverty reduction and income replacement goals;
- Risk diversification;
- Minimizes the burden of fiscal transition while retaining many of the economic benefits of the fully funded method;
- Brings into the reform discussion some clear benefits for young workers and those facing loss of labor income from globalization.
- Increases income sufficiency in the retirement period. More suitable coverage for seniors in the long term;

- People are encouraged to declare their real wages, reducing the informality of the economy;
- Increase in savings of the population and promotion of investments, lead to economic growth and consequently increase in employment;
- Further development of the financial market in the country.

The main purpose of the implementation of the Pension Columns includes the promotion of economic development and capital markets. Any delay in the implementation of the II and III columns of the pension system translates into an obstacle to the country's economic growth.

The start of the entire reform process of the scheme is related to the political will to continue with the pension reform, which at the current stage needs a further completion and expansion of its constituent components.

Determining the role of the government before and after undertaking the reform assumes primary and central importance throughout this reform initiative. Although each country has chosen different variants for the reformation model, the objectives of the general policy are the same: - risk alienation between the PAYG system and the capitalized one.

- reduction of anomalies caused by the PAYG scheme and
- benefiting from the positive aspects of the capitalized scheme as well as reducing the pension debt during this process.

The PAYG system is a system that has been implemented in many countries around the world, and is currently the most widespread system in reference to state pension schemes. As such, it has been the subject of analyzes and studies by many economists, but not the only option.

Below, let's look at the arguments for and against the PAYG system:

Arguments in favor of the PAYG system

1. Problems of pension markets
2. Inflation risk
3. Assumption of myopia
4. Redistribution
5. Administration expenses

Arguments against the PAYG system

1. Labor market offer

2. Labor market demand
3. Redistribution
4. Political risk
5. Saving rate
6. Implied debt

Reform: Transition to a multi-column system

The first and most crucial step in carrying out the reform of the social security scheme is to resolve the policy on how to move from the first column of the PAYG system to the capitalized multi-column system.

An issue related to the design of the private multi-settlement scheme is the role of the government as guarantor. Government guarantees should be considered carefully and should be aimed at the most vulnerable people, such as low-income workers.

In the multi-settlement system there are two main roles of government: collection of contributions (if policy makers decide on a centralized system of collection of contributions) and supervision.

In the whole process, after it is guaranteed that the political will exists, then in terms of legal and financial guarantees and the sustainability of its functionality, it is necessary to address some moments that must be addressed for treatment and for solutions.

The multi-settlement system has been given justifiable credit for stimulating financial market growth in middle-income countries, where this is an important indicator of the economic growth bill.

One of the systems that is being developed today is the establishment of the Combined Pension system, with two important components, a consolidated basic public system and a developed private system.

A wider combined three-column system, including a mandatory private column, but combined with "union/professional" funds administered according to the "DC" principle. Naturally, the third column, that of voluntary contributions, will be able to continue to solve the problems of additional income in addition to public pensions. But, the problems related to early retirements of special professions, as well as future pensions for the younger generation, evolve materially and make them more interested in paying contributions to mandatory private funds, mitigating

what is known as the "conflict of solidarity". This approach would more fully share the burden between the state and the person himself regarding the means of livelihood in old age.

Also, a combined, well-proportioned system would manage to avoid the problems of the PAYG system, where it has often happened that they have distributed the benefits unequally between generations or even hindered economic growth, as a result of the return of the pension scheme to the main consumer of the budget.

On the other hand, since in principle the "golden equation" that "against the same contributions should have the same benefits", those who want additional income or even earlier than others, will have to save more, but this does not exempt from financial responsibility the employer who is the basis of responsibility both for income from work and in relation to savings for old age.

Discussion of a new draft law on compulsory private insurance. as well as the review during the implementation of tax benefits to improve and adapt more convincingly during the progress of the multi-column pension scheme.

Among the recommended legal steps are the creation of a wider regulatory environment, including precautionary measures, which make it possible to start the reform in the pension system and are:

- Drafting of the legal basis for the operation of the second column.
- Defining the criteria for the mixed funds of the second column
- Initial favorable policies for difficult professions.

Helping individuals support themselves in retirement is a positive government intervention. However, people are currently not saving enough to have enough income in retirement (as seen in the release below).

It is therefore essential that any changes to pension tax relief make financial situations for pensioners better, not worse.

One way to improve retirement income adequacy is through the tax relief people receive on their pension contributions.

This policy approach especially helps to improve the results for automatic registration, as also envisaged in the draft of the new law, since savers are automatically registered and do not make the decision to opt out.

The tax relief increases their ability to save in the long term as part of the contribution. Having tax relief at the outset and with each contribution is likely to result in greater amounts of financial assets over time.

Private Pensions Fund In Albania

Today in Albania there are 4 private pension fund management companies.

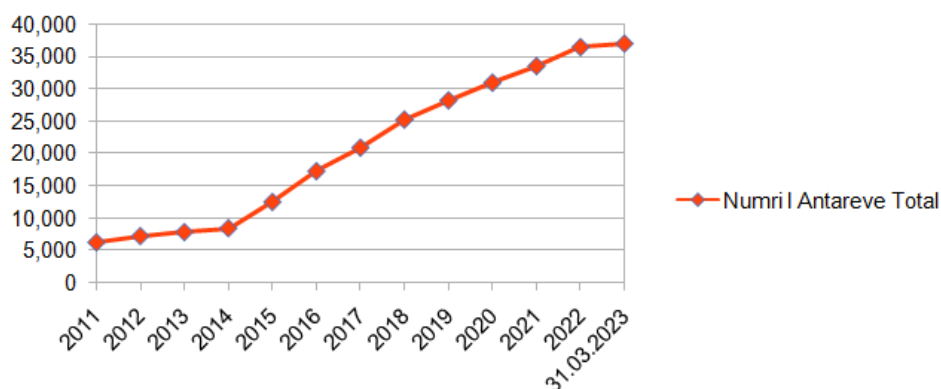
- a) RAIFFEISEN INVEST
- b) SIGAL – Life UNIQA GROUP AUSTRIA
- c) CREDINS INVEST
- d) ALBSIG INVEST

Albania has a very new market in terms of private pension funds. Since the creation of the first private pension fund until today, there have been and are continuous attempts to improve the legal framework, improve supervision by the AMF and improve the quality of reporting to the public. These attempts come both from the administrative companies and from the

government. The main goal is to guarantee the safety of funds and the most accurate reported information. The final goal is to grow this market, increase the number of members and increase the net value of assets.

Number of Pension Fund Members

It seems that the efforts made throughout this period have had an effect on the growth of the members of these funds, where there has been an increase in the number of participants by 15-20% per year, but the growth has been slowing down from year to year.



The private pensions market has had an almost exponential growth during the last decade, this is mainly related to the good marketing done by the fund management companies, where the number of members has reached 37,000 in the first quarter of 2023. The goal of the companies is increasing this number continuously. In addition to the number of members, an important data that shows the growth of this market is the net value of the assets of the management companies.

Vet Value of assets



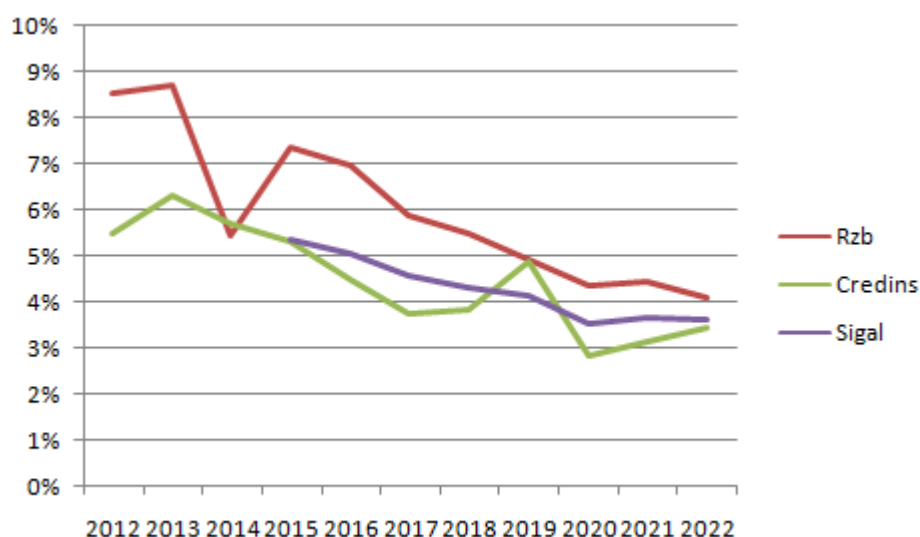
Figure Net value of assets of administrative companies

As can be seen from the graph, the increase in the number of members is accompanied by an increase in the net worth of the companies' assets. The level of assets is expected to exceed 6,000,000,000 ALL within the year 2023. Assets have increased by about 40% from year to year, and this trend is expected to continue in the future, especially with the continuous improvements in the quality of reporting, but and potentially legal improvements referring to private pension funds.

The performance of private pension funds in Albania

Private pension companies more or less offer the same service, being structured by legal restrictions and frameworks. They have the same or very similar conditions for minimum amounts, deposit and withdrawal conditions, administration commission, etc. But when it comes to investments that could potentially be 30-40 year investments, small differences accumulate into larger differences.

The chart below shows the performance of the three main private pension funds over the last few years.



The new bill

A new draft law proposed by private pension fund management companies is currently being discussed. The current law referring to pension funds has met the needs until now, but there is a need for changes in the law to better adapt to the stage where private pension funds are currently located in Albania.

The draft law has already been forwarded to the parliamentary committees for discussions as it aims to:

- Development of the market of private pension funds through increased participation in the scheme;
- Provision of an additional pension, which complements the basic pension provided through the public pension scheme;
- Well-informed decisions of individuals regarding the collection of their retirement savings;
- New opportunities for employers regarding the creation of private schemes for their employees;
- Increasing the quality of the product and customer service through the good administration of private pension funds by administrative companies;
- Encouraging competition in the service of the best interest of fund members.

- Employers are more inclined to create private schemes for their employees, leading to increased participation in private pension funds.

We remind here that the current law on private pension funds belongs to a time when these funds were in the embryonic stage of development and had negligible sizes. In recent years, the market is growing at a fast pace, but its size in terms of number of members and in terms of assets, they still remain small.

The new draft law proposed by the Administrative Society has been examined and discussed in the Economy Committee, and is expected to be passed in the Assembly in the coming days. The new draft law contains 209 articles, which have the main purpose of improving the market, increasing competition, and overall improving the market. A major change that this bill proposes is the change in tax treatment. In chapter XIII of this draft law, the amendments related to Taxes are proposed. In addition to the tax advantages that pension funds currently have, the draft law in its article 160, referred to "Fiscal treatment of benefits received by the member" proposes the following:

The benefits received by the member of the pension fund are taxed only on the investment return at the rate in force for personal income tax.

This proposal means that in withdrawing funds upon reaching retirement age, the individual who has contributed will be taxed only on the return on the investment, and not on the capital that he has contributed. Under the current law, the individual has a tax saving at the time of contribution (contribution to private pension funds is recognized as a deductible expense before calculating TAP) but would be taxed according to the current rates of tax on TAP (personal income) at the time withdraw the funds. This tax would be on the total value withdrawn. Meanwhile, with the new proposal, the individual who contributes to a private pension fund will continue to have a tax benefit at the current moment, at the moment of withdrawing the funds from the pension fund, the tax will be calculated only for the earned part of the investment, and not for the capital he has invested. In practice, the funds that the individual contributes are not taxed either at the first moment when the deposit is made or at the final moment when the withdrawal is made.

Case Study- Credins Pensions

Credins Pensions is a private pension fund offered by Credins Invest. In its beginnings, the fund was offered under the name SiCred Pensions, and was managed by SiCred. With the development of the investment and private funds market, the SiCred company was separated from the investment and fund administration part, focusing only on the insurance activity, specifically on life insurance products. This change was made in 2017.

Despite the fact that the private pension market existed even before the creation of the Credins Pension (SiCred Pension) pension fund, the market was at very low levels, with a very small number of members and a very low value of assets. At the end of 2010, there were 3 private pension funds on the market (Raiffaisen Pension, Capital and Sigma IPP). The total number of members in 2010 was 4992 members divided between these funds. Meanwhile, the net value of the assets of the three funds was at the level of ALL 111,920,148. The Credins Pensions fund was created in 2012, under the name SiCred Pensions.

Credins Voluntary Pension Fund offers the opportunity to invest in voluntary private pension in two different options:

- Individual scheme: Only the individual contributes to the voluntary pension fund, to the desired extent and period.
- Professional Scheme: The employer or the employer and the employee make contributions to the fund for the benefit of the employees.

General information about the Credins Pensions fund

The Law on Voluntary Pension Funds approved by the Assembly of the Republic of Albania and the supporting regulations, issued by the Financial Supervision Authority, are the basis of the Fund's activities and operations.

In all cases required by law, changes and additions to the prospectus will receive the approval of the Financial Supervision Authority.

The Management Company guarantees that it will implement the legislation in force and:

- a) The assets of the Fund will not be subject to claims or executions, carried out in the name and on behalf of the creditors of the Management Company.
- b) The fund cannot be part of the bankruptcy procedure.

The Financial Supervision Authority supervises the activities of the Management Company, the Fund and the Depository. The Prospectus, Periodic Reports and any additional information requested by the member will be made available to the Members free of charge, at the central offices of the Administrative Company, at the address Rr. Nikolla Tupe, no. 1, floor 3, Tirana, Albania, after a written request via e-mail and on the official website of the Society. The Fund's prospectus will also be available at Credins Bank branches. All the above information, together with the price of the quota and the net asset value per quota, are regularly published on the official website of the Management Company.

The graph shows the historical income of the Credins Pension Fund. The administration fee is deducted from the annual income of the Fund, resulting in the annual net income. Net Asset Value of Fund on 31.12.2022 resulted in 1,688,407,700.10 ALL.

Key aspects of Credins Pensions' investment policy

The investment policy of the Pension Fund has been approved by the Administration Council. The investment policy is subject to review by the Management Company and

its changes must receive the approval of the Board of Directors. The Company informs the Fund Members of any changes to the investment policy of the Fund's assets at least one month before these changes via electronic means. Any changes to the investment policy will be published on the official website of the Management Company.

The investment of the Fund's assets aims to optimize the return on investment while minimizing the risk.

The characteristics of the Fund in order of priority are as follows:

Security – investing the Fund's assets in instruments with high credibility such as government bonds;

Liquidity - maintaining a sufficient level of liquidity to meet all pension obligations.

Return on investment - the investment portfolio will be built from long-term bonds issued and guaranteed by the Republic of Albania with the aim of maximizing the profit conditioned by the limits of risk and liquidity.



Figure 1: Historic returns Credins Pensions

The Credins Pensions management company has several objectives and support points (this is also influenced by the legislation and the AMF regulator). The investment strategy of the pension fund can be summarized in the following points:

Investment Horizon: Long-term

Investment Risk Tolerance Level: Conservative

Portfolio Mix/Investment Preference Optimal Return

Investment Objective:

The fund aims to optimize the rate of return by minimizing risk, preserving capital value and liquidity to ensure sufficient income during the retirement period.

Investment Strategy:

All investments will be made keeping in mind the preservation of capital value and a sufficient level of liquidity to meet all current and future obligations

at the moment the latter become payable. The fund will mainly invest in long-term bonds of the Albanian state due to the distant time of retirement.

As can be seen from the above division, the category of investments depends both on the fact of the long-term investment horizon and on the legal restrictions. Private pension funds have limitations regarding the securities they can invest in. The purpose of the restrictions is related to the reduction of the investment risk, and the investment risk of the pension fund on a scale of 1-7 is estimated to be 1.

The pension fund Credins has over 85% of its investments made in bonds. Due to the long-term nature of investing in this type of fund, the management company also invests the funds

towards longer-term and more profitable alternatives. In the last year, the 15-year Albanian government bond was added to the Credins Pensions portfolio.

Pension Fund Vs Investment Fund

A question that may arise for people who are thinking about investing for their pension may be: Why should I invest in a pension fund, where the possibilities for early withdrawal of funds are limited (or with penalties), when it is always the opportunity to invest in a simple investment fund, where the withdrawal of funds has no legal restrictions.

This question has a good logical basis, especially when it comes to the issue of early withdrawal of funds. But investing in a mutual fund rather than a private pension fund comes with a long list of disadvantages.

Tax advantage:

In case of investment in the private pension fund (eg Credins Pensions), the monthly contribution to this fund is accompanied by fiscal ease, and is a deductible expense before calculating the salary on which TAP is calculated. On the other hand, investing in an investment fund (eg Credins Premium) would not offer this tax relief. Although this difference may seem small, in such long-term investments the final difference can be significant. We assume a monthly contribution of ALL 1,000 for 35 years, and based on the current TAP calculation scheme. In case of investing in a pension fund, we would have a monthly tax saving of $1,000 \times 13\%$ (assuming that the person who is investing has a salary above 60,000 ALL gross). This monthly saving of 130 ALL would be missing if the investment was made in a simple investment fund. If we assume a rate of return of 5% per year (as much as the historical average of the return of pension funds), this difference of 130 ALL per month, after $35 \text{ years} \times 12 \text{ months} = 420 \text{ months}$, it would have the following effect on savings:

$FV = A \times Fviva(420; 5/12\%) = 130 \times 1,136.1 = 147,700 \text{ ALL}$.

So, if we analyze only the difference that will come from the tax savings at the time of investment, it would bring a difference of about 150,000 ALL at the end of the investment period, always considering the minimum possible contribution.

Risk of funds

The second difference between investments is the difference due to risk. If we compare the return on investment in the Credins Pensions pension fund and that of Credins Premium investments, the difference in the return of the two funds is obvious.

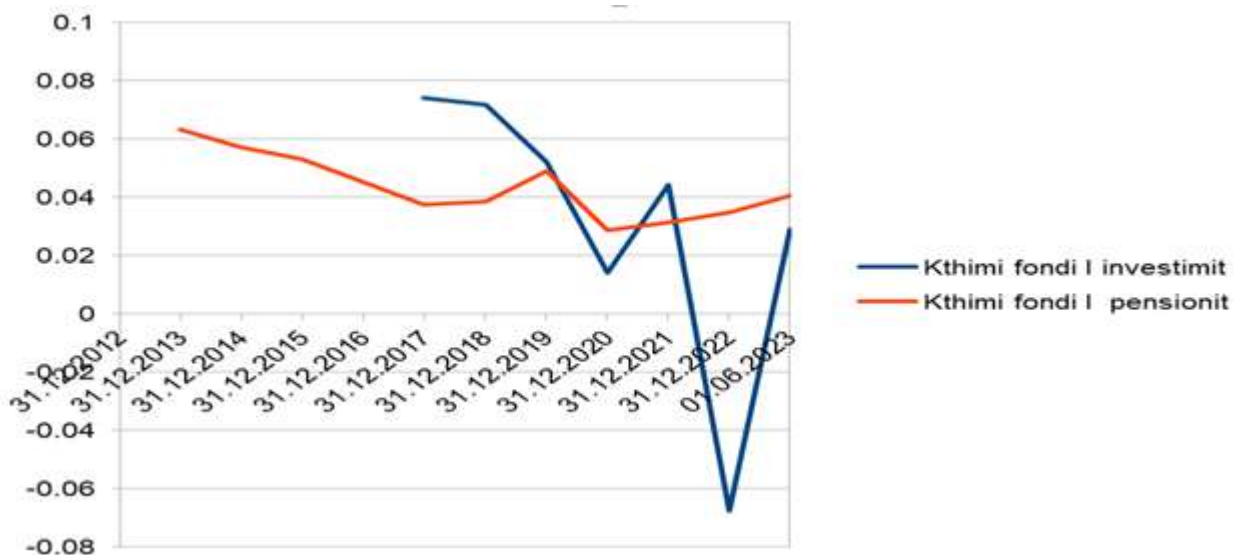


Figure 2: Performanca fond investimi vs fond pensioni

Credins Premium (investment fund) has a very different investment structure from the pension fund. This is due to the economic uncertainty in recent months, the very good alternatives of investing in bonds and bonds directly from citizens, which has led to an increase in the demand for withdrawing funds. This has affected the structure of the portfolio, where the management company has been forced to have a portfolio of mainly liquid investments for the investment fund, since the nature of the investment in this type of fund has a much shorter time frame compared to the investment in the pension fund.

Referring to historical data, we can extract the following data:

The average return of the funds was as follows: The average return of the Credins Premium fund is 3.10%, while the historical return of the Credins Pensions fund is 4.35%.

While the risk of each fund is as follows: The risk of the Credins Premium fund is 22.04% (calculated as the standard deviation) while the risk of the Credins Pensions fund is only 10.5%. This difference in standard deviation, coupled with historical return data, makes it easy to choose between the two funds, of course if the goal is to invest for retirement age.

What effect would investing in Credins Pensions have on an individual's future?

If an individual decided to contribute a part of his salary to maintain the standard of living even after retirement. The case analyzed of an individual with a minimum salary (40,000 gross lek) who invests 5% of his salary, or 2,000 lek per month towards his pension fund in Credins Pension.

Study Case assumptions:

1. The person who contributes works 30 years before retiring (35 years old - 65 years old)

This assumption is made in order not to overestimate the number of years of work that a normal person can have in a lifetime, and knowing that the first years in the labor market are the most difficult to secure a job. Through this assumption we actually underestimate the contributions and fund raised in total.

2. We do not take inflation into account

In this case, for ease of analysis, we will not consider inflation, as in the devaluation that will bring to the pension in the future, but also the salary increase due to inflation, therefore the increase in contributions due to the salary increase.

3. Average duration of pension benefit: 25 years

Just to illustrate the example, the current average life expectancy is less than 23 years, but in the future we assume an increase in the average life expectancy, and therefore a longer duration of the pension benefit

4. We assume that the salary does not increase for other reasons unrelated to inflation.

This is also done for ease of calculation, as the results can also be adjusted for a person who benefits from a salary increase with the gain of experience and increase in duties

To analyze the case, we are taking as the expected return in the next 30 years the average return of the Credins Pension fund from its creation until now 4.35%. After 30 years of work, or 360 months of contributions, the individual would have in his pension fund

$$Fv = A * Fvifa(360; 4.35\%/12) = 2.000 * 739 = 1.478.067$$

If the individual decided to withdraw his funds over a period of 25 years (300 months) he would be able to make a monthly withdrawal of

$$A = PV / Pvifa(300; 4.35\%/12) * (1 - T) = 1.468.067 / 182 * (1 - 0.15) = 6.856 \text{ ALL}$$

So assuming that the individual will invest in a period of 30 years a monthly amount with only 5% of his monthly income, at his retirement the individual will have a monthly income at the level of 6856 ALL (this with the assumption that he will have to pay 15% personal income tax on the entire amount withdrawn, not only on the interest earned as proposed by the new bill I. Judging by the average pension which is currently calculated to be 17,350 ALL in the city. That said, giving up only 5% of the current income during the working years could provide the individual with an increase in income by about 40% at the time of retirement (from ALL 17,350 to ALL 24,206)

Judging from the data above and from the case examined for the benefits that investment in a private pension fund can have, I am continuing to the next point with a suggestion for a change in the pension scheme.

An Option to improve the social security scheme

The way you can settle the balance within the PAYG scheme are limited. If you need to balance income and expenses there are a few ways. You can change your Social Security rate, which would increase your income, or you can change your retirement age to change your contributor/beneficiary ratio. But the PAYG scheme is not the only solution.

One of the "hidden" disadvantages of the PAYG scheme is that from the moment it is implemented, it is impossible to remove it from implementation, since at any moment there are hundreds of thousands of people who have contributed for 20-30 or even more years and are on the eve of retirement. Thus it is impossible to stop the implementation of the scheme, otherwise all these people would have an immediate lack of income, since all their years of contributions have been used to pay pensioners in previous years.

Thus, if required to switch from a PAYG scheme directly to an equity funded scheme this would be impossible. However, an attempt can be made to lighten the burden of the scheme in the future, as it is the future that always and more looks like it will cause problems for all countries with the PAYG scheme and an ever aging population. An alternative would be to allow contributors to pour their contributions into a private scheme, in part or in full.

The PAYG scheme can be implemented immediately, and this is an indisputable advantage of it, but as we mentioned above, it has the hidden disadvantage that it is almost impossible to

remove it from implementation. The only alternative in such cases is to try to make a gradual replacement or a gradual combination of both schemes.

To see more clearly the consequences such a change would have on the current pension scheme let's take an example, with some basic assumptions to make a simple analysis:

Case: In 2023, 10,000 people are allowed to have their contributions not paid into the state scheme, but into a private scheme.

Random assumptions:

1. The person who contributes works 30 years before retiring (35 years old - 65 years old)

This assumption is made in order not to overestimate the number of years of work that a normal person can have in a lifetime, and knowing that the first years in the labor market are the most difficult to secure a job. Through this assumption we actually underestimate the contributions and fund raised in total.

2. We do not take inflation into account

In this case, for ease of analysis, we will not consider inflation, as in the devaluation that will bring to the pension in the future, but also the salary increase due to inflation, therefore the increase in contributions due to the salary increase.

3. Average duration of pension benefit: 30 years

Just to illustrate the example, the current average life expectancy is less than 23 years, but in the future we assume an increase in the average life expectancy, and therefore a longer duration of the pension benefit

4. We assume that the salary does not increase for other reasons unrelated to inflation.

This is also done for ease of calculation, as the results can also be adjusted for a person who benefits from a salary increase with the gain of experience and increase in duties

Firstly, if something like this were to be allowed, and let's assume that 10,000 people would benefit from this change to the scheme, we need to calculate the revenue shortfall it would cause to the state PAYG scheme.

$10,000 \text{ (persons)} * 12 \text{ (month)} * 40,000 \text{ (monthly salary)} * 24.5\% \text{ (contribution rate)} = \text{ALL } 1.176 \text{ million}$

So, such a change could cost the state budget today 81.176 million ALL in one year. Considering that the state budget currently subsidizes ISS at the level of over 20,000 million lek to cover the scheme, this difference is not that big.

It should be kept in mind that this lack of income in the ISSH budget today, after 30 years, will turn into a relief, since ISSH will not have to pay pensions for 10,000 people who will retire.

So in 2053, ISSH does not have to pay:

$10,000 \text{ (people)} * 12 \text{ months} * 17,350 \text{ (monthly pension)} = 2,082 \text{ million ALL per year for the next 30 years.}$ This value is stripped of inflation, since we assumed an inflation=0 (we also kept the paid contributions at a constant level for the 30 years when they were paid).

But what happens to the person who has decided to invest in a private pension fund, where the scheme works with capital financing, that is, where your contributions are invested during the period that the individual is economically active, and he receives a monthly payment at the moment he reaches a retirement age (65 years old in our case study assumption)

If he were part of the state PAYG scheme, he would benefit from a monthly pension of approximately ALL 17,350. We have a replacement rate of approximately 43% ($17,350 \text{ ALL} / 40,000 \text{ ALL}$), or if we calculate it on net income, the replacement rate will be 48.8% ($17,350 \text{ ALL} / 35,560 \text{ ALL}$).

By investing the contributions in a private scheme, let's calculate how much monthly income this person will provide at the time of retirement, for the next 30 years (the average duration of the pension benefit is assumed to be 30 years)

The monthly contribution of this individual to the private pension fund will be $40,000 * 24.5\% = 9800$

The value of the fund after 30 years will be $= 9800 * FVIFA(360; 5\%/12) = \text{ALL } 8,156,134$

The monthly income it can provide for the next 30 years

$R = 8.156.134 / PVIFA(360; 5\%/12) * (1-T) = 43.783 \text{ ALL} * (1-0.15) = 37.216 \text{ ALL}$

In the above calculations, the return rate of the private pension fund is taken as 5%, which is the current rate offered by some of the Albanian companies that offer this investment opportunity. This rate can even be higher, since an increase in the demand for this type of service, companies can offer lower commission rates, but still, for the sake of calculations, the 5% rate has been chosen. Due to the assumptions made at the beginning of the case study, the

salary on which the paid contributions are calculated does not change either due to the indexation with the inflation rate, nor due to the increase in the person's position.

Of course, this is a very simplified case, but the advantage of such an investment is clearly visible. ISSH would need more subsidy from the state for the next 30 years, but after 30 years it would have less liabilities to pay, and in total it would have less liabilities to pay pension beneficiaries. In the case of investment in a private pension fund, it is clearly seen that the replacement rate is over 100% compared to net income (the replacement rate is 93% in relation to gross income and 104% in relation to net income). Of course, this data in the case study is not completely accurate, due to all the assumptions raised at the beginning, but the fact remains certain that the replacement rate will be higher than in the case when the individual is a participant in the state scheme PAYG.

An alternative method of implementing the above idea is to allow all contributors to pass on a portion, for example 5% of their contributions to a private pension scheme. The rest would continue to flow into the state scheme. This scenario would create for the state a lack of contributions of nearly 4000 million ALL per year, but of course the benefits of implementing such schemes are seen after many years. In the new mentioned scenario, a pensioner who would have contributed 5% of his contributions to the private scheme would benefit from a pension of 7,595 ALL/month from the private scheme and 13,800 ALL from the state scheme. In total, the individual would have a monthly income of ALL 21,395, higher than the one that would benefit if he were a participant only in the state scheme.

As it was pointed out, after 30 years of "sacrifice" with greater subsidy from the state budget, ISSH will have smaller obligations, and it will be a moment when you can afford the lack of contributions from more people (or in a higher percentage large), and their transition to contributing to private funds. This is one way of gradually transitioning from the state PAYG scheme to the private equity funded scheme. The benefits are clear, especially in the conditions when the state scheme, with the demographic forecasts for the coming years and decades, always seems even more in danger of a collapse.

A scheme like the one suggested above would have positive effects not only on the pension scheme, but would have a positive effect on the encouragement and incentive of all persons to declare themselves with a real and non-minimum salary, also on the reduction of informal work, since all the contributions paid serve directly in the employee's pension.

It is worth noting that some assumptions are deliberately taken far from reality. A person due to experience will have salary increase over the years, also most likely will work more than 30 years in total and will start work earlier than the age of 35, and recently the average duration of benefit the pension is under 25 years and not 30 years as in the above assumption. Also, the rate of return from the pension fund can be over 5% due to the competition that this action will promote, which will result in the reduction of commission rates. In total, taking into account these factors, the pension from the private fund may be even greater than the calculated amount. Under perfect conditions a person would have a 100% replacement rate relative to their net pre-retirement income. The fact that from the above calculations it becomes clear that the replacement rate would be over 100% would be an opportunity for:

1. Reduction of the social security rate
2. In addition to the payment to the private scheme, a small percentage may continue to go to the state scheme, so that the scheme has the resources to meet its expenses that are not only related to the old-age pension.

Of course, for this option to be implemented, planning and a lot of preliminary work must be done, to ensure the missing funds of ISS for the coming years. It would also be necessary to intervene in the law for the functioning of social insurance, changes in the law for the way the private funds of the function operate.

A fundamental change that would be needed in this case would be the operation of receiving the pension similar to the state scheme. This means, the monthly benefit calculations would be made over the average duration of the pension benefit (assuming 30 years), and all participants in this scheme could only receive the monthly pension for their entire life, without having right to withdraw their entire fund at once (as private schemes currently operate). This is necessary because if a person lives longer than the assumed average duration of 30 years, then he would be left without a monthly income. To avoid this, everyone will receive their monthly pension for as long as they live, a pension calculated over the average duration of the pension benefit.

An increase in the control of private pension funds would definitely be needed, as in this scenario they would turn into institutions of much greater public importance. An information and education campaign would also be needed for people who would be willing to invest their contributions now not in the state but in the private pension scheme.

And yet, despite the fact that it is a long-term idea, it provides not only a current solution, but a solution to the problems that have arisen since the creation of the scheme, and which will

always increase in a country where the population is sensibly aging. It is also a final solution, and does not require further intervention to increase the retirement age, to increase the level of contributions, or the way the pension is calculated for the beneficiaries. After the full implementation of this reform, i.e. at the moment when everyone has switched to private schemes, all that remains is monitoring the situation, and ensuring the vital minimum in extreme cases when we may have bankruptcy of any fund.

Conclusions

1. The determining elements in formulating policies for the establishment and consolidation of social security systems are demographic factors, economic factors, and political factors.
2. Social security contributions are the main element in the functioning of the social security scheme. The level of contributions for social security is still low due to several factors such as high unemployment rates, low economic development accompanied by tax evasion and informal labor, and high emigration rates.
3. The contributory system, which started to be implemented since 1994 and continues to be applied today, operates according to the PAYG principle, also known as the intergenerational solidarity principle.
4. Despite the 2015 reform, the scheme still relies on state subsidies, and there is fear of its instability primarily due to demographic reasons.
5. The pension scheme in Albania consists of two pillars: the mandatory pillar represented by the PAYG system, and the second pillar, which is the voluntary insurance realized by private companies but is still underdeveloped.
6. Due to the negative experience with pyramid schemes in 1997, current contributors to the pension scheme feel more secure in the public scheme and would prefer to be part of it. However, they would like to see a reform in this scheme, particularly regarding the low level of pension benefits.
7. The reform undertaken in 2015 has not achieved the expected results, as the subsidy/GDP ratio was expected to decrease below 1% by 2018, but it has not reached this level yet.
8. A combination of the PAYG scheme with a private scheme (direct contributions) would be an improvement in the scheme's dependence on subsidies and would increase the replacement rate.

9. The private pension market has experienced almost exponential growth in the number of members and net asset values but still remains underdeveloped.
10. Credins Pensions is the private pension fund with the highest number of members, attributed to its management and marketing efforts since its establishment.

Recommendations

1. The PAYG system, where current employees pay contributions to support current retirees, is suitable for a country with a young population. However, our country is heading towards an aging population, and a 1:1 dependency ratio is causing a deficit in the financing of the system, which is covered by the state. To solve this problem, the development of two other pillars of social security, voluntary and supplementary pensions, is necessary. This would provide higher well-being for retirees during their pension age.
2. One of the reasons for low social security contributions is the high level of unemployment. In addition to those who are unemployed, many people work in the informal sector. The state should create opportunities and favorable conditions for economic development and job creation. Economic growth would improve all factors influencing the economic stability of the scheme.
3. Given that Albania has an informal economy that accounts for 50% of the total economy, it is essential to inform employees about the importance of social security for their future and to reduce the level of informality in employment.
4. To encourage individuals to save for retirement, concrete actions and steps should be taken to improve financial literacy among the general public, particularly concerning personal pension accounts. This could be achieved through advertising campaigns and various educational programs at different universities in the country.
5. Amending the law for private pensions would facilitate the further development of this market, which is still in its early stages. For this reason, any law that would support the growth and control in this market should be given priority.
6. Serious consideration should be given to a total change in the PAYG scheme, as all demographic data indicate a rapid aging of the population, leading to a likely 1.16:1 dependency ratio. In such circumstances, it is unavoidable for the scheme to be financed from

the state budget. Therefore, a gradual replacement or simply a combination of the current scheme with a capital-funded scheme would provide breathing space in the future.

Common Good and Financial Institutions: Exploring the Role of AfDB in promoting Common Good in a Challenging World

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Abstract

The world situation is stable on the whole, but Africa is still turbulent and backward in economic development. This paper takes the African Development Bank as the research object and discusses the measures that the AfDB can take to help the African economic development. Using literature retrieval, empirical analysis and so on, this paper takes gross national income as the entry point, and uses correlation analysis and linear regression model to explore the factors affecting African economy. It is found that the Annual Population Growth Rate has a significant negative impact on GNI per Capita, and then the possible measures to be taken in the future are proposed. These findings will contribute to a better understanding of the current and future trends of economic development in the African region, as well as how financial institutions can help less developed countries economically in pursuit of common interests.

Keywords: African Development Bank, African Economy, Globalization
, Gross National Income

JEL Classification: B23, N37, O55

1. Introduction

1.1 Research background

The world situation as a whole is relatively stable, but there are many unbalanced situations and unstable factors. Among them, the African region is relatively backward in economic development, poverty has long been the main focus of global development and research efforts in Africa (Christopher, Michael, and Peter, 2006), and the economic growth rate is much lower than other regions. Although some African countries have achieved certain economic development results in recent years, there is still much room for development and challenges overall.

Financial institutions are seeking pathways to help Africa develop for the common good in today's world. These institutions help African countries accelerate their economic development and improve their livelihoods through a variety of means, including financial support, technology transfer, training and knowledge transfer. A number of international financial institutions and developed country governments have implemented a range of assistance programs to Africa to promote its economic growth

and development.

However, Africa's economic problems are still very serious, and many countries are facing external debt, trade deficits and lack of resources, and need more help and support. In addition, the unstable political and social environment in some countries also poses great challenges to economic development. Therefore, financial institutions need to develop targeted policies and plans to address the actual situation and specific problems in Africa to ensure that help can take root and achieve real results.

Although Africa still faces many challenges, its economic development prospects are still very promising through the joint efforts of the international community and the support of financial institutions.

1.2 Research purpose and significance

The African Development Bank, as an institution dedicated to the development of Africa, has taken a series of measures to help the region achieve economic development. These measures have been effective to a certain extent, but they still face a number of challenges and problems. Nevertheless, the AfDB continues to explore innovative ways to help the African region achieve economic development.

In past studies, African GNI has been found to be related to various factors, such as educational attainment, political stability, colonial rule (Facundo, Denis, and Thomas, 2021), and natural resource abundance. This study will further investigate the relationship between these factors and African GNI through statistical methods such as correlation analysis and multiple linear regression analysis.

In the future, possible initiatives of the African Development Bank include promoting family programs, supporting the development of education and employment opportunities, supporting the building of health care systems in African countries, and supporting African countries to develop rural economies and increase farmers' incomes. These initiatives will help promote economic development in the African region and improve the living standards of African people.

This study aims to explore the measures taken and the effects of the African Development Bank in helping Africa's economic development, delve into the factors influencing Africa's gross national income, and ultimately suggest possible future initiatives. These research findings will contribute to a better understanding of the current status and future trends of economic development in the African region.

1.2.1 Theoretical significance

AfDB is one of the most important multilateral financial institutions in Africa and has provided tremendous support and assistance to the growth and development of African economies. The research and practice of this institution has important theoretical value for the cause of economic development and poverty reduction in developing countries and less developed regions of the global economy. By studying what factors are associated with GNI in Africa, it can provide new empirical data and experience to the field of economics, and provide more scientific and accurate economic development programs for developing countries and less economically developed regions of the

world. In the context of globalization and the prevalence of multilateralism, AfDB, representing financial institutions, has demonstrated to the world a new type of international relations with cooperation, coordination and win-win situation as the core, which further promotes global economic development and cooperation.

1.2.2 Practical significance

Africa is a region with a large concentration of developing countries, a large population and an overall backward economy. AfDB has adopted a series of measures to help the African region escape from poverty and promote economic development. The effect of the measures already taken has also been positively evaluated, which is of great practical value to the cause of economic development and poverty reduction in Africa and the less economically developed regions around the world. The economic development of African countries is not only related to the prosperity and stability of the region, but also affects the development of the world economy. Through the research and practice of the future initiatives of the African Development Bank, better development programs and more scientific policy recommendations can be provided to African countries and other developing countries. In the context of economic globalization and deepening regional economic cooperation, strengthening international cooperation and coordination is also of great practical value for global economic stability and sustainable development.

2. Literature review

The situation in Africa, one of the poorest and backward regions in the world, with high poverty rates and high and rising inequality (Posel & Rogan, 2019), is of great concern. Against the backdrop of a generally stable world situation, Africa still faces multiple imbalances and instabilities. Many African countries have experienced civil wars and conflicts. These conflicts are caused by ethnic, religious, economic, political or territorial issues. They have resulted in significant death and displacement of people and have added to the instability of the economic, political and social situation in these countries. The quality of life of marginalized groups, especially women living in rural areas, is difficult to improve (Greyling & Rossouw, 2019). Africa's economic development is also relatively lagging behind, with a severe lack of capital and technical support, as well as good governance structures. The speed and scope of Africa's financial integration lags that of other regions of the world (African Development Bank Group, 2010). Income inequality is very high in most African countries, especially in international perspective (Chancel, Cogneau, Gethin, Myczkowski, and Robilliard, 2023). This has also led to poverty, backwardness, social instability and political unrest.

Several studies have pointed out that monetary policies in Africa affect food inflation and rising food prices affect the poor in Africa (Iddrisu & Alagidede, 2020). In many African countries, political instability, political unrest and conflicts have led to economic weakness, which hinders investment and business development, and terrorism has a negative and significant impact on agricultural output (Okafor &

Chikalipah, 2021). Africa often faces threats from natural disasters and climate change, such as droughts, floods, dust storms, and rising sea levels, which can negatively affect industries such as agriculture and tourism, and thus constrain economic growth. Extreme climate significantly reduces the per capita expenditure of households in the affected areas and which are heavily dependent on agricultural income (Urama, Eboh, and Onyekuru, 2019). In addition, the issue of education is also an important issue facing Africa. The collapse of education systems can also lead to the decline of economic development (Merwe & Johan, 2022). According to Berg (2018), the relationship between poverty and education runs in both directions. Gender equality in education also has an impact on environmental sustainability in Africa (Dogan & Kirikkaleli, 2021). Education has an important driving role, and better education not only contributes to poverty reduction but also to increased food security (Andrianarison, 2022). There are more studies on influencing African economies with different perspectives, but the factors affecting GNI in Africa are a gap area. This study attempts to fill this gap in the hope of exploring solutions to poverty in Africa with a fresh perspective.

3. Data and Methodology

The data in this paper comes from AfDB official website, World Bank, IMF and other official websites. Based on the GDP, dozens of countries in Africa are classified into three categories: relatively rich, relatively average, and relatively poor, and three representative countries in each category are selected as the original data sources. Correlation analysis was applied to investigate the correlation between real GDP growth rate, GNI per capita and total population, annual population growth rate, infant mortality rate, total fertility rate, inflation, income velocity respectively. After the results were obtained, the linear regression analysis was then performed.

4. Results and Discussion

4.1 Existing measures and effects

Since its inception, AfDB has provided more than \$150 billion in loan support to African countries. These loan supports have produced significant results in improving infrastructure, promoting agricultural development, enhancing energy supply, and strengthening education and health systems in African countries. It has also invested significant amounts of money in infrastructure development, transportation and energy connectivity among African countries, playing an important role in regional integration.

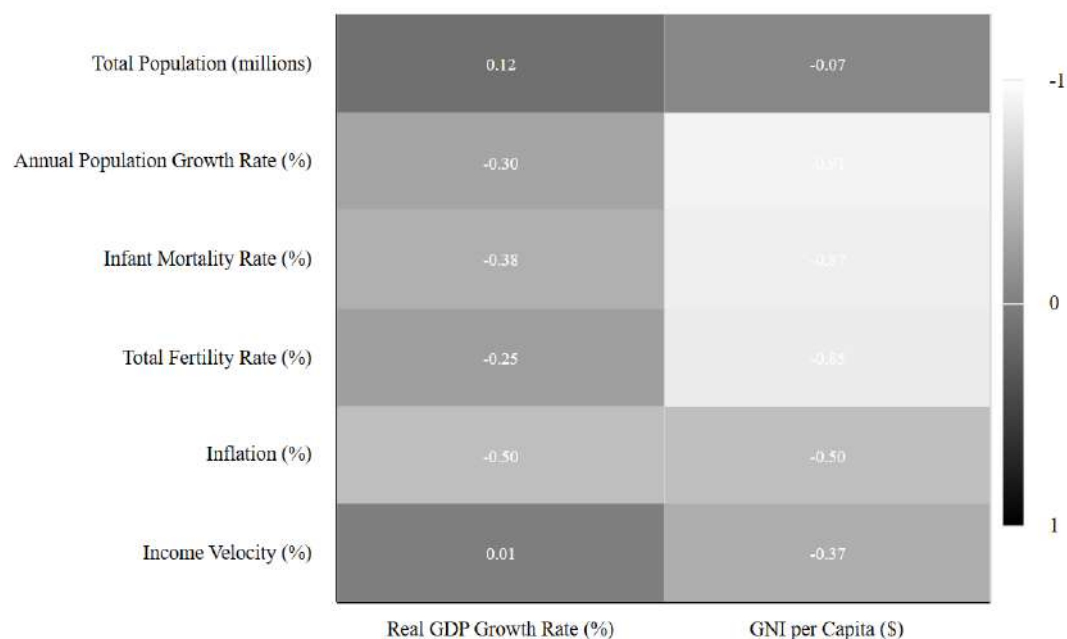
In promoting economic and social development in African countries, AfDB provides specialized loans and technical support for women entrepreneurs and women farmers, among others, to promote women's entrepreneurship and employment opportunities. AfDB recognizes that education and skills training are key factors in promoting economic and social development in African countries. Therefore, AfDB invests significant funds to support education and skills training programs throughout Africa to

improve the education level and quality of human resources in African countries.

Overall, AfDB has taken a variety of measures in promoting the economic and social development of African countries, including providing loan support, promoting regional integration, improving social infrastructure, promoting gender equality, supporting education and skills training, and supporting health and medical care. These measures have already had a positive impact on the economic and social development of African countries, providing strong support for the future development of African countries.

4.2 Factors affecting economic development in Africa

Figure 1: Pearson Correlation



From Figure 1, it can be seen that correlation analysis is used to study the correlation between real GDP growth rate, GNI per capita and total population, annual population growth rate, incident mortality rate, total fertility rate, inflation, income velocity respectively. The Pearson correlation coefficient is used to indicate the strength of the correlation.

The correlation coefficient values between real GDP growth rate and total population, annual population growth rate, infant mortality rate, total fertility rate, inflation, income velocity are 0.118, -0.296, -0.380, -0.245, -0.495, and 0.006, respectively, close to 0, and p-values are 0.763, 0.439, 0.312, 0.525, 0.175, and 0.988, all greater than 0.05, indicating that there is no correlation between real GDP growth rate and total population, annual population growth rate, infant mortality rate, total fertility rate, inflation, income velocity.

The correlation coefficient values between GNI per capita and total population, inflation, and income velocity are -0.067, -0.501, and -0.368, respectively, close to 0, and the p-values are 0.863, 0.170, and 0.330, all greater than 0.05, indicating that there

is no correlation between GNI per capita and total population, inflation, and income velocity. The correlation coefficient values between GNI per capita and annual population growth rate, infant mortality rate, and total fertility rate are -0.909, -0.873, and -0.855, and show significance at the 0.01 level, indicating a significant negative correlation between GNI per capita and annual population growth rate, infant mortality rate, and total fertility rate.

Table 1: Linear Regression Analysis

Parameter Estimates (n=9)							
	Unstandardized		Standardized	<i>t</i>	<i>p</i>	VIF	
	Coefficients		Coefficients				
	<i>B</i>	Std. Error	<i>Beta</i>				
Constant	7119.076	3190.881	-	2.231	0.076	-	
Annual Population Growth Rate (%)	-802340.834	291986.875	-2.013	-2.748	0.040*	32.966	
Infant Mortality Rate (%)	-111320.789	71551.925	-0.421	-1.556	0.180	4.499	
Total Fertility Rate (%)	482418.232	236849.219	1.496	2.037	0.097	33.167	
<i>R</i> ²			0.919				
Adj <i>R</i> ²			0.870				
<i>F</i>			<i>F</i> (3,5)=18.819, <i>p</i> =0.004				
D-W			2.134				

Dependent Variable: GNI per Capita (\$)

* *p*<0.05 ** *p*<0.01

As seen in Table 1, the model equation is:

GNI per capita = 7119.076 - 802,340.834 * annual population growth rate - 111,320.789 * infant mortality rate + 482,418.232 * total fertility rate.

Table 2: Model Summary

R	R ²	Adj. R ²	RMSE	D-W	AIC	BIC
0.958	0.919	0.870	1301.096	2.134	162.618	163.407

The model R-squared value of 0.919 implies that annual population growth rate, infant mortality rate, total fertility rate can explain 91.9% of the variation in GNI per capita.

Table 3: ANOVA

	Sum of Squares	df	Mean Square	F	p value
Regression	172034362.477	3	57344787.492	18.819	0.004

Table 3: ANOVA

	Sum of Squares	df	Mean Square	F	p value
Residual	15235659.745	5	3047131.949		
Total	187270022.222	8			

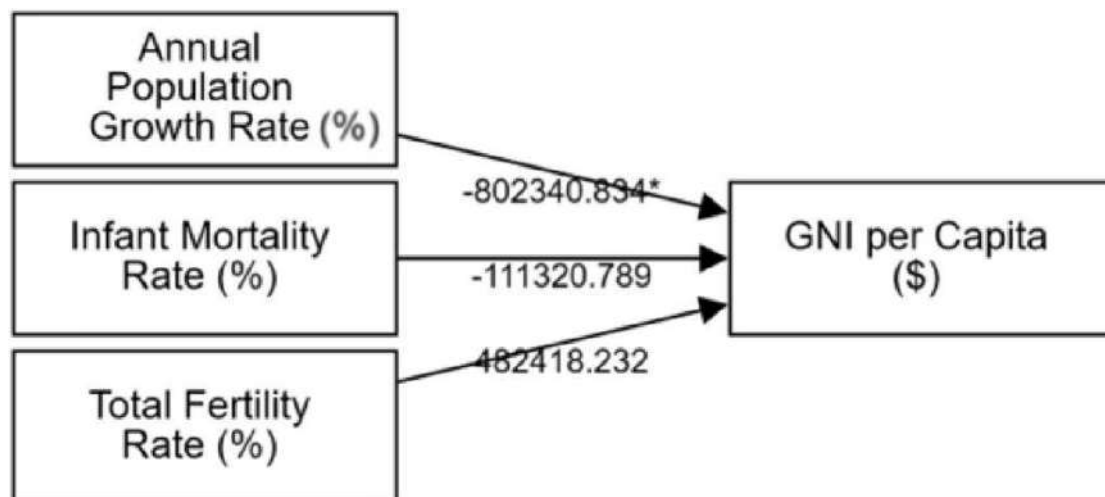
F-testing the model revealed that the model passed the F-test ($F=18.819$, $p=0.004<0.05$), which means that at least one of annual population growth rate, infant mortality rate, total fertility rate will have an effect on GNI per capita. In addition, testing for multiple cointegration in the model revealed that the presence of VIF values greater than 10 in the model implies that there is a cointegration problem.

The final specific analysis is as follows.

The value of regression coefficient of annual population growth rate is -802340.834 ($t=-2.748$, $p=0.040<0.05$), which means that annual population growth rate has a significant negative effect on GNI per capita.

The regression coefficient value of infant mortality rate is -111320.789 ($t=-1.556$, $p=0.180>0.05$), implying that infant mortality rate does not have an impact relationship on GNI per capita.

The regression coefficient value of total fertility rate is 482418.232 ($t=2.037$, $p=0.097>0.05$), implying that total fertility rate does not have an influential relationship on GNI per capita.

Figure 2: Model Results

To summarize the analysis, annual population growth rate has a significant negative effect on GNI per capita. however, infant mortality rate, total fertility rate do not have any effect on GNI per capita.

Although population growth can bring benefits such as increased labor force and market expansion, too rapid population growth can also lead to resource shortages, increased environmental stress and social problems, which can have a negative impact on the economy. This is because too much population growth can lead to an inability to keep

up with economic and social infrastructure, which can affect gross national income.

To combat this problem, Africa needs to adopt a series of measures to promote economic growth and slow down population growth. The AfDB should support African countries to promote family planning and contraceptive measures, and increase awareness and participation of women and men in family planning. It should help African countries improve the quality and coverage of family planning services by providing technical assistance, financial support and promotion in the field of healthcare; support the development of education and employment opportunities to improve the education level and employability of youth, thereby reducing the phenomenon of early marriage and early childbirth; and support the construction of healthcare systems in African countries to improve the health of women and children. At the same time, in the field of medical and health care, it oughts to strengthen the promotion and popularization of sex education and family planning knowledge to raise public awareness and attention to population issues; in the field of agriculture and rural development, it should support African countries to develop their rural economies and increase farmers' income, thereby improving their living standards and awareness of family planning.

5. Conclusion

The African Development Bank has provided \$150 billion in loan support to African countries to promote development in infrastructure, agriculture, energy, education, health and other areas, and to promote gender equality and regional integration. These measures have had a positive impact on Africa's economic and social development. However, they are not enough, and the annual population growth rate has a significant negative impact on GNI per capita. Therefore, AfDB should also support African countries to promote family planning and contraceptive measures, support education and employment opportunities development, support African countries to build health care systems, and support African countries to develop rural economies and increase farmers' income in order to slow down population growth for economic development.

Restricted by the available African Development Bank reports, most of the data used in this paper are older than 2017. In addition, the sample size is small due to manpower constraints. In the future, it is hoped that the latest data can be used in order to develop the study and increase the sample size.

Acknowledgements

Many thanks to the ASECU staff and University of the Aegean staff for their prompt answers to my queries. I am also grateful to the teachers of the International Exchange Office of Shanghai Lixin University of Accounting and Finance. Their expertise was invaluable in helping me to achieve this result.

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Common good and global challenges in social sphere through NGO activities

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Abstract: *The research is based on the need of understanding correctly "common good" and the role of every person and every organization in its development. Society faces many challenges: migration, poverty, inequality, climate change, population growth, terrorism, public health crises, economic decline, discrimination of many kinds, education, healthcare, environment, etc. The impact of these challenges on societies worldwide shows that there is a need for collaborative efforts to address these challenges. And the NGO could successfully fulfil this role.*

Case study is presented about community foundations and their role. Conclusions on Challenges, faced by NGOs are made.

Keywords: *challenges in social sphere, common good, community foundations*

JEL Classification: *D64, I39, P30*

1. Introduction

Why it is important to think about COMMON GOOD and what's its influence on our life?

First, we need to start from an attempt for a definition of Common Good.

What says The Stanford Encyclopedia of Philosophy¹ – “The “common good” refers to those facilities—whether material, cultural or institutional—that the members of a community provide to all members in order to fulfil a relational obligation they all have to care for certain interests that they have in common.”

So, the Common Good is a kind of shared responsibility.

Some canonical examples of the common good in a modern liberal democracy include: the road system; public parks; police protection and public safety; courts and the judicial system; public schools; museums and cultural institutions; public transportation; civil liberties, such as the freedom of speech and the freedom of association; the system of property; clean air and clean water; and national defence. The term itself may refer either to the interests that members have in common or to the facilities that serve common interests.

But what is the role of NGOs in understanding common good and facing all the global challenges?

Is the cross-point social sphere?

Could NGOs support the development of the society?

A lot of questions...

Let's define what is an NGO.

¹¹ <https://plato.stanford.edu/entries/common-good/>

The term NGO stands for non-governmental organization, and it includes a variety of organizations such as “private voluntary organizations,” “civil society organizations,” and “nonprofit organization”².

The term NGO describes a range of groups and organizations from watchdog activist groups and aid agencies to development and policy organizations.

Usually, NGOs are defined as organizations that pursue a public interest agenda, rather than commercial interests (Hall-Jones, 2006)³.

2. Global Challenges in the Social Sphere and the role of NGOs

Society faces many challenges: migration, poverty, inequality, climate change, population growth, terrorism, public health crises, economic decline, discrimination of many kinds, education, healthcare, environment, etc. The impact of these challenges on societies worldwide shows that there is a need for collaborative efforts to address these challenges.

The Role of NGOs in promoting Common Good through their activities and support facing global challenges is IMPORTANT. Because it could be flexible and faster than government system.

NGOs know better the local problems.

Even when they work nationally or internationally, they know the local challenges for the society.

When know the local reasons – it’s easier to raise process for solutions from bottom to the top if such is needed. When local society understand the roots of the problem – then we can implement together measures that are coming from the national or international level.

Solving local problems needs local understanding and expertise, so NGOs are good in monitoring of the local authorities, supporting poverty overcoming processes, creating better education possibilities, promoting gender equality.

It turns out that local organizations are among the best positioned to address these challenges, based on their local knowledge of the political, social and other dynamics affecting socio-political realities in their countries.

To have an impact on overcoming poverty, uniting the society, drawing the cross-points between different sectors, monitoring for good governance and economic freedom, supporting all the social spheres.

How to define “impact” - it varies – could be pointing to a specific change in policy or to raise an expansion of research and analysis, deepening work with the media. In countries where governments actively suppress dissent, NGOs minimize direct engagement with the administration and political parties, and their work includes monitoring and evaluating government activities, training activities, youth capacity building, literature translation, and curriculum diversification.

Usually NGOs are working as “Agents of Change” – mostly they appear in order to support the overcoming of a community problem or to gather around important topic for the society.

2 Chapter 9 Role of Governments and Nongovernmental Organizations 221 (McGann & Johnstone, 2006)

3 Sage Academic Books - Sustainability: Essentials for Business -
https://www.sagepub.com/sites/default/files/upm-binaries/52625_ch_9.pdf

Based on a lot of examples from different organizations – the role of NGOs in identifying and understanding global challenges could be pointed at:

- Flexibility and adaptability of NGOs in responding to emerging issues
- Promoting sustainability and green life towards environmental conservation
- Advocating for human rights and social justice
- Implementing collaborative approach
- Importance of partnerships between NGOs, governments, and businesses
- Sharing resources, knowledge, and expertise for greater impact
- Highlighting successful collaborations and partnership on local, regional, national and international level

3. Best practices - community foundations

Community foundations are non-profit institutions that mobilize and invest technical and financial resources in a specific geographical area. They have an important catalytic role contributing to social, economic and environmental development in their locality. No two community foundations are the same, but they share certain characteristics and challenges.

Through strategic grant-making and leadership, community foundations play a key role in identifying and solving community problems with help from other community partners. In essence, they leverage the wealth of yesterday, today, and tomorrow to make life better for those who live and work in their service area.

Their number is increasing - the global community philanthropy field has come of age. Today, there are more than 1,800 community foundations around the world, almost three-quarters of them created in the last 25 years.⁴

Understanding the global challenges and despite the many difficulties associated with developing local philanthropy, community foundations are finding new and inventive ways of re-connecting communities with abandoned traditions or establishing new ones, and of valuing other kinds of assets beyond just money.

Community foundations represent a different model of development, one that is based on the idea that development outcomes are more lasting when people invest their own resources to address their own issues. They are trying to create new types of philanthropic behaviour and practice by blending local resources and traditions of giving with new forms of organization.

Because community foundations often occupy the middle ground – between those wishing to give and those looking for resources, between international donors and local NGOs and even between different parts of the same community – much of what they do translates as building trust.

Building trust is the cornerstone of civil society, the framework for engineering people's re-engagement in community activity. And the result of community foundation activity is a greater engagement of parts of the community that had previously been detached and disenfranchised.⁵

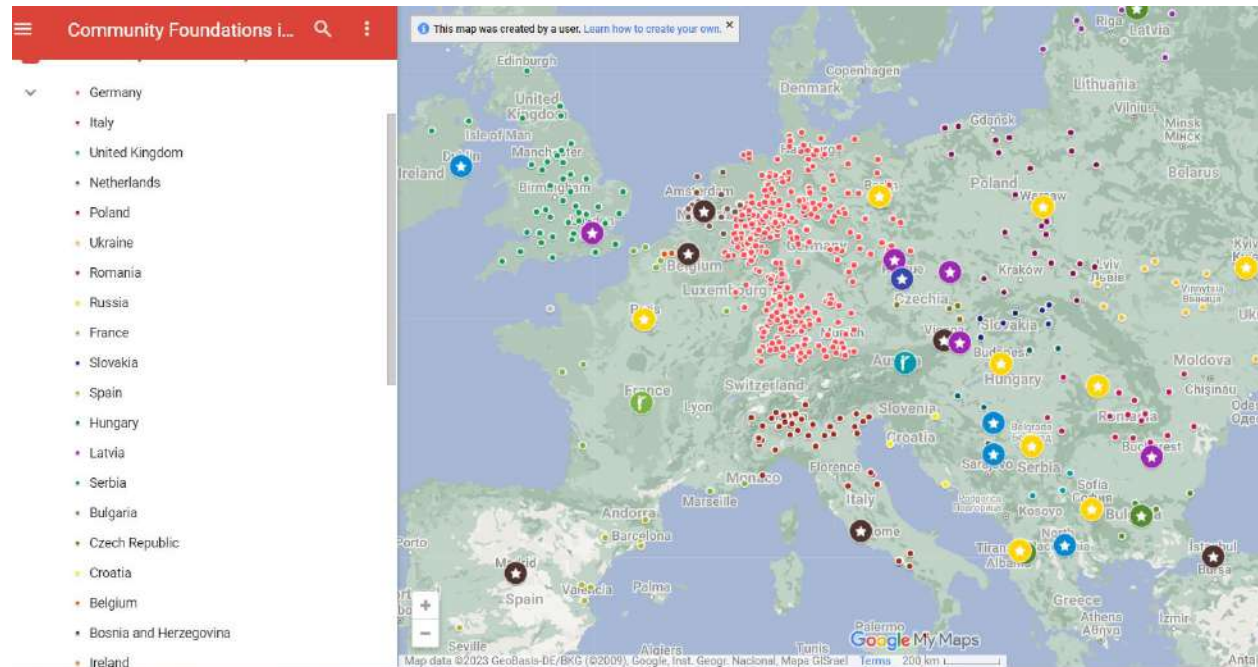
So, community foundations just spread across multiple settings, fields and disciplines and promote the notion of community philanthropy as appealing, multi-faceted and developing. It's some

⁴ https://globalfundcommunityfoundations.org/wp-content/uploads/2019/04/CommunityFoundationAtlas_GlobalSnapshot.pdf

⁵ The Community Foundation Atlas - <http://communityfoundationatlas.org>

unique model of special arrangement of principles, practices, patterns and perceptions that cover a diversity of interrelated ideas and ideals, as well as the diversity in views and voices.

Best practices of the activity of community foundation could be find around the world - in Czech Republic, Germany, Italy, Poland, UK, USA, etc...



Usually, community foundations succeed in leadership role and attract more and more followers in the name of better society living. Especially in a period of crisis. COVID-19 prove that. As Alexandra Williamson says in the book “Philanthropic Response to Disasters: Fundraising, Grant Making and Regulatory Challenges”- disasters, of whatever cause and wherever they occur in the world, attract generosity from the public, corporations and philanthropic foundations to alleviate the effects in the short term and help build more resilient communities over the longer term. But, managing the inflow of money, goods and time and then distributing those efficiently and effectively is not straightforward as the countless media criticisms after every disaster illustrate. There are a lot of examples of the philanthropic response to disasters done in a successful way, but it is quite difficult. The model is still not very well known in a way that the government understand why it’s needed to be supported institutionally...

The concept of social capital is important in determining a community’s ability to advance the health and well-being of local residents, respond effectively to natural disasters, and plan for the opportunities and challenges that will present themselves in the future. As well as – facing the global challenges. Communities need to be engaged in civic affairs, participate in organized groups, volunteer, contribute money to charity, and trust one another.

In his seminal book *Bowling Alone*, Robert Putnam summarizes a large body of empirical science documenting that communities with a high level of social capital have better physical and mental health, stronger economies, and better systems for educating and caring for youth. Other factors such as monetary wealth and income inequality are obviously important as well, but there is little

doubt that social capital is an important independent factor in explaining which communities do well and which communities struggle.⁶

The common base of supporting projects is that community foundations build social capital. Community foundations are in an even better position to catalyze the changes required to achieve a significant increase in social capital, because they are based within the community rather than some other types of NGOs.

A community foundation is essentially a repository for charitable funds set up by local donors. The foundation helps each donor identify his or her charitable interests and then carries out critical functions that allow those interests to be achieved: investing the donor's money in a diversified portfolio, soliciting applications from nonprofits that fit the donor's interests, managing the grant-making process, and monitoring grantees' progress toward goals and objectives. Because donors have different areas of interest, community foundations have traditionally funded nonprofit organizations carrying out a variety of programs and services. For a variety of reasons, community foundations have traditionally not served as proactive agents of groups and grassroots leaders. With this combination of mission, knowledge, and credibility, a community foundation is in a position to mobilize local residents and leaders around a change agenda, even if the underlying issues are contentious.⁷

4. Conclusion

At the forefront of many of the local efforts are community foundations. Because they are uniquely able to act simultaneously as conveners, catalysts for change, and grant-makers, they are creating new collaborations to forge new solutions to longstanding community challenges including crime, drugs, homelessness, youth development, and cultural participation.⁸

This new proactive role extends far beyond traditional mission of community foundations such as simply building a charitable endowment – it's a new player in regional development. Society that unites institutions, active citizens, other NGOs, companies, local and international donors...

But to be successful, community foundations need strong leadership, a clear vision, and a realistic strategic plan. And to build trust. Step-by-step.

And some of the common challenges faced by community foundations, as well as almost every NGO are connected with, are:

- Funding limitations and financial sustainability
- Bureaucratic hurdles and regulatory issues
- Navigating cultural and societal complexities

Government “good will” is needed and once community foundations are proved as a model that could be supported – then their results in overcoming local important problems will go over expectations.

⁶ <https://www.cftompkins.org/wp-content/uploads/2012/07/NCR-paper.pdf>

⁷ <https://www.cftompkins.org/wp-content/uploads/2012/07/NCR-paper.pdf>

⁸ <https://globalfundcommunityfoundations.org/wp-content/uploads/2021/04/early-stage-development-of-community-foundations-challenges-to-growth.pdf>

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The Global Alliance for Community Philanthropy - <https://globalfundcommunityfoundations.org/resources/donors-working-together-the-story-of-the-global-alliance-for-community-philanthropy/>

The European Community Foundation Initiative (ECFI) - <https://www.communityfoundations.eu/about-ecfi/what-is-ecfi.html>

Corporate social responsibility and green marketing: the influence of eco-labelling and ethical certifications on consumer behavior and their impact on sustainable economical development

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Abstract:

In an era where environmental consciousness is shaping consumer decisions, eco-labelling is emerging as a lighthouse to steer consumers towards more sustainable consumption. This paper analyzes the relationship between eco-labels and consumers, disclosing the far-reaching influence such eco-aware symbols play in sculpting purchasing decisions. As we sail into an era defined by sustainability and ethical choices, understanding how eco-labels are resonating with, educating and motivating consumers is not just an academic pursuit; it is a key to unlocking a greener future for the planet and businesses alike. Through an extensive literature review, data analysis and a survey, the study aims to identify the most important factors that shape consumer attitudes and purchasing decisions towards environmentally and socially responsible products. The findings suggest that there is a need for better alignment and synergy between product group criteria development processes, for synchronising eco-design and eco-labelling requirements so they can evolve together, and to enhance coherence between product policy instruments and help decision-making. The paper concludes with practical recommendations for companies, policymakers, and consumers on how to enhance sustainable economic development through CSR and green marketing practices.

Keywords: Corporate social responsibility, consumer behavior, eco-labeling, ethical certifications, green marketing, sustainable economic development.

Introduction:

The production, consumption, and disposal of products have a significant impact on both people and the environment. Despite their desire to buy sustainable products, consumers typically struggle to identify them and assess their impact on the environment and society. Various techniques, such as green taxes, property rights, restrictions, and laws, have been used to encourage sustainability and ecologically beneficial activities. Eco-labeling is one method that is gaining popularity. Eco-labeling is intended to educate customers on the environmental effect of products and services throughout their lifespan, with the objective of encouraging ecologically friendly consumption habits and better environmental standards.

In today's culture, a growing number of customers are worried about the environmental effect of their shopping decisions. These environmentally sensitive customers want to make environmentally conscious decisions and learn about the green elements of items. Ecolabels play an important role in green marketing and promotion by informing customers about the environmental features of items. They are used to validate green claims and to assist customers in making educated decisions.

To address this gap, this paper aims to explore the importance of ecolabeling and clear information in the context of green marketing. It will examine the role of research in establishing the credibility of ecolabels and the significance of transparent communication in empowering consumers. Furthermore, the paper will discuss the need for standardized frameworks and guidelines in ecolabeling practices and the importance of consumer awareness in making sustainable choices. In order to find this out, the paper will analyse the statistics available at the current time and will examine the results of a questionnaire addressed to Romanian consumers on how they perceive eco labels in relation to the social responsibility of companies.

II. Literature review

The link between corporate social responsibility (CSR), green marketing, eco labeling, and economic development has received substantial attention in academic study, reflecting the increased interest in sustainable company practices. The purpose of this literature review is to investigate the current body of research and shed light on the meanings and links between CSR, green marketing, eco labeling, and their influence on economic growth.

CSR refers to firms' voluntary initiatives that go beyond legal responsibilities to address social and environmental challenges. It includes charity, employee welfare, and environmental sustainability among other things. Scholars contend that CSR improves a company's reputation, brand equity, and financial success (Brammer, Jackson, & Matten, 2012). Organizations that embrace CSR may produce shared value and contribute to long-term economic development (Porter & Kramer, 2011).

Environmental factors are included into marketing plans and activities through green marketing. It includes the creation, marketing, and distribution of environmentally friendly products and services. Green marketing strategies can result in greater market share, enhanced client loyalty, and a competitive edge. Research suggests *that consumers are willing to pay a premium for green products and are more likely to support companies engaged in sustainable practices* (Gadenne, Mia, & Sands, 2009).

Eco labels, also known as environmental labels or certifications, are indications of the environmental features of a product. They educate customers about a product's compliance with particular environmental standards or requirements. Eco labels can impact customer behavior by enhancing trust in the environmental claims of the labeled items. They promote informed decision-making and the adoption of sustainable purchasing habits.

Sustainable business strategies encourage resource efficiency, decrease environmental impact, and foster innovation and technical improvements. They also open up new green markets, attract investment, and generate jobs in sustainable industries (Parris & Kates, 2003). As a result, connecting CSR, green marketing, and eco labeling with economic development goals can lead to a more wealthy and sustainable society.

From 2016 to 2018, the graph shows a significant and continuous interest in the issue of eco-labels and their relationship to various keywords, with a large rise in research output. This tendency extends through 2018, demonstrating a continuing and persistent interest in the topic. The increase in research production reported from 2016 to 2018 might be attributed to a greater awareness and acknowledgement of eco-labeling as a key subject within the disciplines of sustainability, consumer behavior, and environmental management.

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2.1. Environmental standards

Environmental claims, sometimes known as "green claims," are assertions made by businesses regarding the environmental benefits of their products and services. Environmental claims can appear on a product's (good or service's) label, packaging, associated literature or advertising material, promotional and point-of-sale material, and other kinds of marketing. Words, symbols, emblems, logos, images, colors, and product brand names are all examples of claims. They can be disseminated by written media such as newspapers and magazines, electronic media such as television and digital media. As part of the ISO 14000 series of environmental standards, the International Organization for Standardisation (ISO) has developed a set of guidelines controlling environmental labeling. (The Committee on Consumer Policy, 2010)

The ISO 14020 family covers three types of labelling and declaration schemes:

- Type I (ISO 14024) is a label developed by a third party, either a governmental (e.g. European Flower) or private organisation (e.g. Forest Stewardship Council). This type of label is supposed to be an easy aid for the consumers.
- Type II (ISO 14021) is a label developed by the producer or a self-declared environmental or "green claim". In the case of this type of label, the risk of greenwashing is expected to be high.
- Type III (ISO 14025) declarations are based on quantified life cycle product information. A qualified third party creates reporting parameters, after which the data produced by firms employing the guidelines is independently validated. This sort of label is commonly used in business-to-business transactions or on long-lasting items. (The Committee on Consumer Policy, 2010)

2.2. The link between CSR, eco-labels and achieving the SDGs

The 2030 Agenda is a worldwide framework approved by the United Nations in 2015, consisting of 17 Sustainable Development Goals (SDGs) and 169 objectives aiming at tackling social, economic, and environmental concerns in order to achieve sustainable development by 2030. Several SDGs are closely related to the subjects discussed above:

8 DECENT WORK AND ECONOMIC GROWTH



1. Goal 8: Decent Work and Economic Growth: This goal emphasizes the promotion of sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. CSR practices, such as fair labor standards, employee welfare, and responsible business conduct, contribute to achieving this goal.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



2. Goal 12: Responsible Consumption and Production: This goal focuses on ensuring sustainable consumption and production patterns. Green marketing, ethical certifications and eco labels play a crucial role in promoting sustainable products, informing consumers about environmental attributes, and encouraging responsible consumption choices.

13 CLIMATE ACTION



3. Goal 13: Climate Action: This goal addresses the urgent need to combat climate change and its impacts. CSR practices that reduce greenhouse gas emissions, promote renewable energy, and adopt sustainable business operations align with this goal. Green marketing and eco labels also contribute by promoting environmentally friendly products and services that support climate mitigation and adaptation.

17 PARTNERSHIPS FOR THE GOALS



4. Goal 17: Partnerships for the Goals: This goal emphasizes the importance of collaborative efforts and multi-stakeholder partnerships to achieve sustainable development. CSR initiatives often involve partnerships between businesses, governments, civil society organizations, and other stakeholders to address social and environmental challenges and contribute to economic development.

Organizations may contribute to the attainment of different SDGs mentioned in the 2030 Agenda by incorporating CSR, green marketing, and eco labeling into their business processes. These practices support the wider concept of sustainable development by fostering ethical corporate practices, sustainable consumption and production, climate action, and stakeholder engagement. Companies and consumers both have a role to play in upholding and adhering to EU legislation on CSR and ecolabeling. In turn, consumers should understand the importance of ecolabels and actively support products and services that bear legitimate and recognized labels.

Figure 2. Romania's progress towards SDG targets 2020-2023, Source: Eurostat

Figure 2. Romania's progress towards SDG targets 2020, Source: Eurostat

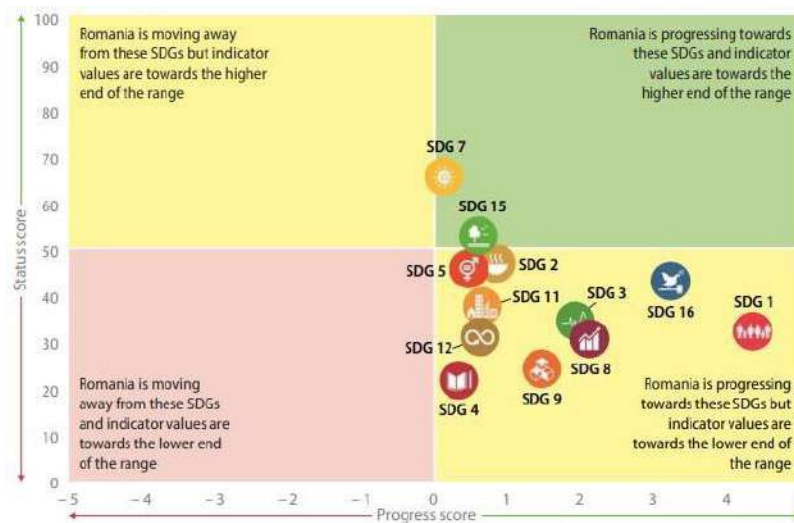
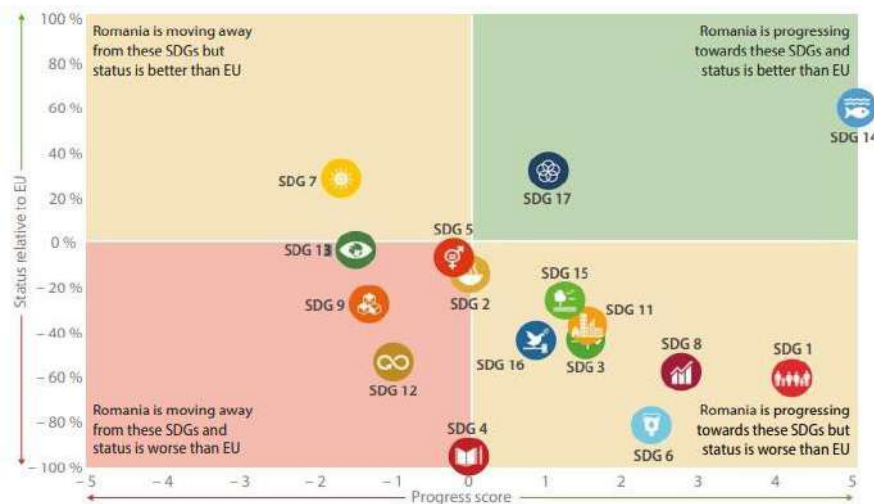


Figure 3. Romania's progress towards SDG targets 2023, Source: Eurostat



However, in the case of Romania, progress towards these SDGs is slow, at the current stage. Figures 1 and 2 show Romania's progress towards achieving the SDG targets. As can be seen, compared to 2020, in 2023 the data shows a regressive change in achieving the SDG targets, among which the most visibly affected are SDGs with numbers 7, 13 (climate action), 9, 12 (responsible consumption and production) and 4, which are in the area of „moving away from these SDGs and status is worse than EU”, followed by 5, 2, 15, 16, 8 (decent work and economic growth) and the rest, which are in the area of „progressing towards these SDGs, but status is worse than EU”. It can be noted that the only indicator that is in the area of progress and corresponds to one of those addressed in this paper is 17 - partnerships for the goals. As for the

other three goals, all of them, which are intended to contribute to a sustainable economic growth through sustainable practices in the field of Romanian companies (eco-labelling, ethical certifications, CSR), are in the area "moving away from these SDGs and status is worse than EU", with the exception of 8, which is in progress, as shown in figure 2. Following this brief analysis and the visualization of Romania's path towards these objectives, it is clear that more rigorous regulation in the area of sustainability and the reduction of social, financial and environmental asymmetries is important. Government involvement is crucial in this whole process.

Starting from a narrow sense, in which we talked about green labels and their role in CSR and sustainable economic growth, we proceeded with the sustainable development goals up to 2030 to which implementation can contribute and we will continue with the mention of a useful source of research, the Sustainability Map. This tool is part of Standards Map free toolkit, where can be found trusted and neutral information about voluntary sustainability standards (VSS), codes of conduct, audit protocols, reporting frameworks and company programs on sustainability. According to this map (figure 4), there are 28 sustainably certified companies in Romania, and the most common certifications are ICS - Initiative for Compliance and Sustainability, World Fair Trade Organization (WFTO) and Global Organic Textile Standard - GOTS.

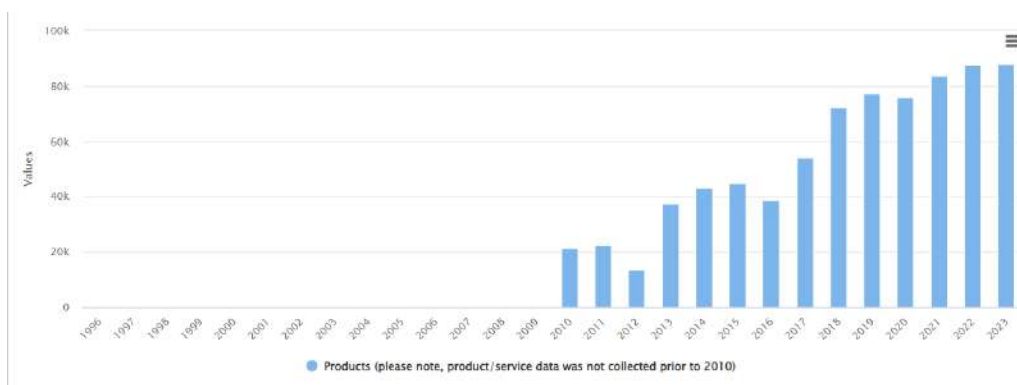
Figure 4. Sustainability Map, Source: Standards Map



According to the map, 27 sustainably certified companies are found in Romania, and the most common certifications are ICS - Initiative for Compliance and Sustainability, World Fair Trade Organization (WFTO) and Global Organic Textile Standard - GOTS.

Trade Organization (WFTO) and Global Organic Textile Standard - GOTS. As can be seen, countries such as Germany and its surroundings (336), Portugal (285), Italy (170), France (103), lead in terms of sustainable certifications on the sustainability map.

Figure 5. Evolution of the number of EU products 2023, Source: European Commission



Since September 2022, the total number of given licences and goods has increased, with the great majority of EU Ecolabel product groupings seeing a growth in both the number of awarded licences and items. This demonstrates that corporations, individuals, and merchants continue to be interested in green products.

In comparison to September 2022 data, there has been a:

- Increase in the total number of awarded products (**+560 products = +0.6%**)
- Increase in the total number of awarded licences (**+97 licences = +4%**)



As of March 2023, in Romania are awarded 99 EU Ecolabel licences, compared with 16.160 in Spain, 13.243 in Italy, 5.949 in Portugal or 4057 in Greece. This data emphasizes the significance of growing knowledge of and promoting the EU Ecolabel program in Romania in order to inspire more firms to embrace sustainable practices and get certification. It also emphasizes Romania's potential to learn from the experiences and tactics of nations with a larger number of EU Ecolabel licenses in order to strengthen its own sustainability efforts and market competitiveness.

III. Data and Methodology

A total of 61 Romanians took part in the survey aimed to collect demographic information and attitudes towards the significance of eco-labeling and ethical certifications in purchasing decisions, the impact of green marketing techniques, and the value of corporate social responsibility. The findings add to a better understanding of consumer choices and have implications for firms seeking to fulfill Romanian consumers' increasing expectations of environmental and social responsibility.

The questionnaire is divided into parts that address various areas of customer behavior and views. The sample included respondents of all ages, the bulk of whom were from Iasi, Romania, with 30% falling in the 25-35 age range. The gender breakdown was fairly equal, with 55% female and 45% male participants. 50% of the participants have at least a Bachelor's degree and they indicated a medium income level (around 600-800 EUR). Respondents' occupations varied, with a sizable number being students and office employees, 60% of them all being employed.

1. Attitudes Towards Eco-Labeling: more than 40% of respondents thought that eco-labeling is an essential component in purchasing decisions. Similarly, when asked if they were prepared to pay more for items with eco-labels, 35% agreed, 25% strongly agreed, 20% were neutral and a considerable percent, of 18% said they disagree. Nevertheless, participants also agreed that eco-labels make it easier to identify ecologically friendly items and help to reduce environmental effect. The respondents rated the trustworthiness and dependability of eco-labels favourably, with a percentage of 45%.
2. Attitudes Towards Ethical Certifications: According to the data, only 20% of Romanian customers strongly agreed that ethical certifications are important when making purchase decisions, 25% strongly agreed and an important percentage, of 35%, remained neutral. On the other side, 18% disagree and 2% strongly disagreed. Participants stated that ethical certificates assist in identifying socially responsible items and contribute to improve working conditions and human rights, with a large percentage of 49% believing that trustworthiness and dependability were also key elements.
3. Green Marketing Strategies: Half of the respondents reported not purchasing a product based only on its green marketing promises, indicating a lack of confidence in marketing tactics; which may also explain the result for "Attitude towards ethical certifications",

where 35% were neutral on the importance of ethical certifications and 18% disagreed. Even so, the green marketing statements on product packaging were rated important (18%) by a large number of participants and extremely important (23%). Advertising and social media efforts promoting a company's environmental actions were also regarded significant, with approximately 30% of respondents finding it very important, 20% very important, and 24% preferred to remain neutral.

4. Corporate Social Responsibility: In their purchasing decisions, 40% of respondents rated corporate social responsibility as very important, while 45% rated it as important. So, in this regard, 85% of respondents agreed that CSR in a company is an important practice, an indicator for companies to maintain and develop the company's management plan in line with this objective. Transparency in processes (32%), employee treatment (30%), environmental effect (23%), ethical sourcing and community participation were highlighted as major elements when evaluating a company's social and environmental responsibilities, in descending order. While a significant number of 20% said they had boycotted a firm because of its social and environmental concerns, the vast majority of 80% said they had not.

Results and recommendations:

1. The findings imply that there is a need to boost consumer awareness and knowledge regarding eco-labeling. Many respondents were unfamiliar with eco-labels, emphasizing the significance of education and information distribution to improve consumer comprehension. To address this situation, some proposals would be to develop informative websites that are promoted and tailored to the needs of each community or region, containing educational content, easy-to-understand explanations of the different types of eco-labels, what they mean and how they can help in decision-making. Promoting sustainability experts online and creating social media engagement, means visibility for the company, for the experts and for new sustainability terms and information. At the same time, all companies nowadays should consider adopting eco-friendly packaging that contributes as much as possible to consumer education.
2. The findings show that eco-labeling is a very important aspect to customers when making purchase decisions. This indicates an increasing demand for sustainable products as well as a desire to support enterprises that implement responsible environmental procedures,

which will undoubtedly contribute to economic growth. On the other hand, the main reason why a considerable percent of the consumers have dismissed the idea of sustainable products or making a purchase based on marketing practices stems from a lack of trust in these practices.

Companies that have already addressed sustainable practices might consider how to strengthen their competitive advantage by: positioning informative displays in retail locations showcasing eco-labelled goods and their environmental and social impacts, or embedding QR codes on product packaging that provide a comprehensive reference to eco-label and sustainability information. These practices would help consumers become aware of the importance of green labels and build trust.

3. The study found that trust and credibility are important factors in customer views of eco-labels. To create customer trust in eco-labels, businesses should stress openness, adhere to clear and uniform standards, and give trustworthy information. When evaluating firms, consumers place a premium on CSR and ethical behaviors. The findings highlight the need of businesses adopting and promoting responsible practices such as environmental initiatives, fair trade, and ethical sourcing. This has the potential to favorably impact consumer perceptions, loyalty, and purchase decisions. To this end, companies should consider creating loyalty programs for consumers who choose eco-labelled products, offering discounts, „early bird” access to eco-friendly products, or invitations to various sustainability related conferences or communities. Nevertheless, companies should seriously consider publishing annual reports outlining practices in terms of ethics and environmental impact, thus reinforcing their transparency.
4. Creating a sustainable future necessitates collaboration among consumers, businesses, and regulatory organizations - governments and organizations should collaborate to provide clear rules, enforce legislation, and fund programs that promote sustainability, transparency, and ethical behavior. This can be achieved by joining sustainable business alliances, public and private sector funding for research and development, offering tax benefits or grants for sustainable projects, working closely with the SDGs, verifying eco-labeling accuracy and ethical practices in businesses, ensuring that the sustainability certifications meet rigorous criteria and are recognized and trusted by consumers.

Conclusions

The study's findings underline the need of increasing consumer awareness and education about eco-labeling. Education and information dissemination are crucial in enhancing consumer understanding of eco-labels. The survey also found that eco-labeling had a substantial impact on customer purchasing decisions, indicating a growing demand for sustainable products and support for ecologically responsible enterprises.

An effective sustainability label should prioritize informing consumers about concrete sustainability benefits, clearly identify the responsible organization, involve relevant stakeholders and experts in developing clear criteria based on scientific methods and the product's life cycle, and ensure that the phrasing, assessment, and awarding of the label are checked by an independent organization. By adhering to these principles, sustainability labels can play a significant role in guiding consumers towards more sustainable choices while fostering transparency, credibility, and accountability within the industry.

There is a need for better alignment and synergy between criteria development processes for product groups. The future vision is to make the EU Ecolabel a benchmark with mandatory criteria for the entire market, following a staged approach. The goal is to synchronize ecodesign and ecolabel criteria so that they evolve together, with ecodesign reflecting past ecolabel criteria and the ecolabel criteria being strengthened to guide the market. This approach aims to enhance consistency between product policy instruments and streamline decision-making by updating all related policy instruments for a specific product category during investigation studies.

The incorporation of appropriate policy frameworks is a crucial driver of real sustainability and the creation of a more educated and environmentally conscientious marketplace. We can pave the road for a more sustainable future while protecting the interests of consumers and the environment via proactive policy measures.

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Critical success factors analysis for greenwashing governance with blockchain technology

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Abstract

The concept of greenwash refers to the practice of a company spending more time and money on marketing itself as environmentally friendly than on minimizing its impact on the environment. This is a misleading marketing strategy intended to mislead environmentally conscious consumers. Providing a technical solution, blockchain offers a new way of addressing the trust issue and reducing greenwash. The purpose of this study is to evaluate critical success factors that affect greenwash behavior using the DEMATEL-AISM methodology. Additionally, we examine the factors that contribute to the success of the blockchain implementation in the greenwash governance process. A review of the driving forces behind greenwash governance is presented in this study, with recommendations for using blockchain technology to address the issue.

Keywords: Blockchain implement, Greenwash governance, Critical success factors

JEL Classification: M140, O33, O35

1. Introduction

As environmental sustainability becomes increasingly important, companies are being forced to adopt environmentally friendly practices. Nevertheless, some companies engage in greenwash, which involves making misleading or exaggerated environmental claims to conceal unsustainable practices (1; 2; 3). There are limitations to greenwash governance, and a more trustworthy system is required. The use of blockchain technology can contribute to the prevention of greenwash by enhancing trustworthiness, security, transparency, and traceability of data, as well as reducing costs and increasing efficiency. The Deutsche Bank uses blockchain to make environmental and social responsibility data transparent for its customers (4), while IBM Food Trust tracks food supply chains to avoid greenwash (5). In this study, DEMATEL-AISM(6) is used to identify the key factors and their interdependencies that influence greenwash behavior. Based on this knowledge, governments can develop targeted strategies for preventing and mitigating greenwash behavior, as well as promoting sustainable and environmentally responsible practices. By integrating the strengths of the DEMATEL-AISM method, the study provides comprehensive and accurate causal relationships and hierarchical structure analysis results (7). These results are intended to provide guidance to companies that are interested in using blockchain technology to improve the efficiency and effectiveness of greenwash governance.

2. Literature review

Blockchain technology has received significant attention. The potential applications of blockchain technology have been explored in various areas such as supply chain management, banking, and digital currencies (8)(9) examined the use of blockchain technology in equity crowdfunding via the Internet (10)(11). Furthermore, blockchain technology might open up the opportunity to contribute to greenwashing governance. This could lead to a better enforcement of regulations and more accurate compliance with existing standards. It could also reduce the risk of greenwashing fraud and increase consumer

protection. There has been a growing concern about greenwashing, which refers to the deceptive practices used by organizations to present themselves as environmentally friendly when they are not. In response, scholars have called for better governance mechanisms to address this issue. Several studies have examined the role of regulation in preventing greenwashing.(12)(13) Overall, the literature suggests that effective greenwashing governance requires a combination of regulatory measures, certification schemes, and technological solutions to promote transparency and accountability in organizations' environmental claims.

3. Data and Methodology

3.1 Factor Identification

This study conducted a literature review to identify 20 influencing factors from 80 relevant articles to select critical success factors for greenwash governing with blockchain technology (14). Additionally, six interviews were conducted with experts from ESG departments, CEOs of interior design companies, and blockchain specialists. The 10 factors with the lowest rankings among the 25 factors originally identified were removed in order to facilitate the construction of the subsequent model, thus eliminating factors with a weak influence on regulating greenwash using blockchain technology. 15 major influencing factors were identified and categorized according to their nature into five categories. A description of the Success Factor system for Blockchain-enabled Greenwash Government is provided in **Figure1**.

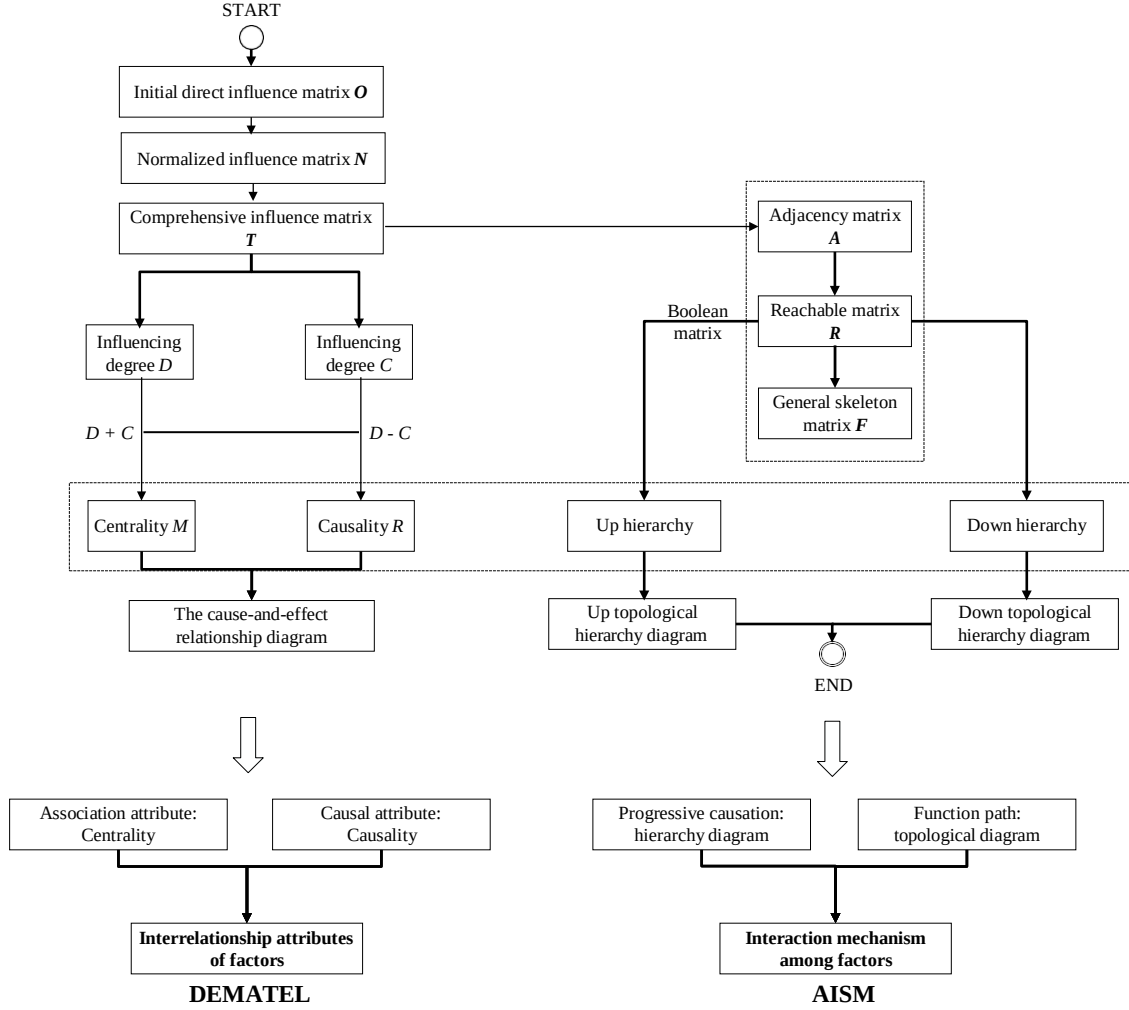
Figure 1: Success Factor System for Blockchain-Enabled Greenwash Governance

Criteria	Code	Sub-criteria	Explanation
Transparency	A1	Supply chain traceability	Traceability of all stages of the supply chain Availability
	A2	Process info availability	of information on the production process and materials used
	A3	Consumers accessibility	Easy accessibility of data to consumers
Accountability	B1	Smart contract implementation	Implementation of smart contracts for accurate data recording and accountability
	B2	Identification	Identification of all parties involved in the supply chain
	B3	Punishment	Adequate punishment for non-compliance
Credibility	C1	Data storage	Use of blockchain technology for immutable data storage and verification
	C2	Trustworthiness	Trustworthiness of blockchain service providers
	C3	Environmental claims verification	Verification of environmental impact claims
Consistency	D1	Data standardized	Use of standardized data collection and reporting methods
	D2	Data promptitude	Regular updates to data and reporting systems
	D3	Sustainable implementation	Implementation of sustainable practices in all stages of the supply chain
	D4	Consumer engagement	Engagement with consumers to promote awareness of greenwashing and blockchain technology
	D5	Participation	Encouraging participation in blockchain systems from all parties involved
	D6	Feedback	Implementation of feedback mechanisms to improve the system over time

3.2 Factor analysis based on DEMATEL-AISM

The DEMATEL (Decision-making Trial and Evaluation Laboratory) method (15) is used to determine causal relationships and the degree of impact among indicators influencing blockchain governance. This method does not provide a classification of the structural hierarchy. AISM (Adversarial Interpretive Structure Modeling Method) uses adversarial directed topological hierarchical graphs to identify active factors (16). By integrating the DEMATEL-AISM model, fundamental elements within complex systems can be identified and assessed (16). Figure 2 depicts the model framework.

Figure 2: The Structure of DEMATEL-AISM Model



3.2.1 Factor analysis based on DEMATEL

To assess the strength of relationships between influencing factors in blockchain governance for greenwash, six experts and scholars were invited. A direct influence matrix O was obtained as a first step. The initial direct influence matrix O was normalized to obtain the normalized influence matrix N .

$$N = \left(\frac{O}{\sum_{j=1}^n o_{ij}} \right) \quad (1)$$

Deriving the Comprehensive Influence Matrix T from the Normalized Influence Matrix N .

$$T = (N + N^2 + N^3 + \dots + N^k) \sum_{k=1}^{\infty} N^k = N(1 - N)^{-1} \quad (2)$$

The influence degrees D_i and affected degrees C_i of each influencing factor are calculated based on equations (3) and (4). The influence degree D_i represents the row sum of the corresponding factor.

$$D_i = \sum_{j=1}^n t_{ij}, (i = 1, 2, 3, \dots, n) \quad (3)$$

The influence degree C_i is defined as the column sum of the corresponding factor.

$$C_i = \sum_{j=1}^n t_{ji}, (i = 1, 2, 3, \dots, n) \quad (4)$$

Based on equations(5)and(6), the centrality degree M_i and causality degree R_i of each influencing factor are calculated. The centrality degree M_i is the sum of the influence degree D_i and the influenced degree C_i .

$$M_i = D_i + C_i \quad (5)$$

The cause degree R_i is defined as the difference between the influence degree D_i and the influenced degree C_i .

$$R_i = D_i - C_i \quad (6)$$

Based on the principle that factors with cause degrees greater than 0 are considered cause factors, and those with cause degrees less than 0 are considered result factors, the causal attributes of each factor were assessed and ranked accordingly.

3.2.2 Factor analysis based on AISM

To simplify the system structure, we introduce a threshold λ based on the comprehensive influence matrix T , where $\lambda = \bar{x} + \sigma$, $\bar{x}$ is the average value of each factor in matrix T , and σ is the standard deviation of each factor in matrix T . We compute the relationship matrix A based on the comprehensive influence matrix T .

$$\begin{cases} a_{ij} = 1, t_{ij} \geq \lambda \\ a_{ij} = 0, t_{ij} < \lambda \end{cases} \quad (7)$$

$A_1 = A_0 + I$, I is the identity matrix. The reachability matrix R is obtained by performing successive Boolean algebra operations on matrix A_1 , and the reachability matrix is determined by the discriminant function(8).

$$R = (A_1)^1 \vee (A_1)^2 \vee (A_1)^3 \vee \dots \vee (A_1)^r = (A_1)^{r+1} \quad (8)$$

Based on the reachable matrix R , it is observed that $A_1, A_2, C_2, C_3, D_2, D_3, D_4$ certain factors are strongly connected. By reducing these factors, a reduced matrix R is obtained by arranging the elements with "1" in each row in ascending order. The reduced matrix R is then modified to eliminate transitive binary relations and reflexive relations, resulting in the skeleton matrix F of influencing factors between systems. By utilizing equations(9)and(10), we determine the reachable set R and antecedent set Q of the matrix.

$$R = \{m_{ij} = 1\} j = 1, 2, \dots, n \quad (9)$$

$$Q = \{m_{ji} = 1\} j = 1, 2, \dots, n \quad (10)$$

The hierarchical classification contained Up Hierarchy and Down Hierarchy. According to (11), UP type hierarchical classification results in a hierarchy of results. From top to bottom, the extracted features are arranged in order of extraction. The DOWN type hierarchical, the hierarchy of reasons is extracted first, and the extraction rule is (12). In order from bottom to top, each extracted feature is arranged below.

$$R_i \cap A_i = R_i \quad (11)$$

$$Q_i \cap A_i = Q_i \quad (12)$$

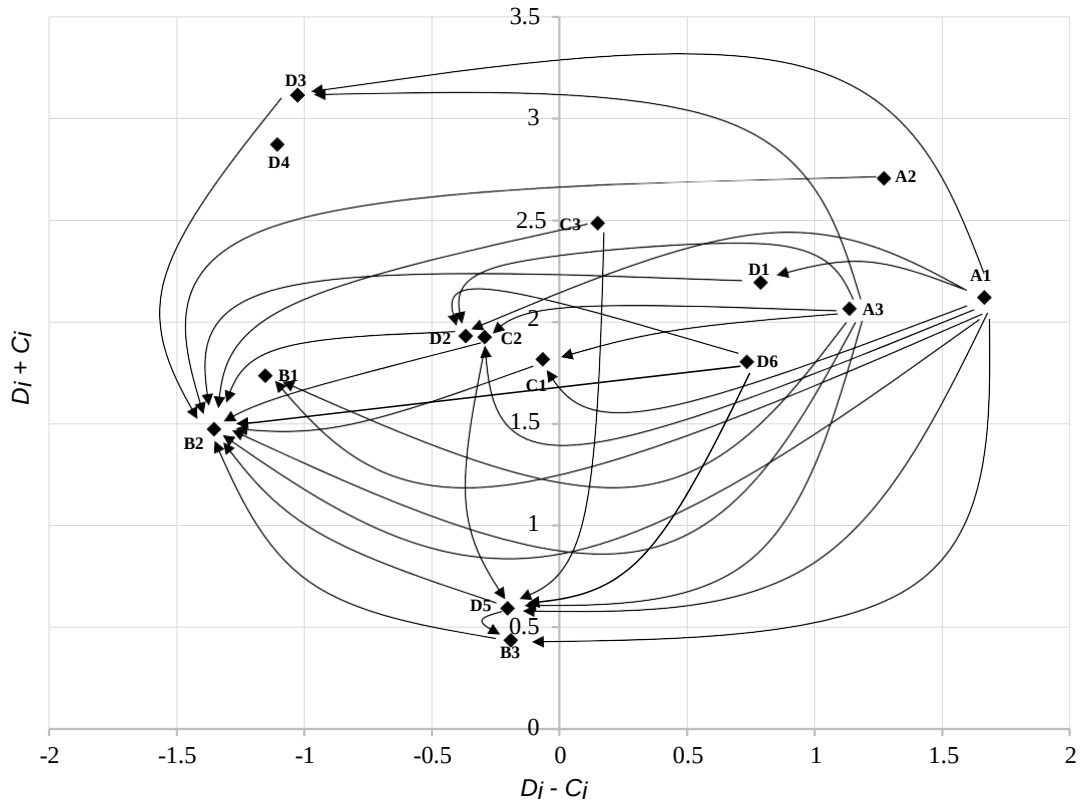
We obtained hierarchical and simplified topological diagrams by applying the opposite hierarchy extraction rules. Hierarchical structure diagrams were created by highlighting factors with strong connections and connecting them across levels and within levels using directed arcs.

4. Results and Discussion

4.1 Result analysis based on DEMATEL

As outlined in Subsection 3.2.1, we assessed the causal interaction between criteria and success factors related to Blockchain adoption in greenwash. To illustrate the cause and centrality degrees of the success factors in **Figure 3**, a causal diagram was created from the datasets $(D_i + R_i, D_i - R_i)$.

Figure 3: DEMATEL success factors relationships



In terms of macro-level factors, punishments for greenwash violations and identification of supply chain stakeholders had the least impact on blockchain development (16). D3 (Sustainable implementation) showed the highest cause degree, indicating the importance of implementing sustainable practices throughout the supply chain. A1 (Traceability of the supply chain) had the highest centrality degree, emphasizing the importance of enhancing traceability throughout the chain. In terms of overall causal interaction among the factors and blockchain adoption, A2 (Process info availability) demonstrated the highest sum of cause and centrality degrees.

4.2 Result analysis based on AISM

Hierarchical diagrams of UP-type and DOWN-type systems are illustrated in **Figure 4**. Factors marked in dark colors are active factors in the entire system (16). Active systems also have inconsistent causal series. A lower-level influencing factor is more fundamental, while a higher-level influencing factor is more direct. In an adversarial hierarchical topology diagram, a bidirectional arrow between factors indicates a strong causal relationship between them. There are three loops in the system: $A1, A2, \{C2, C3\}, \{D2, D3, D4\}$. These three groups of factors are strongly connected and have a mutual causal relationship. Strong interactions and tight interconnections result in consistent effects on blockchain governance in greenwash. They can be viewed independently. Implementing blockchain technology for greenwash management requires an integrated management approach to control these three looped factor groups.

The existing hierarchical relationships classify the system into the root layer (L6), intermediate layers (L2-L5), and result layer (L1).

Despite influencing other factors, root factors (L6) are not influenced by them. The root layer represents the fundamental reasons at the lowest level. The topological diagram shows only directed line segments. It is important to note that each of these three types of factors can influence other factors in the system directly or indirectly and can play a dominant role in forming a Pareto inferior set $A1, A2, \{D1, A1, A2\} = \{D1, A1, A2\}$. Greenwash has the greatest impact on blockchain governance. A1, A2, and D1 should be the focus of blockchain governance in greenwash.

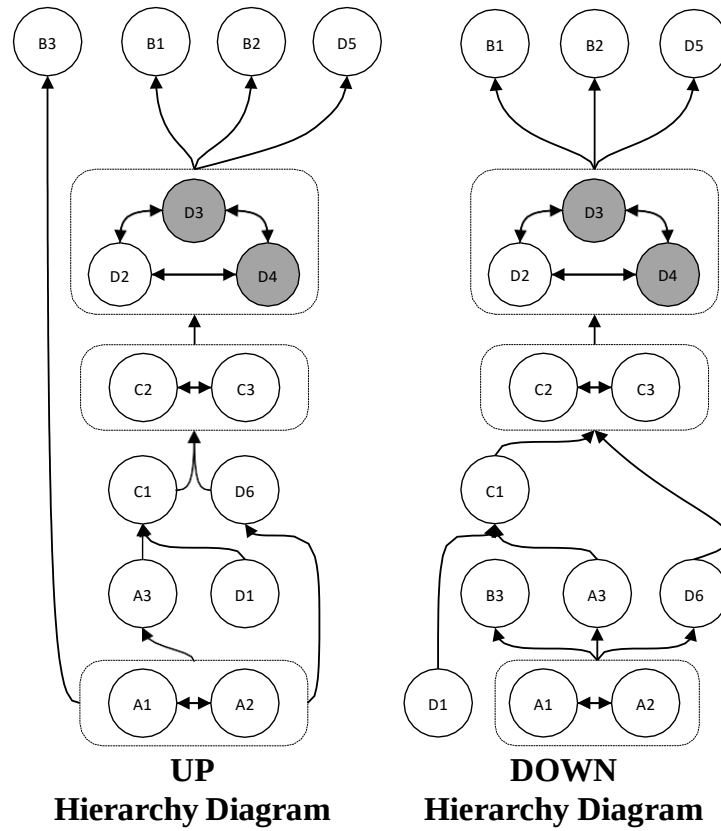
Results Layer (L1) factors are only influenced by other factors and are not influenced by other factors, making them the most direct factors affecting blockchain governance greening. According to the topological graph, they emit no directed edges. It is the union of the factors in the results layer that represents Pareto optimality set $\{B3, B1, B2, D5\} \cup \{B1, B2, D5\} = \{B3, B1, B2, D5\}$.

There are four categories of factors that directly influence blockchain governance greening, serving as causal factors that directly influence its effectiveness. To achieve fast and effective blockchain governance greening regulation, it is important to pay attention to the factors in the results layer. For direct management of blockchain governance greening, B3(Punishment), B1(Smart contract implementation), B2(Identification), and D5(Participation).

Factors in the Intermediate Layer (L2-L5) influence and are influenced by others. They receive and emit directed edges based on the topological graph. There are three intermediate layers, A3, C1, C2, C3, D2, D3, D4, and D6. These eight categories occupy a middle position in the hierarchical structure of blockchain governance greening. As a hub for information transmission, these layers are influenced by the root layer. The results layer can be managed indirectly by governing the intermediate layer factors with a high degree of centralization. This study indicates that direct management of B1(Smart contract imple-

mentation), B2(Identification), and D5(Participation) may not be feasible. By managing D3(Sustainable implementation), indirect management can be achieved.

Figure 4: AISM success factors relationships



4.3 Result Discussion between DEMATEL and AISM

This study combines DEMATEL and AISM methods. Factors are hierarchically related based on their cause degree (D_i+R_i) and result degree (D_i-R_i). By solving centrality and cause degree, influence degree (D) and influenced degree (R) are attenuated. Through adversarial hierarchical extraction rules, AISM incorporates the adversarial thinking of generative adversarial networks (GANs). In complex systems, DEMATEL may have limitations despite its ability to quantify mutual influence. While AISM can partition factors into hierarchical levels, it may not be able to accurately assess how factors interact. DEMATEL-AISM methods can provide more comprehensive causal relationships and hierarchical structure analysis results. Both causal relationships and mutual influences are considered, as well as hierarchical structures and pathways of influence propagation.

5. Conclusion

The intricate mechanisms by which critical factors affect the governance of greenwash using blockchain technology still require further study despite great efforts to combat it. The DEMATEL-AISM method was used to identify and analyze the key influencing factors for governing greenwash with blockchain technology. A literature review and expert interviews identified 15 major influencing factors. Among the factors that impact blockchain governance against greenwash are "Implementation of sustainable practices in all stages of the supply chain", "Tracerty of all stages of the supply chain", and "Access to information about the production process and materials used".

In this study, causal relationships and the degree of impact among the indicators are analyzed, along with their structural hierarchy. Success factors and their correlations are identified. This study clarifies the mechanism of critical factors, contributing to a better understanding of blockchain governance. Furthermore, it provides practical guidance for reducing corporate greenwash behavior by describing factors and their impact as well as their relationships to assist customers and government agencies. Both contributions are valuable.

Governing greenwash with blockchain technology. The DEMATEL-AISM method has limitations, including the need for enough and representative experts, which may lead to subjectivity. Furthermore, large-scale and complex factors may complicate the method. Future research is required to validate our approach and refine the analysis framework. Machine learning algorithms may enhance the analysis of large-scale data sets in the future.

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Determinants of Inflation- Western Balkan countries

A panel data approach

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ABSTRACT

This paper provides an overview of the factors influencing inflation in Western Balkan countries, focusing on government debt, unemployment, GDP growth, trade openness, and foreign direct investment (FDI). Understanding these factors is crucial as they can impact price stability and long-term economic growth. Government debt is a significant factor, as it can lead to an expansion of the money supply and inflationary pressure. Unemployment can alleviate inflationary pressures by reducing demand. GDP growth is crucial for determining inflation, and trade openness affects it through changes in exchange rates and import price dynamics.

Foreign direct investment (FDI) inflows can also impact inflation, but proper regulations are needed to control capital influx and exchange rate consequences. The study will use data from Western Balkan nations and econometric approaches like panel data analysis or time series analysis to examine the links between these factors and inflation. The results will help policymakers develop effective monetary and fiscal policies to promote price stability and long-term economic growth.

Keywords: *Inflation, Determinants, Western Balkan Countries, Government Debt, Unemployment, GDP Growth, Trade Openness, Foreign Direct Investment.*

CHAPTER 1

INTRODUCTION

The stability and development of countries around the world are impacted by inflation, which is the steady rise in the overall level of prices for goods and services. In the Balkan nations, this phenomenon is particularly important. For politicians, economists, and investors looking to understand the distinctive variables influencing price dynamics and develop successful monetary policies, an understanding of the reasons driving inflation in these nations is essential.

The nations of the Balkans, which include Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo, Montenegro, North Macedonia, Romania, Serbia, and Slovenia, have gone through various stages of economic development, political upheaval, and economic integration. The area has experienced periods of instability, military conflicts, and shifts from economies that were centrally planned to ones that were market-oriented throughout history.

These elements have influenced the distinctive inflationary trends seen in the region, along with domestic policies, outside shocks, and structural changes.

The goal of this study is to investigate the variables that influence price changes and the interactions between local and foreign effects in the Balkan countries. We can learn a lot about the elements that influence inflation trends in this region by examining a wide range of variables, including exchange rates, public debt, foreign direct investment (FDI), and trade openness.

Inflation in the Balkans is significantly influenced by exchange rate dynamics. The stability of exchange rates can have substantial ramifications for inflationary pressures because many nations in the region have experienced currency transitions or retain fixed exchange rate regimes. To determine how exchange rate variations affect the costs of exports, capital flows, and imported commodities, it will be analyzed how these factors affect inflation rates

Another significant factor affecting inflation in the Balkans is public debt. The amount of public debt has an impact on fiscal policy, borrowing costs, and investor confidence, which all have an impact on inflationary pressures. Understanding how fiscal sustainability and debt management contribute to price stability in the area will be revealed by analyzing the relationship between public debt and inflation.

Inflation in the Balkans is significantly influenced by foreign direct investment (FDI). New technologies, capital, and job possibilities that are brought in by FDI inflows may boost productivity and lessen inflationary pressures. The analysis will look at how FDI affects the domestic economy and how it influences the general level of prices in the Balkan countries. It will also explore the relationship between FDI and inflation.

Inflation is greatly influenced by trade openness, which is the degree of a nation's inclusion into the world trading system. The availability and cost of goods and services, as well as the competitiveness of domestic sectors, are all impacted by the degree of trade openness. Understanding how the dynamics of international commerce affect the price levels in the Balkan countries can be gained by examining the relationship between trade openness and inflation.

This study will also take into account how other factors, such labor market dynamics, may affect inflation in the Balkans. Long-term effects on inflation may result from structural changes aimed at boosting the business climate, increasing labor market flexibility, and fostering competition. Inflationary pressures can also be affected by the effectiveness of resource allocation, technical improvements, and the economy's overall productivity.

Policymakers and stakeholders must comprehend the factors that affect inflation in the Balkans and how they interact. This study aims to add to a more thorough understanding of inflation dynamics in the area by addressing these aspects and highlighting potential policy consequences.

The findings can aid in the creation of successful methods to support price stability and long-term economic growth in the Balkan nations and can help policymakers in their decision-making processes.

CHAPTER 2

LITERATURE REVIEW

In several industrialized and emerging nations, inflation is a significant and fascinating concern. The popular idea of monetarism explains the connection between inflation and the money supply of an economy. The demand-pull inflation hypothesis, which contends that excessive demand (spending) relative to the amount of goods and services readily accessible

at present prices is what ultimately causes inflation, is connected to the classical theory of inflation. Economists like Friedman, Hawtrey, and Golden Weiser, who view inflation as a purely monetary occurrence, support this idea. Whether in the public or private sector, significant investment spending causes the economy's excess demand to increase and surpass total output. This additional demand will result in price rises, a phenomenon known as demand-pull inflation.

According to the demand-pull inflation hypothesis, prices rise as a result of an overall excess of demand over the supply of goods and services that are readily available, which is triggered by a growth in the money supply. The excess demand hypothesis is furthered by economists such as Bent Hansen, Keynes, Wicksell, and Swedes. According to the cost-push inflation theory, rather than prices rising due to an increase in demand, prices rise as a result of rising production costs. Cost-push inflation is a form of inflation that appears in industries with high levels of concentration and where sellers have a considerable lot of autonomy in determining their own prices and compensation. Cost-push inflation might not be able to occur in an economy with only competitiveness.

Inflation is a tough condition to address because of the dynamics of cost and supply. Most economists now concur that a mix of cost-push and demand-pull variables, rather than just one, is what drives inflation. How sensitive prices and wages are to changes in demand is the key area of disagreement between the two theories of inflation. Demand-pull inflation advocates contend that the economy has wage and price flexibility, whereas proponents of the notion that these factors are not flexible emphasize inflation or the cost-push theory. As explanations for the cause of inflation, both approaches are complementary rather than rival, and none should be viewed on its own as totally sufficient.

Inflation Determinants

Using secondary data and quantitative research using a vector error correlation model and multivariate time series, Durguti examined the factors influencing inflation in 2020. In our work, we'll use panel data for analysis. His study's variables are connected with FDI, GDP, public debt, and exchange rates pertaining to Western Balkan nations.

The impact of GDP growth

According to Salim, N. J., Leng, N. K., Yusof, M. H. M., Yahya, H., and Mamat, 2021, one of the most important factors influencing inflation is GDP. In their study of the factors influencing inflation from 2003 to 2019 with 102 observations from the Western Balkans, Durguti, Tmava, Demiri-Kunoviku, and Krasniqi (2021) used dynamic panel data analysis. They came to the conclusion that GDP growth is significant and has a positive relationship with Inflation. In relation to this, Malenkovi, N. (2023), Rehman, M. U., Ali, & Shahzad, S. J. H. (2020), and Koulakiotis, A., Lyroudi, & Papasyriopoulos, N. (2012) all produced findings of a similar kind. On the other side, real GDP growth has a detrimental effect on inflation, according to Ochieng, O., MS, & Gideon's (2016) study. Additionally, the panel Granger causality test conducted by Mamo, F. (2012) and Benhabib, J., & Spiegel, M. M. (2009) revealed a negative correlation between GDP growth and inflation.

H₀: There is a significant impact of GDP growth on inflation

H_A: There is not a significant impact of GDP growth on inflation

The impact of Government Debts

Government debt in connection to inflation is a key factor in the literature. Government debt is predicted to be positively associated by Durguti, E. A. (2020). In his study, Mustafa (2008) discovered that the rise in government debt is less inflationary in prosperous nations. The results show that the amount of government debt has an effect on the increase of inflation with regard to the link between government debt and inflation. Government debt and inflation have been related and have been proven to be complimentary, according to Kwon

(2006). He employed panel data from 71 nations between 1963 and 2004 in his research, supporting the first phrase with the use of a VAR model and OLS estimate.

H₀: There is a significant impact of government debt on inflation

H_A: There is not a significant impact of government debt on inflation

The impact of FDI

According to Mustafa, A. M. M. (2019), there is a strong and positive correlation between FDI and inflation. These outcomes are comprehensible given that he discovered that FDI is a significant factor influencing inflation. Two of them have a close relationship, which is examined in the literature. According to Agudze, K., and Ibhagui, O. (2021), there is a unique example. They discovered a conflict between FDI and inflation. When FDI is present in developed and industrial nations, inflation tends to be reduced. According to the 2016 research by Ochieng, MS, & Gideon, there is little correlation between the FDI and inflation in Kenya. In China, the FDI has little impact on inflation.

H₀: There is a significant impact of FDI on Inflation

H_A: There is not a significant impact of FDI on Inflation

The impact of Unemployment Rate

One of those indicators, the unemployment rate, has been extensively studied as a significant predictor of inflation. In spite of other significant factors, Tenzin, U. (2019) used unemployment rate to examine inflation in his study in Bhutan. His empirical findings demonstrated that the unemployment rate was considerable. Long run and short run results differ for two stages. The influence of unemployment rates appears to be good over the long term, although they are negatively correlated with inflation in the near term. In other words, a decline in the unemployment rate resulted in a short-term decline in inflation.

The novel theory examined in the Arshad, S., & Ali, A. (2016) paper suggests that there is typically no statistically significant association between inflation and unemployment rate, indicating that unemployment rate has no bearing on inflation.

H₀: There is a significant impact of Unemployment rate on Inflation

H_A: There is not a significant impact of Unemployment rate on Inflation

The impact of Trade Openness

The relationship between trade openness and inflation is one of the most often debated factors in international studies. According to Dauti, B., and Elezi, S. (2022), openness will have a favorable relationship. The production gap and other control variables, such as investments, have been revealed to be significant determinants in explaining the growth performances of the Western Balkan and Central East European nations. Lin, H. Y. (2010) discovered a negative relationship between trade and inflation. He acknowledges that trade openness has a negative impact on inflation in the event of hyperinflation but has no impact when inflation is lower to bolster the first point. Along with inflation, the inverse link is more pronounced. However, Sepehrivand, A., & Azizi, J. (2016) examined inflation in D-8 member nations and found that trade openness is significant based on the evidence. The findings also revealed that trade openness has a positive and substantial influence on inflation, which serves as the dependent variable.

H₀: There is a significant impact of Trade on Inflation

H_A: There is not a significant impact of Trade on Inflation

CHAPTER 3 DATA & METHODOLOGY

In this section, we will analyze both the dependent and independent variables that are used in this study. We will provide descriptions for all data and also, econometric specification. For our panel data analysis are taken in considerate Western Balkan countries including Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Kosovo and Serbia. The reason for choosing this group of countries is because we have noticed fluctuations of inflation for the past year. Inflation has increased faster after the Covid-19 pandemic, since the beginning of Russo-Ukrainian War.

Table 3.1 Variables and sources of data

VARIABLE	MEASUREMENT	EXPECTED SIGN	SOURCE
Dependent variables Inflation	Annual %		IMF, World Bank, OECD National Account

Independent variables			
Gross Domestic Product Growth	Annual %	+	World Bank and OECD National Accounts data files
Foreign Direct Investment	Current US\$	-	World Bank, OECD National Accounts
Government Debts	% of GDP	+	IMF and World Bank
Unemployment rate	% of total labor force	-	World Bank and OECD National Accounts data files
Trade Openness	% of GDP	+	

Statistics for 13 years and 6 countries were provided from WDI and IMF. We are going to use panel data approach, conducting an ordinary least squares (OLS) regression analysis to understand the relationship between inflation and the variables we have chosen.

Statistical analysis that we are going to use are correlation between variables, R-squared, t-tests, p-values and null-hypothesis. All of these tests are methods used to evaluate the

significance of our model results. To give the results we conduct Unit Root Test, Zero Conditional Mean, Hausman Test, Homoscedasticity and Serial Correlation between the variables.

Variables

The close relationship between Inflation and its factors is conducted by estimating this equation:

$$INF = \beta_0 + \beta_1 GDPGRW + \beta_2 GOVDEBT + \beta_3 FDI + \beta_4 TRADE + \beta_5 UNEMP$$

Where:

Our explanatory variable is INF, a factor related to inflation. Consumer price index inflation is the yearly percentage change in the average consumer's cost of acquiring a basket of goods and services, which may be set or adjusted at specified intervals, such as annually. The Laspeyres formula is typically used. (WDI, 2022). Inflation is measured in annual percent. The term GDPGRW refers to the growth of the gross domestic product. It calculates the GDP's annual percentage growth rate using stable local currency at market prices. The sums are calculated using constant 2015 prices expressed in US dollars.

GDP is determined by adding up all of the gross values produced by inhabitants of the economy, subtracting any unreported subsidies, and adding any relevant product taxes. It is calculated without accounting for the degradation, exhaustion, and depreciation of manufactured assets or of natural resources. This variable is captured by the annual% measure.

GOVDEBT displays information on public debt. Debt is the sum of all unpaid fixed-term obligations between the government and other parties as of a particular date. It includes both domestic and foreign liabilities such loans, securities other than shares, money market deposits, and currencies. It is the total of all of the government's commitments less the stock and financial derivatives that it owns. Because debt is a stock and not a flow, it is valued as of a fixed date, sometimes the end of the fiscal year. the percentage of GDP that was utilized to calculate this indicator.

FDI stands for foreign direct investment. The net inflows of foreign direct investment comprise the sum of equity capital, earnings reinvested, and other capital (WDI, 2022). Net

FDI influx is expressed in current U.S. dollars. The value is given in level-form even if certain independent variables are expressed in log form.

TRADE in level form demonstrates trade openness. Trade openness may be calculated as a percentage of GDP using total exports + total imports. A market seeking inflation in this circumstance needs a strong correlation between trade and inflation. As a result, we believe that trade will have a positive and significant impact on inflation.

The abbreviation UNEMP stands for the level form of the unemployment rate. The labor force that is actively looking for work but is unable to find it is represented by this variable. Or, to put it another way, anybody who is available and seeking for work, even people who have recently lost their jobs. When a person is unemployed, it might also mean that they have future employment ambitions but aren't now looking for work. In this case, the population as a whole is not taken into account; just the workforce is. This variable's representation was as a percentage of the whole labor force.

Descriptive Statistics

Below we are presenting descriptive statistics for all variables included in the model. We choose to describe mean, median, minimum, maximum and standard deviation for each of them.

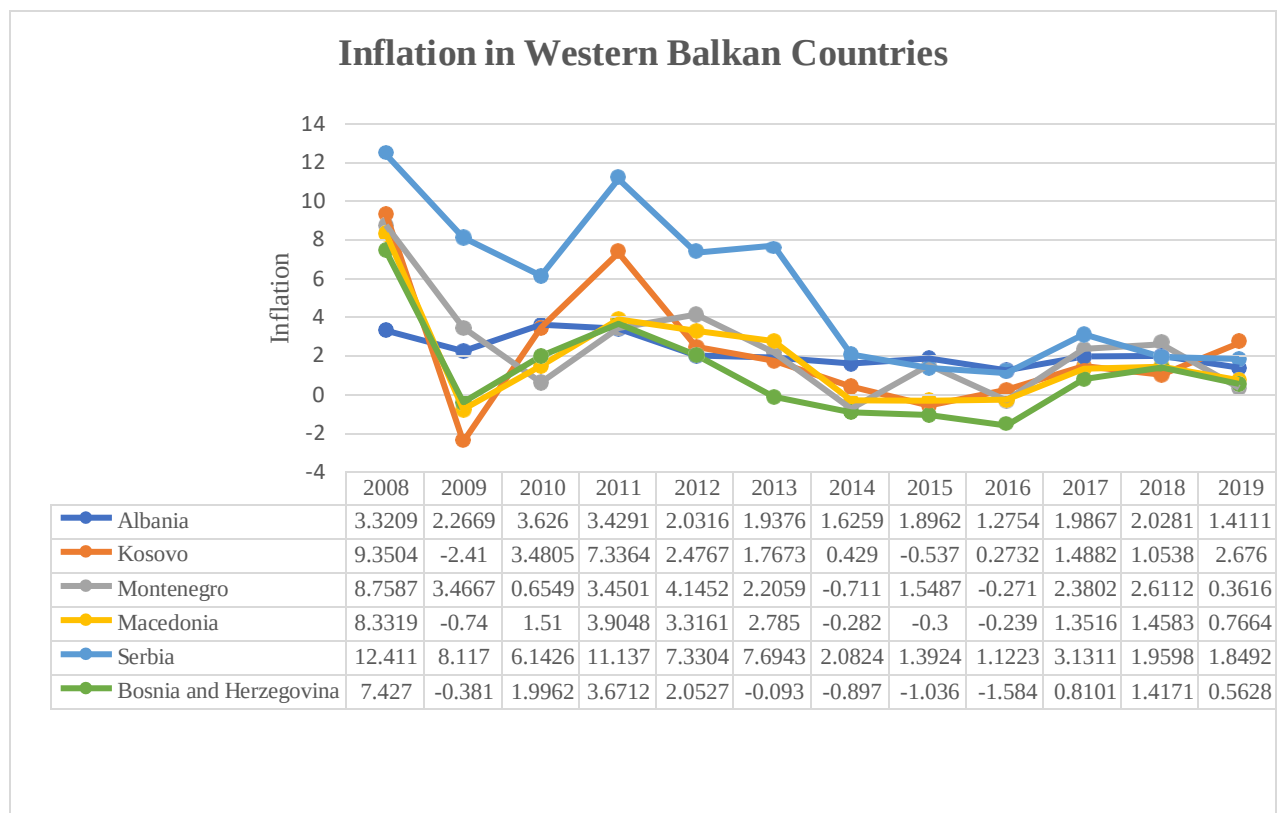
Table 3.2 Descriptive statistics of variables

	INF	GDPGRW	FDI	TRADE	UNEMP	GOVDEBT
Mean	2.133436	1.995220	-9.16E+08	92.95264	21.51507	97.89639
Median	1.625865	2.892637	-5.35E+08	88.14511	19.65000	95.52770
Max	12.41099	7.500041	-1.64E+08	138.5762	45.40000	131.8818
Min	-2.410264	-15.30689	-4.62E+09	66.02182	9.01000	80.98880
Std. Dev.	2.744778	3.425873	9.96E+08	16.35180	7.231813	9.171461

As we see from the table, our dependent variable has an average of 2.133436%. The maximum that can reach is 12.41099% and the minimum is -2.410264%. Our most important variable, GDP growth, has an average of 1.995220%. The maximum and minimum are

7.500041% and -15.30689%, respectively. As we see from the table, FDI has a negative mean, median, maximum and minimum. As for the standard deviation, it is positive, 9.96E+08 respectively.

Below is presented the graph which shows the inflation of Western Balkan countries for the time period 2008 to 2020.



From the graph we understand that the highest inflation is in Serbia while the most constant inflation is in Albania. After certain years inflation has been decrease in almost all the countries.

CHAPTER 4

EMPIRICAL FINDINGS

4.1 Stationary

An important test that should be done is testing for stationarity. All the variables, including dependent or independent ones, should be stationary in levels. It is conducted Unit Root Test for giving the results.

Table 4.1 Stationarity of the variables

Variable	PP – Fisher Chi - square	Probability level	PP	Probability 1-st difference
INF	46.5123	0.0080		
FDI	14.9420	0.9584	65.6379	0.0000
TRADE	8.20839	0.9997	78.0745	0.0000
GDPGRW	69.2771	0.0000		
GOVDEBT	66.0770	0.0000		
UNEMP	68.9402	0.0000		

From the variables above INF, GDPGRW, GOVDEBT and UNEMP are stationary at level, while FDI and TRADE are stationary at first difference so need to write with a D: d(TRADE) and d(FDI).

4.2 Multicollinearity

Next thing to do is testing for multicollinearity. This allows to see if the variables are correlated with each other or not.

All the regressors can be part of the equation, since no one of the variables is not greater than 0.8. There is no correlation between variables.

Table 4.2 Correlation matrix

	GDPGRW	LGOVDEBT	DTRADE	UNEMP	DFDI
GDPGRW	1.000000				
LGOVDEBT	-0.184383	1.000000			
DTRADE	0.081205	0.038565	1.000000		
UNEMP	0.185864	0.375464	-0.324186	1.000000	
DFDI	-0.011049	0.384947	0.020931	0.541163	1.000000

4.3 Zero Conditional Mean

To make this assumption valid, is needed to make residual series and to see if residuals are independent from each other and the second condition is that the mean needs to be equal or approximately zero. With a mean equal to -6.12E-16 the second condition is satisfied.

Table 4.3 Correlation of residuals and regressors

	RESID01
RESID01	1.000000
DFDI	-2.73E-16
DTRADE	-1.56E-16
GDPGRW	2.25E-15
LGOVDEBT	9.52E-14
UNEMP	1.28E-14

The values do not exceed the threshold of 0.8, which means that assumption is satisfied in full.

4.4 Hausman Test (Period Random Effects model vs Fixed)

With the Hausman Test it can be found if this model is specified for random effect or fixed effect. To test for it is stated the null and alternative hypothesis in favor of a random effect model.

H_0 : A random effect model is preferred.

H_A : A fixed effect model is preferred.

The probability of the Hausman Test is 0.0001, which means that it has enough evidence to reject the null at any confidence level. So, this model has a period fixed effect.

Table 4.4 Hausman Test results

Correlated Random Effects - Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period fixed	26.561638	5	0.0001

4.5 Homoscedasticity

To test for homoscedasticity, should run a regression of the residual in the power of two as a dependent variable. The hypothesis test is shown below:

H_0 : Homoscedasticity

H_A : Heteroscedasticity

A prob(F-stat) denotes a value of 0.000710, which means that is less than 0.05 significance level. So, reject the null hypothesis and the model suffers from heteroscedasticity. To tackle this problem, should change the covariance method from Ordinary to White Period.

Table 4.5 Breusch Pagan results

Dependent Variable: RESID01^2				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DFDI	-8.50E-10	4.05E-10	-2.096832	0.0406
DTRADE	-0.018317	0.020964	-0.873773	0.3860
GDPGRW	-0.067833	0.073974	-0.910220	0.3667
LGOVDEBT	-2.313502	3.064977	-0.7548149	0.4536
UNEMP	-0.026169	0.057291	-0.456766	0.6496
C	12.61498	14.26763	-0.884167	0.3805
Prob(F-statistics)				0.000710

4.6 Serial Correlation

The next assumption is testing for Serial Correlation to show if the model is suffering from it. The null hypothesis and alternative hypothesis are:

H₀: The model has serial correlation

H_A: The model does not have serial correlation.

It is conducted an AR (1) model to test this hypothesis. In AR(1) the model seems to be free from serial correlation because of the value 0.2268 is > than any of confidence level.

Table 4.6 Auto-regressive test results

Variable	Coefficient	Std. error	T-statistic	Prob.
DFDI	2.83E-10	3.37E-10	0.838020	0.4073
DTRADE	-0.003636	0.016066	-0.226346	0.8221
GDPGRW	0.018840	0.056160	0.335464	0.7391
LGOVDEBT	1.404077	2.846928	0.493190	0.6247
UNEMP	-0.035029	0.051157	-0.684733	0.4977
C	-5.317630	13.25890	-0.401061	0.6906
RESID01(-1)	-0.329033	0.267836	-1.228484	0.2268

4.7 Normality

According to the central limit theorem, if the sample size is greater than 30 observations, the Normality assumption is fully specified. In this case, the number of observations is 61 which is larger than 30, we assume that this model has a normal distribution.

4.8 Final Model

Table 4.7 Final Regression results

Variable	Coefficient	Std. error	t-statistic	Prob.
DFDI	-7.79E-10	3.43E-10	-2.273843	0.0280

DTRADE	-0.024297	0.019121	-1.270720	0.2107
GDPGRW	-0.147346	0.091079	-1.617777	0.1130
LGOVDEBT	-2.731500	0.953108	-2.865887	0.0064
UNEMP	-0.077636	0.040688	-1.908064	0.0631
C	16.47406	4.895632	3.365053	0.0016

After all assumptions being satisfied, the final regression is shown together with their coefficients, standard errors, t-statistics and probability. Also, in the table is presented R-squared and Probability of overall model.

R-squared	0.825007
Prob(F-statistic)	0.000000

The final regression model is shown below:

$$\text{INF} = 16.47406 - 7.79\text{E-}10 \text{ D(FDI)} - 0.024297 \text{ D(TRADE)} - 0.147346 \text{ GDPGRW} - 2.731500 \text{ LGOVDEBT} - 0.077636 \text{ UNEMP}$$

CHAPTER 5 RESULTS

According to the results, the overall significance of the model is proved by checking the Probability(F-stat). With a probability of 0.000000, it has enough evidence to reject the null hypothesis at any significance level. This means that the final model is statistically significant. This model has an overall explanatory power of 82.5007% out of 100%. It is able to explain only this proportion out of the total variability of the dependent variable. The rest of the variability in FDI is attributed to forces outside the model.

FDI turns out to be statistically significant at 5% and 10% significance level because of the probability of 0.0280. It is negatively related to inflation. If FDI is increased by 1 percentage, it is expected Inflation to be decreased by 7.79E^{-10} percentage point, ceteris paribus. According to Agudze, K., & Ibhagui, O. (2021), FDI seems to be significant and has a negative impact on Inflation.

Government debts, with a probability of 0.0064 is statistically significant at any significance level. It indicates a negative relationship between government debts and Inflation. If government debts are increased by 1 point, it is expected Inflation to decrease by 2.731500

points, *ceteris paribus*. The results are supported by Kwon, (2006), who found out that inflation has a negative and significant effect on Inflation.

Trade openness is one of these variables which came out to be statistically insignificant with a probability of 0.2107. Even though it indicates a negative coefficient, their impact on Inflation is zero. Binici, M., Cheung, Y. W., & Lai, K. S. (2012), in their analysis, found out that trade is statistically insignificant and there is no relationship between trade openness and Inflation.

Unemployment is shown to be highly significant at only 10% significance level with a probability of 0.0631. A diminishing relationship between unemployment and Inflation has proved. If the unemployment rate is increased by 1 percentage, it is expected Inflation to decrease by 0.077636 percentage points, *ceteris paribus*. Tenzin, U. (2019) in their study found out that in short run unemployment rate is associated with a negative relationship with inflation.

GDP growth came out to be an insignificant determinant presenting Inflation. They do not have an impact on inflation because of the probability of 0.1130. Aziz, R. N. A. R., & Azmi, A. (2017) in their study, determined an insignificant relationship between GDP growth and Inflation.

CHAPTER 6

CONCLUSIONS

In this study, we analyzed the impact of GDP growth, Trade Openness, FDI, Government debts and Unemployment rate in Inflation. To make our regression a better one, we conducted a fixed effect model with period weight. Based on the literature review, we tested all the assumptions, made them satisfied and determined the impact of each variable.

The variables which indicate a significant effect on Inflation were FDI, Government debts and Unemployment. According to Agudze, K., & Ibhagui, O. (2021), FDI seems to be significant and has a negative impact on Inflation. Our results are supported by Kwon, (2006) who found out that government debts have a negative and significant effect on Inflation. Tenzin, U. (2019) in their study found out that in short run unemployment rate is associated with a negative relationship with inflation.

On the other hand, variables whose impact on Inflation was zero were Trade Openness and GDP growth. Binici, M., Cheung, Y. W., & Lai, K. S. (2012), in their analysis, found out that trade is statistically insignificant and there is no relationship between trade openness and Inflation. To support our results, Aziz, R. N. A. R., & Azmi, A. (2017) confirmed the insignificance of the GDP growth on Inflation.

Our analysis may be helpful for those who are interested in investing in foreign countries. They

can make decisions by considering the results of all variables and put focus not only on the most important variables but also on the ones which were insignificant, because behind a determinant will always be a reason for being this way.

CHAPTER 7

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APPENDIX

Tables for the data collection for the study analysis.

Time	Country Name	INF	FDI	GDPGRW	UNEMP	GOVDEBT	TRADE
2008	Albania	3.320871	- 8.8E+08	7.500041	13.06	95.2465	77.45175
2008	Kosovo	9.350418	-5E+08	..	47.5	93.1637	76.73074
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Data from database: World Development Indicators

Developing sustainable supplier evaluation framework – The 10 cs of supplier evaluation

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Abstract

The purpose of this paper is to provide theoretically uniform, methodologically adherent and practically applicable framework for supplier evaluation, based on the principles of TBL sustainability. In order to identify a theoretically uniform sustainable supplier evaluation model, a comprehensive literature review was conducted. The outcome was the development of the new sustainable supplier evaluation approach, coupled with AHP methodology. The proposed model was empirically tested in paper wholesaling industry setting. The final outcome of the model's testing was the provision of suppliers' assessments and rankings. The paper also discusses implications regarding theoretical uniformity, methodological adherence and practical applicability of the developed model, and provides ideas for future research avenues.

Key words: supplier evaluation, sustainability, sustainable supplier evaluation, AHP methodology

1. Introduction

One of the key strategic challenges in supply chain management is choosing the right supplier. Suppliers have a vital role in contributing to company's capability to deliver value to its customers. To understand and manage a supply chain, data on suppliers' performances has to be adequately and comprehensively monitored, assessed, interpreted, and acted upon. Part of the supply chain management process, tasked with assessing suppliers' performances, is supplier evaluation (Gimenez & Sierra, 2013).

We are witnessing ever growing complexity and volatility of modern supply chains, permeated with rising ethical, environmental, and social challenges, conjoined as sustainability issues. This has been the driving force for establishing supply chain management practices, which incorporate sustainability aspect, embodied in the triple bottom line (TBL) principle (Elkington, 2004). The occurring shift from supplier evaluation process to sustainable supplier evaluation (SSE) process implies that supplier performance should be evaluated in all three domains of their business responsibility: economic, environmental, and social. Nevertheless, contemporary literature is often single-directional, focusing on the specific aspect of sustainability, neglecting the inter-dimensional relations, synergetic interactions and economic soundness of the remaining aspects (Morali & Searcy, 2013). Therefore, it is a common occurrence to see partial SSE models, such as green supplier evaluation models (Govindan et al., 2015). Similar situation occurs when only social aspect is taken into account ((Xu et al., 2013). To this day, the literature does not provide a universally accepted SSE framework, nor a dominant approach to modelling supplier KPIs.

This paper was inspired by the strategic potential that SSE possesses in modern business decision-making process, and driven by observed inconsistencies in theoretical considerations and research approaches to this topic. The main research aim of this paper is to identify a theoretically uniform SSE model, which overcomes afore mentioned knowledge gaps. To test the applicability of the model, AHP methodology is used, as one of the most common modelling techniques in SSE literature.

The outline of the paper is based around the research aim. In the next section a literature analysis of SSE literature is performed, in order to identify the theoretical foundation for SSE framework. Next, implemented methodology for model testing is explained, followed by empirical results. The discussion part interprets the findings and critically analyses operational and strategic implications of the proposed SSE model. The paper ends with concluding remarks and overview of future research avenues.

2. Literature review

The origins of supplier evaluation can be traced to 1960s when it was referred to as vendor selection and evaluation. In the beginning cycle time and responsiveness were dominant assessment criteria. More recent supplier evaluation acknowledge the importance of supplier flexibility, as well as product and service quality (Chan & Chan, 2010). Contemporary literature has transitioned from assessing suppliers' performance through only economic criteria by recognizing the importance of many ecological and social business aspects (Brandenburg & Rebs, 2015). This shift towards triple-bottom line sustainability in business gave rise to sustainable supply chain management (C. R. Carter & Rogers, 2008), and consequently sustainable supplier evaluation.

Early papers on sustainable supplier evaluation are oftentimes single-directional, focusing on the specific aspect of sustainability, neglecting the inter-dimensional relations, synergetic interactions and economic soundness of the other remaining aspects (C. R. Carter & Liane Easton, 2011; Seuring & Müller, 2008). Therefore, green supplier evaluation models were a common occurrence (Akman, 2015; Banaeian et al., 2015; Boutkhoul et al., 2016). These models focus on evaluating the environmental aspects of supplier activities, but in doing so, neglect or underestimate social, and only sporadically cover the economic aspect of the evaluation process. Proposed solutions are usually not economically sound, and thus unacceptable for the majority of companies.

Similar problem occurs when only environmental aspect is taken into account (Kannan et al., 2014; Qin et al., 2017), or a combination of just social and economic assessment criteria (Winter & Lasch, 2016; Xu et al., 2013). However, the majority of contemporary papers on the topic embraces the triple-bottom line business logic and evaluates suppliers' performance through all three sustainability dimensions simultaneously (Ahmadi et al., 2020; Keskin, 2022; Zhang et al., 2021).

Although predominantly based on TBL philosophy, contemporary literature fails to provide a single, theoretically uniform sustainable supplier evaluation framework. This is reflected by evaluation criteria used in existing studies, which are either too broadly defined, with vague, often overlapping classification boundaries, such as delivery, quality, cost, service, technology, environmental performance and environmental impacts (Akman, 2015; Azadnia et al., 2012; Banaeian et al., 2015; Govindan et al., 2016; Wang Chen et al., 2016; Yazdani et al., 2017), or too specific, problem-orientated criteria, without broader inter-industrial applicability (Boutkhoul et al., 2016; Kannan et al., 2014; Kusi-Sarpong et al., 2016; Qin et al., 2017). Additionally, criteria used to evaluate suppliers are oftentimes adapted to best adhere to the implemented analytical methodology (Petković et al., 2020). This limits the effectiveness and accuracy of derived results.

The majority of existing SSE frameworks are orientated at solving individual problems, related to specific companies, countries or industries. Building upon this research gap, the aim of this paper is to develop a TBL-based supplier evaluation framework which can be applied regardless of the business context, as well as be compatible with the majority of modelling techniques, rather than be the "best fit" to a specific one.

Similarly to the famous 4P marketing concept, in 1995 Ray Carter developed a supplier evaluation framework, which will later become known as *The seven Cs of supplier evaluation* (R. Carter, 1995). These

criteria were: *Capacity* (ability to meet present and future demands); *Cash* (contractor's financial stability); *Commitment* (contractor's possession of quality policy, and commitment to its success); *Competency* (ability of the contractor to perform the contract); *Consistency* (contractor's ability to provide consistent levels of quality and services); *Control* (contractor's ability to manage key business processes); *Cost* (analysis of key financial indicators).

These seven key elements formed the rigid backbone for every supplier performance effort, regardless of the contextual business elements (Mishra, 2009). This original set of criteria was later expanded by Carter and DPSS Consultants, and incorporated three additional criteria: *Clean* (contractors and their products/services should satisfy legislative and other environmental requirements); *Communication* (means, efficiency and effectiveness of communication with the contractors); *Culture* (contractors and client should share similar values) (R. Carter et al., 2012; R. J. Carter & Kirby, 2006). Continuous improvement and innovation has also been mentioned as a potential criteria.

Carter's model provides a general evaluation framework, with intuitive and balanced criteria, derived from main business performance aspects of every company (R. Carter et al., 2012). Evaluation criteria can be used as top-tier categories in a weighted point rating system, balanced scorecard, or a similar strategic assessment tool, or as primary criteria in a more complex, methodological analysis (Mishra, 2009). However, Carter's model is exclusively economically orientated and lacks TBL sustainability consideration. Building upon the findings from the literature review, this paper proposes a set of ten modified supplier evaluation primary criteria, based on Carter's 10 Cs model.

Contribution – Suppliers' capacity to fulfil present and future demands in short- and long-term;

Capital – Supplier's influence on buyer's finances, goodwill, brand equity, market perception, as well as internal and external structures (social, green and human capital);

Credibility – Displayed, as well as certified, commitment to TBL excellence;

Character – Supplier's specificities which contribute to value creation within the supply chain through unique value proposition;

Continuity – Capacity for long-term business relationships, viewed as suppliers' capacity to deliver desired product and service quality, over a longer period of time;

Clarity – Transparency level reflected in open access to important data, understandable and standardized measurement and assessment procedures which allows for a wider, easier, and more constructive external and internal audit'

Competitiveness – Competitive position of a supplier is determined by a synergetic set of strategic value propositions, aimed at communicating the best customer solutions conveniently, at the lowest costs for customers;

Consciousness – Supplier's ability and willingness to notice, understand, analyze and tackle sustainability challenges, both internally and externally, through proactive approach to innovation;

Circularity – Long-term synchronization with the suppliers regarding all supply chain flows, and establishment of a productive feedback system (recycling, reverse logistics, joint employee training programs, joint community service and product development based on design for environment);

Co-alignment – Similarity of corporate cultures, as well as long-term goal alignment potential for creating lasting, value adding, win-win situation.

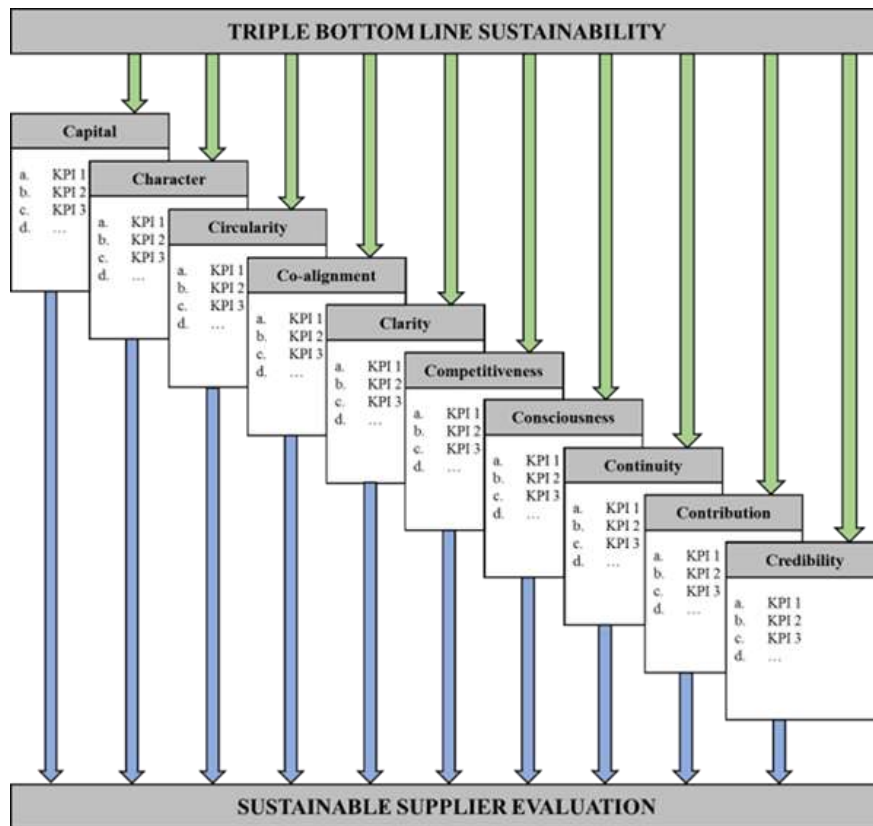


Figure 1. Graphical presentation of the modified 10 Cs model

These ten criteria form the main evaluation level of the proposed SSE model. Flexibility of the model is assured by choosing the appropriate key performance indicators (KPIs) for each of the ten defined supplier performance dimensions (**Figure 1**). These KPIs, which can be both qualitative and quantitative, are determined by the companies implementing the evaluation model, and depend on the company's capacity to determine, measure, control and interpret certain internal or external procurement activities.

A significant portion of contemporary studies used AHP methodology for modelling sustainable supplier evaluation solutions (Bruno et al., 2013; Luthra et al., 2017; Rajesh & Malliga, 2013; Secundo et al., 2017). AHP has several advantages in comparison to other MCDA techniques, in the context of SSE. AHP is clearly related to the research goal, capable of managing large number of criteria, combining both qualitative and quantitative data intuitive to users (Chan & Chan, 2010). AHP is also easier to use than more complicated methods, such as TOPSIS and VIKOR (Opricovic & Tzeng, 2004). For these reasons, the proposed 10Cs framework was tested using AHP methodology.

3. Methodology

AHP, which stands for analytic hierarchy process, was developed by Thomas Saaty in 1977 (Žak, 2015). This is a multi-criteria decision making tool, which is used for presenting, assessing, evaluating, and comparing differences in importance of multi-level criteria, relative to the research goal (Govindan et al., 2015). In this paper, a procedure by Xu et al. (2013) is used.

The AHP model is depicted by criteria ($C_1... C_n$) and corresponding sub criteria ($S_1... S_n$), which are used for deriving scores and ranking order of observed alternatives ($A_1... A_n$). The relative importance of every primary criterion, and corresponding sub criteria, is determined through pairwise comparison technique.

Quantification of assessment judgements is formulated in accordance to Saaty's 1-9 scale (T. L. Saaty, 2004), presented in **Table 1**.

Table 1. Pairwise comparison scale

Relative importance in numerical variable	Relative importance in linguistic variable
1	Equal importance
3	Moderate importance
5	Strong importance
7	Very strong importance
9	Extreme importance
2, 4, 6, 8	Intermediate values

Source: Saaty (2004)

After conducting the pairwise comparison, the comparison values for every criterion element are inserted into a matrix. By establishing comparison matrices, local weights of criteria can be calculated. Local weights are derived by the normalization of all limit weights, within the comparison cluster.

For every comparison matrix inconsistency must be calculated in order to assess consistency and precision of the research (R. W. Saaty, 2003). Consistency ratio (C.R) is calculated using consistency index (C.I) and random index (R.I) value (Mawuntu, 2014), which is a function of the number of compared elements within a cluster, and is determined from the Table of Random Indices (**Table 2**).

Table 2. Random indices (R.I), relative to the number of criteria constituting the analyzed matrix

n	1	2	3	4	5	6	7	8	9	10
Random Index	0	0	0.52	0.89	1.11	1.25	1.35	1.40	1.45	1.49

Source: Saaty (2004)

If $C.R \leq 0.1$ the comparison is considered consistent, and no additional improvement actions are required. If $C.R \geq 0.1$ the comparison is considered inconsistent and data revision is needed.

Final weights of analyzed alternatives represent their overall weighted scores for observed assessment criteria. Alternatives' priorities are derived through comparison matrix, which consists of alternatives' normalized weights, relative to every corresponding comparison sub criterion.

4. Empirical findings

Primary data were gathered using in-depth interviews (Morita & Yamaoka, 2012). Company that was analyzed is one of the biggest paper wholesaling companies in Serbia, as well as in Europe. Paper wholesaling industry has a long tradition of high market concentration, leading to the introduction of comprehensive supply-chain management practices, including key supplier management, which covers certain environmental and social aspects, making it a good context for testing the proposed model.

In total, three interviews were conducted with the Business unit director of paper & print for the entire Group, co-owner and CEO of the Serbian division, and sales director of the Serbian division. All interviews were conducted separately, so that the interviewees would not be influenced by the answers of their colleagues. First, the AHP model was finished, by inputting the KPIs, which were determined by the interviewees. After that, relevance judgments were inputted for every comparison cluster, using afore

mentioned Saaty's scale. Finally, after inputting the relevance judgements, preliminary data consistency analysis was performed. SuperDecisions 2.8.0 software was used for calculations.

Comparison starts with the highest level of the model, and continues downwards. After establishing intra-hierarchical relations between three sustainability dimensions, the next hierarchical level, containing modified 10 Cs criteria is analyzed.

Eigenvectors for first two hierarchical levels were determined, according to Saaty & Vargas (2012) The eigenvectors for analyzed 10 Cs criteria, with respect to three sustainability dimensions, were also calculated and joined together, in order to derive a combined Eigen matrix. Multiplying combined Eigen matrix with eigenvector sustainability dimension weights, we derive the eigenvector, containing weighted priorities of 10 Cs criteria.

Next, each of the ten Cs criteria were analyzed individually, using pairwise comparison of corresponding KPIs. The final summary of this calculation step is provided in **Table 3**, where 10 Cs criteria are depicted together with corresponding KPIs, and their calculated priorities.

Table 3. Summary of evaluated 10 Cs criteria, with corresponding KPIs and their priorities

10 Cs criteria	Weighted criteria weights	KPIs	Local sub criteria weights	Global sub criteria weights	Limited sub criteria weights
Capital	0.2076				
		▪ Data from the central	0.6667	0.1384	0.0346
		▪ Financial reports	0.3333	0.0692	0.0173
Character	0.0894				
		▪ Exclusivity of business conduct	0.5000	0.0447	0.0112
		▪ Possibility of PL brand registration	0.5000	0.0447	0.0112
Circularity	0.0568				
		▪ Communication flows	0.5396	0.0306	0.0077
		▪ Reclamation	0.2970	0.0169	0.0042
		▪ Recycling efforts	0.1635	0.0093	0.0023
Clarity	0.0585				
		▪ Long term information	0.2000	0.0117	0.0029
		▪ Predictability	0.2000	0.0117	0.0029
		▪ Project cooperation	0.6000	0.0351	0.0088
Co-alignment	0.0778				
		▪ Joint market performance	0.3333	0.0259	0.0065
		▪ Long term goal orientation	0.6667	0.0519	0.0130
Competitiveness	0.1488				
		▪ Discounts	0.2493	0.0371	0.0093
		▪ Prices	0.5936	0.0883	0.0221
		▪ Quality	0.1571	0.0234	0.0058
Consciousness	0.0834				
		▪ CO2 footprint	0.5000	0.0417	0.0104
		▪ Recycling effort	0.5000	0.0417	0.0104
Continuity	0.0479				
		▪ Improved organizational efforts	0.2500	0.0120	0.0030
		▪ New product features	0.7500	0.0359	0.0090
Contribution	0.0407				

		▪ Increased competitiveness	0.3333	0.0136	0.0034
		▪ Value through cooperation	0.6667	0.0271	0.0068
Credibility	0.1891				
		▪ Certificates ISO 9001, 14001, 16001, FSC, PFSC	0.2500	0.0473	0.0118
		▪ Recommendations from others	0.7500	0.1418	0.0355

After calculating criteria priorities, the next step is consistency check of conducted comparisons. This calculation procedure is conducted for every comparison matrix, and follows the hierarchical levels of the assessed SSE model. Calculated consistency levels for all hierarchical levels were below 0.1, indicating no need for further model modifications.

The final step in AHP model implementation is the calculation of alternatives' priorities. Here, priorities of the alternatives are calculated by multiplying the comparison matrix, which consists of alternatives' normalized weights relative to every KPI, with the eigenvector containing KPI weights, resulting in eigenvector depicting importance weights of four evaluated suppliers. Calculated values are normalized, and show the relative importance of each supplier alternative, within the evaluation process (**Table 4**).

Table 4. Overview of ranked supplier alternatives, with corresponding priorities

Alternatives	Priorities			Rank
	Ideal	Normalized	Limited	
Mondi	0.5401	0.1662	0.0416	IV
Navigator	0.9132	0.2811	0.0703	II
Sappi	0.7956	0.2449	0.0612	III
UPM	1.0000	0.3078	0.0769	I

Calculated suppliers' weights can be analyzed in more detail graphically, by determining the contribution of each KPI score to the final supplier priority rank (**Figure 2**).

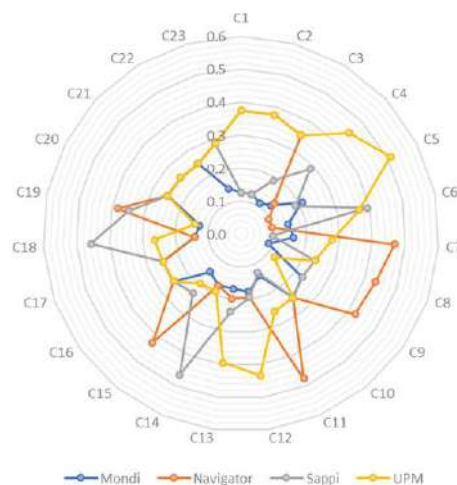


Figure 2. Graphical depiction of every KPI contribution to suppliers' final priority scores

Normalized priorities of four analyzed suppliers are disseminated into corresponding KPIs' contributions, regarding alternatives' final weights. Every supplier's weight, depicted by a single line, consist of 23 KPI points, graphically marking the contribution of each KPI.

5. Discussion

The proposed 10 Cs model provided a theoretically uniform framework when tested using AHP methodology. The model also demonstrated contextual flexibility through changeable lower hierarchical comparison levels. Flexible KPIs allow for model's modification, depending on specific industry's challenges, national market specifics, as well as reflections of certain internal organizational tendencies. This is especially apparent in situations where close competitors have different market strategies, in which one focuses on product price as a main indicator, whereas the other focuses more on the overall “package” value.

Proposed SSE framework has both operational and strategic merit. Developed model can be used as a supplier performance measuring tool. However, neglecting the long-term aspect of SSE is a serious strategic error. In modern markets, things change on a daily basis. A business must monitor and control all internal and external changes, affecting its current and future performances. In this sense, being able to continuously reevaluate suppliers' performance plays a key role in attaining and maintaining significant competitive market advantage. Use of the 10 Cs framework allows for a proactive approach to determining and modifying relevant KPIs, and developing a sustainable procurement strategy.

To depict how market changes can influence supplier short- and long-term performance, a sensitivity analysis was conducted (**Figure 3**). Horizontal axes depict the values of the observed criterion, whereas the vertical axis depicts normalized priority values of evaluated supplier alternatives. The 0.5 value marks the calculated (realized) scenario. Values lower than 0.5 depict decreasing relevance of the criterion, whereas values higher than 0.5 depict increasing criterion significance.

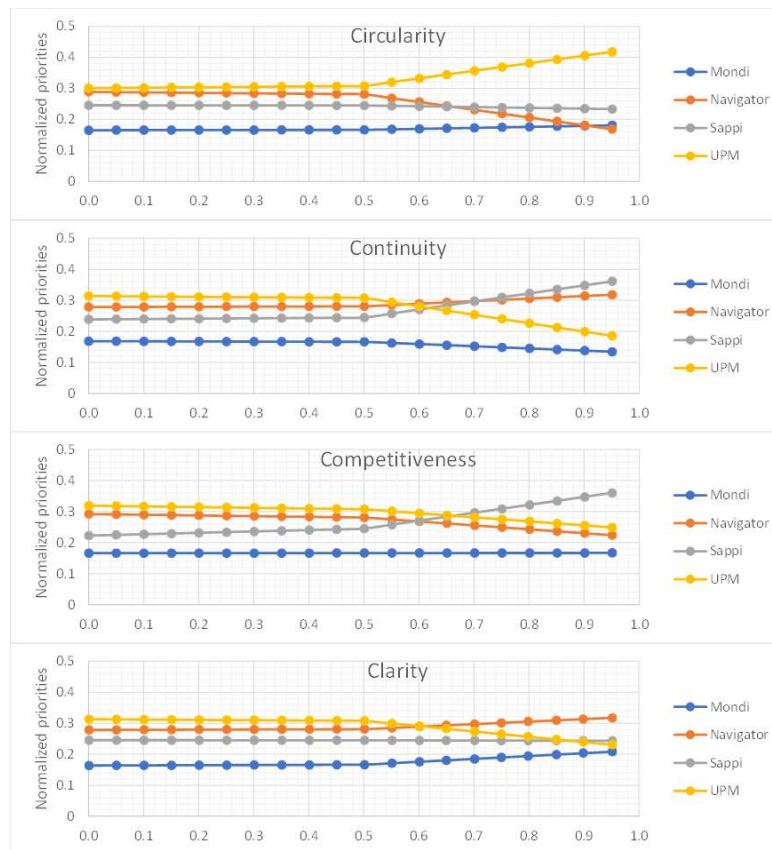


Figure 3. Graphical depiction of selected criteria sensitivity analysis

By analyzing the ten SSE dimensions, four stood out as the ones mostly affected by the changing weight relevance. These criteria are related to suppliers' circularity, continuity, competitiveness and clarity. For these criteria, an increase in criteria weight causes significant changes in supplier ranking. This means that these criteria represent opportunities for suppliers with highest potential for creating competitive advantage. These aspects should be in the short-term and long-term focus of the suppliers, in order to significantly improve their customer's perception of the overall offer quality. Furthermore, sensitivity analysis highlights procurement aspects which, if their market importance increases, should trigger a reevaluation of chosen suppliers.

However, prolonged use of the presented framework could potentially lead to contamination of supplier alternatives' priorities, a phenomenon known as rank reversal (T. L. Saaty & Vargas, 2012). To avoid this, Saaty (2005) proposes the use of ideal alternatives' priorities rather than the normalized ones for the purposes of comparison, ranking, and future computations. Another approach is by Wang & Elhag (2006) which states that adaptation of criteria weights' normalization approach prevents rank reversal occurrence. The issue of rank reversal is important because in business situation companies can change their supplier evaluation criteria almost on a daily basis. Therefore, any alterations of the previously explained evaluation model require either the adoption of rank reversal prevention techniques, or reevaluation of new evaluation criteria priorities.

6. Conclusion

The aim of this paper was to identify a theoretically uniform model for sustainable supplier evaluation. The conducted literature review showed that sustainability principles are present in many contemporary studies, albeit in a narrow, contextual manner. A wide diapason of used evaluation criteria, as well as different approaches to sustainability dimensions dilute theoretical uniformity of SSE literature. Therefore, this paper explored the existing 10 Cs model by Carter, further modifying it to encompass the triple-bottom line sustainability principles. Innovated evaluation criteria reflect ten key segments in supplier-procurer interactions, incorporating the findings derived from the literature review. The proposed SSE framework was tested using AHP methodology, one of the most common methodologies used in supplier evaluation literature.

The analysis showed that the developed SSE model possesses theoretical uniformity, providing a solid evaluation framework. Also, the model was well suited to AHP methodology, providing a very accurate, easily quantifiable set of evaluation criteria, with high results' benchmarking potential. The model also showed that it can respond to various modern business challenges, such as differences in companies' size, international market specificities and specific industry-related challenges. This was achieved by providing a flexible, lower hierarchical structure of the model, with changeable KPIs, reflecting specific requirements of the company implementing the model. Finally, performed sensitivity analysis showed that it can be used as a tool for developing strategic responses within the procurement process.

This paper could provide a theoretical point for future research in the area. Proposed 10 Cs model could be further studied in a different capacity, either in a different industry, thus expanding the use of different KPIs in SSE process, or using different modelling techniques, such as MCDA methodology. In the latter regard, implementation of fuzzy logic or methodologies such as TOPSIS, DEA, DRSA, etc. could provide new research directions.

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The impact of shadow economy and harmonized index of consumer prices on poverty or social exclusion in Central and Eastern Europe

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Abstract

There is a continuous need to understand what influences the AROPE indicator and how to address the issues the population at risk has. This article's purpose is to analyze how AROPE indicator in Central and Eastern European countries is impacted by shadow economy and HICP index. The methodology applied is in quantile regression and our data sample is from 11 countries, period of time 2015-2022. The results show us that shadow economy impacts the AROPE index, especially in the higher quantiles. On the other hand, HICP is not statistically significant in our model. This paper offers interesting implications for stakeholders and governments to understand the impact of shadow economy on the poverty or social exclusion risks.

Keywords: AROPE indicator, shadow economy, HICP, quantile regression

I. Introduction & Literature review

Poverty and social exclusion are significant global challenges, affecting millions of people in both developed and developing countries. According to the World Bank, an estimated 9.2% of the global population lived in severe poverty in 2021, defined as earning less than \$1.90 per day. The COVID-19 epidemic has intensified poverty and social marginalization, resulting in greater unemployment, decreased access to essential services, and increased inequality.

AROPE stands for the percentage of the population that is either at risk of poverty, severely materially deprived, or living in a household with little to no work intensity. AROPE is a composite indicator that was adopted at the European Union level as part of the Europe 2020 Program to encourage social inclusion and the reduction of poverty.

The AROPE indicator calculates the proportion of the population that falls into one of three categories:

1. Poverty risk rate: The EU benchmark for persons at risk of poverty is defined in relation to people living in households with total equivalent incomes less than 60% of the national median equivalent household.

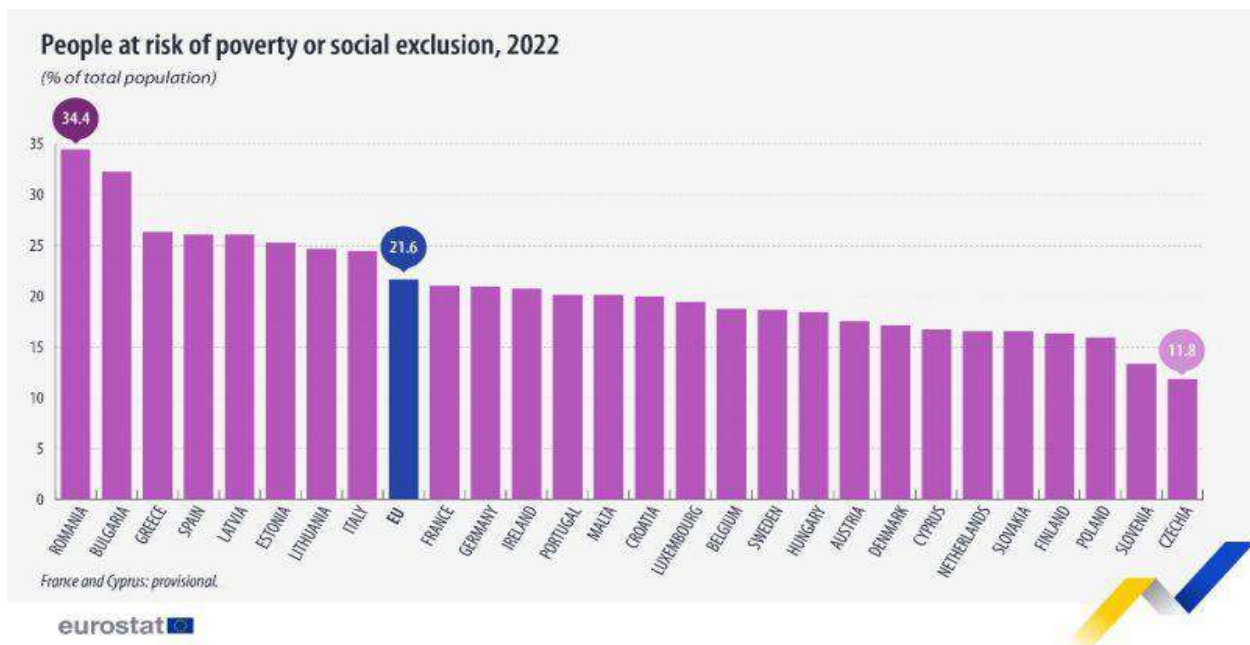
2. Severe material deprivation: Severe material deprivation is defined as the absence of three items on a set of three-dimensional indicators: economic, durable goods, and domestic equipment.

3. Households with low work intensity: A very low work intensity is defined as adults in a home working 20% of their available work time on average during the reference period.

Poverty and social exclusion are significant global challenges, affecting millions of people in both developed and developing countries. According to the World Bank, an estimated 9.2% of the global population lived in severe poverty in 2021, defined as earning less than \$1.90 per day. The COVID-19 epidemic has intensified poverty and social marginalization, resulting in greater unemployment, decreased access to essential services, and increased inequality. The European Pillar of Social Rights Action Plan is the European Union's most recent important strategy to address the risk of extreme poverty. As part of its commitment to protect social rights and address the socioeconomic effects of the COVID-19 pandemic.

In 2022, women (in comparison to men), young adults (compared to middle-aged or elderly persons), people with a low level of educational attainment (more so than those with a medium or tertiary level of educational attainment), and, in particular, unemployed people, had a higher risk of poverty or social exclusion across the EU. The likelihood of living in poverty or being socially excluded varied greatly among EU Member States. The percentages of people at risk of poverty and social exclusion that were reported were highest in Romania (34.4%), Bulgaria (32.2%), and Greece (26.3%). Poland, Slovenia, and Czechia, in contrast, had shares below 16.0% (the EU value was 21.6%) (Figure 1).

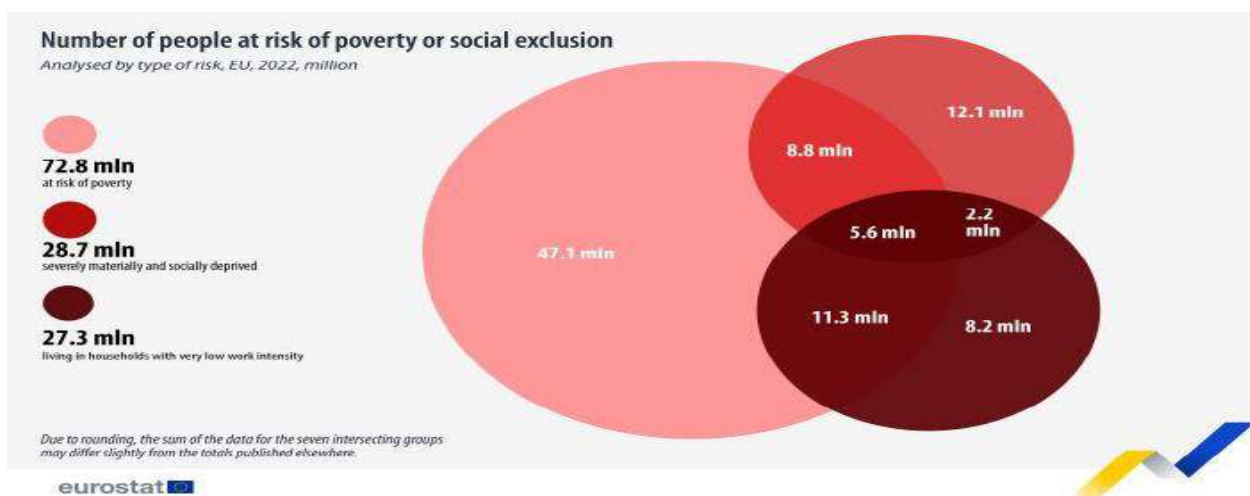
Figure 1. People at risk of poverty or social exclusion in 2022



Source: Eurostat

5.6 million of the 95.3 million people living in the EU who were at risk of poverty or social exclusion in 2022 were living in households where all three risks were present. In the EU, there were 11.3 million people living in households with very low work intensity and at risk of poverty; 8.8 million were living in households with very low work intensity and at risk of poverty and nearly 2.2 million were living in households with very low work intensity and severe material deprivation (Figure 2).

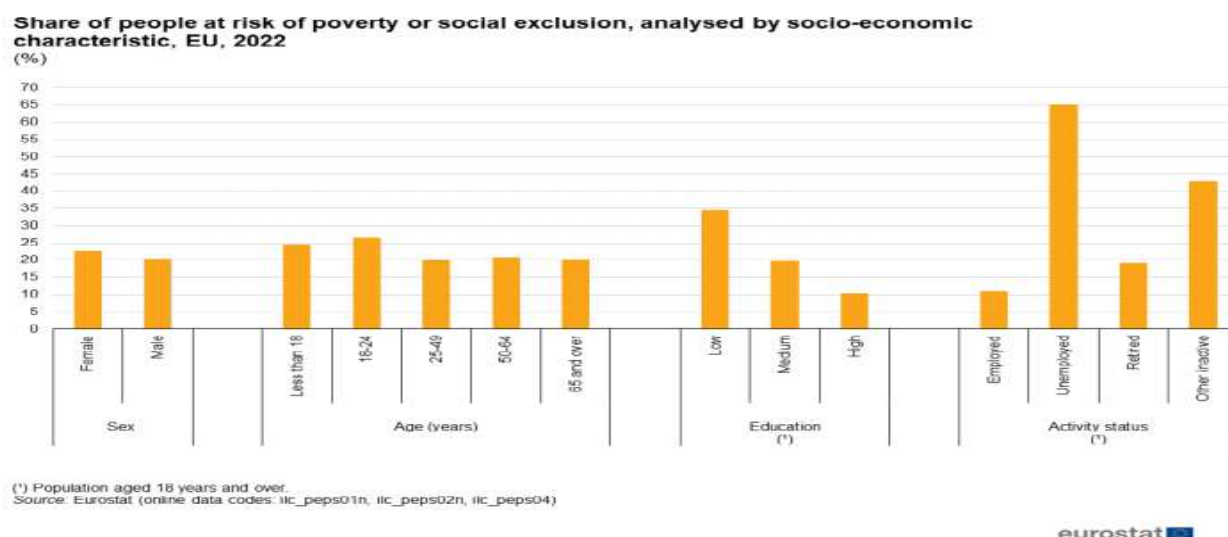
Figure 2. People at risk of poverty or social exclusion in 2022 by risk type



Source: Eurostat

According to the data, women are more likely to experience the poverty or social exclusion (22,7% compared with 20.4% for men). Young adults aged 18 to 24 had the highest risk of poverty or social exclusion in the EU (26.5%), while adults aged 25 to 49 had the lowest risk (19.9%). The risk of poverty or social exclusion between these two age groups was 20.2% for those 65 and older and 21.0% for those 50 to 64. Persons under the age of 18 also had an increased risk (24.7%). Nearly 65.2% of unemployed adults in the EU who were 18 years of age or older faced the possibility of living in poverty or being socially excluded in 2022. Based on an analysis of risk by activity status, inactive people (other than retirees) faced the second-highest risk, with 42.9% at risk (Figure 3).

Figure 3. People at risk of poverty or social exclusion in 2022 by socio-economic attributes



Source: Eurostat

The Harmonised Index of Consumer Prices (HICP) is used to measure consumer price inflation in the eurozone. This refers to the change in the prices of consumer goods and services purchased by eurozone households over time. It is "harmonised" because all European Union countries use the same methodology. This allows data from one country to be compared to data from another.

The term "**shadow economy**" is used to describe a variety of economic activities that are unregulated and take place outside of the reach of official governmental oversight and taxation. It is also used together with the terms "informal economy," "underground economy," and "parallel economy." It is made up of business interactions, both legal and illegal, that are not reported to the government or taken into account by official economic statistics. It refers to a wide range of activities, including illegal trade, cash-in-hand transactions, unreported businesses, unofficial job markets, and undeclared employment. Usually, it involves people and companies producing and

exchanging goods and services in ways that avoid paying taxes, following rules, and being monitored by the government.

The shadow economy exists for a number of reasons. Some people and companies might engage in the shadow economy to avoid paying taxes or labor laws. Due to a lack of formal employment opportunities, restricted access to financial services, or social exclusion, others may turn to illegal activities. Different nations and regions have distinct shadow economies in terms of size and scope. In economies with high rates of poverty, income inequality, corruption, and fragile institutional structures, it is more common.

The size and the patterns of shadow economy have always been a topic of interest for researchers, governments and practitioners. There is, however, still little agreement in the literature because different empirical studies have produced wildly divergent estimates and patterns - there is no agreement on the best ways to estimate the size of the shadow economy or even what should be included in the shadow economy definition.

Thomas (1992) segmented the underground economy into four categories, for which data on the volume of activity are not recorded in the national accounts: households (consumer goods for households), unofficial (retail producers excluded from maintaining accounting records), irregular (illegal production of legal goods), and illegal (production of illegal goods). Businesses operating in the shadow economy produce legitimate goods and services while concealing all or a portion of their operations from the government in order to avoid paying taxes and other required fees or adhering to relevant rule. The shadow economy is any market-based legal manufacturing of goods and services that is hidden from public authorities to refrain from paying taxes or social security contributions and to not be compliant with labor market standards like minimum wages, maximum working hours or safety standards Schneider et al. (2010). According to Genys (2016), the shadow economy has been explained by the three approaches (Table 1).

Table 1. Approaches explaining the shadow economy

Explanatory approach	Content of the approach
Statistical	The portion of a nation's economic performance that is not directly factored into the official GDP calculations but is nonetheless included informally
Legal	All that is done to obtain financial and non-financial gains in violation of legal provisions
Budgetary	The outcomes of the regulated economy that are not accounted for because they are not declared or are hidden in order to evade paying taxes or obtaining other illegal tax benefits.

Source: Genys (2016), adaptation after Ginevicius et al. (2020)

Shadow economy has a negative impact across numerous aspects and areas. Bilan et al. (2019) analyzed the relationship between the causes of the shadow economy and the degree of demand on the investment market in EU countries and Ukraine and the results show that there is an inverse relationship between them - the growth of the shadow economy has a negative impact on the country's capital investment volume. Teobaldelli and Schneider (2013) and Ipatov et al. (2018) demonstrated that countries with democratic fiscal regulation had lower shadow economy. According to Krumplyte (2011), countries with high levels of taxation (55%) are more prosperous and have a small amount of the shadow economy (Sweden, Denmark, and Finland). Countries with low tax burdens (up to 20%) have a shadow economy that accounts for more than 60% of GDP (Georgia, Mexico).

Shadow economy is represented as a % of GDP and data is extracted from Taxation of the Informal Economy in the EU developed by European Parliament.

II. Motivation & Data

The aim of this study is to assess the impact of shadow economy and harmonized index of consumer prices (HICP index) on people at risk of poverty or social exclusion (AROPE indicator) in the Central and Eastern European countries.

The proposed econometric model is a panel data model based on information from 11 Central and Eastern European countries: Bulgaria, Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia. The period of selected timeframe is 2015-2022. According to the literature, the primary goal of regression is to establish a statistical relationship between endogenous (dependent) and exogenous (independent) variables or factors of influence. For this analysis, the dependent variable selected is AROPE and independent variables are shadow economy expressed as a % of GDP and HICP.

In the empirical investigation, we employed the quantile regression (hereinafter, QR), which offers more details regarding the connection AROPE and independent variables. Additionally, this econometric technique is resistant to outliers (Kizhakethalackal et al., 2013) and the non-Gaussian error distribution (Coad and Rao, 2008). Given these advantages, several studies (e.g., Ku and Yen, 2016; Conyon and He, 2017) have recently used QR technique in their publications on corporate finance.

III. Results

Table 2 displays the descriptive statistics for the variables used in the research. Before providing the summary statistics, the variables were logged.

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Year	88	2018.5	2.304419	2015	2022
logAROPE	88	3.093981	.3608957	2.379546	3.828641
logHICP	88	4.678254	.0830519	4.591882	4.924133
logSHADOWE~P	88	3.097127	.258992	2.501436	3.499533

The correlation values between the dependent and independent variables are shown in Table 3. There is negative correlation negative between AROPE and HICP and positive correlation between AROPE and shadow economy.

Table 3. Correlation matrix

	logAROPE	logHICP	logSHA~P
logAROPE	1.0000		
logHICP	-0.1430	1.0000	
logSHADOWE~P	0.7257	-0.0661	1.0000

In Table 4 there is the test that shows the multicollinearity is not likely to be a problem. Given that none of the VIF values above the limit of 10.00 (Hair et al., 2010), we believe that multicollinearity may be ruled out.

Table 4. Multicollinearity test – VIF

Variable	VIF	1/VIF
logHICP	1.00	0.995632
logSHADOWE~P	1.00	0.995632
Mean VIF	1.00	

Linear regression results are presented in Table 5 used just as benchmark – this method has a significant flaw in that it hides the effect of explanatory factors for different AROPE quantiles.

Table 5. Linear regression

Source	SS	df	MS	Number of obs = 88		
Model	6.07031158	2	3.03515579	F(2, 85) =	49.04	
Residual	5.26106549	85	.061894888	Prob > F =	0.0000	
				R-squared =	0.5357	
				Adj R-squared =	0.5248	
Total	11.3313771	87	.130245713	Root MSE =	.24879	

logAROPE	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
logHICP	-.4148286	.3218615	-1.29	0.201	-1.054775	.2251183
logSHADOWECONOMYGDP	1.002439	.1032124	9.71	0.000	.7972247	1.207653
_cons	1.929974	1.560062	1.24	0.219	-1.171847	5.031796

Table 6 shows the HICP is not statistically significant no matter the quantile, in line with the linear regression results. On the other hand, shadow economy is linked with AROPE indicator, the coefficients' magnitude is increased at the highest quantiles, but their sign does not change over the quantiles → there is a significant higher impact in Q50, Q75 and Q90.

Table 6. The impact of shadow economy and harmonized index of consumer prices on poverty or social exclusion

	Q10	Q25	Q50	Q75	Q90
HICP	<i>0,5120</i>	<i>0,1440</i>	<i>0,7160</i>	<i>0,1680</i>	<i>0,6270</i>
	-0,2270	-0,4824	-0,3245	-0,4215	-0,1676
Shadow economy % GDP	<i>0,0000</i>	<i>0,0000</i>	<i>0,0000</i>	<i>0,0000</i>	<i>0,0000</i>
	0,7718	0,9607	1,0336	1,0687	1,1076

IV. Conclusions and limitations

To address poverty and social exclusion, a multi-faceted approach is required, including inclusive economic growth strategies, investment in education and job training programs, and the promotion of social inclusion through anti-discrimination laws and policies. This requires collective action from governments, international organizations, civil society, and the private sector. The results show that shadow economy has a strong impact on AROPE indicator, especially in the higher quantiles. On the other hand, in this model HICP is not statistically significant. There are several academic and practical implications of our empirical study. Through this paper, the results bring valuable information on how shadow economy influences the risk of poverty or social exclusion in Central and Eastern European countries.

The analysis has several limitations, mostly due to the selection and use of data, since conclusions gained from this study cannot be applied to other countries from other regions. Future studies can be extended to other regions (e.g., Asia, the Middle East) and additional variables can be included in the model to create an extensive analysis.

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Positive and negative impacts of the tourism industry

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Abstract:

The main agenda of this paper is to get its readers familiar with the positive and negative outcomes of tourism for both providers and recipients of the service individually, and the economy as a whole. To gain a full understanding of the impacts that tourism has on other spheres of life, as a rising economic activity, we must first explain what tourism is, how it developed, and how we properly classify it – which will be talked about throughout this paper. As the tourism sector is of great relevance for Montenegro's and Greece's economies, a proper comprehension of its benefits and downsides is a necessity for adequate decision-making and strategic planning for the future.

Keywords: tourism, impacts, environment, dependence, movement

JEL classification: Z3, Q5, F22

1. Introduction

The postwar years from 1945 until the present time, have been a period of a technological revolution. This resulted in a massive increase in wealth and disposable income, together with equally far-reaching changes in lifestyles and behavior. The speed, as well as the scale of change, has been greater than ever before. Accordingly, it has been a period of massive growth in travel in the industrialized and richer countries of the world. Transport and other forms of communication, notably television, strongly reinforced the economic factors favoring tourism expansion, with constant reminders of the interest and variety of foreign countries' attractions. Gradually the appeal of foreign places overtook the interest in the domestic product or staying at home. In richer countries, the population became mobile.

Tourism is today considered to be one of the most important industries, being around 6.1% of the global GDP, which translates to approximately 1.1 trillion USD.

This paper will mainly focus on the positive and negative impacts of the tourism industry, explaining the core of the industry on and its influence on other aspects of life.

2. Literature review

For this paper, the research draws primarily on books and academic literature available on Google Scholar and Web of Science platforms. The literature is based on quantitative analysis and experimental research conducted by the authors and will be presented in a descriptive manner. The information is derived from various sources, including William D. Theobald's "Global Tourism" (2005), Camarda D. & Grassini L.'s "Environmental Impacts of Tourism" (2003), and Leonard J Lickorish & Carson L Jenkins's "An Introduction to Tourism" (1997). In addition, the research draws on data tables from the IMF and World Bank to identify trends in the tourism industry.

3. Data and methodology

3.1. On tourism

3.1.1. Tourism – industry/sector

Tourism is an activity that cuts across conventional sectors of the economy. It requires inputs of an economic, social, cultural, and environmental nature. In this sense, it is often described as being multi-faceted. The problem in describing tourism as an 'industry' is that it doesn't have the usual formal production function, nor does it have an output that can physically be measured, unlike agriculture (tons of wheat) or beverages (liters of whisky). In the UK many tourists use bed and breakfast accommodations in private houses, in Thailand such facilities are not available. In the transport sector, levels of car ownership and developed road networks cause many tourists to use their cars or buses in Western Europe and the USA. In India and Indonesia, most tourists travel by air. It is some of these problems of definition which have caused many writers to refer to the tourist sector rather than the tourist industry.

3.1.2. Tourists

Individuals become tourists when they voluntarily leave their normal surroundings, where they reside, to visit another environment. In 1976, the Institute of Tourism suggested that tourism is the temporary short-term movement of people to destinations outside the places where they normally live and work. Therefore, tourism includes the movement of people for all purposes, including day visits or excursions.

3.1.3. Types of tourism

There are several different types of tourism, each with its own characteristics and target audience. Some common types of tourism include:

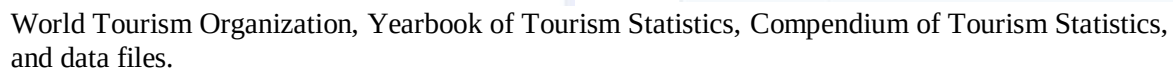
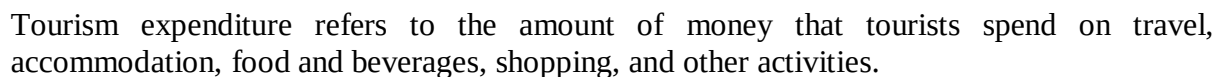
- Leisure tourism
- Business tourism
- Cultural tourism
- Ecotourism
- Adventure tourism
- Medical tourism
- Religious tourism

3.2. Data on tourism

The evolution of the travel industry can be analyzed by examining its global performance and trajectory. The number of arrivals and international tourism expenditures from 1995 to 2019 reflects the growth of the industry, with arrivals increasing from 1.08 billion to 2.4 billion worldwide. This is due to factors such as affordability, infrastructure, technology, globalization, and demographics. However, the industry experienced a downturn in the early 2000s due to security concerns. The red line in the graph demonstrates the industry's exponential growth over time.

1. International tourism, number of arrivals
arrivals – - Line (1995-2019)

2. International tourism, number of
- Map (2018)

4. International tourism, expenditures
-- current US\$ (2018)

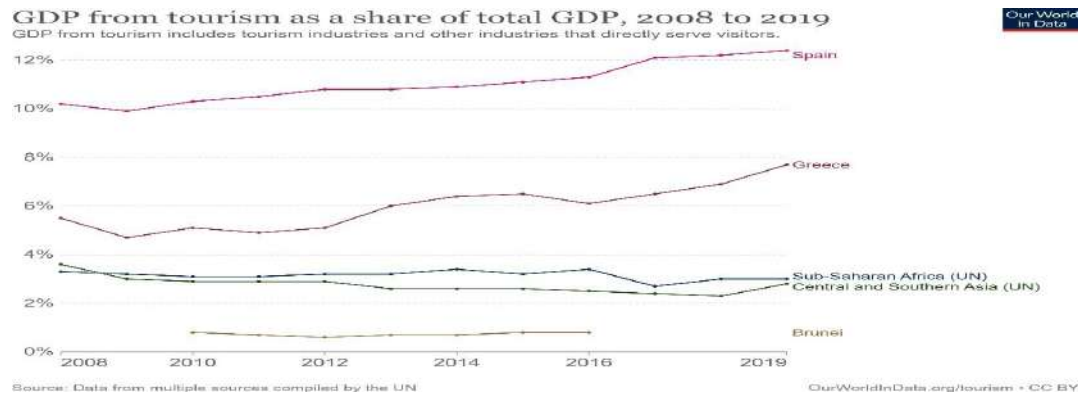
Today the tourist product is a complex composition of complementary services that serve a highly segmented market. Econometric models play a central role in offering techniques and analytical approaches for explaining tourist expenditure.

The World Tourism Organization is improving its coverage of tourism expenditure data, using a balance of payments data from the International Monetary Fund (IMF) supplemented by data from individual countries. These data include travel and passenger transport items as defined in the IMF's Balance of Payments. When the IMF does not report data on passenger transport items, expenditure data for travel items are shown. The aggregates are calculated using the World Bank's weighted aggregation methodology and differ from the World Tourism Organization's aggregates. From what is presented in the pictures attached above, we could conclude that travel expenditures were progressively growing from 1995 up until 2019 – which translates to a factual growth from 501.05 billion USD in 1995 to 1.1 trillion USD in 2019.

The image below illustrates a comparison of five regions with vastly different contributions of the tourism industry to their respective GDPs from 2008 to 2019. In Spain, which is one of the

most popular tourist destinations, tourism accounts for a significant portion of the national GDP, with a staggering 13% in 2019 before the COVID-19 pandemic. On the other hand, the Sub-Saharan African region generates only about 3% of its total GDP from tourism-related activities. It is worth noting that despite being one of the top countries in terms of tourist arrivals, China's tourism-related activities contribute only around 4% to its GDP.

5. GDP from tourism as a share of total GDP (2008 to 2019)



Max Roser and Bastian Herre (2017) - "Tourism". Published online at OurWorldInData.org.

3.3. Positive impacts of the tourism industry

3.3.1. *Economic benefits*

International tourism is an invisible export in that it creates a flow of foreign currency into the economy of a destination country, thereby contributing directly to the current account of the balance of payments. Like other export industries, this inflow of revenue creates business turnover, household income, employment, and government revenue. However, the generation process does not stop at this point. Some portion of the money received by the business establishments, individuals, and government agencies is respent within the destination economy, thereby creating further rounds of economic activity. These secondary effects can in total considerably exceed in magnitude the initial direct effects.

3.3.2. *Cultural benefits*

Under main cultural benefits, we can enlist the preservation of cultural heritage including historical sites, traditional arts, and cultural practices. Tourism can facilitate cultural exchange between visitors and locals, allowing both to learn from each other's cultures. This can promote greater understanding, tolerance, and appreciation of diversity. Tourism can also raise awareness about different cultures and promote cultural education which can help visitors gain a deeper understanding of the customs, traditions, and values of the destination they are visiting.

3.3.3. *Infrastructural development*

As a destination becomes more popular with tourists, there is often a greater demand for high-quality infrastructure, such as roads, airports, and public transportation systems. This increased demand can provide a strong incentive for local governments and private investors to invest in the development and improvement of infrastructure. Additionally, the development of tourism infrastructure can have a spillover effect on other areas of the local economy.

3.3.4. Educational benefits

As tourists visit a destination, they may have the opportunity to learn about the local culture, history, and traditions. This can provide a valuable learning experience and promote cross-cultural understanding. Moreover, tourism can provide opportunities for language learning.

3.3.5. Environmental benefits

By promoting responsible tourism practices and sustainable tourism development, destinations can help to protect natural resources, promote biodiversity, and support local conservation efforts. This can also help to ensure the long-term sustainability of tourism as a source of income and employment.

3.3.6. Health benefits

Tourism can contribute to the development of healthcare infrastructure and provide access to medical facilities for both tourists and local residents. Additionally, tourism can promote healthy lifestyles and physical activity, particularly in destinations that offer outdoor recreation activities such as hiking, cycling, and water sports.

3.3.7. Technological improvement

Tourism can also contribute to the development of new technologies and innovation, particularly in the areas of transportation, hospitality, and tourism services. The development of new technologies and innovations can improve the overall quality of tourism services.

3.4. Negative impacts of tourism

3.4.1. Cultural impacts

It is believed that cultural tourism or tourism in general, plays an important role in diminishing the local identity of communities considering the very nature of tourism development dictates that commodities should be presented to tourists in exchange for economic benefits.

3.4.2. Infrastructure distribution

In many countries, highways, and airfields, constructed primarily to cater to tourism, now provide access to wider markets for many locally produced goods. Unfortunately, in many cases, the local people still receive little direct benefit from these developments. This in essence is a problem of both physical and economic distribution (i.e., of the extent to which, and the speed at which, these facilities should be made more generally available). The development of tourism facilities such as accommodation, water supplies, restaurants, and recreation facilities can involve sand mining, beach and sand erosion, soil erosion, and extensive paving. In addition, road and airport construction can lead to land degradation and loss of wildlife habitats, and deterioration of scenery.

3.4.3. Rising property prices

As tourism continues to grow in a region, it makes increasing demands on the scarce resources of that area. There is a need for realistic planning and the effective enforcement of planning regulations to reduce possible conflicts of interest and, where appropriate, to conserve unique and unusual features for the enjoyment of future generations of visitors and residents alike. This is a lesson that has been learned rather late in many developed countries.

3.4.4. Socio-cultural consequences

Although difficult to measure, there is a relationship between tourism density and the growth of local resentment toward tourism. The flow of tourists into a region increases the densities at which people live and overcrowds the facilities that tourists share with the local population. Overcrowding reduces the value of the holiday experience and creates additional strain for the resident population.

3.4.5. Dependence on tourism

Over-dependence on tourism as the sole or main source of income can have several negative impacts on a local economy. Some of these negative aspects include vulnerability to economic shocks, limited economic diversification, seasonality of demand, labor market issues, and pressure on infrastructure and resources.

3.4.6. Environmental issues

Tourism development can put pressure on natural resources when it increases consumption in areas where resources are already scarce. The tourism industry generally overuses water resources for hotels, swimming pools, golf courses, and the personal use of water by tourists. This can result in water shortages and degradation of water supplies, as well as generating a greater volume of wastewater.

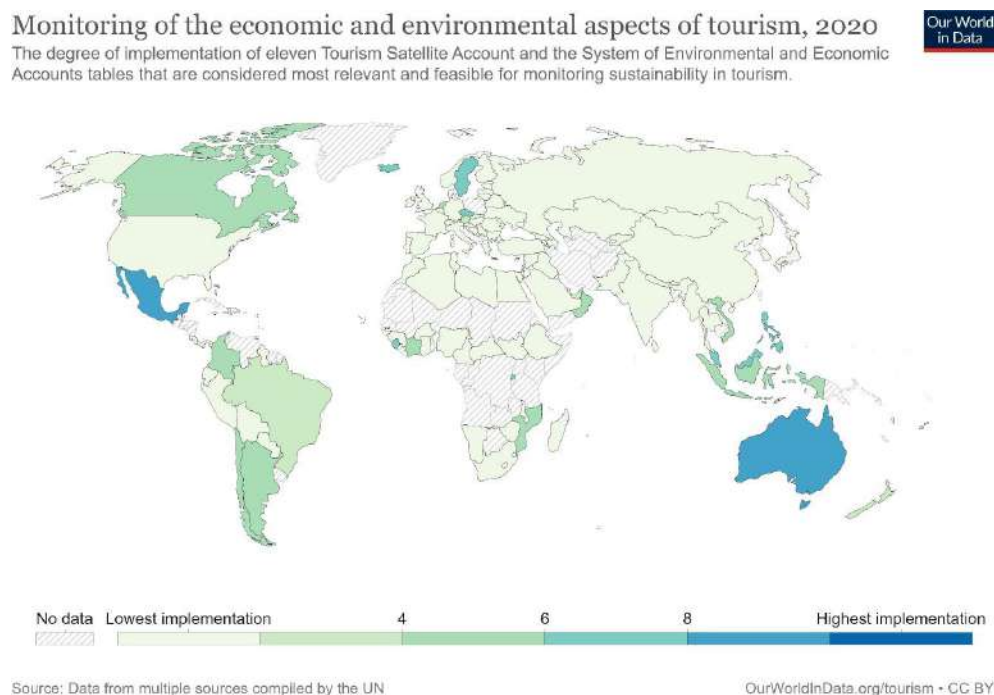
Transport emissions and emissions from energy production and use are linked to acid rain, global warming, and photochemical pollution. Air pollution from tourist transportation has impacts on a global level, especially from carbon dioxide (CO₂) emissions related to transportation energy use. Some of these impacts are quite specific to tourist activities. For example, especially in very hot or cold countries, tour buses often leave their motors running for hours while the tourists go out for an excursion. Noise pollution from airplanes, cars, and buses, as well as recreational vehicles such as snowmobiles and jet skis, is a problem of modern life. In areas with high concentrations of tourist activities and appealing natural attractions, waste disposal is a serious problem and improper disposal can be a major despoiler of the natural environment, rivers, scenic areas, and roadsides. For example, cruise ships in the Caribbean are estimated to produce more than 70,000 tons of waste each year.

Tourism, especially nature tourism, is closely linked to biodiversity and the attractions created by a rich and varied environment. It can also cause loss of biodiversity when land and resources are strained by excessive use, and when impacts on vegetation, wildlife, mountain, marine and coastal environments and water resources exceed their carrying capacity. This loss of biodiversity in fact means a loss of tourism potential.

4. Results and discussions

In summary, tourism has a significant impact on national economies, including Montenegro's economy, which heavily relies on tourism for long-term economic development. As the world becomes more aware of the negative impact of human behavior on the environment, the tourism industry must find sustainable methods to preserve nature.

6. Monitoring of the economic and environmental aspects of tourism, 2020



Max Roser and Bastian Herre (2017) - "Tourism". Published online at OurWorldInData.org.

5. Conclusion

The tourism industry has become an important source of income for many countries worldwide, providing employment opportunities and contributing to the development of infrastructure. However, it is important to recognize that tourism can also have negative impacts, including economic inequality, cultural commodification, and environmental degradation. Therefore, it is necessary to adopt sustainable tourism practices to minimize the negative impacts of tourism and maximize its benefits to host communities and the environment.

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Positive and negative impact of tourism industry

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Abstract

This abstract aims to provide an overview of the positive and negative impacts of the tourism industry and highlights the need for sustainable tourism practices to minimize negative impacts and maximize positive ones. The literature review included academic journals, books, reports, and online sources related to tourism and its impacts. The information was analyzed and synthesized to provide an overview of the main positive and negative impacts of tourism and highlight the need for sustainable tourism practices. On the positive side, tourism can bring economic benefits such as increased employment opportunities and foreign exchange earnings. It can also contribute to the preservation of natural and cultural heritage, promote cultural exchange and understanding, and support the development of infrastructure and services. One of the most significant negative impacts of tourism is environmental degradation, which can result from increased demand for natural resources, increased pollution and waste, and damage to ecosystems. In conclusion, the tourism industry has both positive and negative impacts on destinations and local communities. To maximize the positive impacts and minimize the negative ones, sustainable tourism practices and responsible tourism behaviors are crucial. This requires a collaborative effort from all stakeholders, including governments, the tourism industry, local communities, and tourists themselves, to ensure that tourism benefits everyone in a responsible and sustainable way.

Key words: economy, infrastructure, stakeholders, tourism industry

JEL Classification: L83, Q56, H41, O13

1. Introduction

Tourism has been one of the drivers of the world economy in the last decade. (Grančay, M, 2020).

The tourism industry is one of the largest industries in the world. Tourism has significant economic impacts, generating revenue for businesses, creating jobs, and contributing to the GDP of countries around the world. The tourism industry can operate at both the national and international levels, and it encompasses a diverse range of businesses and organizations, including hotels, airlines, tour operators, travel agencies, destination management organizations, and attractions. The industry is a major contributor to the global economy and is constantly evolving with changes in technology, consumer behavior, and global events.

The aim of the paper - Tourism industry has become a major contributor to the global economy, providing opportunities for employment and generating revenue for countries around the world. While it has brought many positive impacts, such as creating jobs, boosting local economies, and promoting cultural exchange, it has also brought negative impacts such as environmental degradation, cultural homogenization, and social dislocation.

The positive impacts of tourism can be seen in various aspects of the economy. It can create jobs, particularly in service-oriented industries such as hospitality, transportation, and recreation. It can also stimulate economic growth by increasing demand for goods and services in local communities, leading to the development of new businesses and industries. Additionally, tourism can promote cultural exchange, as visitors to a particular destination can learn about the local customs, traditions, and way of life.

However, tourism can also have negative impacts on local communities and the environment. Large numbers of visitors can put pressure on local resources, such as water and energy, and contribute to environmental degradation. Additionally, tourism can lead to cultural homogenization, as visitors often expect to find familiar amenities and experiences, leading to the loss of traditional practices and customs. Furthermore, tourism can also cause social dislocation, as the influx of tourists can create conflicts between locals and visitors, or exacerbate issues such as income inequality and gentrification.

Furthermore, we will cover terms of massive and elite tourism.

"Massive tourism" is a term that is sometimes used to describe a type of tourism that involves large numbers of people traveling to a particular destination. This can often lead to overcrowding, environmental damage, and a strain on local resources and infrastructure.

Massive tourism typically involves package tours, all-inclusive resorts, and other forms of organized travel that cater to large groups of tourists. The focus is often on providing a comfortable and convenient experience for travelers, but this can come at the expense of the local community and environment.

"Elite tourism" refers to a type of tourism that caters to high-end, affluent travelers who are willing to spend large amounts of money on luxury accommodations, exclusive experiences, and high-end services. Elite tourism is often associated with high-quality and personalized services, as well as access to exclusive or restricted areas, events, and activities.

This type of tourism typically involves a significant amount of spending on accommodations, food, transportation, and other services, and is often marketed towards wealthy individuals and couples, corporate executives, and celebrities.

One of the main benefits of elite tourism for destinations is the high level of revenue generated by these visitors, which can contribute significantly to the local economy.

2. Literature review

Even though the topic is extremely broad, we took several studies that best represent the topic that we are researching.

The article that examines the relationship between infrastructure investment and economic growth through a meta-analysis of existing studies is: "Infrastructure Investment and Economic Growth: A Meta-Regression Analysis" (JEL Classification: O13, 2008, Dushko Josheski) – It analyzes the impact of infrastructure on GDP and provides insights into the role of infrastructure in economic development.

The tourism industry involves a wide range of stakeholders who play a crucial role in its development and success. That is best explained in the research article “Stakeholder Engagement: Past, Present, and Future” (JEL Classification: H41, J. Kujala, S. Sachs, H. Leinonen, A. Heikkinen, and D. Laude, 2022). It discusses the importance of involving stakeholders in policy formulation, implementation, and evaluation, highlighting the potential benefits of effective stakeholder engagement in enhancing policy outcomes and democratic governance. Article that describes how are stakeholders are connected with tourism industry, is “Corporations, Stakeholders and Sustainable Development I: A Theoretical Exploration of Business-Society Relations” (JEL Classification: Q56, H41, R. Steurer, M. E. Langer, A. Konrad and A. Martinuzzi, 2005). It explores the interaction between organizations and stakeholders in the context of environmental and social sustainability, discussing strategies for stakeholder engagement, collaboration, and the integration of stakeholder interests into decision-making processes.

Article “Tourism in the Developing World” (JEL Classification: L83, O13, M. Honey and R. Gilpin, 2009) shows how the mass tourism industry can help promote peace and stability in developing countries by providing jobs, generating income, diversifying the economy, protecting the environment, and promoting cross-cultural awareness.

The main points regarding case studies and best practice examples of luxury tourism are unique experiences, destination marketing, sustainable luxury, wellness and spa tourism, culinary experiences, personalized service, exclusivity and privacy and high-end hospitality. “*Case Studies and Best Practice Examples of Luxury Tourism*” (JEL Classification: Q56, H41, 2020, Aeberhard M, Caminada A, Comino S, Gowin D, Krall M, McDonald B, Reimann T, Walter M)

3. Data and Methodology

The relationship between infrastructure and tourism is widely recognized and has a significant impact on the tourism industry. Infrastructure investments in the tourism sector can generate positive economic impacts. According to the World Travel and Tourism Council (WTTC), every \$1 million invested in tourism infrastructure can create between 15 and 25 jobs. Through surveys, interviews and statistical analysis, information are gathered that can assess the perception of existing tourism infrastructure.

The relationship between economic growth and tourism is well-established, with tourism often serving as a significant contributor to a country's economy. Tourism can make a substantial contribution to a country's Gross Domestic Product (GDP). According to the World Travel and Tourism Council (WTTC), the global travel and tourism industry's direct contribution to GDP was 4.5% in 2019. This includes the value of goods and services generated directly by tourists, such as accommodation, food and beverage services, transportation, and entertainment. Tourism often generates foreign exchange earnings, which contribute to a country's balance of payments and foreign reserves. For many nations, tourism serves as a significant source of foreign exchange earnings. Tourism Satellite Accounts (TSA) is a framework developed by the United Nations World Tourism Organization (UNWTO) and other international organizations to measure the economic contribution of tourism. It provides a comprehensive analysis of tourism's direct, indirect, and induced impacts on the economy, including GDP, employment, and trade which is the main source of information of date for many articles that are mansion in this research. Specific

data and statistics on the relationship between economic growth and tourism can vary depending on the country, region, and time period studied.

Stakeholder mapping is the methodology that involves identifying and categorizing the various stakeholders in the tourism industry, mapping their relationships, interests, and influence (R. Steurer, M. E. Langer, A. Konrad and A. Martinuzzi, 2005). It helps to understand the stakeholder landscape and power dynamics within the industry. Organizing focus groups and workshops with diverse stakeholders allows for interactive discussions, idea generation, and consensus-building on tourism-related topics.

Economic impact analysis focuses on employing economic models to estimate the economic benefits and costs of mass tourism, including the contribution to GDP, employment, tax revenues, and income distribution. Analyzing the environmental effects of mass tourism, such as carbon emissions, waste generation, water consumption, and habitat degradation, through methods like environmental impact assessments or ecological footprint analysis and evaluating the social impacts of mass tourism on local communities, including cultural heritage, quality of life, social cohesion, and community resilience, using qualitative research methods and stakeholder engagement.

Analyzing specific case studies of luxury destinations, high-end resorts, or luxury travel providers to examine their strategies, target market, service offerings, and the economic impact of elite tourism (2020, Aeberhard M, Caminada A, Comino S, Gowin D, Krall M, McDonald B, Reimann T, Walter M). Conducting interviews with industry experts, luxury travel agents, destination management companies, and luxury service providers to gain insights into the dynamics of elite tourism and identify trends. These entities may provide access to data and insights specific to the elite tourism segment.

4. Results and Discussion

Infrastructure plays a crucial role in the development and growth of the tourism industry. Infrastructure, such as airports, seaports, roads, railways, and public transportation systems, enhance accessibility and connectivity, making it easier for tourists to reach their destinations. The increased tourism activity leads to additional investments, increased consumer spending, and the development of a diverse range of businesses, contributing to overall economic prosperity.

Governments and public authorities are key stakeholders in the tourism industry. Governments also provide support for destination marketing, tourism promotion, and industry regulation to ensure the sustainable growth of tourism. Local communities are essential stakeholders in tourism, especially in the destinations where tourism activities take place. They can directly or indirectly participate in tourism-related activities by offering accommodation, providing local products and services, or engaging in cultural experiences. Tourism businesses, including hotels, restaurants, tour operators, travel agencies, and transportation providers, are vital stakeholders. They provide the products and services necessary for tourists' experiences, contributing to the overall tourism value chain. These businesses collaborate with other stakeholders, such as local suppliers, attractions, and destinations, to create and deliver tourism offerings. Their success and sustainability are closely linked to the overall performance and competitiveness of the tourism industry.

“Insensitive tourist developments can displace people and destroy traditional livelihoods, leaving many with no alternative but to take up low-paying and exploitative jobs in the tourist sector.” (Martha Honey and Raymond Gilpin (2009).

4.1.Mass tourism

Mass tourism, despite its challenges and criticisms, can also bring several positive impacts to destinations. Here are some of the positive sides of mass tourism:

Economic Benefits: More tourists can make a significant contribution to a place’s economy by generating income and creating job opportunities. It stimulates a variety of industries such as accommodation, tourism, food and beverage, entertainment and retail, increasing business activity and income for local communities

Social and Cultural Benefits: Mass tourism provides opportunities for local communities to engage in tourism-related activities, such as crafts, cultural exhibitions and guided tours, to preserve their traditions and their heritage and expressed and promote social cohesion and pride in local identity.

Funding for public services: Revenue from more tourists can help improve public services and infrastructure for local communities. It can support the development of health care facilities, educational institutions, public transport systems, and other vital infrastructure.

On the other hand, mass tourism can bring some negative impacts:

Environmental degradation: Increased number of tourists can highlight natural resources and biodiversity, extensive deforestation, habitat degradation, pollution and waste Overpopulation and development out of control can harm fragile environments such as coastal areas, forests and protected areas.

Income inequality: Mass tourism can exacerbate destination income inequality. The benefits of tourism may go mainly to a few hands, such as luxury hotels or foreign investors, while local communities, especially those in rural or marginalized areas, may not share in the economic benefits which is appropriate

Social and cultural homogenization: The influx of more tourists can normalize tourism experiences, undermining the uniqueness and diversity of destinations Focusing on meeting the requirements of a large number of tourists often gives a hotel varieties of chain, globalized restaurant chains proliferate and lose local authenticity

4.2.Elite tourism

Elite tourism, despite its exclusivity, can have some positive impacts on destinations.

Economic Impact: High-quality tourism tends to generate significant economic benefits for destinations. High-spending major tourists contribute significantly to local economies through luxury accommodation, fine dining, unique shopping and high-quality experiences This can create employment opportunities, grow local businesses and generate tax revenue...

Enhanced destination image: The presence of major tourists can enhance the image and reputation of a place. Luxury travelers often seek unique and high-end experiences, resulting in world-class

facilities, services and attractions. This can attract attention, be recognized and positively publicize the destination.

Job creation and workforce development: Luxury tourism often requires specialized skills and knowledge, providing employment opportunities for local people as well as helping local workers develop careers through training programs, international networking and high-paying positions will be raised.

On contrary, negative impacts are:

Exclusivity and Social Inequality: Elite tourism caters to a small segment of the population with high purchasing power, creating a divide between the elite tourists and the local community. This can exacerbate social inequalities and lead to feelings of exclusion and resentment among local residents.

Environmental Impacts: Elite tourism often involves resource-intensive activities, such as private jet travel, luxury cruises, and high-consumption lifestyles. These practices can contribute to increased carbon emissions, waste generation, and environmental degradation, particularly in sensitive or remote destinations.

Cultural Commodification and Loss of Authenticity: The commercialization of cultural practices and traditions to cater to elite tourists can lead to the commodification of local cultures. This may result in the loss of authenticity and the distortion of cultural heritage, as cultural experiences are modified or created solely for the purpose of entertainment and luxury consumption.

5. Conclusion

All that was mentioned before can be applied to Montenegro, as small country in development and country that depends on tourism.

Tourism in Montenegro has both positive and negative impacts on the country. On the positive side, tourism contributes to economic growth, employment and job creation. It promotes cultural preservation, environmental awareness and community development. However, there are some negative factors to consider such as environmental pollution, seasonal issues, pressure on infrastructure, cultural factors and social inequality. By managing negative impacts and maximizing positive impacts, Montenegro can provide a tourism industry that benefits both tourists and local communities, while protecting its natural and cultural heritage.

Montenegro receives both mass tourism and elite tourism, each with its own unique characteristics and impact on the country. Mass tourism attracts more tourists with cheaper travel, contributes to economic growth but hurts jobs and the environment. Elite tourism targets high-end travelers who seek unique experiences on, provide affordable travel, and support luxury goods and services. However, elite tourism can contribute to social inequality and environmental degradation due to intensive consumption. Balancing the benefits and challenges of each sector, promoting healthy tourism practices, ensuring community participation and protecting the environment are essential for a comprehensive tourism industry and includes everyone in the country.

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Positive and negative impacts of tourism

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Abstract

Tourism is a significant and rapidly growing industry that can have both positive and negative impacts on host communities. While it can bring economic benefits, it can also cause environmental degradation, cultural erosion, and social disruption. As a result, there has been a growing interest in recent years in understanding the effects of tourism and developing strategies to promote sustainable practises. This research paper aims to explore the economic, socio-cultural, and environmental impacts of tourism on a global level, with a focus on the Republic of North Macedonia as a case study. Through a comprehensive literature review and secondary data collection, this paper presents findings from the period of 2019 to 2022. By examining both the positive and negative effects of tourism, this paper aims to provide insights that can promote sustainable tourism practises and mitigate potential harms caused by tourism.

Keywords: negative impact, positive impact, tourism

1. Introduction

Tourism has become a major global industry that generates various micro and macroeconomic effects, making it an area of interest for every country (Dimoska & Petrevska, 2012)¹. In addition to the microeconomic influence, tourism has a positive effect on individual businesses and consumers in a given destination by increasing demand for goods and services. Moreover, it is popular for creating job opportunities and generating increased tax revenue, which contribute to the microeconomic growth of a country. However, potential negative impacts such as seasonal employment and dependence on tourism must be taken into consideration. Regarding the macroeconomic influence, it seems that the increased use of foreign currency can provide a boost to the country's economy, such as by contributing to the repayment of foreign debt, creating new job opportunities across a range of sectors, etc. In comparison, tourism can lead to overcrowding and environmental degradation. The tourism industry is widely known as a catalyst for economic development and growth. It promotes global community, international peace and understanding, and opportunities for local communities. (Goeldner, Ritchie, & McIntosh, 2000)²

Along with all the positive and negative effects of tourism, the whole world was facing an obstacle in 2019. Prior to the pandemic, tourism was one of the largest global industries, creating 10.3% of all the jobs in the world and 10.3% (USD 9.6 trillion) of the global GDP. Following this, the consequences of COVID-19 in 2020 were 62 million jobs lost, and this sector lost USD 4.9 trillion in GDP on a global level. (WTTC, 2022)³ Similarly, the GDP of the Republic of North Macedonia decreased by 6.1% in 2020 compared to 2019. However, forecasts made in 2012 regarding tourism development and its contribution to the GDP of North

¹ Dimoska, T., & Petrevska, B. (2012). Tourism and Economic Development in Macedonia. Conference Proceedings: Tourism and Hospitality Industry 2012, Opatija, Croatia, 12-20.

² Goeldner, C. R., Ritchie, J. R. B., & McIntosh, R. W. (2000). Tourism: Principles, Practices, Philosophies. John Wiley & Sons. (pp. 33-34).

³ WTTC. (2022). Travel & Tourism Economic Impact 2022: Global trends. Retrieved from <https://wtcc.org/Portals/0/Documents/Reports/2022/EIR2022-Global%20Trends.pdf>

Macedonia predicted a 1.6% contribution by 2020.(WTTC, 2011)⁴ Surprisingly, the contribution of travel and tourism to the GDP in 2020 was 3.3%. (Aqifi & Kadriu, 2021)⁵ Overall, understanding the positive and negative impacts of tourism can lead to careful planning and management in addition to minimising the negative effects and bringing up the positive ones.

2. Literature review

Numerous studies discuss tourism impacts from various angles, offering a variety of interpretations. As we all know, tourism is the fastest-growing industry and, statistically speaking, the major source of economic growth for many countries all around the world. Tourism has a significant role in providing new job opportunities, foreign exchange, and infrastructural development. However, despite its numerous benefits, tourism itself has some negative impacts on the economy, environment, and society. This review of literature on the positive and negative impacts of tourism reveals a range of findings and perspectives.

One of the major positive impacts of tourism is its contribution to economic growth and development. This major contribution is based on generating employment, foreign exchange, and income, particularly in areas with limited economic resources (Goeldner, Ritchie, & McIntosh, 2000)⁶. According to the World Trade and Tourism Council, the global travel and tourism industry generated 10.3% of the global GDP and supported 1 in 10 jobs globally in 2019. In the Republic of North Macedonia, tourism contributed 6.6% of GDP and 6.9% of total employment in the same year. Meanwhile, as the COVID-19 pandemic occupied the world, this industry lost \$4.9 trillion of the global GDP, and the support for jobs declined to 1 in 12 jobs in 2020. The trends were similar in the Republic of North Macedonia, where tourism's contribution to the GDP declined by 31,6%, as did its contribution to employment, which declined by 12.1% in 2020. (WTTC, 2022)⁷

Nevertheless, except for creating job opportunities and economic growth, tourism can also have a huge impact on the development of local businesses, infrastructure, and transportation. All of this can stimulate local commerce, improve living standards, and reinforce the preservation of heritage and tradition. (Dimoska & Petrevska, 2012)⁸ Undoubtably, as tourism becomes a more attractive industry, tourists are interested in experiencing local culture, customs, and traditions, so the demands for preservation and maintenance of cultural sites are growing. Furthermore, the revenue generated from tourism can be used to fund environmental conservation efforts and protect natural resources .(Gössling, Scott, & Hall, 2020)⁹

However, there are some negative impacts that we need to address and keep in mind while talking about tourism. These include environmental degradation, pollution, and improper waste management. For example, the increased tourism activities in the Republic of North Macedonia led to an increase in water consumption, waste, and pollution of lakes and rivers (Aqifi & Kadriu, 2021)¹⁰ . The influx of tourism can also lead to cultural commodification, displacement of local communities, the loss of their traditional way of life, and social conflicts due to overcrowding (UNWTO, 2019)¹¹. Different from the environmental and social impacts, mass tourism can lead one country to the point where it depends heavily on it. Overdependence on tourism can make one country face significant economic challenges, and the government may be forced to provide financial

⁴ WTTC. (2011). Travel & Tourism Economic Impact - Macedonia 2011. (p. 3).

⁵ Aqifi, E., & Kadriu, A. (2021). Contribution of Tourism on GDP in North Macedonia. Knowledge - International Journal, 49(1), 139–143. Retrieved from <https://ikm.mk/ojs/index.php/kij/article/view/4628>.

⁶ Goeldner, C. R., Ritchie, J. R. B., & McIntosh, R. W. (2000). Tourism: Principles, practices, philosophies. John Wiley & Sons.

⁷ World Travel & Tourism Council. (2022). Travel & tourism economic impact 2022. Retrieved from <https://wttc.org/Portals/0/Documents/Reports/2022/EIR2022-Global%20Trends.pdf>

⁸ Dimoska, T., & Petrevska, B. (2012). Tourism and economic development in Macedonia. Conference Proceedings, THI 2012, Opatija, Croatia, pp. 12-20.

⁹ Gössling, S., Scott, D., & Hall, C. M. (2020). Tourism and water: Interactions, impacts and challenges. Channel View Publications.

¹⁰ Aqifi, B., & Kadriu, A. (2021). The Positive and Negative Impacts of Tourism on the Gross Domestic Product (GDP): A Global, Republic of North Macedonia and Europe Level Analysis. Journal of Tourism and Hospitality Management, 9(1), 1-16.

¹¹ UNWTO. (2019). Tourism and culture synergies: Review and recommendations. World Tourism Organization.

assistance. The dependence on tourism can lead to neglect of other sectors, such as economic transformation and even agriculture. All these negative impacts can have a long-term effect in every country.

In conclusion, tourism can generate both positive and negative impacts on host communities. While the benefits of tourism are more prominent and cannot be ignored, it is important and for everyone's benefit to manage tourism more effectively to ensure that the negative impacts can be minimised. This can be achieved through sustainable tourism development. The research in this field highlights the need for sustainable tourism practises that consider the long-term effects on host communities.

3. Data and Methodology

The aim of this research paper is to analyse the positive and negative impacts of tourism on the Gross Domestic Product (GDP) globally, in the Republic of North Macedonia, and in Europe. The study will use additive decomposition analysis to analyse and identify the seasonal rhythms of the GDP and compare them with the number of tourists during the exact same period. This model will be used to break down the GDP data into three distinct components: trend, seasonal, and irregular. Alongside this model, other techniques will be utilised, such as time-series analysis and regression analysis, to effectively isolate and analyse the seasonal and irregular components of the data. By employing these methods, we aim to provide a comprehensive analysis of the impact of tourism on GDP.

For this purpose, the study will use secondary data from official sources such as the State Statistical Office, the Ministry of Economy, the Central Bank of the Republic of North Macedonia, and The World Travel and Tourism Council. The data range will cover the period from 2019 to 2022. Therefore, this data collection will be analysed in terms of its three components: trend, seasonality, and irregularity. The emphasis will be on the seasonal and irregular components, showing the impact of COVID-19 and the economic crises. Moreover, this research paper will put an accent on analysing the positive impacts of tourism on job creation, economic growth, and local income; on the other hand, it will also try to identify the commonly cited negative impacts, such as pollution, economic dependency, and vulnerability to external shocks.

Accordingly, the paper emphasises the importance of using additive decomposition analyses to continuously analyse the impact of seasonal and irregular components on tourism and its effects on the GDP. The main conclusions drawn from the analyses should indicate the need to consider activities that increase the development of tourism and its positive effects. The limitations of the study will also be addressed, such as potential data gaps or biases that may affect the accuracy of the findings.

4. Research framework and Hypothesis

The research framework employed in this study aims to systematically analyse the economic, socio-cultural, and environmental impacts of tourism on a global level, with a specific focus on the Republic of North Macedonia. The investigation encompasses a range of indicators, including GDP, tourist arrivals, job creation, economic growth, local income, environmental degradation, pollution, cultural erosion, and vulnerability to external shocks. By examining these indicators, the study seeks to provide a comprehensive understanding of the multifaceted effects of tourism.

Hypothesis 1: Economic Impact

The primary hypothesis posits that tourism exerts a positive influence on the economy, leading to an increase in GDP, job creation, and local income. The hypothesis expects a positive correlation between tourism and economic growth indicators, such as GDP and employment rates. To examine this impact, data on GDP, employment statistics, and income levels will be analysed and compared across different periods.

Hypothesis 2: Socio-cultural Impact

The study also acknowledges the socio-cultural impacts of tourism, recognising that they can be both positive and negative. The hypothesis posits that tourism contributes to the preservation and promotion of local culture, heritage, and traditions. However, it also recognises potential negative effects, including cultural commodification and the displacement of local communities. To investigate this impact, qualitative data, including surveys and interviews, will be conducted to assess community perceptions and experiences.

Primary Hypothesis:

The primary hypothesis of this study posits that tourism significantly influences the GDP of the Republic of North Macedonia, as well as the economic, socio-cultural, and environmental dimensions. It anticipates that the positive impacts, such as job creation, economic growth, and increased local income, will outweigh the negative impacts, including pollution, economic dependency, and vulnerability to external shocks. To test this hypothesis, a comprehensive analysis of relevant data, including economic indicators, socio-cultural surveys, and environmental measurements, will be conducted.

The study encompasses various forms of tourism, including cultural tourism, nature-based tourism, and leisure tourism. These distinct types of tourism may exert specific impacts on the economy, society, and environment. Therefore, a thorough examination of each type will be undertaken to identify their respective contributions and consequences.

In conclusion, this research paper employs a comprehensive research framework to explore the economic, socio-cultural, and environmental impacts of tourism, with a particular focus on the Republic of North Macedonia. By rigorously analyzing relevant indicators, testing hypotheses, and considering various types of tourism, this study aims to contribute to the existing body of knowledge on the topic.

5. Results and Discussion

Table 1 contains data on the quarterly gross domestic product (GDP) and tourism arrivals for the years 2019 to 2022. The GDP is shown with the impact of a cyclical component (yt/ct) and a residual component (yt/rt), as well as without the impact of these components (CT and RT, respectively). The values for RT indicate how the GDP would have performed without the impact of these components.

For better understanding the Table 1, we need to clarify the columns separately:

- The first column represents the time period in quarters, ranging from Q1 2019 to Q3 2022.
- The second column shows the GDP values for each quarter.
- The third column displays the GDP values that have been adjusted for the impact of a cyclical component.
- The fourth column shows the GDP values that have been adjusted for the impact of a residual component.
- The fifth column represents the GDP values without the impact of a residual component, also known as RT.
- The sixth column shows the total number of tourists that arrived in the Republic of North Macedonia for each quarter.

Based on the additive decomposition analysis of the data presented in the Table 1, we can observe that the GDP of the region under study (Republic of North Macedonia) has been affected by various components, including a cyclical component and a residual component.

In terms of the positive impact of tourism, we can see that the arrival of tourists in the region has had a significant impact on the GDP, which resulted with relatively higher values of GDP in quarters where the number of tourist arrivals was higher. This suggests that tourism has played a significant role in boosting the

economy of the region. However, we can also observe some negative impact of tourism on the economy. For instance, the cyclical component of the GDP, which is likely influenced by seasonal variations in tourist arrivals, has had a negative impact on the GDP. Specifically, we see that the GDP tends to be lower in quarters where the cyclical component of GDP is higher, indicating a potential negative impact of tourism on the economy during certain periods of the year.

Additionally, the residual component of GDP, which may be influenced by factors such as changes in consumer preferences or economy instability, also had a negative impact on the GDP. This suggests that other factors besides tourism are also impacting the economy of the region, and that the policymakers should take these factors into account when formulating economy policies.

Table 1. Quarterly GDP and Tourist Arrivals for [Macedonia] (Q1 2019-Q3 2022) with Additive Decomposition Analysis

Quarter	GDP (yt)	GDP with the impact of a cyclical component yt/ct	GDP with the impact of a residual component yt/rt	GDP without the impact of a residual component (RT)	Arrival of tourists in total
2019Q1	108.748	106.060	109.942	0,99	147.513
2019Q2	117.707	114.107	116.734	1,01	303.349
2019Q3	119.971	115.927	119.347	1,01	0
2019Q4	123.964	121.788	123.198	1,01	223.273
2020Q1	108.403	113.148	104.999	1,03	120.497
2020Q2	99.561	105.775	108.857	0,91	6.789
2020Q3	114.754	120.776	111.970	1,02	253.608
2020Q4	125.618	127.391	121.946	1,03	86.620
2021Q1	108.463	110.317	110.085	0,99	78.671
2021Q2	114.017	117.920	114.229	1,00	102.751
2021Q3	116.382	118.824	117.893	0,99	388.994
2021Q4	127.100	129.558	123.903	1,03	132.047
2022Q1	110.891	112.423	112.778	0,98	114.763
2022Q2	118.565	121.884	117.343	1,01	202.776
2022Q3	118.656				398.539

Source: Author's calculations based on data obtained from Makstat base

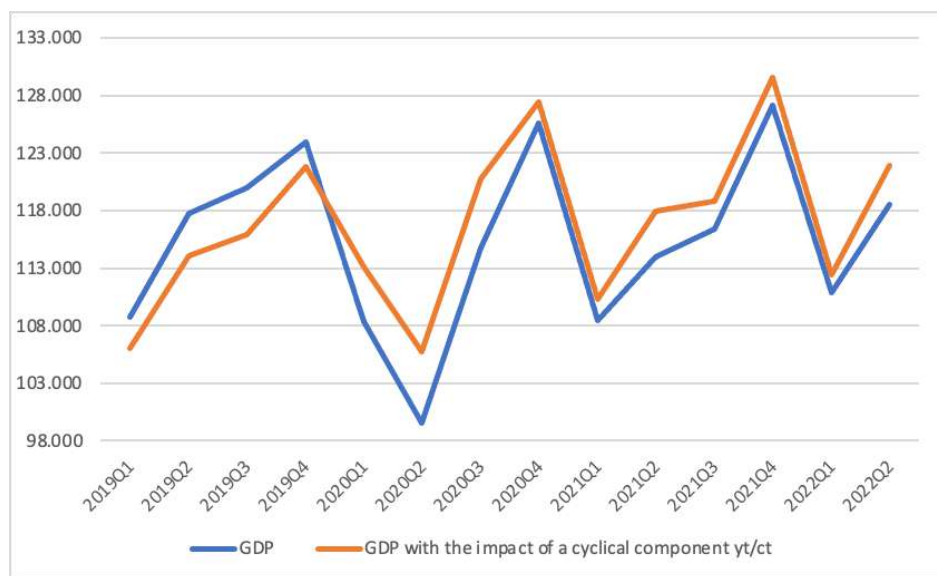
To better understand the impact of tourism on GDP, we have plotted two figures: one for GDP in correlation with GDP with the impact of a cyclical component (yt/ct) and another for GDP in correlation with GDP with the impact of a residual component (yt/rt). As shown in the Figure 1 below, the GDP in the region or country has experienced fluctuations over the time span from Q1 2019 to Q3 2023. There is a visible dip in GDP in the second quarter of 2020, which corresponds to the beginning of the Covid19pandemic. However, the GDP has been slowly recovering since then, reaching its peak in the fourth quarter of 2021.

Next, on the Figure 1 for GDP, we can see GDP with the impact of a cyclical component (yt/ct), which considers the impact of the cyclical component on GDP. As shown in the graph, the GDP with the impact of a

cyclical component (yt/ct) has followed a similar pattern to the GDP. However, the fluctuations are less severe, indicating that the cyclical component has a stabilizing effect on the GDP.

Based on the data presented in Figure 1, North Macedonia appears to be lagging behind in terms of GDP growth compared to the pre-pandemic levels. The GDP experienced a significant decline in the second quarter of 2020, indicating the negative impact of the COVID-19 pandemic on the economy. However, with targeted strategies to promote tourism recovery, such as enhancing health and safety measures, marketing efforts, and investment in sustainable tourism practices, there is potential for a more robust GDP growth in the future.

Figure 1. Gross Domestic Product (GDP) and GDP with the Impact of a Cyclical Component (yt/ct)

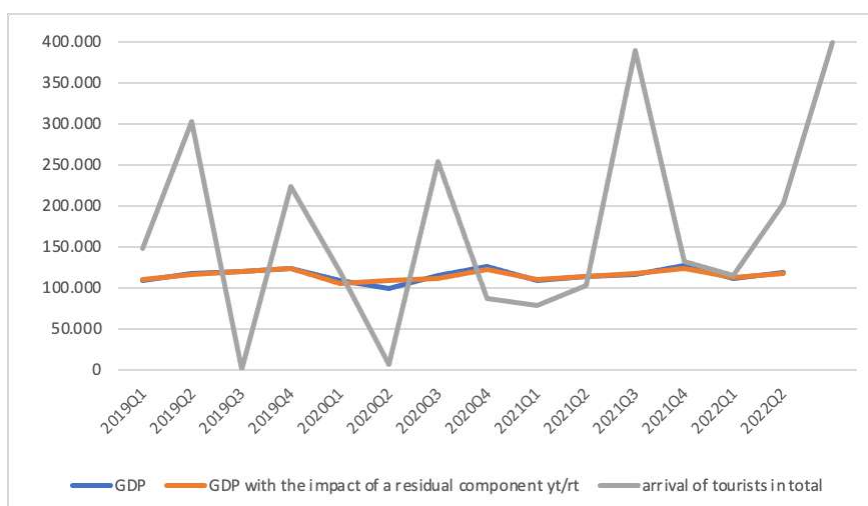


Source: Author's calculations based on data obtained from Makstat base and the Central Bank of the Republic of North Macedonia.

To examine the impact of tourism on GDP, we added a line plot of the arrival of tourists in the region or country to the Figure 2. As shown in Figure 2, the arrival of tourists has a noticeable impact on GDP and GDP with the impact of a cyclical component (yt/ct). There is a visible spike in both GDP and GDP with the impact of a cyclical component (yt/ct) in the third quarter of 2021, which corresponds to the peak tourist season. This suggests that tourism has a positive impact on the economy of the region or country. However, the impact of tourism is not always positive. For instance, the arrival of tourists has a negative impact on GDP and GDP with the impact of a cyclical component (yt/ct) in the second quarter of 2020, when the COVID-19 pandemic started. This negative impact is likely because the pandemic led to travel restrictions and reduced demand for tourism.

According to the data presented in Figure 2, it is evident that the total contribution of Travel & Tourism to the economy of North Macedonia has shown fluctuations over the years. In 2020, there was a significant decline in both GDP and GDP with the impact of a cyclical component (yt/ct) due to the adverse effects of the COVID-19 pandemic on the tourism industry. To improve the situation, targeted measures, and policies to revive the tourism sector and enhance its resilience to external shocks would be crucial for fostering economic growth and stability in the region.

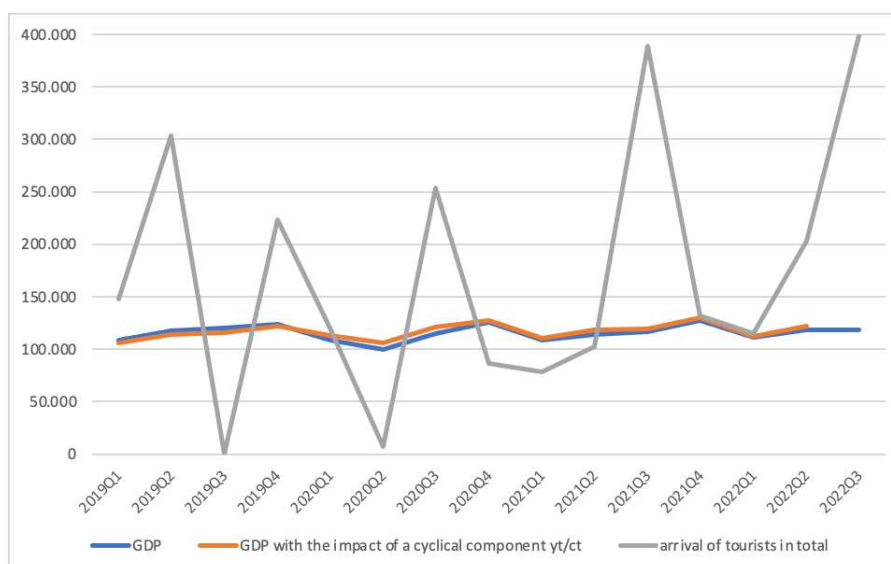
Figure 2. Gross Domestic Product (GDP) and GDP with the Impact of a Cyclical Component (yt/ct) and Tourist Arrivals



Source: Author's calculations based on data obtained from Makstat base and the Central Bank of the Republic of North Macedonia.

The impact of tourism on GDP can also be analyzed using the additive decomposition method, considering the residual component of GDP. As shown in the previous section, the impact of tourism on GDP is significant, and the analysis can be expanded by considering the residual component of GDP. The Figure 3 below presents the quarterly values for GDP without the impact of a residual component (RT), GDP with the impact of a residual component (yt/rt), and tourist arrivals.

Figure 3. Gross Domestic Product (GDP) and GDP with the Impact of a Residual Component (yt/rt) and Tourist Arrivals



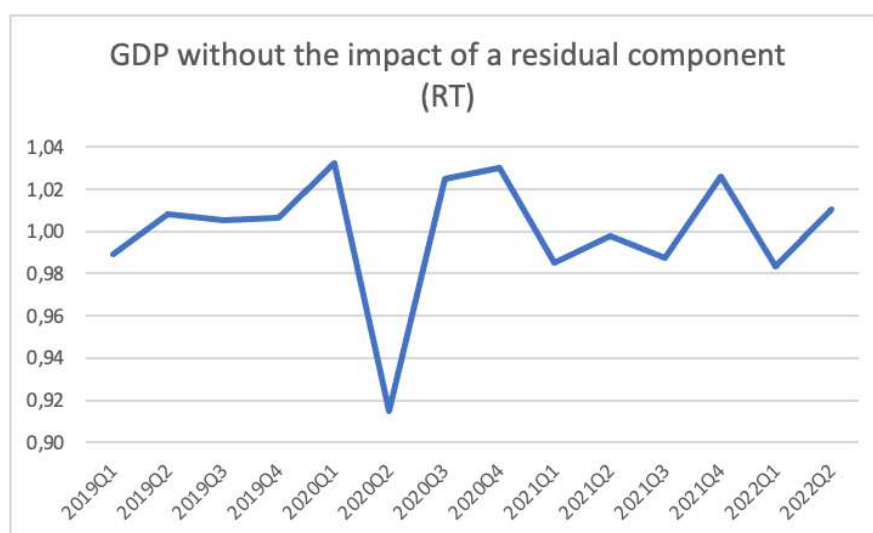
Source: Author's calculations based on data obtained from Makstat base and the Central Bank of the Republic of North Macedonia.

As with the previous figure, the Figure 3 above shows that GDP tends to increase with the arrival of tourists. However, the impact of tourism on GDP with the impact of a residual component is less clear. In the first quarter of 2019, there is a clear positive correlation between tourist arrivals and GDP with the impact of a residual component, with GDP reaching a peak of 1.03. In contrast, in the second quarter of 2019, there is a

slight decline in GDP with the impact of a residual component despite a significant increase in tourist arrivals. This suggests that there may be other factors at play that are influencing GDP in addition to tourism. Similarly, in the first quarter of 2020, there is a significant decline in GDP with the impact of a residual component despite a moderate increase in tourist arrivals. This decline may be due to the impact of the COVID-19 pandemic, which caused a significant reduction in tourism activity and related industries. The impact of the pandemic is also reflected in the second quarter of 2020, where there was a sharp decline in both GDP and GDP with the impact of a residual component, while the impact of a cyclical component increased. This indicates that the cyclical component of GDP, which represents the normal fluctuations of the economy, became more pronounced during this period, possibly due to the disruption caused by the pandemic. On the other hand, in some quarters, such as the second quarter of 2022, the impact of the cyclical component of GDP is higher than the impact of tourism on GDP with the impact of a residual component. This could be due to various factors such as changes in government policies, global economic conditions, or natural disasters, which could have impacted the overall economy of the region or country under study.

Based on the data presented in Figure 3, it is evident that the indicator where North Macedonia is lagging is the GDP with the impact of a residual component. The GDP with the impact of a residual component shows a fluctuating pattern, indicating potential volatility and vulnerability in the economy. To improve this situation, implementing targeted policies and measures to reduce the impact of external shocks, strengthen resilience, and promote sustainable economic growth in the tourism sector and related industries would be essential.

Figure 4. Quarterly GDP Trends Without the Impact of Residual Component (RT)



Source: Author's calculations based on data obtained from Makstat base.

The impact of tourism on GDP can also be observed when considering GDP without the impact of a residual component RT. As seen in the Figure 4, the GDP without the impact of RT remains relatively stable throughout the quarters, except for a slight decrease in the fourth quarter of 2020. However, when comparing the GDP without the impact of RT to the GDP with the impact of tourism, tourism has a positive impact on the economy.

In the first quarter of 2019, for example, the GDP without the impact of RT was 0.99, while the GDP with the impact of tourism was 1.03. This indicates that tourism contributed positively to the GDP of the region or country under study. The same pattern can be observed in the second, third, and fourth quarters of 2019, where the GDP with the impact of tourism was consistently higher than the GDP without the impact of RT.

The impact of tourism on GDP is most evident in the second quarter of 2021, where the GDP with the impact of tourism was 1.00, while the GDP without the impact of RT was only 0.97. This indicates that tourism contributed significantly to the growth of the economy in this quarter. Similarly, in the third quarter of 2021, the GDP with the impact of tourism was 0.99, while the GDP without the impact of RT was only 0.98, indicating that tourism had a positive impact on the economy during this period.

Overall, the data suggests that tourism has a significant impact on the GDP of the country under study (Republic of North Macedonia). The positive impact of tourism on the economy can be observed in the GDP with the impact of a cyclical component (yt/ct), GDP with the impact of a residual component (yt/rt), as well as the GDP without the impact of a residual component RT.

Based on the data presented in Figure 4, it can be observed that in the fourth quarter of 2020, the GDP without the impact of a residual component (RT) experienced a slight decrease, indicating a potential area where the country may be lagging behind. This suggests that there might be challenges in terms of economic resilience or sustainability. By implementing targeted measures to address the factors influencing the residual component, such as enhancing environmental conservation efforts and promoting economic diversification, the country can enhance its economic stability and foster more sustainable and resilient growth in the future.

5. Conclusion

The results of this research paper highlight the significant impact that tourism has on the GDP of Republic of North Macedonia, as well as the positive and negative effects that can have on the economy and society. The additive decomposition analysis presented in the Table 1 has allowed us to gain insight into the specific impact of tourism on GDP with the influence of various factors.

The analysis showed that tourism has a positive impact on GDP with the impact of a cyclical component (yt/ct). This suggests that the cyclical nature of tourism, with fluctuations in tourist arrivals, has a positive effect on the economy. Additionally, the analysis shows that there is a significant positive impact of tourism on GDP without the impact of a residual component (RT), which suggests that tourism has a sustained positive effect on the economy over time.

However, the analysis also shows that tourism can have negative effects on the economy, such as the decline in GDP with the impact of a residual component (yt/rt). This decline may be due to the negative impact of pollution caused by tourism or the vulnerability of the local economy to external shocks, such as the COVID-19 pandemic. In addition, the findings suggest that the policymakers should be prepared to respond to external shocks, such as the COVID-19 pandemic, which can have a significant impact on the tourism industry and, in turn, the wider economy. Measures such as targeted stimulus packages and support for affected industries can help mitigate the negative effects of such shocks and promote a more stable and resilient tourism industry. It is important to note that tourism not only affects the economy but also has significant impacts on job creation, economic growth, and the increase in local income. The arrival of tourists in total, as shown in the Table 1, has a positive impact on the economy and society. Tourism creates jobs in the service sector, which contributes to economic growth and the increase in local income. However, tourism can also have negative impacts, such as the economic dependency on tourism and the negative effects of over-tourism, including pollution and environmental degradation. Therefore, the policymakers should carefully consider the positive and negative impacts of tourism when formulating policies and implementing strategies to promote sustainable tourism development.

In conclusion, tourism is a significant contributor to the economy and society, and its impact can be both positive and negative. The additive decomposition analysis presented in the table provides insight into the specific impact of tourism on the economy, which can be used to inform the policy decisions that promote sustainable tourism development while minimizing negative impacts.

- Limitations and Future Tendencies for Changes

While this research paper has provided valuable insights into the positive and negative impacts of tourism on the GDP of Republic of North Macedonia, there are certain limitations that should be acknowledged. First, the study relied on secondary data obtained from various sources, which may have limitations in terms of accuracy and completeness. Despite efforts to ensure the reliability of the data, there may still be inherent biases or gaps in the information. Second, the study focused on a specific time period from 2019 to 2022, which may not capture long-term trends or the full extent of the impact of tourism on the economy. Future research could

consider examining a longer time frame or conducting longitudinal studies to gain a deeper understanding of the dynamics between tourism and GDP.

Additionally, the analysis in this research paper primarily focused on the economic impacts of tourism. While this is an important aspect, future studies could explore the socio-cultural and environmental impacts in more detail to provide a comprehensive assessment of the overall effects of tourism on host communities. Furthermore, the research paper primarily focused on the Republic of North Macedonia as a case study. Future research could consider expanding the analysis to include other countries or regions to gain a broader perspective on the impacts of tourism and identify common patterns or trends. In terms of future tendencies for changes, it is crucial to promote sustainable tourism practices that mitigate the negative impacts and enhance the positive effects of tourism. This can involve implementing measures to address environmental concerns, such as promoting eco-friendly practices and sustainable resource management. Additionally, efforts should be made to diversify the economy and reduce the dependency on tourism, which can help mitigate vulnerability to external shocks and fluctuations in demand.

In conclusion, while this research paper has provided valuable insights into the impacts of tourism on the GDP of Republic of North Macedonia, there are limitations that should be considered. Future research should aim to address these limitations and explore the socio-cultural and environmental impacts of tourism in greater depth. By doing so, policymakers and stakeholders can make informed decisions and implement strategies that promote sustainable tourism development and maximize the positive impacts while minimizing the negative effects on host communities.

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The Impact of Investing in ESG Factors and Sustainability on Organizational Performance

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Abstract

Environmental, Social, and Governance (ESG) factors are critical for any company today, and ESG factors and sustainability are reported in annual reports. This paper aimed to explore whether there is any effect of investing in ESG factors and sustainability on organizational performance. Based on the existing literature which indicated mixed results, 10 companies were selected for statistical analysis. Research findings indicated there is no correlation between investing in ESG and the financial performance of companies. However, it was observed that environmental disclosure is considered important and is frequently and exhaustively covered in the annual reports of most companies. This study also illustrates the need for a common framework for ESG ratings.

Keywords: Financial performance, sustainability, ESG factors

JEL Classification: M1

1. Introduction

The growing emphasis on managing climate change and uncertainty in the business environment has transformed the aspect of sustainability into a concept that modern-era institutions and firms should address. The current architecture of sustainability, which is based on Environmental, Social, and Governance (ESG) factors, is a key priority for all companies.

The idea of ESG as a concern for companies first emerged in 2006 as a United Nations Principles for Responsible Investment (UNPRI) report (Kim & Yoon, 2023). Since this time, many institutions around the world have advocated for individual firms to disclose and evaluate their ESG compliance. In addition, governments have enforced specific laws and policies requiring organizations to report on ESG, such as Directive 2014/95/EU by the European Union which

requires big corporations to report on non-financial activities and procedures (Ottenstein et al., 2022).

Today, investors and stakeholders review and examine the ESG aspects of firms to gain an understanding of the activities of the organizations and how they invest resources in sustainability (Atan et al., 2018). For instance, the environmental issues that are considered important include the protection of the environment, adherence to practices that do not pose a threat to climate change, and the effects of business operations on the environment. On social aspects, stakeholders evaluate issues such as equality, treatment of workers, and workplace diversity, amongst others (Atan et al., 2018). Governance aspects include the independence of board members, the rights of shareholders, and transparency (Lavin & Montecinos-Pearce, 2021).

The interest in ESG factors has substantially transformed the strategies of companies from profit maximization into an awareness of social interests, environmental protection, and corporate governance. Organizations that focus on ESG aspects have an increased awareness of sustainability, and they are subsequently able to incorporate ethical business approaches (Iazzolino et al., 2023). This implies that compliance with ESG issues can help companies gain a competitive advantage whereas failure to comply constitutes a significant risk.

Undoubtedly, there are strong justifications for ESG and sustainability practices as they are known to add value to companies (Lavin & Montecinos-Pearce, 2021). Interestingly, evidence indicates that companies have different levels of ESG compliance and reporting (Chvatalová et al., 2011), which suggests that there are distinct approaches and levels of understanding. This observation can be attributed to the lack of clarity on the association between ESG factors and organizational performance which has resulted in a lack of motivation to make ESG and sustainability normal business practices as compared to financial reporting (Chvatalová et al., 2011). This study examines the impact of investing in ESG factors and sustainability on organizational performance.

2. Literature Review

One of the key motivations for companies to engage in ESG practices and sustainability is to demonstrate compliance in the market which then translates to higher financial returns (Khan, 2022). However, there is no clear link between ESG and organizational performance since the literature features conflicting results.

The primary goal of a majority of companies is to increase their market share and financial value in the long term (Alsayegh et al., 2020). Financial performance is one of the indicators of organizational performance, which refers to how well a company attains the set objectives (Ho, 2008). Organizational performance can be determined by evaluating the degree of efficiency and effectiveness of goal attainment (Robbins & Coulter, 2002). Andersen (2006) further asserts that effectiveness is a ratio, thereby implying that there have to be two elements defined and measured to determine effectiveness, such as business return on equity (ROE). Ho (2008) argues that profitability is one of the fundamental goals of any business, and it can, therefore, be used to measure organizational performance. Economic indicators, including ROE and economic value added (EVA), are important to investors as they assist them in evaluating the risks and returns (Alsayegh et al., 2020). Consequently, this paper reviews and integrates studies that are based on economic indicators as measures of organizational performance.

A number of studies have established that there is no significant relationship between ESG factors or sustainability and the financial performance of companies. In a study of UK firms that assessed

key indicators for the environment, employment, and community activities, the researchers concluded that there is a negative relationship between stock returns and environmental performance for a 12 to 36 months period (Brammer et al., 2006). Similar results were reported in another study involving 54 Malaysian companies where the results indicated that there is no significant relationship between individual and combined aspects of ESG and company profitability or value. Still, the same study indicates that the combined score of ESG has a significant effect on the cost of capital (Atan et al., 2018).

Other studies, however, have found that the sustainability efforts of companies typically translate into higher returns for investors. In a survey that examined academic studies published between 1972 and 2008, the researchers found that most of the studies reported a positive relationship between ESG factors and financial performance (63%), whilst 15% indicated a negative relationship (Peloza, 2009). Further, 22% did not lean towards either side or reported a mixed relationship. A different study that analyzed the impact of ESG disclosure on firm performance, based on return on assets (ROA) and earnings before interests and taxes (EBIT), amongst Italian firms during a 10-year period reported a positive relationship between ESG factors and the financial indicators (Pulino et al., 2022). Specifically, the study found that the environment and social pillars positively influence corporate performance, whilst governance aspects did not have any effect (Pulino et al., 2022).

Considering the ambiguity and lack of a consensus on the effect of ESG factors and sustainability on organizational performance, it was established that the only common agreement between the two strands of literature is that high investment in ESG factors and sustainability negatively affects the financial performance of a firm (Pacelli et al., 2022).

The current study aimed to determine whether competing companies consider sustainability as a competitive advantage. In addition, it sought to explore whether customers and stakeholders select a company based on the amount of investment in sustainability and ESG factors.

3. Data and Methodology

The methodology for this study involved the collection and analysis of quantitative data through the SPSS program. A non-random sampling approach was utilized and 10 companies were selected for data analysis, including Jumbo SA, Coca-Cola HBC AG, The Kraft Heinz Co., Heineken NV, Koninklijke Ahold Delhaize NV, Unilever Plc, Kellogg Co., Nestlé SA, Adidas AG, and NIKE, Inc. To determine the sustainability of individual companies, this study relied on ESG evaluation companies (MSCI and Sustainalytics) as well as the annual reports of the companies. Case studies were then conducted on each company based on sustainability reporting and through the use of SPSS 26.0 for data analysis. To determine the reliability of the study, Cronbach's alpha was calculated and the results indicated that the data was reliable (*Cronbach α = .757*). To measure the financial performance of the sample, the net income for the 2018-2021 period was used.

Other studies which have attempted to examine whether there is a relationship between investing in ESG factors and financial performance have utilized an empirical methodology where they selected companies from the Global Reporting Initiative (GRI) framework or other databases which reported on firms' sustainability efforts and listed on stock exchange platforms, such as the Singapore Exchange (SGX) Mainboard (Loh et al., 2017). As for the indicators of financial performance, existing studies have used return on assets (ROA) (Buallay, 2018), Tobin's Q (Iatridis, 2013), return on equity (ROE) (Koroleva et al., 2020), the book value of equity (Lourenco et al., 2014), and EARN (earnings before extraordinary items) (Loh et al., 2017) as indicators,

amongst others. It is also noteworthy to observe that a majority of the existing studies have used a dataset of three years or longer (Buallay, 2018; Lourenco et al., 2014). The methodology used in this study is, therefore, deemed appropriate for data collection and analysis.

4. Results and Discussion

The results of this study are based on a purposive sample of 10 companies and the sustainability information published in the 2018-2021 period. The aim was to explore whether there is a relationship between ESG and sustainability factors and organizational performance. Since financial performance is a key indicator of organizational performance, the net income of the companies during the same period was analyzed.

The case studies were conducted on individual companies as per the annual reports on addressing sustainability. All 10 companies published information in the reports on their plans, progress, and achievements concerning ESG compliance. Interestingly, it was observed that a majority of the companies emphasized the environmental dimension more than social or governance issues. Coca-Cola HBC reported its continued effort toward managing the impact of its operations on the environment, and the reports indicated plans to reduce carbon dioxide emissions, production of electricity from renewable sources, and reduction of water consumption (*Boldly Embracing the Future*, 2022). Heineken NV reported that between 2018 and 2021, the company managed to reduce its carbon dioxide emissions by 16%, and 27% of its total energy comes from renewable sources (*Heineken N.V. Annual Report 2021*, 2022). The same trend of an emphasis on environmental concerns was noted with the other companies. On the governance pillar, there was a notable increase of women in leadership positions with a rate close to 50% in the case of Nike, Inc (*Breaking Barriers*, 2022). The company's report also indicated that it was focusing more on promoting diversity in the constitution of leadership. However, this was not emphasized in the reports of other companies as much as the environmental or social issues.

According to the ESG scores of the companies as per Sustainalytics, 6 out of the 10 companies were reported to have strong management, three had an average score, and 1 had a weak score. The reports are different according to the MSCI framework where ESG ratings range from the leader (AAA, AA), average (A, BBB, BB) to laggard (B, CCC). The results are indicated in Table 1.

The ESG ratings based on the two frameworks both indicated that Jumbo SA has poor ESG scores.

Table 1: Sustainalytics and MSCI ESG Ratings

Companies	Sustainalytics		MSCI				
	ESG	Management	2018	2019	2020	2021	Implied Temperature Rise
Jumbo SA	18.9	weak	B	B	BB	BB	2.1
Coca-cola HBC AG	13.8	strong	AAA	AAA	AAA	AAA	1.9
The Kraft Heinz Co.	35.2	average	BBB	BB	BB	BBB	4.0
Heineken NV	19.2	strong	A	A	A	A	3.0

Koninklijke Ahold Delhaize NV	20.8	average	A	A	A	AA	1.5
Unilever Plc	24.0	strong	A	A	A	AA	1.4
The Kellogg Company	28.0	strong	AAA	AAA	AAA	AAA	1.9
Nestlé SA	24.1	strong	AA	AA	AA	AA	1.7
Adidas AG	13.6	strong	AAA	AAA	AAA	AAA	2.0
NIKE Inc.	17	average	A	A	A	A	1.8

This study also integrated the net income of the sample of companies from 2018 to 2021, and the results indicate that the companies which had the highest increase rates are Jumbo SA (57%), Heineken NV (1788%), Koninklijke Ahold Delhaize NV (61%), Adidas AG (408%), and NIKE, Inc. (126%). This data is illustrated in Table 2. A correlation of the data determined there was no significant correlation between the variables (net income and ESG ratings), thereby indicating that ESG does not have an impact on the net income.

Table 2: Net Income of Companies (millions of US \$) from 2018 to 2021

Companies	2018	2019	2020	2021
Jumbo SA	151	177	138	217
Coca-cola HBC AG	528	546	474	647
The Kraft Heinz Co.	26268	24977	26185	26042
Heineken NV	1151	2426	-233	3933
Koninklijke Ahold Delhaize N.V.	1780	1766	1397	2246
Unilever Plc	11088	6300	6375	7157
Kellogg co.	1336	960	1251	1488
Nestlé SA	10362	12691	13047	18496
Adidas AG	2010	2213	493	2503
NIKE, Inc.	1933	4029	2539	5727

The results of this study indicate that there is no impact of investing in ESG factors and sustainability on the financial performance of companies. It is important to observe that this study did not find a negative correlation, and it instead suggests that the relationship between the two factors is neutral. These findings are different from other studies which have indicated a positive relationship between ESG factors and financial performance (Pulino et al., 2022).

Based on the ESG ratings of Sustainalytics versus MSCI, a notable difference was observed in the ranking of companies. On Sustainalytics, the ratings were in descending order from Adidas AG, Coca-cola HBC AG, NIKE, Inc., Jumbo SA, Heineken NV, Koninklijke Ahold Delhaize NV, Unilever Plc, Nestlé SA, Kellogg Co. to The Kraft Heinz Co; in contrast, MSCI rated in the following order: Coca-cola HBC AG, Kellogg co., Adidas AG (with these 3 being at the same level), Nestlé SA, Unilever Plc, Koninklijke Ahold Delhaize NV (with these 3 being on the same level), NIKE, Inc., Heineken NV (with these 2 being on the same level), The Kraft Heinz Co. and Jumbo SA. This difference is attributed to the use of distinct criteria.

The results also indicated that the dimension which received the most attention was environmental disclosure in the companies' annual reports. This is supported by other studies which have indicated that the most significant ESG factor which positively affects financial performance is environmental disclosure (Buallay, 2018; Caesaria & Basuki, 2017). This would explain why most investors are concerned about the disclosure of the environmental impacts of a company's operations more than other dimensions (Steyn, 2014). Additionally, more companies tend to report on environmental factors than social or governance issues (Gutiérrez-Ponce et al., 2022). In contrast, corporate governance disclosure was found to either have a negative impact (Buallay, 2018) or no impact on financial performance (Pulino et al., 2022). The governance dimension was not considered key in justifying the financial performance of firms (Oprean-Stan et al., 2020).

5. Conclusion

There is a significant increase in awareness about operating sustainably in the existing business environment. The results of this study found that there is no direct effect of investing in ESG factors and sustainability on the financial performance of companies. The study also indicated that the use of different criteria for ESG ratings by private institutions provides different results that could be misleading, thus the need for a common framework. The study also reported that environmental disclosure is considered a key priority for most companies. Also, social factors are considered important by most companies although governance issues receive the least attention. Companies can utilize this information to increase their disclosure practices on environmental practices to create a better market reputation. The limitation of this study was the small sample size and that only the net income was used as an indicator of financial performance.

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The impact of the carbon price on the competitiveness of coal power

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Abstract

This survey focuses on the energy transition through the EU Emissions Trading System. The EU ultimate goal is to become carbon neutral by 2050. For this implementation, the pan-European policies have been formulated for switching to low-carbon energy sources in the energy sector. This means phasing coal out of the energy mix. To stimulate the process, the high emission power plants pay for the amount of carbon emissions generated.

A thesis for the marginal price rise of the traded carbon allowances has been formulated through the interpretative method of factor analysis. The main conclusion is that their price will increase until renewable energy fully meets energy demand, and high-emission energy sources drop out of the market once their carbon emissions marginal cost exceeds the cost of their production.

Key words: B49: carbon emissions, A10: EU; F18: economic recovery; A11: energy transition; P48: natural resources

1. Introduction

Greenhouse gases (GHGs) are part of the atmosphere, and without them, the Earth's surface temperature would be 33°C lower. They play a major role in keeping the Earth's climate in livable conditions. Carbon dioxide (CO₂) is one of them. As a result of human activity, its quantity increases along with other greenhouse gases, thus leading to an increase in the greenhouse effect and a rise in temperature. Science divides CO₂ into that of natural origin, formed by natural processes, and that formed by human activity, defined as CO₂ of anthropogenic origin. The latter enhances the greenhouse effect, leading to a rise in the Earth's surface temperature in the lower layer. It is the release of CO₂ from human activity that is the subject of climate science, economics and ecology, seeking to determine its negative impact on life on Earth and reduce its levels to values that minimize it. The main source of CO₂ from human activity is the burning of fossil fuels. It accounts for 39% of total GHGs, second only to water vapour GHGs (55%).

The increasing concentration of greenhouse gases in the atmosphere is leading to climate change. These are most often manifested in temperature anomalies, rising global ocean levels and more frequent natural disasters. The three phenomena were identified as major consequences in the 2007 Intergovernmental Panel on Climate Change (IPCC, 2008). In its report, the IPCC noted that “changes in atmospheric greenhouse gas concentrations are altering the energy balance of the climate system”. The conclusion is reached that “increased greenhouse gas concentrations resulting from human activities are the most

likely cause of the increase in global average temperature since the mid-20th century” (IPCC, 2008). Policies of the UN and major economies are aimed at reducing greenhouse gas emissions. The paramount challenge is how to avoid any detrimental effects on the economic development and growth. A number of forecasting models using mathematical and economic methods has been developed. The timeframes that some of the leading political entities are setting for themselves to meet their GHG emissions reduction targets are extending to 2050 for the European Union countries, informally 2060 for China and the US, which does not yet have a formally agreed specific dateq should also fit into this timeframe.

Bulgaria has accepted 2050 as the target date for achieving net zero CO₂ emissions, as set out in the country's EU membership and the EU's general policy in this area.

The energy sector is responsible for almost a quarter of the EU's greenhouse gas emissions. The transport sector accounts for the same level of carbon emissions. Transport uses a third of the EU's final energy and together with energy accounts for almost half of the EU's carbon emission (Masterson, 2022).

2. Data and methods

- comparative analysis - applicable to both reporting greenhouse gas emission levels and defining their characteristics by emission sources
- factor analysis - to determine the causes of carbon emissions and the change in their levels, according to the set time targets for achieving carbon neutrality

In terms of methods, the most commonly used ones include interpretive analysis of programs and legislative frameworks for carbon emission targets. Analytical and synthetic processing of data from official sources to model projEU ETSd carbon emission levels according to sources and their capacity to emit. The research approach includes also:

- mathematical-economic method - for forecasting carbon emission levels according to the set national and supranational policies and programs for their reduction and in particular for analyzing their efficiency
- deductive method - to derive a logical argumentation in relation to the processed data and their analysis and on the basis to formulate the hypotheses in the dissertation

- logical method - to interpret the results

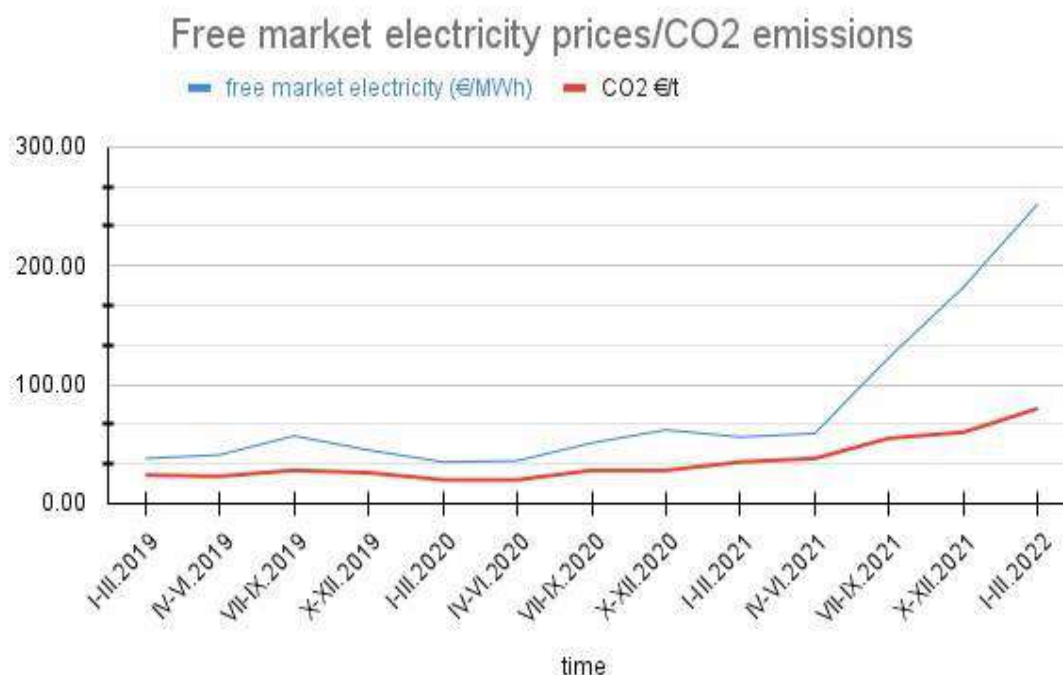
3. Thesis

3.1. Rising carbon allowance prices as pressure to abandon coal power

Carbon reductions from the power sector are primarily focused on the electricity system as the largest emitter. In the first 9 months of 2021, Bulgaria emitted 14 MtCO₂, 13.1 Mt of which came from coal combustion (Moore, 2022). In this context, the increase in the carbon price paid by coal-fired power plants will be calculated in the final price of the electricity they produce. This will make them uncompetitive for the country's free market according to economic logic. Thus, coal-fired electricity will gradually become more expensive than electricity produced from other sources and demand for it will decrease. The production of 1 MWh of electricity by the three thermal power plants in the Maritsa basin produces on average 1.3 tCO₂eq. As of 2021, the majority of the electricity offered by the plant is on the free market (KEBP, 2022). Due to the rising electricity prices on the European markets since summer 2019, production costs and emissions costs are lower than the revenues of the production traded on the electricity market. Consequently, there is an excess profit in 2022. Thus, CO₂ prices are already below the value of production costs and the carbon price and electricity price curves lose their intercept. Hence, the increase in the price of emission allowances no longer has an effect because of the higher electricity prices shown in *Chart 1* which is detrimental to the philosophy of the ETS and moves the green targets further away.

In order to reach a situation where the price of carbon emissions is higher than the price of electricity produced, an increased demand for emissions and a lower demand for electricity is needed. Where market principles do not have the expEU ETSd effect, regulations are introduced. An example of this is the ETS, which was launched as a market-based system and later started to transform into a hybrid system. For example, the next period of scheme reform is to regulate fuel suppliers after 2025. Administrative decrease of free allowances and increase of the upper level of targeted carbon emissions decrease should also be considered regulation. Maintaining certain emission levels to meet specific targets could also be considered as regulation.

Chart 1.



Source: based on author's calculations from IBEX, Eurostat

3.2. Models for reducing PG emissions from coal-fired power plants

Electricity will play a key role in the transition to decarbonization, the so-called ‘green transition’, until other alternatives are available. In this context, Bulgarian thermal power plants can operate until 2050 at the latest. In the next decade, they will continue to play a major role in Bulgaria's energy security, but the policies are to reduce emissions through reduced generation, investment in clean technologies and plans to replace coal with renewables and batteries in the Maritza Basin. A successful transition to low-emission sources in the electricity sector will depend on their phase-out, and this should not happen without clear plans for their replacement in advance, especially in the context of the growing need for electrification. A policy that relies on a gradual increase in the green energy share to a leading energy share means that Bulgaria needs to increase its renewable energy capacity almost sixfold to fully replace coal generation at current levels with green generation.

It is difficult to track the relationship of carbon prices to the production costs of the three power plants in the Mini Maritza-Iztok complex, as emissions are part of variable costs. According to reports, the ratio is 22%, 45% and 36% for the three companies in the complex, where the highest one is for the state-owned Maritsa-East 2 (Августов, 2021).

The difference in the percentage ratio can be explained by the financial management of the three companies and the formation of the final costs for each one beyond those for carbon emissions. With an average of more than 30% for the marginal cost of carbon emissions in the final cost of the three complexes, its ratio to the average cost of electricity sold by the companies can be traced in *Chart 2*. If the price of electricity is lower than the percentage of the carbon costs of the three companies, then they would be selling the electricity they produce at a loss. For example, if the cost per ton of carbon emissions is approximately €50, the minimum price at which the companies can sell electricity with no loss is €68.5/MWh.

Chart 2.



Source: Author's calculation

70% of the total greenhouse gas emissions in Bulgaria are due to the operation of the three thermal power plants of the Maritza Iztok complex. Their phased decommissioning will entirely predetermine the emissions trend for the sector. If Bulgaria were to phase out coal-fired power generation by 2030, the EU's 2030 targets for reducing net GHG emissions by at least 55% compared to the 1990 levels should be achievable. Based on this fact, several scenarios for the decarbonization of the Maritza Iztok thermal power plant can be outlined:

1. Rising emission allowance prices - local coal production in the Maritza Basin does not require imports. Hence, no price pressure is expected on the electricity production of

the three thermal power plants. Such pressure could come from the EU through the CO₂ emission allowance tax. According to the marginal operating EF for the TPP plants, 1.278 tons of carbon dioxide are generated in the production of 1 MWh of electricity (MOCB, 2014). If the marginal cost of selling electricity is exceeded at zero profit, Maritza Iztok power plants will be able to produce electricity. If the final price of electricity from generators is below the marginal cost of carbon emissions, the electricity produced will be below its cost in the market and the companies will not be able to withstand the financial pressure.

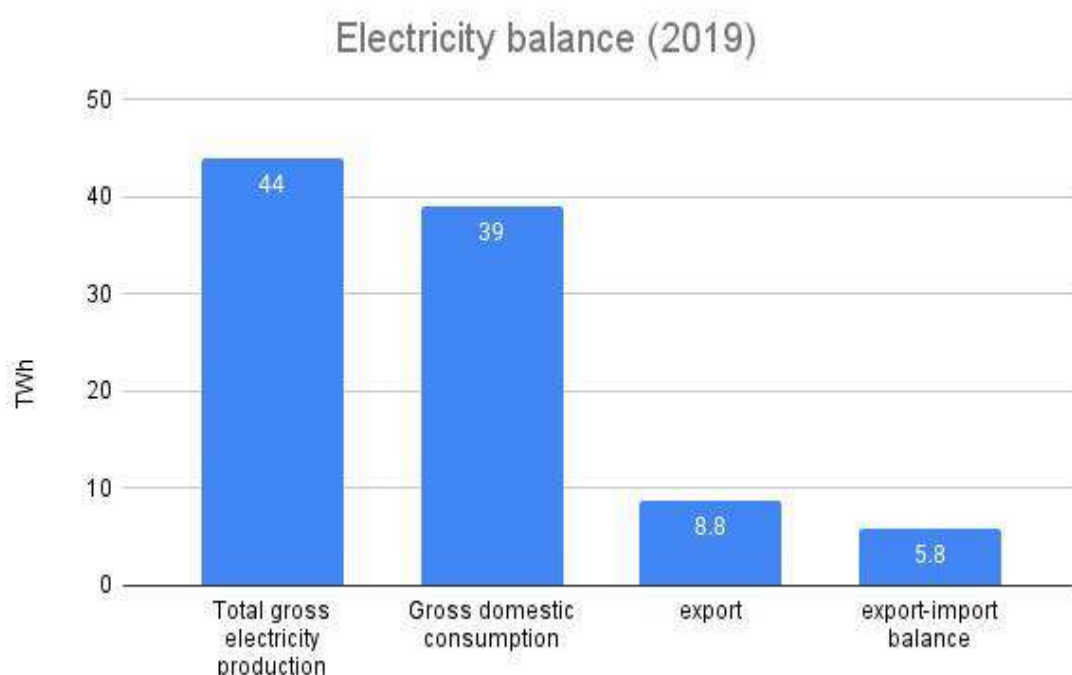
2. Replacement of coal with low-emission capacities - the replacement of the raw material with natural gas is a prerequisite for risk and price shock on the final output. While coal is domestically produced, natural gas is mainly imported. Lack of alternative suppliers and a dominant third-party monopoly in supply, coupled with the use of natural gas as a geopolitical pressure tool, mean the country's energy security is still at risk. The reliance on gas as a major energy carrier, like oil in the last century, questions the predictability and forecasting in production. Lack of accurate estimates in production capacity planning will lead to an imbalance between available reserves or shortages and the sales and revenue plan. At a lower capacity utilization in the three Maritza Iztok units of around 2 200 MW, as is currently the case, and with an efficiency of 64%, an amount of EUR 2 to 2.5 billion would be needed over a 10-year period (Булатом, 2021). It is questionable whether such an investment is justified, as according to the European Green Energy Regulation large natural gas combustion plants can operate until 2050. A hypothetical calculation based on the average price of natural gas in Bulgaria for 2021 (55 EUR/1000 cubic meters) plus 10 EUR average operating costs and electricity production with an efficiency of 43%, equals an EUR 110 price of electricity per 1 MWh. This also includes components such as €10 return on investment, €3 to €5 operating profit and €10 for carbon allowances at a carbon price of €25 per ton. Gas combustion also emits carbon emissions, albeit in smaller quantities, at around 0.5 ton per MWh.

The closure of the Maritza Iztok Mines industrial complex alone will suffice to achieve the EU's latest target of 40% lower GHG emissions by 2030, or the so-called green transition. Given that the complex is responsible for almost 70% of total carbon emissions, once the new target is met, one of the three thermal power plants could be operational by the end of the 2050 zeroemission deadline. Moreover, such capacity would be needed as a balancing power with renewables dominating the energy mix.

Electricity exports amounted to about 20% in 2019 (ME, 2019), but if curtailed, the share of renewables to offset capacity from retired power plants could be lower.

Either way, the country's electricity system is nowhere near as complex as Canada's, and planning the most general models does not require complex calculations. If we stick to these figures, then in 2030, without exports and with Kozloduy NPP output sold domestically to compensate for missing capacity from Maritza Iztok Mines, GHG emissions could reach the 40% target decline.

Figure 1.



Source: ME (2019)

If a data-based percentage of electricity generated by NPP and RES is compared to Maritza Iztok, then it is evident that their share is slightly below 60%. If the share of exports is removed, the result is about 51% of electricity produced from low and emission-free sources. Thus, the transition period target of a 40% drop in carbon emissions can be met. However, removing the share of coal-fired power plants from the energy mix creates a mismatch between final consumption and electricity produced, i.e. in such a case the available electricity would be about 20% less, and would not be sufficient to meet consumption. In this case, Bulgaria would need new generation capacity to compensate for the electricity shortfall. Given the EU policy of banning fossil fuel subsidies and the European taxonomy defining natural gas and nuclear as transitional

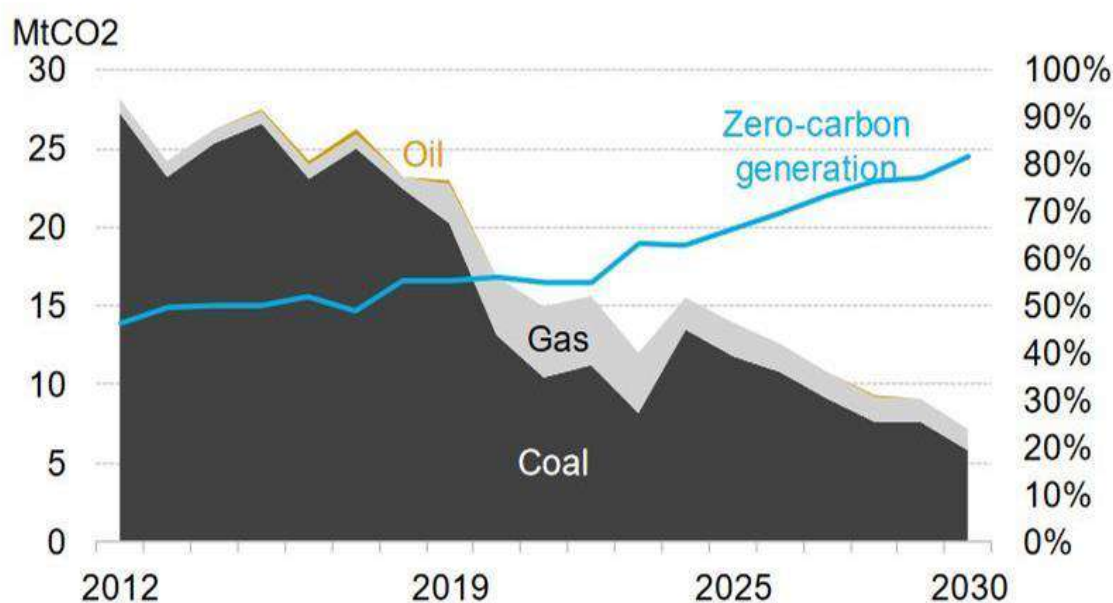
sources, the alternative to coal-fired power plants are renewable energy sources. Their growth at 2019 production and consumption levels should be almost double after 2030. It could well be lower if policies to reduce energy intensity are implemented, electrification in transport remains at low levels, etc. If investor interest remains at the 2022 levels, private sector initiative is sufficient to increase the share of renewables. The main problem is their integration into the electricity system. By August 2022, it has reached the absolute limit and requires expansion (ECO, 2022). This questions the efficiency of the functionality of the electricity system in the face of the new challenge of climate protection and the policy of accelerated deployment of RES. Bulgaria's electricity infrastructure has been in operation for a long time, but with the development of technology it is rapidly facing functional limitations and an increasing risk of congestion (Зиновиев, 2020).

In case of the least-cost scenario, some 8 GW of new renewables capacity could be installed by 2030 shown on *Figure 2* (BloombergNEF, 2020). Regarding Bulgaria, the forecast shows a scenario where the capacity of coal-fired power plants declines in 2030 by nearly $\frac{3}{4}$ to 1.3 GW. In the model, the forecast relies on high GHG emission prices to drive coal-fired thermal power plants out of the market through loss of competitiveness. According to the same model, a new renewable capacity of 7.7 GW would be sufficient to offset the retirement of 3.2 TW of coal-fired power plants. In the middle of the third decade, gas will partially replace the coal-fired power plants once gas interconnections with neighboring countries are built. The projection is for the growth of WHPP and PV up to 52% of the electricity mix in 2030. This would reduce GHG emissions levels in the electricity sector to 16 Mt from their 2018 levels.

Reducing carbon intensity per unit of GDP produced would also contribute to decarbonization.

This indicator ranks Bulgaria first in the EU. The so-called 'green GDP' is BGN 4 billion higher than the nominal GDP in 2019 calculated by the method of Stepanović, Thomas and Škare (Stjepanović, 2019).

Figure 2.



Source: BloombergNEF (2020)

4. Conclusions

The case of Maritza Iztok is complex because on the one hand it ensures the sustainability of the energy system and the energy security of the country, while on the other it contradicts the European policy of zero emissions by 2050. There is private investor interest from the owners of two of the units in the industrial complex. Their proposal is mainly based on gasification of the power plant. This approach would extend the production activity until the end of the transition period in 2030 and beyond, but not before the 2050 deadline, as natural gas is defined by European legislation as a transitional fuel.

A workable option for reducing the share of emissions from coal-fired power plants in Bulgaria is to remove them from market self-regulation because of the high cost of the electricity they produce, due to carbon emission prices. As a consequence of the loss of competitiveness and due to a growing share of renewables, coal-fired electricity will gradually decline to the point where market allows it to exist.

All the prerequisites are in place to increase the share of renewables in the energy mix in both countries under consideration. Based on the findings, the leading issue that emerges is the state of the electricity grids and their ability to respond to new connection capacity. This necessity emerges as more pronounced in Canada, where the need for electrification to replace fossil fuels

in the power sector is enshrined in the government's decarbonization plan. In Bulgaria, with continued electricity generation from coal-fired power plants and no national plan to decommission them, there is no need for new electricity capacity. These are needed to meet the targets for reducing GHG emissions, which are mainly emitted in the country by Maritza Iztok Mines.

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Implications of the Global Minimum Corporate Tax on the Attractiveness of Central and East European Countries for Foreign Direct Investment: The Case of Bulgaria

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Introduction

The modern world, we reside in, is characterised by turbulent times and unsustainable decisions when it comes to global challenges such as climate change, rising inequalities between the richest and the poorest, wars and internal conflicts. Nevertheless, amid this palette of undergoing issues, there is another one that raises eyebrows among national governments. The Organisation for Economic Cooperation and Development (OECD) has been pushing for global tax reforms since a series of scandals showed that many multinational companies book their profits in countries where they have few employees or operations but benefit from preferential tax conditions.

The first official proposal of minimum corporate tax was originated on a regional scale solely between the European member states back in 1992. It was originally 30%, however it was not implemented eventually (OECD, 2022). In the first place, valuable money flow goes missing that is needed to pay for public goods such as education, childcare facilities, healthcare, social expenses, transport networks and well-protected streets. Furthermore, since it is unacceptable when small businesses such as the local plumber or the local bookshop pay their taxes properly while wealthy corporations deploy tricks to save billions in taxes. In December 2021, members of the Organisation for Economic Cooperation and Development and the G20 reached an agreement on a comprehensive tax reform around the world to address issues related to the digitalisation of business and multinational companies avoiding taxes. A little later, the European Commission made a proposal for the transfer of international agreements into EU law. Nearly 140 countries have approved a global minimum tax rate of at least 15% for the 100 largest multinationals (Deloitte, 2021). Countries that have signed the agreement account for more than 90% of the world's gross domestic product (OECD, 2022). Nine countries opposed the minimum corporate tax - EU members such as Ireland, Hungary, Estonia, as well as Barbados, Kenya, Nigeria, Sri Lanka, Peru, Saint Vincent and the Grenadines. Switzerland announced that it would join under certain conditions.

The minimum tax will apply to all companies that do business internationally with annual revenues above €750 million (Council of EU, 2022). In future, multinational firms will have to pay a tax rate of 15% on all of their profits they make worldwide, regardless of where they are generated (Council of EU, 2022). In 2022, the UK and Japan were the first nations to have drafted implementation guidelines with yet other signatories to take further steps in implementing the agreement (OECD, 2022).

This study aims to shed light on how the global tax reform could affect Bulgaria's economy and the overall attractiveness of Central and Eastern European countries to foreign investors. The paper provides a comprehensive analysis of the factors that motivate multinational companies to invest in foreign countries, the role of the global minimum corporate tax in promoting tax justice, and the potential challenges and opportunities for Bulgaria in implementing the global minimum corporate tax.

In general, foreign companies investing in Bulgaria see their chances in the opening of new markets and in better opportunities for profit and therefore longer-term prospects for their business. This aligns with the overall attractiveness of Central and Eastern European countries, including Bulgaria, as these countries collectively represent a market of over 100 million users (ECB, 2020). However, for investors, the political and legal environment and investment negotiations are of key importance. Countries differ in their degree of attractiveness to foreign investment. The flow of FDI is directly affected by the host country's success in implementing policies that encourage economic growth, the stable political environment, the economic and legislative environment that supports favourable conditions for foreign investment. Policymakers and stakeholders in the region need to analyse the potential impact of the global minimum corporate tax. They should consider how this tax reform may affect the overall business environment and the countries' ability to attract multinational companies. It is essential to establish a balance between promoting tax equity and preserving an investment-friendly environment.

Motives for making foreign direct investments and factors affecting their attraction

Defining motives is essential because they have different effects for both the investor and the host country. There is a considerable variety of reasons that prompt companies to expand their operations abroad.

The main motive that companies pursue in investing abroad is the long-term achievement of an attractive and reasonable profit and return on investment while minimising costs.

There is increasing tax competition between countries where a certain number of them reduce their tax rate to attract foreign direct investment. Although this is especially true for emerging economies, countries with advanced economies also apply low-tax models to attract big corporations. This competition between countries results in loss of tax revenues for other countries that impose higher taxes. Having a minimum corporate tax rate across the world would remove the incentive of huge corporations to use other countries in order to avoid paying taxes. There would be a significant increase in tax revenue in countries where governments have implemented higher taxes. From a global perspective, this minimum corporate tax would enable a better distribution of tax revenue. Nonetheless, in practice, the impact of this global minimum tax rules will depend on each country's interaction with domestic tax policies and how quickly their fiscal regimes will be shifted as a result. First of all, offshore investment centers such as the Cayman Islands or the British Virgin Islands will have no reason to continue to offer reduced or zero income tax rates to multinational companies. Additionally, developing countries have relatively high headline corporate income tax rates.

It is essential that tax incentives are well designed, transparent, and minimise windfall gains to ensure that their benefits outweigh their costs. In this article, I will endeavour to reveal the hidden ramifications from this global minimum corporate tax in emerging economies, more deeply into Central-Eastern European countries.

In 2020, a study conducted by the Vienna Institute for International Economic Studies (Vienna Institute for International Economic Studies, 2020) examined the major factors favouring FDI in CEECs. Several of them are:

- access to new and expansion of existing markets;
- receiving subsidies from the host country;
- tax advantages in the host country;
- following competitors, entering the competitor's market;
- increasing the efficiency and competitiveness of the entire corporate group;
- access to cheaper raw materials and energy;
- risk diversification;
- bypassing environmental regulations (high environmental standards in one's own country);
- presence of trade barriers;
- lower wage costs, cheaper labour costs, availability of qualified employees in the host country.

The initiative

The governments are now within the phase of implementing the agreement for global minimum corporate tax into a law. The OECD's current proposal is divided into two independent plans: Pillar 1 and Pillar 2. With the Two-Pillar Solution, all types of economies – developing or with a higher GDP will benefit from extra tax revenues. The first imposes a uniform approach to the taxation of the largest and most profitable multinational companies. The second introduces a minimum corporate tax rate of 15% to prevent the problem from shifting profits to countries with low or no corporate taxation. In 2023, Pillar Two's aim is to ensure that a broader range of MNEs, with an annual revenue of EUR 750 million, pay their fair share of taxes, while preserving the ability to stay firmly competitive and innovative against their rivals (OECD, 2022). On the other hand, regarding the smaller companies the same rules will apply in order to act as a deterrence for tax evasion or tax avoidance. The OECD has consistently reinforced developing countries and their participation in the "Inclusive Framework" by preparing a programme for a detailed assistance on the impact of the global minimum tax on their domestic tax incentives and the likelihood of generating revenue from them. A corporate minimum tax does not require countries to set their rates at an agreed threshold, but allows other countries to apply an additional tax above the minimum to the income of companies coming from a country that has a lower rate.

The work under the auspices of the Organisation for Economic Cooperation and Development (OECD) Inclusive Framework focuses on two main issues:

- Adapting the international rules on how the taxation of corporate profits is shared amongst countries, to reflect the changing nature of business models, including the ability of companies to do business without a physical presence. Under the new rules, a share of the excess profits of the largest, most profitable Multinational Enterprises (MNEs) would be redistributed to market jurisdictions, where consumers or users are located.
- Ensuring that multinational businesses are subject to a minimum effective level of tax on all of their profits each year.

The Inclusive Framework recognises that it is important to balance the political interest in swift implementation with the need to get the design of the new rules right, especially since they are intended to last for decades. Since the release of the Statement, significant progress has been made in developing the technical rules and instruments that are necessary to implement the two pillars. As part of that process, the Inclusive Framework finds it exceptionally important to consult businesses, NGOs, parliaments and use their feedback to refine and finalise the rules. This may add some additional time to the implementation process, but it will ensure that the Two-Pillar Solution is based on solid and administrable rules which truly stabilise the international tax system.

Taxes and investment stimulus in CEECs

The creation of newly independent countries in Eastern Europe in the 1990s has triggered new governments to fully restructure their economies and rebuild their tax systems. Several of these governments have chosen to introduce ‘flat’, rather than progressive personal income tax rates. The tax system that I want to put emphasis on is the system of corporate tax, also known as corporate income tax, which is paid by various types of companies, corporations on the profit from their business activities. The rules are set by national authorities and may be different for each EU country.

As a result of the economic and tax reforms Bulgaria began to progress and slowly recovered from the economic downturns of the first decade of the transition. However, other former socialist countries were far ahead in reforms to the extent that they have secured membership in the European Union, which acted as an additional incentive for investment and economic growth.

It is distinguished by some features in each country regarding the amount of the rate, the method of determination of the tax base, as well as the scope and amount of reliefs. During the initial period after its introduction, corporate tax varied widely – from 29% in Estonia to 55% in the Czech Republic (Institute for Economic Research at BAS, 2010). Individual countries choose various decisions also regarding the reliefs, including those for foreign investors. Hungary creates the most favourable conditions for foreign companies with the lowest business taxation in Central and Eastern Europe (rate of 18% and a number of reliefs for businesses) (Institute for Economic Research at BAS, 2010). The reduction of the corporate tax in the CEECs is a reason to elaborate the emergence of tax competition in Europe. This phenomenon becomes a problem after the accession of these countries to the EU, since the amount of corporate tax in them is significantly lower than in the "old" member states (Institute for Economic Research at BAS, 2010).

For more than 30 years the Czech Republic has been an attractive market for foreign investors as they can benefit from the geographic location, economic stability and high level of industrialisation. Business leaders appreciate also favourable costs as well as educated workforce and advanced digitalisation. Very supportive business environment and incentives for both R&D and manufacturing are also advantages. This makes the country one of the biggest recipients of investments in the region. These advantages have been acknowledged by the world’s major players who have invested in various facilities throughout the country.

The Czech economy entered 2022 in a strong position, following a significant rebound in 2021. Over the last year, the GDP grew by 3.3% per year (KPMG, 2022). Although, there are new challenges resulting from continued disruptions in the global energy supply chain and raising costs, the distinctive features, such as low unemployment, remain optimistic. The added value of Czech industry and the whole Czech economy has been steadily increasing.

The easy accessibility of Hungary is often cited as one of its main advantages: it is at the crossroads of three major European transport corridors. It has one of the highest motorway densities in Europe and has three international and four regional business airports. Hungary provides a well-qualified workforce at an advantageous cost. It has a favourable corporate income tax regime with 9% rate (PWC, 2021). As a member of the European Union, it has harmonised its legal system with the European law. One of Hungary's economic advantages is the wide range of available incentives which the government offers to increase competitiveness. "VIP investment cash subsidy" is available based on individual government decisions. The main aim is to attract investments in the manufacturing (greenfield, brownfield or capacity extension), and shared service centre ("SSC") sectors.

Estonia consistently ranks as a world leader in human capital, digital capability, and ease of doing business. This creates a competitive environment which allows solutions and services to be researched, developed and delivered globally. From multinational companies to high growth startups, Estonia has a two-decade track record of successful investments and innovations.

The majority of the workforce is multilingual and value-added is high, Estonia recently ranked 1st in Europe for entrepreneurial employee activity and competitiveness. The nation's digital mindset makes the workforce highly adaptable. In the industrial sector Estonia excels in engineering and electronics while in IT Estonians are recognised leaders in software development, high-tech systems and cyber security. Design, engineering and digital expertise are increasingly integrated, making it a pioneer in the fields of IOT, Blockchain and telecommunications.

Estonia consistently ranks as one of the most open, competitive and transparent economies in the world. This success is due to a commitment to low red tape, the rule of law and significant investment in infrastructure and human capital. Estonia's R&D ecosystem and digital capabilities make it an innovation hotspot. Global giants like Ericsson, Arvato, and NATO all conduct R&D in Estonia. The government has a successful R&D partnership with Telia in 5G telecommunication and Google in location technologies.

It is also the first country in the world to offer e-Residency, a government-issued digital identity and status that provides access to Estonia's advanced digital society. Homegrown successes like Fortumo, Guardtime and Skeleton Technologies mix with global giants like Microsoft, CGI and Fujitsu, to create dynamic environment ideal for investment and innovation.

Bulgaria had to pick up the pace to try to close the gap. At the end of 2006, the parliament legislated 10% profit tax to which the IMF was opposed, fearing that it would reduce the budget surplus and encourage a current account deficit (Institute for Market economy, 2016). Among the economists in the parliament there was consensus on the correctness of the measure, and the Treasury Department was calm because of the surpluses and observed overruns of previous tax cuts.

On the other side we have the corporate tax. It is a direct tax. In 2007, it was lowered to 10%, with the adoption of the flat tax rate law. In practice, after its introduction, personal income and corporate profits are taxed at the same rate of 10%. This rate covers all local and foreign legal entities that do business in Bulgaria. Although corporate income tax applies to companies, in reality it also applies to individual taxpayers who are employees or work for the company. Revenues in 2021 from profit tax amount to BGN 4.3 billion, which is 9% of realised revenues in the treasury (Institute for Market economy, 2021). The depletion of corporate tax rates creates positive incentives for investment, accumulation of fixed capital, and hence an increase in productivity, economic growth and welfare in the country. Lowering rates does not result in a loss

of tax revenue for two main reasons: some of this burden is shifted to indirect taxes and lower rates are accompanied by an increase in declared tax profit. The rulers after 2009 managed to keep the corporate tax rate unchanged, thereby maintaining predictability in the tax policy.

The impact of global minimum tax rate on Bulgaria's tax system

Any global minimum tax operates to limit a national government's ability to exercise tax policy in terms of how they envisage it. In my view, most jurisdictions will accept some element of limitation on tax policy, particularly if they see a broader benefit from the wider package of the OECD reforms. In its simplest form, the OECD's global minimum tax proposal involves paying a 'top-up tax' at the level of the parent company if income made further down the ownership chain has been taxed below the global minimum rate.

Corporate tax rates and attracted foreign direct investment in Bulgaria and other CEE countries for 2021		
Country	Corporate tax rate	FDI stock per capita (in USD)
Bulgaria	10%	8 359
Czech Republic	19%	18 704
Hungary	9%	10 556
Montenegro	15%	10 128
Poland	19%	7 123
Romania	16%	5 685
Serbia	15%	6 068
Croatia	18%	9 530
Slovakia	21%	10 872
Estonia	20%	26 309
North Macedonia	10%	3 480

Source: UNCTADSTAT, Deloitte

The imposition of a global minimum tax will have significant impact on the use of tax incentives. How will this work in Bulgaria? The low corporate tax makes Bulgaria an attractive investment destination and is often highlighted as a competitive advantage of the country, but this is not the most important factor.

Political and macroeconomic stability, the rule of law, a stable and predictable regulatory framework, efficient public administration, the qualifications and skills of the workforce, the quality and reliability of infrastructure, etc. matter more than the tax regime.

The higher tax rate is likely to affect several of the largest groups headquartered in Bulgaria, as well as a large number of large multinationals that have subsidiaries and branches in the country. Local groups with an ultimate parent company in Bulgaria will be required to pay 15% effective

tax rate on both Bulgarian and foreign profits (ECB, 2021). In relation to local subsidiaries of large foreign multinational companies, Bulgaria will be able to collect the additional tax of 5% only on local profits (ECB, 2021). If for some reason, however, our country refrains from imposing the additional tax of 5%, then the untaxed profits of the Bulgarian subsidiaries will still have to be taxed at an additional 5%, but in this case such payment will be remitted by the consolidating foreign parent company to its own tax administration. An even more complex mechanism is in place to ensure that no lower-taxed profits remain in the EU, even where the parent company is established in a non-GloBE jurisdiction.

While the initiative enjoys the backing of governments who already set comparatively high corporate tax rates, it has rightfully faced significant criticism from smaller countries who rely on their competitive tax rates to attract foreign investment. The European Union's frustration with low-tax member states such as Bulgaria or Hungary is that companies based in those countries have access to the entire single market without being subject to the same tax burden of companies in the bloc's more dominant economies. Distraught with tax competition, the E.U. has long sought to harmonise corporate tax rates across its member states, but these efforts have been in vain due to the obvious opposition from countries that would lose out. Despite the row over the implementation of this minimum tax rate the largest multinational corporations are open for this global tax reform that represents a one-of-a-kind opportunity to solidify their position by driving up operational costs for any smaller competitors.

Bulgaria should be in firm support of the global tax, with which the country will join more than 130 countries that have done so. The era of cheap labour is over, so is the era of low taxes.

One of the expected effects for Bulgaria of the European tax reform, which aims to ensure fair taxation in the digital economy by the end of 2023, is the burdening of companies with a digital fee that will serve as the EU's own resource. This measure will mainly affect service companies, especially small companies. Large and some medium-sized enterprises in Bulgaria will be seriously affected by the transfer of the tax burden from labour taxation to environmental taxes, a consideration with the European tax reform.

Conclusion

This paper studies the-potential implications of the global minimum corporate tax on Bulgaria's ability to attract FDI. Multinational companies may be deterred from investing in Bulgaria and other Central and Eastern European countries as the implementation of the global minimum corporate tax results in less favourable tax conditions for them.

To mitigate any negative effects, Bulgaria and other Central and Eastern European countries could focus on enhancing other factors that attract foreign investment, such as improving infrastructure, ensuring a stable political and legal environment, and implementing investor-friendly policies. By strengthening these non-tax factors, Bulgaria can enhance its attractiveness to foreign investors, offsetting any potential drawbacks caused by the global minimum corporate tax.

Additionally, ongoing efforts to promote economic growth, provide incentives for innovation and entrepreneurship, and develop skilled labour forces will also contribute to maintaining Bulgaria's appeal for foreign investors. It is essential for policymakers to monitor the developments related to the global minimum corporate tax and adapt their strategies accordingly, considering the

evolving landscape of international tax regulations and the changing needs of multinational corporations.

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Civilizational Values as a Regulator for the Common Good: A Comparative Study of Ancient Greece, Italy, Rome, and Bulgaria

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Abstract

This study explores the role of civilizational values in regulating the common good, considering historical, economic, and philosophical perspectives. Through a comparative analysis of ancient Greece, Italy, Rome, and Bulgaria, it investigates how these civilizations established and implemented their unique sets of values to uphold societal well-being. The paper examines the origins of civilizational values, their economic implications in fostering growth and stability, and their philosophical underpinnings related to justice, morality, and the common good. Drawing insights from pivotal moments like the struggle between Julius Caesar and the Roman Senate, Greece's understanding of the Common Good, and Bulgaria's historical values, the study emphasizes how civilizational values have shaped political and economic structures. Recognizing and promoting these values can provide modern societies with a framework to tackle contemporary challenges, fostering a more just and equitable future.

Keywords: *Values, Regulator, Common Good*

JEL Classification: *A1, B1, Z1*

1. Introduction:

Civilizational values and the common good have been fundamental concepts throughout human history, shaping the development of societies and determining their success or failure. Civilizational values provide a framework for social order and maintain the well-being of the community, while the common good emphasizes the importance of collective benefits in social, economic, and political decision-making processes.

This paper explores the relationship between civilizational values and the common good in Ancient Greece, the Roman Empire, and the Italian post-unification age. It also examines the impact of Ottoman oppression on Bulgarian society and the challenges faced by Bulgaria in balancing the values of the common good and civilizational values in the post-communist era. By focusing on these historical and contemporary examples, this paper aims to demonstrate the inextricable link between civilizational values and the common good, and their significance in promoting social, economic, and political well-being.

2. Literature review

Aristotle. "Politics." This ancient Greek text provides insights into Aristotle's views on slavery, civilizational values, and the common good.

Plato. "The Republic." Plato's influential work explores the concept of an ideal society and critiques the use of slave labor, emphasizing the importance of education and individual development.

Cicero. "On the Commonwealth" (*De Re Publica*) and "On Duties" (*De Officiis*). These works by Cicero discuss civic virtue, duty, and the pursuit of the common good in ancient Rome.

Suetonius. "The Twelve Caesars." Suetonius offers biographical accounts of the Roman emperors, including Julius Caesar, shedding light on their policies and actions.

Richard Crampton. "A Concise History of Bulgaria." This book provides a comprehensive overview of Bulgarian history, including the Ottoman period and the struggles for liberation.

Klaus Roth. "Bulgaria and Europe: Shifting Identities." Roth's work explores the influence of civilizational values on Bulgarian society and its relationship with other European societies.

Nikolay Todorov. "Bulgaria under Ottoman Rule: A Century of Honor and Shame." Todorov's book examines the impact of Ottoman rule on Bulgarian society and the preservation of civilizational values.

R.J. Crampton. "Bulgaria 1878-1918: A History." Crampton's work focuses on the Bulgarian national revival movement and its role in the country's liberation from Ottoman rule.

3. Data & Methodology

The purpose of this analysis is to prove the correlation and demonstrate that civilizational values and the common good are inextricably linked, and that understanding this relationship is essential for promoting social, economic, and political well-being in the society, as well as exploring how cultural values and the common good can sometimes be in adversarial relation and other extremities. This paper employs a methodology that examines the interplay between economic factors and civilizational values in Ancient Rome, with a particular focus on the role of Julius Caesar in advocating for the common good and challenging the authority of the Senate, traditionally considered the representative of the common good. Through an analysis of Caesar's policies, actions, and their impact, alongside an exploration of the composition and actions of the Senate, this study aims to shed light on the intricate relationship between economic factors and civilizational values during the time of Ancient Rome. By utilizing available historical data and examining the context in which these events unfolded, we can gain valuable insights into the interconnectedness of economic considerations and the manifestation of civilizational values in the Roman society of that era. Additionally, this analysis will incorporate the civilizational values and common good principles introduced in Ancient Greece and the rich history of Bulgaria. Ancient Greece, known for its democracy and emphasis on individual freedom and intellectual pursuits, recognized the common good as integral to the welfare and prosperity of the polis. By delving into Bulgaria's history, the analysis will shed light on how civilizational values and the common good have been intertwined throughout different periods.

5. Results and Discussion

Ancient Greece

Civic virtue, values and social organisation of the Ancient Greeks

Civic virtue was highly regarded in Ancient Greece and played an important role in society and politics. (Plato's Republic, Book 1), exemplifies "the value of honor, responsibility, and sacrifice in Greek society". Plato contends that "these characteristics are required for the general good, and that individuals should be willing to choose the interests of the society over their own personal interests".

This is further continued by the Greek political thinking, (Aristotle's Politics) emphasizes the concept of the polis or city-state and the promotion of the common good. According to Aristotle, the objective of the polis is to foster the pleasure and flourishing of its citizens, and that the ultimate goal of political action should be the common good. Plato's Protagoras also highlights the role of education in promoting civic virtue and the common good. The dialogue presents Socrates discussing with Protagoras the idea that virtue can be taught, and that education plays a crucial role in developing the qualities necessary for good citizenship.

These works demonstrate how civic virtue was seen and recognized as crucial in advancing the common welfare by the ancient Greeks. Aside from civic virtue, the polis, or city-state, was a significant value in Ancient Greek society. The polis was the fundamental unit of Greek society, and its citizens were expected to prioritize the common welfare of their city-state over their own personal interests. This emphasis on the common good may be found in Aristotle's Politics, where he argues that the polis's goal is to promote the well-being of all citizens, not just a select few.

Aristotle's Politics highlights the importance of the common good within the framework of the polis, a concept that can be extrapolated to understand the governance of ancient empires or regions under foreign rule, such as the Roman Empire or the Ottoman rule in Bulgaria. While Aristotle's Politics primarily focuses on the city-state, his principles of promoting the well-being of all citizens can still be applied to larger political entities.

In the context of the Roman Empire, for example, the concept of the common good can be seen in the imperial policies aimed at maintaining stability, protecting citizens' rights, and providing basic services across vast territories. The central authority of the Roman Empire sought to ensure the well-being of its diverse populations, although the degree to which the common good was prioritized varied throughout its history.

Similarly, during the Ottoman rule in Bulgaria, the idea of the common good could be observed in the administration of local territories. While the Ottoman Empire was primarily interested in its own interests and control, there were instances where efforts were made to provide a certain degree of stability, infrastructure, and economic opportunities to the local population.

Aristotle believed that humans should try to live morally superior lives, and that the key to doing so was to strike the proper balance between excess and insufficiency. He contended that every virtue was a midpoint between two extremes: excess and deficiency. Courage, for example, is the mean between cowardice and recklessness.

Education as the driving force of Civic Virtue and the Common Good

In ancient Greece, education was considered a fundamental aspect of promoting the common good. Plato, in his dialogue Protagoras, highlights the importance of education in developing virtues that are necessary for the maintenance of a just society. He argues that education should not only focus on imparting knowledge but also on cultivating virtues such as wisdom, courage, and justice. According to Plato, "education is necessary for individuals to understand their role in society and fulfill their duties towards the common good". While Plato emphasizes the importance of education in fostering civic virtue and understanding one's responsibilities towards the common good. It captures the essence of Plato's ideas on education and its role in shaping individuals for the betterment of society.

In his work Politics, Aristotle argues that "the goal of education should be to develop individuals who possess virtues that are necessary for the maintenance of a just society". Plato advocated for universal access to education, regardless of social status, as he recognized its vital role in the welfare of the polis. Furthermore, he stressed the significance of education in fostering the common good, asserting that its purpose should be to cultivate citizens who can actively participate in politics and contribute to the well-being of the community. And also believed in personalized education, taking into consideration the unique talents and inclinations of each individual.

For example, in Plato's Republic "the education of the guardians is designed to instill in them the virtues necessary for governing justly". The guardians are trained in mathematics, philosophy, and

music, as well as physical education, in order to develop their minds and bodies. Through this education, they are taught to love wisdom and pursue the common good, rather than their own self-interest.

Slavery as an opposition to the Common Good

Slave labor was an important part of the Greek economy, accounting for an important part of the workforce. In his *Politics*, Aristotle justified the usage of slaves as natural and necessary, arguing that certain individuals were born to be slaves and others to be masters. However, he recognized the possibility of abuse and advocated for humane treatment of slaves. Plato, on the other hand, argued that while slave work was necessary, it was also immoral, and that the ideal society would be one without slaves. He contended that everyone has an inherent talent which should be developed via education rather than relying on slave labor. Slavery in the Greek economy has serious social and economic effects. Slave labor's extensive use resulted in a decrease in the status of free laborers, who were compelled to compete with slave labor. As a result, the position of the middle class, which was mostly made up of free laborers, declined. Slave labor had a huge economic influence since it allowed for resource exploitation and the manufacture of surplus items for trade. However, there was little incentive for Greeks to invent labor-saving devices when slave labor was readily available, resulting in a lack of innovation and technological progress.

Bulgaria

Ottoman rule in Bulgaria

During the Ottoman rule in Bulgaria, civilizational values played a crucial role in shaping the national identity and regulating the behavior of the Bulgarian people. Nikolay Todorov's "Bulgaria under Ottoman Rule: A Century of Honor and Shame" and Klaus Roth's "Bulgaria and Europe: Shifting Identities" provide nuanced insight into the influence of civilizational values in Bulgarian society during the Ottoman period. Todorov's work emphasizes the impact of Ottoman oppression on Bulgarian society and its civilizational values, while Roth's work examines the shifting identities of Bulgarians under Ottoman rule and their relationship with other European societies. Both works demonstrate the role of civilizational values as a regulator of Bulgarian society during a time of foreign domination, highlighting how these values were crucial in maintaining Bulgarian national identity and preserving cultural heritage. Through examining the works of Todorov and Roth, it becomes clear that civilizational values not only shaped Bulgarian society during the Ottoman period but also helped Bulgarians resist oppression and maintain a distinct cultural identity despite external pressures.

Liberation

The liberation from Ottoman rule in 1878 had significant and multifaceted effects on Bulgarian society, politics, culture, and economy. Firstly, the newly established Bulgarian government emphasized the importance of education and culture in building a modern, democratic society. As noted by historian Richard Crampton in his book "A Concise History of Bulgaria," this emphasis on education and culture was aimed at promoting the common good and protecting the rights of all citizens. The establishment of a sovereign state also allowed for the creation of a new political and legal system that reflected the values and aspirations of the Bulgarian people.

The liberation from Ottoman rule had a profound impact on Bulgarian identity and culture. The Ottoman Empire had a significant impact on Bulgarian society during the centuries of its rule, and the struggle for independence was deeply rooted in a sense of national identity and pride. As noted by historian R.J. Crampton in his book "Bulgaria 1878-1918: A History," the Bulgarian national revival movement that emerged in the 19th century emphasized the importance of cultural and linguistic identity and played a key role in the country's liberation from Ottoman rule. The revival movement sought to preserve Bulgarian language and traditions, which were seen as essential components of Bulgarian identity.

Communist Rule

During Bulgaria's communist administration, the government's policies and actions frequently damaged civilizational norms. The communist regime enacted policies aimed at suppressing opposition and limiting individual liberty, degrading the common good and civil liberties. Furthermore, the government's fostering of a corrupt culture contributed to an increasing sense of disillusionment and frustration among the Bulgarian people. The communist administration also attempted to eradicate traditional Bulgarian culture and legacy, endangering the country's civilizational ideals and resulting to a sense of estrangement from the country's past.

In addition, the rise of fascism in Bulgaria represented a rejection of traditional Bulgarian values and a shift away from the common good, emphasizing the importance of the nation above all else, promoting a limited view of national identity, and excluding minority groups. The adoption of nationalist and authoritarian ideologies undermined the principles of inclusivity and cooperation necessary for the well-being of society, leading to the marginalization and oppression of certain groups.

These examples illustrate how oppressive ideologies and systems, such as communism and fascism, can undermine the preservation of civilizational norms and hinder the promotion of the common good. By suppressing individual freedoms, stifling dissent, and prioritizing divisive ideologies, these regimes create barriers to the realization of a just and harmonious society. The analysis highlights the detrimental effects of such systems on the social fabric and the importance of safeguarding civilizational values and the common good in the face of such challenges to Bulgarian society's preservation of civilizational norms and promotion of the common good.

Roman Empire

"Civic Virtue and the Common Good: Julius Caesar's Role in Promoting the People's Interests in Ancient Rome"

The Ceaser vs The Senate

Cicero, one of the most renowned orators and political thinkers of Ancient Rome, believed that civic virtue was essential to a well-ordered society. He argued that the *res publica*, or the commonwealth, should be governed by a mixed constitution that blended elements of monarchy, aristocracy, and democracy. This idea was based on the belief that no single form of government was perfect, and that the best system of government was one that combined the strengths of each of these forms. Cicero's emphasis on civic virtue, duty, and the pursuit of the common good was shared by many in Ancient Rome, including Julius Caesar.

Julius Caesar's reforms and policies were aimed at benefiting the people and improving their quality of life. One of his most significant reforms was land distribution, which aimed to provide land to the poor and landless. Through this reform, Caesar aimed to address the issue of inequality and poverty in Roman society. Additionally, Caesar initiated public works projects, such as the construction of new public buildings and the renovation of existing ones. These projects aimed to provide employment opportunities to the people and improve the infrastructure of the city. Caesar's policies were in line with the common good and civilizational values of promoting the welfare of society as a whole. The Senate was composed of the aristocratic class, and its decisions were often made to protect the interests of the wealthy and powerful. This composition created a significant power imbalance in Roman society and was not in line with the common good or civilizational values. One example of the Senate's actions that were not in the interest of the common good was its resistance to land reform. Caesar's land reform aimed to distribute land to the poor and landless, thereby promoting the common good and addressing the issue of inequality. However, the Senate resisted these reforms, as they threatened the economic interests of the wealthy.

According to the historian Suetonius, Caesar's land reform aimed to "break up the large estates and give portions of them to the people" (Suetonius, Julius Caesar, 41). When it comes to advancing the common good, the relationship between economic circumstances and civilizational values can be

seen in Suetonius' depiction of Caesar's land reform in ancient Rome. Caesar's intention to confront the accumulation of riches and power by transferring land to the populace in an effort to build a more egalitarian society is highlighted by the remark. The importance of economic reforms based on civilizational ideals is highlighted by this analysis since they can significantly improve social and economic well-being and provide a more equitable and just distribution of resources within a society.

The Roman writer Pliny the Elder praised Caesar's land reform as a way to "provide a remedy for the needs of the poor" (Pliny the Elder, *Natural History*, 18.4). His praise of Caesar's land reform in Ancient Rome highlights the interconnectedness of civilizational values, such as addressing social inequality and the well-being of the less fortunate, with the promotion of the common good. The quote signifies the recognition of Caesar's policies as a means to alleviate the plight of the impoverished population, emphasizing the role of a just and equitable society in fostering the welfare of all its members.

Julius Caesar's actions were driven by the belief that it was the duty of the ruler to improve society for the benefit of all. This was in line with the common good and civilizational values of the Roman society. In his book "The Conquest of Gaul," Caesar writes, "I have always considered it my duty to serve the Republic and to do what I can to promote the common good."

Furthermore, Caesar's increasing power and popularity posed a threat to the aristocracy's hold on power. In his book "The Gallic Wars," Caesar writes about his military successes and increasing popularity among the people. He writes, "I have won the affection of my soldiers, the loyalty of my allies, and the admiration of my enemies. I have become a hero to the people, and my power and influence continue to grow." Caesar's representation of the people also challenged the aristocracy's hold on power in the political sphere. Through his policies and actions, Caesar aimed to expand the role of the people in the political process. For instance, Caesar introduced laws that expanded the voting rights of the people, allowing more individuals to participate in the political process.

Furthermore, the Senate's resistance to reform was often motivated by their desire to maintain their own power and authority. The Senate's composition allowed them to protect their own interests and maintain their hold on power, often at the expense of the common people. This is in stark contrast to Caesar's policies. One can see this contrast in Caesar's decision to initiate public works projects. These projects, such as the construction of new public buildings and the renovation of existing ones, aimed to provide employment opportunities to the people and improve the infrastructure of the city.

The Senate's actions had a significant impact on the Roman economy, which was closely tied to the social and political structures of the time. The Senate's policies were often aimed at preserving the status quo and protecting the interests of the wealthy, which resulted in the stagnation of the economy. For instance, the Senate's policies favored the *latifundia*, or large estates owned by wealthy landowners, which used slave labor and undercut small farmers. This led to the concentration of land ownership in the hands of a few, and the decline of small-scale agriculture, which was crucial to the Roman economy. Additionally, the Senate's resistance to taxation and public works projects, which were viewed as necessary by some to stimulate the economy, further hindered economic growth.

In contrast, Caesar's policies led to an increase in economic activity and an overall improvement in the standard of living for the common people. The contrast between the Senate's policies and Caesar's policies highlights the tension between the interests of the aristocracy and the common people, and the importance of inclusive economic policies for promoting the common good and civilizational values in Ancient Rome.

5. Conclusion

Through a comparative study of Ancient Greece, Ancient Rome, and Bulgaria, we have explored the interplay between civilizational values, the common good, and the contradictions presented by the

institution of slavery. These societies' diverse approaches to civilizational values and their impact on the common good shed light on the complexities inherent in balancing social, economic, and moral considerations.

In Ancient Greece, we observed conflicting perspectives on slavery. While Aristotle justified slavery as natural and necessary, Plato argued for the ideal society without slaves. The extensive use of slave labor in Greece had significant social and economic effects, such as the decline of the middle class and the lack of incentive for technological progress.

During Ottoman rule in Bulgaria, civilizational values played a crucial role in shaping the national identity and preserving cultural heritage. However, oppressive ideologies, such as communism and fascism, disrupted these values, suppressed individual freedoms, and marginalized certain groups, undermining the common good.

In Ancient Rome, the actions of Julius Caesar exemplified the pursuit of the common good through policies aimed at addressing social inequality and improving the well-being of the less fortunate. Caesar's reforms, such as land distribution and public works projects, challenged the power of the aristocracy and aimed to promote a more equitable society.

The contradictions arise when we consider the institution of slavery, which was prevalent in both Ancient Greece and Ancient Rome. Slavery inherently contradicts the principles of equality and the common good, as it deprives individuals of their freedom and perpetuates social and economic disparities. The tension between these contradictory elements highlights the complexity of aligning civilizational values and the common good within societal structures.

In conclusion, the comparative study of Ancient Greece, Ancient Rome, and Bulgaria reveals the intricate relationship between civilizational values, the common good, and the contradictions presented by slavery. These historical examples remind us of the importance of continually questioning and challenging societal norms and institutions to strive for a more just and inclusive society that upholds the common good and aligns with our shared civilizational values

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Climate Change, Energy Costs and Renewable Energy: Addressing the Interplay for a Sustainable Future

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Abstract: Addressing climate change requires collective action at various levels. To combat it, we must reduce greenhouse gas emissions through sustainable lifestyle choices, renewable energy transition, and enhanced energy efficiency. Sustainable transportation, forest preservation, and land management are also crucial. Adapting to climate change involves resilient infrastructure, early warning systems, and community efforts. Raising awareness and advocating for change are vital to foster public engagement. Governments, businesses, and individuals must work together to implement policies, invest in research, and support sustainable practices. By combining efforts, we can mitigate climate change, build a resilient future, and ensure a sustainable planet for future generations.

Climate change and energy costs are two interconnected challenges that require urgent attention in order to achieve a sustainable future. Climate change, primarily caused by human activities, poses significant risks to the environment, ecosystems, and human societies. Simultaneously, the rising costs of energy production and consumption contribute to economic burdens and hinder the transition to cleaner and more sustainable energy sources. This essay examines the complex relationship between climate change and energy costs, highlighting the need for comprehensive strategies that address both challenges in a mutually reinforcing manner.

Climate Change and Its Impacts

Climate change is driven by the accumulation of greenhouse gases (GHGs) in the Earth's atmosphere, primarily resulting from the burning of fossil fuels. The consequences of climate change are diverse and far-reaching. Rising global temperatures lead to melting ice caps and glaciers, which contribute to sea-level rise and pose threats to coastal communities. Extreme weather events, such as hurricanes, droughts, and heatwaves, become more frequent and intense, endangering human lives, agriculture, and infrastructure. Changes in precipitation patterns disrupt water availability and increase the risk of floods and water scarcity. Furthermore, climate change has implications for biodiversity, leading to habitat loss, species extinction, and imbalances in ecosystems.

Energy Costs and the Fossil Fuel Dilemma:

Fossil fuels have been the primary energy source for centuries due to their high energy density and affordability. However, the extraction, processing, and combustion of fossil fuels come at a significant cost. Beyond environmental implications, fossil fuel dependence carries economic burdens. As reserves deplete, the costs of extraction and exploration rise, leading to increased energy prices. Additionally, fossil fuel extraction often occurs in remote or sensitive areas, requiring extensive infrastructure and transportation, further increasing costs. Moreover, fossil fuel consumption contributes to air pollution and associated healthcare expenses, amplifying the economic impact.

Transitioning to Renewable Energy:

Addressing climate change and reducing energy costs necessitate a fundamental shift from fossil fuels to renewable energy sources. Renewable energy, including solar, wind, hydro, and geothermal power, offers numerous advantages. Firstly, renewable sources are abundant and widely distributed, reducing dependency on limited fossil fuel reserves. Secondly, renewable

energy production emits significantly fewer GHGs, mitigating climate change. Thirdly, technological advancements and economies of scale are steadily driving down the costs of renewable energy, making it increasingly competitive with traditional energy sources. Governments, businesses, and individuals must actively support and invest in the transition to renewable energy to unlock its full potential.

Energy Efficiency and Conservation:

Energy efficiency and conservation play crucial roles in reducing energy costs and mitigating climate change. By improving energy efficiency in buildings, transportation, and industrial processes, energy consumption can be minimized while maintaining the same level of services. Energy-efficient technologies, such as LED lighting, smart appliances, and efficient vehicles, not only reduce greenhouse gas emissions but also lead to long-term cost savings for consumers and businesses. Furthermore, promoting energy conservation through awareness campaigns, education, and policy incentives can instill sustainable energy practices and behaviors in society.

Policy and Regulatory Measures:

Effective policies and regulations are essential for addressing climate change and energy costs. Governments should establish frameworks that incentivize the deployment of renewable energy technologies while phasing out subsidies for fossil fuels. Carbon pricing mechanisms, such as carbon taxes or cap-and-trade systems, provide economic signals that encourage the reduction of GHG emissions and stimulate investments in clean energy. Additionally, energy efficiency standards, building codes, and renewable portfolio standards can accelerate the adoption of sustainable practices across sectors. International cooperation and agreements, such as the Paris Agreement, are critical for coordinated efforts to combat climate change and ensure a level playing field for global action.

The Role of Innovation and Research:

Investments in research and development (R&D) are vital for advancing renewable energy technologies, improving energy efficiency, and reducing energy costs. Governments, private sector entities, and academia should collaborate to fund and promote R&D initiatives aimed at unlocking new solutions. Breakthroughs in areas such as energy storage, grid integration, and clean technologies can revolutionize the energy sector and facilitate a smooth transition to a low-carbon future. Furthermore, knowledge sharing and technology transfer can enable developing countries to leapfrog traditional energy pathways and embrace sustainable alternatives.

Addressing climate change and reducing energy costs are intertwined challenges that require urgent and coordinated action. The negative impacts of climate change on the environment, society, and the economy necessitate a transition to renewable energy sources, accompanied by enhanced energy efficiency and conservation measures. Governments, businesses, and individuals must embrace sustainable practices, while policies and regulations should incentivize and support the adoption of clean energy technologies. By investing in innovation and research, we can unlock new solutions and pave the way for a sustainable future that mitigates climate change while ensuring affordable and accessible energy for all.

Renewable energy

Renewable energy refers to energy derived from natural resources that are replenished and can be sustainably utilized. Unlike fossil fuels, which are finite and contribute to climate change, renewable energy sources offer a cleaner and more sustainable alternative. Here are some key types of renewable energy:

- **Solar Energy:** Solar energy harnesses the power of sunlight to generate electricity or heat. Photovoltaic (PV) systems use solar panels to convert sunlight directly into electricity, while solar thermal systems use mirrors or lenses to concentrate solar energy for heating water or generating steam.
- **Wind Energy:** Wind turbines convert the kinetic energy of wind into electricity. As the wind blows, the rotating blades of the turbine drive a generator, producing clean and renewable power. Wind farms can range from small installations to large-scale projects with multiple turbines.
- **Hydropower:** Hydropower harnesses the energy of flowing or falling water to generate electricity. It typically involves constructing dams or diverting rivers to create reservoirs, and the force of the water turns turbines connected to generators.
- **Geothermal Energy:** Geothermal energy utilizes heat from the Earth's interior to generate electricity or provide heating and cooling. Geothermal power plants extract hot water or steam from underground reservoirs and use it to drive turbines, while geothermal heat pumps transfer heat between the ground and buildings for heating and cooling purposes.
- **Biomass:** Biomass energy utilizes organic matter, such as wood, crop residues, or dedicated energy crops, to generate heat or electricity. Biomass can be burned directly or converted into biogas or biofuels through processes like anaerobic digestion or pyrolysis.

These renewable energy sources offer several advantages:

- ❖ **Environmental Benefits:** Renewable energy sources produce little to no greenhouse gas emissions during operation, helping to mitigate climate change. They also reduce air pollution, water usage, and the ecological damage associated with fossil fuel extraction.
- ❖ **Energy Security:** Renewable energy diversifies the energy mix, reducing dependence on finite fossil fuel resources and mitigating geopolitical risks. It promotes energy independence and can be generated locally, contributing to a more resilient and decentralized energy system.
- ❖ **Cost Competitiveness:** The cost of renewable energy has been declining rapidly in recent years. Solar and wind power, in particular, have become increasingly cost-competitive with conventional energy sources in many regions, making them attractive options for new installations.
- ❖ **Job Creation and Economic Opportunities:** The renewable energy sector has emerged as a significant source of job creation and economic growth. Investments in renewable energy infrastructure and technologies stimulate local economies, fostering innovation, and creating employment opportunities.
- ❖ **Scalability and Flexibility:** Renewable energy sources can be deployed at various scales, from small residential installations to utility-scale power plants. This scalability allows for tailored solutions to meet different energy needs. Furthermore, renewable energy technologies can be integrated with energy storage systems to provide flexibility and reliable power supply.

To fully leverage the potential of renewable energy, advancements in energy storage technologies, grid integration, and supportive policies are crucial. By transitioning to renewable energy, societies can reduce carbon emissions, combat climate change, and build a sustainable energy future.

The question is : Can renewable energy help with climate change?

Yes, renewable energy plays a crucial role in mitigating climate change and addressing its impacts. Here's how renewable energy helps in the fight against climate change:

Renewable energy sources produce little to no greenhouse gas (GHG) emissions during operation. Unlike fossil fuels, which release significant amounts of carbon dioxide (CO₂) and other GHGs when burned, renewables such as solar, wind, hydro, and geothermal power have minimal or zero emissions. By replacing fossil fuel-based electricity generation, renewable energy helps reduce overall GHG emissions, which is vital in mitigating climate change.

Another important benefit is the decarbonization of the energy sector. The energy sector is a significant contributor to global GHG emissions. By transitioning from fossil fuel-based power generation to renewables, we can significantly reduce carbon emissions from electricity production. This decarbonization of the energy sector is a critical step toward achieving climate targets outlined in international agreements such as the Paris Agreement.

The transportation sector is also a major source of carbon emissions. By utilizing renewable energy to generate electricity, we can shift transportation away from fossil fuel reliance. Electric vehicles (EVs) charged by renewable energy sources emit zero tailpipe emissions, thereby reducing carbon emissions and improving air quality.

Renewable energy is often integrated with energy efficiency measures to optimize energy consumption. By improving energy efficiency in buildings, industries, and transportation, renewable energy systems can provide power to more efficient devices and processes. This synergy helps further reduce energy consumption and associated GHG emissions.

And think about technological innovation and advancements. The development and deployment of renewable energy technologies drive innovation and create opportunities for further emissions reductions. Ongoing research and development in renewable energy sectors, such as advancements in solar panel efficiency, wind turbine design, energy storage systems, and grid integration, contribute to the continued growth and cost-effectiveness of renewable energy.

Climate change brings about increased risks and vulnerabilities to communities and ecosystems. Renewable energy technologies, such as decentralized solar power systems and microgrids, can enhance energy resilience in the face of extreme weather events and disruptions to the centralized power grid. Renewable energy can also support adaptation efforts by providing sustainable power solutions in vulnerable regions, improving access to electricity and reducing reliance on fossil fuel imports.

Lastly, something very important nowadays is job creation and economic opportunities that come with this new aspect. The transition to renewable energy creates new employment opportunities and stimulates economic growth. The renewable energy sector has witnessed significant job creation in various areas, including installation, manufacturing, maintenance, and research and development. This transition can bring positive economic impacts while contributing to climate change mitigation.

By promoting the deployment and integration of renewable energy technologies, policymakers, businesses, and individuals can contribute to a more sustainable and low-carbon future, thereby helping to combat climate change and its associated impacts.

What else can we do to help climate change?

Addressing climate change requires collective action at various levels, from individuals to governments and international organizations. Here are some key actions that can help combat climate change:

1. **Reduce Greenhouse Gas Emissions:** The primary driver of climate change is the release of greenhouse gases (GHGs) into the atmosphere. To reduce emissions, individuals can adopt sustainable lifestyle choices such as conserving energy, using public transportation or electric vehicles, and reducing meat consumption. Industries can invest in cleaner technologies and practices, implement energy efficiency measures, and transition to renewable energy sources. Governments can enforce regulations, set emissions reduction targets, and provide incentives for sustainable practices.

2. **Transition to Renewable Energy:** Shifting from fossil fuels to renewable energy sources is critical to reducing carbon emissions. Governments can implement supportive policies and financial incentives to encourage renewable energy deployment, such as feed-in tariffs and tax credits. Businesses and individuals can invest in renewable energy technologies for their energy needs, such as installing solar panels or purchasing renewable energy certificates. Supporting research and development in renewable energy is also essential for advancing technologies and making them more affordable and efficient.

3. **Enhance Energy Efficiency:** Improving energy efficiency across sectors can significantly reduce energy consumption and carbon emissions. Individuals can use energy-efficient appliances, insulate their homes, and practice energy-saving behaviors. Businesses can adopt energy management systems, upgrade to efficient equipment, and implement energy-efficient practices. Governments can establish energy efficiency standards and provide incentives for energy-efficient technologies and building designs.

4. **Foster Sustainable Transportation:** The transportation sector is a major contributor to greenhouse gas emissions. Encouraging the use of public transportation, promoting cycling and walking, and supporting the adoption of electric vehicles can help reduce emissions. Governments can invest in public transportation infrastructure, provide incentives for electric vehicle adoption, and develop policies to reduce reliance on fossil fuel-powered vehicles.

5. **Preserve Forests and Enhance Land Management:** Forests act as carbon sinks, absorbing CO₂ from the atmosphere. Protecting and restoring forests, implementing sustainable forestry practices, and promoting afforestation efforts are essential for mitigating climate change. Sustainable land management practices, such as organic farming and regenerative agriculture, can also contribute to carbon sequestration in soils and reduce emissions from agricultural activities.

6. **Adapt to Climate Change:** Climate change impacts are already being felt, and communities need to adapt to these changes. Governments can develop and implement adaptation strategies, such as building resilient infrastructure, implementing early warning systems, and supporting climate-resilient agriculture. Individuals and communities can take steps to protect themselves from extreme weather events, conserve water resources, and support local adaptation initiatives.

7. **Raise Awareness and Advocate for Change:** Increasing public awareness about climate change and its impacts is crucial. Individuals can educate themselves about climate change, engage in discussions, and share knowledge with others. Advocacy and participation in grassroots movements can put pressure on governments and businesses to take stronger action on climate change. Supporting organizations and initiatives that promote sustainable practices and climate change solutions can also make a difference.

It is important to recognize that addressing climate change requires a comprehensive and collaborative approach. By combining efforts across sectors and society as a whole, we can make significant progress in mitigating climate change and building a sustainable future.

Conclusion

In conclusion, climate change is a global challenge that requires urgent and collective action. The devastating impacts of climate change necessitate a multifaceted approach involving individuals, governments, businesses, and international cooperation. We must strive to reduce greenhouse gas emissions, transition to renewable energy sources, enhance energy efficiency, and promote sustainable practices in various sectors. By fostering sustainable transportation, preserving forests, and implementing adaptive measures, we can build resilience to climate change impacts. Raising awareness, advocating for change, and supporting research and innovation are essential for driving the necessary transformation. By working together, we can mitigate climate change, protect our planet, and create a sustainable future for generations to come.

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Implementation of the ISO 14001 and the EMAS in Small and Medium-Sized Enterprises in a selected region in Slovakia

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Abstract

SMEs are the major creator of the economic and business structure of many countries. Interest in sustainable management is growing and a proactive approach to the environmental challenges of SMEs is becoming increasingly important. The implementation of ISO 14001 and EMAS in management represents an effective mechanism by which SMEs can improve their environmental behavior, achieve compliance with legal requirements and perform activities that allow overcoming contradictions between the market, society, and the environment. Considering the above, the main goal of the presented article is to evaluate the implementation of environmental management tools ISO 14001 and EMAS in SMEs in the Nitra Region in Slovakia, as a suitable mechanism for streamlining business activity and advancing the interactions of sustainable development. The world is changing, and SMEs in general can also play a key role in fulfilling the 2030 Agenda, specifically goal 13.

Keywords: Agenda 2030, EMAS, environmental management system (EMS), ISO 14001

JEL Classification: Q01, Q54, F18

1. Introduction

Market demands and growing concerns about environmental degradation are putting pressure on companies to incorporate responsible behaviour into their activities. In this context, especially SMEs play an important role as they are the main creators of the economic and commercial structure of many countries. In the EU, SMEs account for almost 99% of all existing businesses and were responsible for more than 64% of industrial environmental pollution in the last decade (Ozbugday et al., 2020).

The application of environmental management approaches is an effective mechanism by which SMEs can improve their environmental behaviour, comply with legal requirements, and engage in activities that will enable them to overcome the contradictions between the market, society, and environment (Johnstone, 2021). SMEs can use environmental management as a strategic tool to increase their competitiveness while reducing costs at the same time. The most effective tools of environmental management allow SMEs to eliminate negative effects on the environment (Zorpas, 2010; Chiarini, 2019). Specifically, in this article, we will start with the implementation of ISO 14001 and EMAS in the Nitra region in Slovak SMEs.

2. Literature review

Although SMEs are and remain at the centre of most industrial activities, in terms of global awareness SMEs lag significantly behind large companies in the implementation of sustainable development approaches. However, the potential of SMEs in the field of sustainable development is significant mainly because of their great flexibility and adaptability (Ahmedova, 2015; Prashar, 2019). The main ecological criterion for SMEs is the recyclability of manufactured products. Most studies assume that today's waste accumulation is unsustainable.

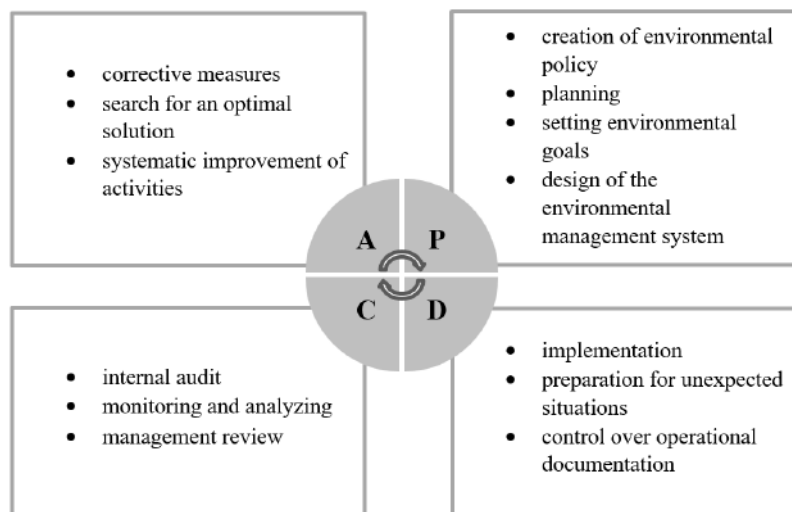
Reducing energy consumption as well as recyclability is an important criterion for SMEs. Environmental improvement obviously leads to an increase of at least 100% in recycling costs, a significant increase in funds spent on investments to reduce energy consumption, as well as a general individualization of manufacturing production (European Environment Agency, 2021).

The European environmental legislation, which is composed of more than 350 legal documents, has unquestionably undergone a remarkable change in the last ten years. Some existing laws have been changed, and several new laws have been passed (Kurrer, 2022). However, voluntarily, each member state can set specific environmental limits to be met by individual entities on its territory. The so-called environmental policy of the EU is only guided by the lowest common denominator, which defines targets and measures at the member state level that are least environmentally progressive (Scown et al., 2020).

Today, environmental management has proven to be one of the most crucial institutional tools for sustainable development, driving SMEs to adopt a proactive strategy to increase sustainability in response to growing concerns about global environmental issues (Švikruhová et al., 2022). SMEs strongly support the integration of sustainable policy regarding voluntary environmental management tools. Currently, voluntary environmental management tools are mostly used by SMEs in the industrial sector while focusing on procedures, precision, and integration of environmental measures into daily business activities (Räty et al., 2016). We rely on ISO 14001 and EMAS for this scientific contribution.

Any business regardless of size, type, or activity is subject to ISO 14001, which outlines the requirements for preventing and systematically reducing the negative environmental activities of enterprises with the help of certification (Voukkali et al., 2017). Certified companies are expected to use environmental management approaches more prominently for the strategic management of the direct and indirect environmental aspects of their activities, products and services; improving environmental performance; increased senior management commitment and increased leadership input; applying the process management approach to SMEs; taking into account risks and opportunities; emphasizing the role of leadership in the EMS; and compatibility with other management systems standards (Badhan, 2020). Deming's PDCA cycle (Figure 1), which is based on the repetitive use of four key activities: P – planning; D – implementation of the plan; C – verification of application results; A – act when making changes, is a useful method for implementing the ISO 14001 lifecycle in SMEs by taking into consideration and evaluating the stages (Rich & Malik, 2019).

Figure 1: ISO 14001 implementation process in SMEs

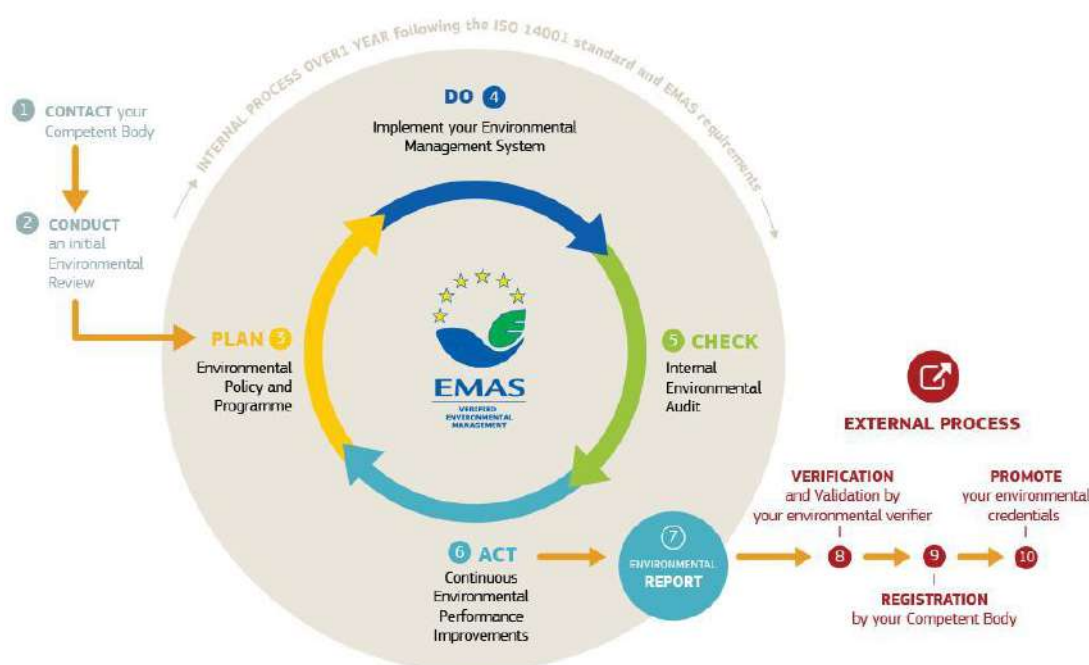


Source: Own elaboration based on authors Rich & Malik (2019)

EMAS is designed, for example, to help companies improve their environmental performance by increasing their competitiveness through more efficient use of resources. It is the most reliable and powerful tool on the market today in the field of EMS (Slovak Environment Agency, 2020). Since their activities increasingly contribute to the creation of indirect environmental dimensions, EMAS also wants to include employees, subcontractors, and other contract partners in the environmental initiative (Chen et al., 2015).

EMAS is mainly aimed at medium-sized or large companies. However, as reported by the Information Resources Management Association (2019), a simple electronic guide has been designed for SMEs to facilitate the implementation process to improve the company's environmental performance. EMAS can therefore be used by public and private companies that meet the entry requirements and apply for registration with the relevant authority (Aladashvili, 2022). The main condition for the acceptance of the application for inclusion in the registry is the publication of the environmental declaration. The company also needs to run a ten-step process based on Deming's PDCA cycle (Figure 2).

Figure 2: The process of joining the EMAS



Source: <https://www.euspa.europa.eu/about/about-euspa/environmental-management-emas>

3. Data and Methodology

The main goal of the article was to evaluate the implementation of environmental management tools ISO 14001 and EMAS in SMEs in the Nitra Region in Slovakia, as a suitable mechanism for streamlining business activity and advancing the interactions of sustainable development. Primary and secondary data of the research were processed through several methods. Methods of analysis, synthesis, induction, and comparison were used in obtaining secondary data. The primary source of secondary data was professional literature, scientific articles, and statistical data. These sources were the gauge point for the preparation of a questionnaire survey, which was the main research technique of the article. The questionnaire survey was carried out via Google Forms from February to April 2023. The questionnaire survey was focused on the SMEs categorization and the implementation of ISO 14001 and EMAS in SMEs in the Nitra region.

Microsoft Excel software was used to evaluate the obtained data. The formulated hypotheses were verified using the χ^2 – square contingency test. The null hypothesis H0 represented that there is no statistical dependence between the selected data and the alternative hypothesis H1 represented that there is a statistical dependence between the selected data. When confirming the alternative hypothesis, association variables were identified using Cramer's V coefficient, Pearson's correlation coefficient and Tschuprowov's contingency coefficient. The hypothesis was accepted if the value of the calculated test criterion was greater than the critical value of the χ^2 distribution.

Following the primary objective, we formulated the following research hypotheses:

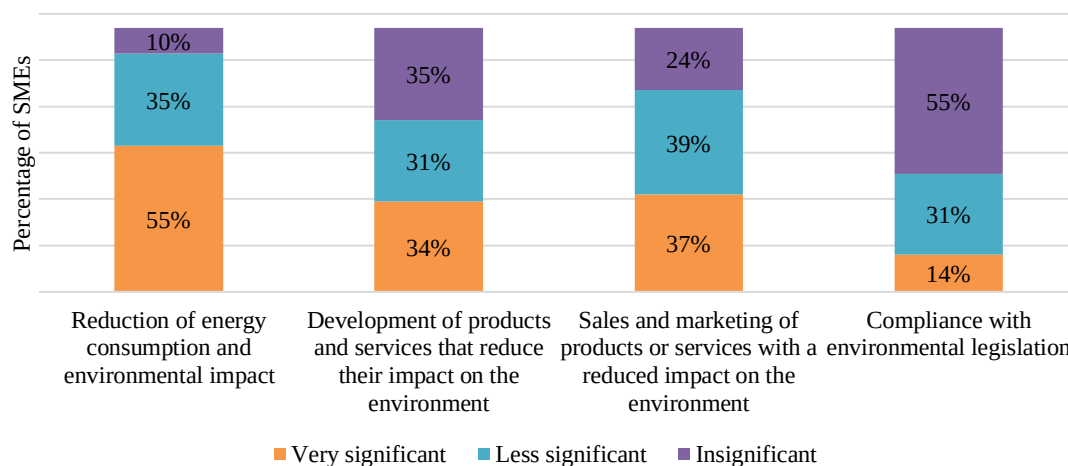
1. The implementation of ISO 14001 and EMAS in SMEs is influenced by the categorization criterion of company size.
2. The implementation of ISO 14001 and EMAS in SMEs is influenced by the industries in which the companies operate.

4. Results and Discussion

The Nitra region is the fifth largest region in Slovakia with an area of more than 6,343 km², while it occupies 13% of Slovakia's territory. In terms of agglomerations, the level of air, water and soil pollution in the Nitra region has long been considered critical. Considering the above, the research was carried out in this region, while 114 SMEs participated in the research (31 % micro companies, 28 % small companies and 41 % medium companies). The legal form of the enterprises was 75% business company, 18% self-employed and 7% self-employed farmer. In terms of industry structure, up to 31% of enterprises operate in trade, 24% in industry, 21% in services, 19% in the agri-food industry, and 5% in construction.

In the research, 44% of the representatives of the selected SMEs said that they actively consider the principles of environmental management, but 56% of the representatives deal with environmental management only to a limited extent. The most important environmental goals in the selected SMEs are the reduction of energy consumption and environmental impacts, for up to 55% of enterprises and the sale and marketing of products and services with a reduced impact on the environment for 37% of enterprises. An almost equally important goal for 34% of companies is the development of products and services that reduce the impact on the environment. Compliance with environmental legislation is the least important goal for 16% of companies (Figure 3).

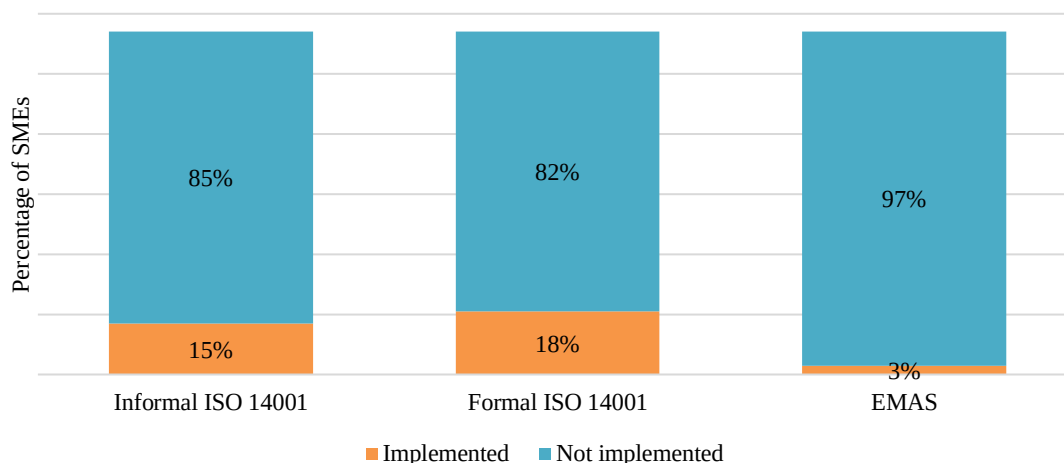
Figure 3: Preferences of environmental goals in SMEs in the Nitra region (%)



Source: Own elaboration

The informal ISO 14001 system has been implemented in 15% of enterprises, formal ISO 14001 in 18% of enterprises and EMAS in 3% of enterprises (Figure 4). The informal ISO 14001 system is mainly used by small businesses that are before the process of implementing the formal ISO 14001 or plan to implement this system in the future. EMAS, as the most advanced and legislatively demanding environmental management system, is mostly implemented by medium-sized, financially stable enterprises with more complex structures.

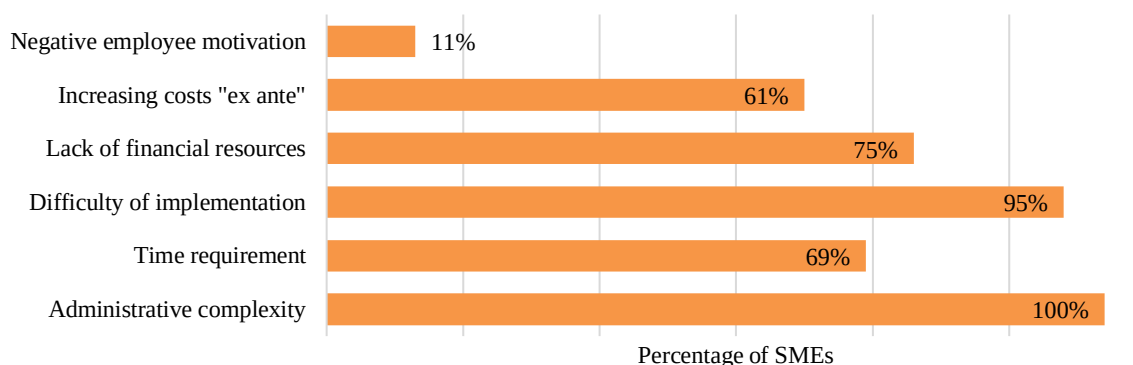
Figure 4: Implemented environmental management tools in SMEs in the Nitra region (%)



Source: Own elaboration

The most significant barrier to the implementation of ISO 14001 or EMAS is the administrative complexity for 100% of companies and the related implementation complexity for 95% of companies. The stated fact is understandable since SMEs mostly do not have legal departments dealing with the examination of legal requirements and the process of implementing individual instruments. For 75% to 61%, barriers are also a lack of resources, time-consuming and increasing costs "ex ante". An interesting finding is the fact that 11% of companies register the negative motivation of employees towards the principles of sustainability as a barrier to implementation (Figure 5).

Figure 5: Barriers to the implementation of ISO 14001 and EMAS in SMEs in Nitra region (%)

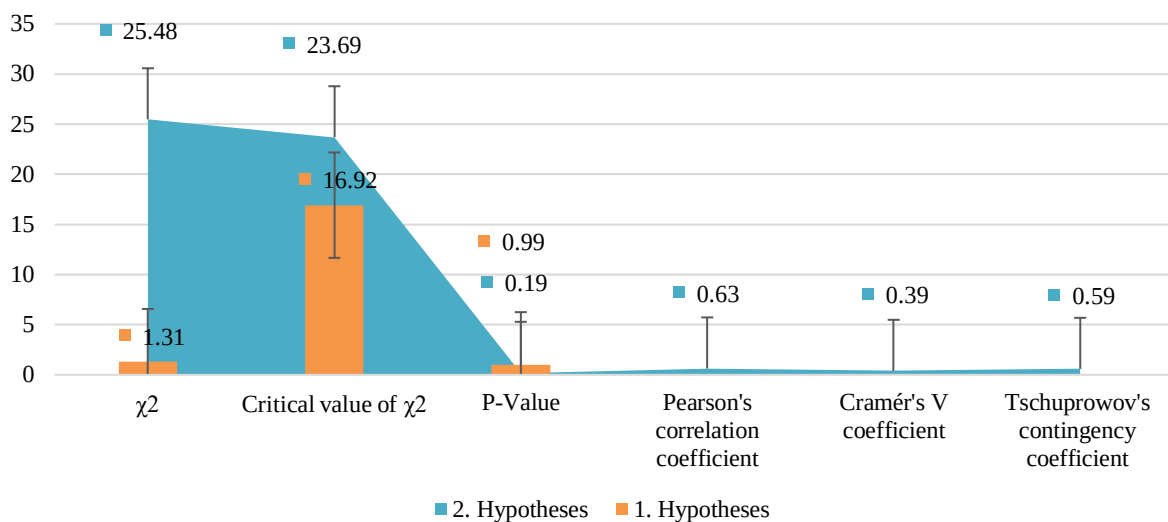


Source: Own elaboration

Association testing was performed based on the statistical verification of established research hypotheses. The obtained results show that hypothesis 1 was not confirmed at the level of significance [$\alpha = 0.05$]. There is no statistically significant relationship between the implementation of ISO 14001 and EMAS in SMEs and the size of enterprises, as the value of

the calculated test criterion is smaller than the critical value of the χ^2 distribution [$1.31 < 16.92$]. Conversely, at the level of significance [$\alpha = 0.05$], hypothesis 2 was confirmed. There is a statistical dependence between the implementation of ISO 14001 and EMAS tools in SMEs and the industries in which the companies operate, as the value of the calculated test criterion is greater than the critical value of the χ^2 distribution [$25.48 > 23.69$]. The values of Pearson's correlation coefficient [0.63], Cramer's V coefficient [0.39] and Tschuprowov's contingency coefficient [0.59] also confirm this (Figure 6). All correlation coefficients reach values of moderately strong dependence. We have identified dependencies in the construction and industry sectors, while ISO 14001 and EMAS are implemented in these sectors to a greater extent than in other sectors. These are technical industries that more often require normative security of technological processes and procedures compared to other industries.

Figure 6: The χ^2 – square contingency test results for statistical hypotheses 1. and 2.



Source: Own elaboration

5. Conclusion

Building a base of environmental management and implementing its tools in SMEs leads to economic benefits such as energy conservation, waste minimization and disposal cost reduction, recycling, cost transparency and traceability, reduction of environmental fees and penalties for environmental pollution, and potential tax advantages. The advantages for the management of the organization include a tool for gathering data required for goal setting and planning, an appropriate method for objectively evaluating the level of environmental behaviour and the efficacy of the measures taken, early identification and transparency of environmental problems, risks and an increase in organizational morale. Tools of environmental management also influence relations with employees by reducing individual responsibility of employees for environmental damage, an effective means of forming employees' environmental awareness, public relations, strengthening the image of the company, and relations with the public and local government.

In the Nitra region, almost half of the SMEs surveyed are aware of the above. The most frequently implemented tool in the region is formally ISO 14001. The least implemented tool is EMAS, even though it represents the most reliable and strongest internationally recognized environmental management tool. However, we found that EMAS is mainly used in the industry and construction sectors due to its complex structure. An important fact resulting from the research is also the identification of the most significant barriers to the implementation of ISO 14001 and EMAS, which are administrative and implementation difficulties.

Based on the research results, we suggest the following to SMEs in the Nitra region to more strongly educate managers in the field of environmental management, legal regulation of environmental issues and sustainable development; more systematic environmental education of employees through more effective communication; potential use of outsourcing of certified experts providing environmental consulting aimed at creating environmental policy, environmental profile and defining the company's environmental strategy leading to a successful implementation of informal ISO 14001, formal ISO 14001 and also EMAS; more extensive implementation of environmental management tools to streamline business activity and advance sustainable development interactions.

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Innovation as a Common Good

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Abstract

Open innovation (OI) contributes to the economic growth and overall increase in innovation performance of a country, which in turn bring benefits to the citizens and competitive advantage to the country as a whole. It belongs to the domain of common goods (CG), shared resources that have non-exclusivity and rivalry property. Since its early definitions, the concept of CG has evolved becoming more general and thus expanding its domain. This can be an opportunity for countries like the Slovak Republic, weak innovator to improve its performance. The aim of this study is to assess the current situation of open innovation in the Slovak Republic and frame it among other member countries of the European Union.

Keywords: common good, new commons, open innovation, European Union, Slovak Republic.

JEL Classification: O30, O36

1. Introduction

Literature suggests that innovation positively influences a country (or a community) increasing its wellness and contributing to its economic growth and it often constitutes the only way to gain competitive advantage and compete (Inków, 2019; Demir, 2018). According to Allen and Potts (2015) innovation belongs to the domain of CG, known as new common. Hussain (2018) defines CG as any institution, cultural and material good that benefits the entire society and for which all individuals have a relational obligation to take care of them. CG refers to a form of community management or governance of a shared resource systems (common-pool resources) with (in)formal norms (Madison, Frischmann, & Strandburg, 2017).

Innovation commons (IC) are the ideas deriving from knowledge and information that belong to a community and that can benefit it transforming the idea into technology and/or into something valuable for it. Because the share of knowledge and its co-creation can help a country to increase its innovation performance and economic growth (Yun & Liu, 2019), the current paper aims at studying open innovation at EU level, analyzing it in the four innovation performance groups of the European Innovation Scoreboard (EIS) with a focus on Slovak Republic, a poor performer.

The paper is organized as follows: a brief literature review covers CG, focusing on new commons (innovation and knowledge commons); it follows the methodology used. The last part presents a discussion based on the results.

1.1. Knowledge commons

The first generation, tangible resources, and the second, new commons, intangible (belonging to the information, culture and knowledge domains) belong to the shared common pool of all individuals of a community. Knowledge commons (to know more Frischmann et al., 2014), new commons, are complex with dual functionality (Reichman & Franklin, 1999; Braman, 1989): commodity and a constitutive force of society (cited in Hess and Ostrom, 2007). With

knowledge societies can improve their technologies and wellbeing. The third generation are based on knowledge and are in the hands of entrepreneurs. The institution formed with a new technology is created before market or the firm, pattern by which a technology evolves into a society, either in private or public goods (Allen & Potts, 2016).

1.2. Innovation commons

IC, a subgroup of knowledge commons, possesses similar properties and characteristics of knowledge commons. Nonetheless, differences exist between IC and other commons. Their goal is to accumulate knowledge in the shared pool (like knowledge commons) and advance in knowledge. It is composed of technical knowledge (how to make a product) and the information to define how to implement the idea, solving the “innovation problem” (Allen & Potts, 2015). Indeed, there is no innovation without the opportunity to sell it in the market (commercialization). Innovation commons are *ad hoc* and temporary until the uncertainty is resolved (Allen & Potts, 2015; Allen & Potts, 2016). The community of entrepreneurs limit opportunistic behaviors, like free riding with e.g. intellectual property (IP) (Hess & Ostrom, 2007).

Although the assumption that open collaborations can reduce the motivation to innovate (Strandburg, 2017), keeping innovation open allows to discover and advance the knowledge, which resolves uncertainties behind it (Allen & Potts, 2016). Nonetheless, to avoid free-riding, it is crucial that IP rights are established, at least the critical knowledge. For example, Linux and open-source in general, are kept “open” through the astute use of standard form licenses that require, rather than restrict, sharing (De Beer, 2021).

In the literature, IC are sometimes referred OI (Allen and Potts, 2016), discussed in the next paragraph.

1.2 Open innovation

Chesbrough (2003) and Chesbrough and Bogers (2014) formally illustrates the idea of OI. The 2014 definition stresses that knowledge is exchanged in collaborations. It is a process “based on purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organization’s business model”. Thanks to the community chances that uncertainties of the innovation (part of the innovation problem) can be resolved more easily. Further, the acquisition of IP rights – even though temporary - can guarantee and support OI. This is widely justified by IP, which provides the guarantee that efforts of the innovator will not be vain (De Beer, 2021).

OI can constitute a driver of innovation in a particular area, say a country (Lopes, Gomes, Oliveira & Oliveira, 2021) as it can increase the business growth and regional competitiveness (Prokop & Stejskal, 2017). Thanks to a working triple helix mechanism between firms, governments and universities (and trust) (proper of very innovative countries) (Serbanica, 2021), it is possible to disseminate knowledge among the economic actors (Charron, Dijkstra & Lapuente, 2014; Lopes et al., 2020; cited in Lopes et al., 2021).

However, those countries that poorly perform in innovation are also the ones that have lower relation to open innovation (Lopes, Farinha, Ferreira & Silveir, 2018). As argued by Lopes et al. (2021), open innovation can help them to fill in the gap with the innovation leaders. A reason may be cultural (economic systems, institutions, and peculiarities of the country), which influences largely firms’ behaviors regarding their engagement in open innovation practices (Savitskaya, Salmi & Torkkeli, 2010).

2. Data and Methods

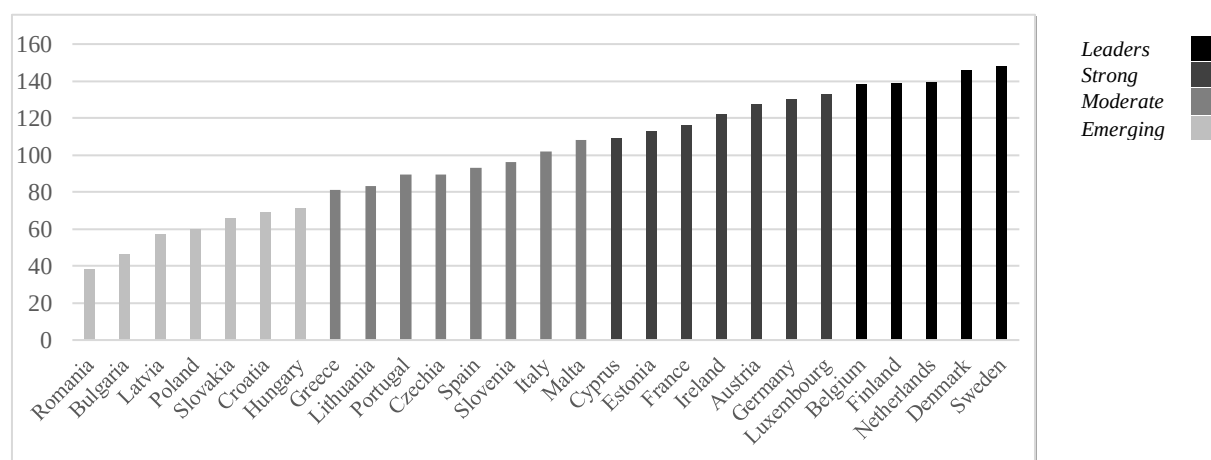
The aim of this article was to analyze open innovation in EU. In addition, Slovakia is framed in the EU context from this point of view as well. The research questions:

1. How innovation performance groups perform in terms of open innovation in EU?
2. How can Slovakia be categorized in this context?

The data for the analysis were extracted from the Community Innovation Survey (CIS) (n.d.) on Eurostat, which investigates every 2 years innovation in the EU. The latest CIS was released in 2020, the analyzed one. Figures about overall innovation performance of countries are extracted from the EIS. EIS is a composite index of 27 unweighted components that determines the score of countries in terms of innovation performance (to know more: EC, n.d.), yearly computed by the European Commission. To compare it with CIS, the 2020 was used. Depending on the *Value*, the EIS groups each country in different categories (*Label*). Accordingly, the groups are four:

- **Leaders** (performance above 125% EU average): 5 countries.
- **Strong** (performance between 95 - 120% EU average): 7 countries.
- **Moderate** (performance 50 - 95% EU average): 8 countries.
- **Emerging** (performance below 50% EU average): 7 countries including Slovakia.

Figure 1: European Innovation Scoreboard



Source: EC, 2020.

Data were analyzed on SPSS. Because a strong correlation was found between the size of a EU member country (population) and open innovation activity in absolute terms, Spearman correlation = 0.902, i.e., bigger countries have more open innovation activities, *Re_open_new* was created (for relative values) by dividing the total open innovation activities of a country by the number of firms that are registered on its territory. This is justifiable because CIS surveys *all* companies based on the European territory with the exception of microenterprises (<10 employees). In this way, the evaluation is done in relative terms.

Note that Estonia does not provide data on this, therefore in the analysis the countries are $N=26$. The first rows of the dataset are in table 1.

Table 1: first rows of dataset

Country	Labeln	Value	TotFirms	InnovActAbs	Population	LABEL2	Re_open_new
Austria	Strong	127,586	418290	4120	8.901.064	lead_strong	0,00984963
Belgium	Leader	138,038	716313	4943	11.522.440	lead_strong	0,00690061
Bulgaria	Emerging	46,466	342376	1440	6.951.482	mod_emerg	0,00420590
Croatia	Emerging	69,001	179306	2228	4.058.165	mod_emerg	0,01242569

- *Country*: country under examination.
- *Labeln*: innovation performance group.
- *Value*: score according to EIS.
- *TotFirms*: number of firms registered in a country.
- *InnovActAbs*: total co-operation activities in a country between enterprises and other enterprises or organizations.
- *Population*: population living in a country.
- *LABEL2*: new created variable admitting two values (construction explained below).
- *Re_open_new*: new created variable (construction explained below).

Shapiro-Wilk test of normality (Shapiro & Wilk, 1972) confirmed non-normal data distribution (Table 2) which determined the selection of non-parametric tests, Mann-Whitney U Test and the Spearman's rank correlation.

Hypotheses:

H1. *Open innovation activities correlate with country innovation performance.*

H1 was formulated following the results of Lopes et al. (2021), who ran a stepwise forward method that determine a statistical model as outcome. Differently from their methodology, it was computed a Spearman's rank correlation on the SPSS software. This statistical method fits distributions that are not normal.

H2. *Open innovation activities significantly differ between the different groups of innovators.*

H2 postulation was formulated as well based on the conclusions of Lopes et al. (2021). Being the groups of countries relatively small for a Kruskal-Wallis test, which would not have a high statistical power (and the results would not be very reliable), it was opted to merge the four groups in the following way:

- leader and strong innovators (*lead_strong*): performance 95% higher EU average. 11 countries (Estonia excluded).
- moderate and emerging innovators (*mod_emer*): 95% lower EU average. 15 countries.

Moreover, groups are comparable being the cohorts of similar size.

Table 2: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Re_open_new	,205	26	,007	,897	26	,013
Value	,110	26	,200*	,955	26	,301
TotFirms	,259	26	,000	,755	26	,000
InnovActAbs	,274	26	,000	,621	26	,000
Country_n	,086	26	,200*	,956	26	,325
labeln	,201	26	,008	,866	26	,003
LABEL2	,376	26	,000	,630	26	,000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

3. Results and Discussion

Computing the Spearman correlation test, the test is statistically significant; the correlation coefficient is 0.439, meaning a moderate positive relationship exists between the two variables (Table 3). Therefore, H1 is corroborated. The result finds support in Lopes et al. (2021), who argue that the reason by which the most innovative countries are also the ones with more open innovation activities.

Table 3: Correlations

			InnovActRel	Value
Spearman's rho	InnovActRel	Correlation Coefficient	1,000	,439*
		Sig. (1-tailed)	.	,011
		N	27	27
	Value	Correlation Coefficient	,439*	1,000
		Sig. (1-tailed)	,011	.
		N	27	27

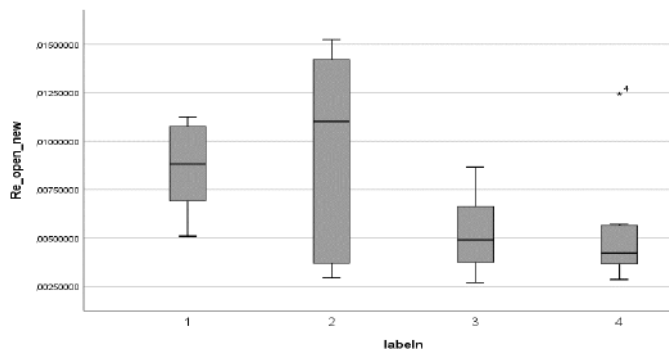
**. Correlation is significant at the 0.05 level (1-tailed).

For H2, a Mann-Whitney U test was conducted. A p-value = 0.020 (lower than the significance level of 0.05) implies statistical significance: the decision is thus not to reject H2.

Comparing the boxplots of the performance groups (Figure 2), the minimum value for the labels is about the same value, with the exception of the leaders, which minimum is higher (this and other elements of the boxplots are reported in Table 4). The main difference is the length of the boxplots, given by the difference between the maximum and minimum values. The most varying group is the strong innovators, range of 0.0123166, meaning the so diverse figures among countries of that group. In this cohort, countries like France and Ireland have the lowest open innovation activity and are in line with moderate and emerging innovators. Oppositely, Germany and Luxembourg have the highest values compared to all group.

In the emerging innovator group, the outlier Croatia, among emerging innovators has open innovation practices much higher than any other countries of the same group, similar to strong innovators.

Figure 2: boxplot of performance groups



Compared to its group, Slovakia poorly performs for what regards open innovation activities ranking 7th over 7 countries of the group. This result is in line with the country's overall score (EIS, 2020), which confirms the literature, countries that have weak innovation results are also those with low levels of open innovation (Lopes et al., 2021).

Table 4: Average open innovation in different performance groups

	Leader	Strong	Moderate	Emerging
Mean	0,0085558	0,0096752	0,0052205	0,0054350
Median	0,0088074	0,0110129	0,0048896	0,0042127
Minimum	0,0050801	0,0029157	0,0026775	0,0028427
Maximum	0,0112262	0,0152323	0,0086473	0,0124257
Range	0,0061461	0,0123166	0,0059697	0,0095830
Interquartile Range	0,0050051	0,0109792	0,0037260	0,0026351

Source: Author's own calculation based on Eurostat data.

Although it is crucial and primary to solve the well-known structural problems (e.g. inefficiencies to invest and use European funds, high levels of bureaucracy and corruption), open innovation can aid the country in improving the innovation performance and its related figures. The government can promote it by the means of targeted policies for example by online initiatives, collaborative problem-solving events, collaborations between public and private, by government–university collaborations, public services, social networking, crowdsourcing and eCitizen portals (Lee, Hwang & Choi, 2012).

4. Conclusion

IC helps communities to advance in technology and in turn improve their wellbeing. It helps to increase innovation of a country. Slovakia can stimulate innovation by encouraging open innovation activities, which – as other modest innovators – has low levels of open innovation relatively to the best performers. Such initiatives can enhance related innovation indicators and knowledge exchange. Anyhow, structural reforms must continue to be priority.

4.1 Limitations

The study uses CIS data from 2020 – the latest available. Moreover, data cover a particular aspect of open innovation, not taking into account collaborations with customers or other stakeholders. Future studies may be conducted in this direction (in a questionnaire-based form), including besides collaborations with other enterprises or organizations, stakeholders like governments and customers and research institutes like universities (the quadruple helix).

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Digital Divide in smart cities

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Abstract

Smart cities use solutions based on communication and informational technologies with the aim of offering a better and more comfortable life for the residents of their countries. Smart cities always aim to offer good services, better quality of life and welfare to their citizens and it is possible to do so by using advanced technologies. The technological progress affected dimensions such as urban mobility, environment, authorities, economical, social and cultural activities. At the same time, certain social categories do not benefit entirely from the advantages of smart cities, because of the fact of digital division. This paper deals with the digital division forms presented in smart cities, caused by the age range, religion, educational level, ethnicity/race, national etc. and proposes solutions for increasing the social sustainability of technological solutions for smart cities. To this end, determinations have been made based on the data obtained from the literature as well as relevant documentation, sites and visits of the relevant units. The study demonstrates that they are in the organization process and that similar or several projects have been implemented considering relevant documentation in line with the requirements of each city across the world.

Keywords: advanced technologies, smart cities, environment, sustainability of smart cities

JEL Classification: E70, K10, L66, M31.

1. Introduction

Cities are becoming smarter and more optimized because of digital transformation, reducing costs, increasing safety, attracting investment, ensuring sustainability, and increasing viability. As a result of this optimization, they are becoming smart cities. Smart cities use the Internet of Things' devices, such as connected sensors, lights, and smart meters, to improve infrastructure and design by gathering and analyzing real-time citizen data. In this paper, different conceptions of smart cities and their interconnections with digital transformation are presented.

In our view, cities are not merely neutral territories used by people where the introduction of technology simply seeks to optimise global functions, utilities used and individual productivity. Cities' character is formed by the people who inhabit them, and their culture is defined by their memories, stories and interactions. Hence, while all cities around the world provide similar facilities, every city has evolved a unique and distinctive character reflected in social and cultural life. In our perspective, a smart city should focus on people's social interactions, welcome cultural and learning activities, allow citizens and visitors to explore the city's past and present in novel ways and shape the future of their city. The results point out that

technologies and digital abundance, which include artificial intelligence, blockchain, and Internet of Things, play a crucial role in managing a controlled and automated infrastructure in smart cities. These favor the development of suitable places to live, work, and have fun, with a better quality of life for everyone (Andreia de Bem Machado, Santos, Sacavem, Sousa, 2023).

1.1 SMART CITY AND ITS COMPONENTS

A city has become the place of almost all human actions. Cities were previously places of gathering where basic needs were met; and they have become the places which civilize, domesticate, and politicize themselves (Keleş, 2014). Transforming humanity, cities have also entered into a process of transformation depending on their growing functions. Transforming in different concepts such as sustainable city, ecological city, metropolitan city, and global city, smart developing city approach through the influence of information and communication technologies have become one further transformation experienced by the cities. Smart cities have a significant mission to form more affordable, more ecological, more accessible, more digital and safer cities; that is more sustainable cities. Smart city concept is also included in the literature with different conceptualizations such as technological city, digital city, information city, creative city, learning city (Nam and Pardo, 2011).

Another reason why there are no conventional definitions for a smart city is because smart city approach is considered not only a concept but also an information infrastructure and application system for a city (McFedries, 2014). Thus, it is fed by several disciplines and perspectives. In their research where they addressed the problem of defining smart cities, Nam and Pardo (2011) smart city concepts have definitions such as being an initiative for the solution of urban crises (Washburn et. al., 2010), integrating a technology in which the city can track itself and find solutions (Hall, 2000), establishing connection between anything that is abstract or concrete in the city (Harrison et. al., 2010), giving place to architecture and personal creativeness as a location (Rios, 2008) and creating opportunities in participation and harmony. As it can be understood from the definitions shared, smart cities are interpreted in different ways thereby centering the specialization of each area.

According to the methodology of Boyd Cahen's "Smart Cities Wheel (SCW)" approach which is accepted by the European Union in the planning of the process of transformation into smart cities and tracking the applications, "Smart Cities" consist of six key components, which are smart environment, smart administration, smart economy, smart life, smart society and smart transportation (Turkish Informatics Foundation, www.sehirsizin.com)

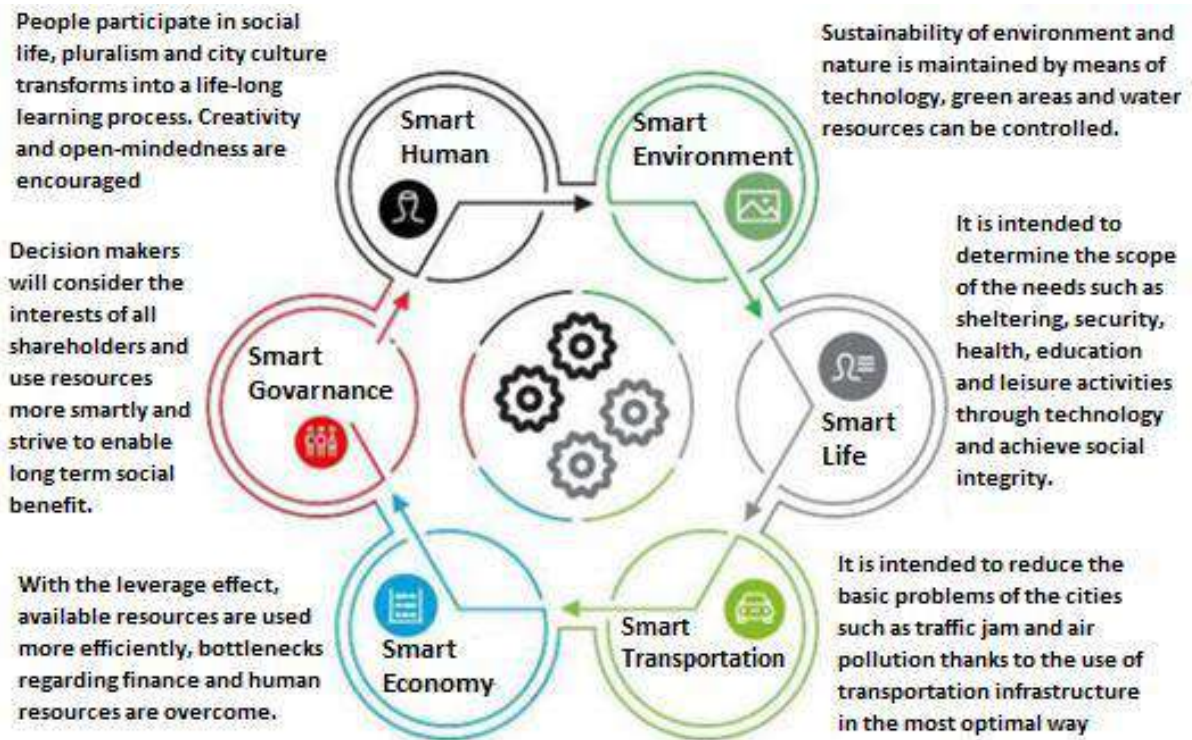


Table 1

Resource: Turkish Informatics Foundation, www.sehirsizin.com, 2016.

As is seen from the figure, each component of a smart city is in conformity with those expected from the previously stated sustainable cities and other urban concepts. The “smart” concept in the expression “smart city” has been criticized since its first day; therefore, several researches have been made for the inclusivity of the meaning of this concept. This is also another reason why the concept of smart city has many definitions and this promotes diversity and the improvement in every substructure today. While examining the definitions of smart cities, it is important to note technological advancement, people’s participation and all other shareholders’ involvement in the process, non-breach of ethical rules such as personal data privacy, and self-improving and sustainable application. Within this scope, smart cities are referred to as the safe, reliable, predictable, environmentalist and efficient urban centers of the future, which are equipped with several sensors, electronic devices and advanced technology like networks. In terms of urbanization, smart cities involve quality of life, increasing efficiency in urban systems, particularly transportation and energy; increasing quality in living quarters, for example reducing air pollution and noise pollution, etc., improving services, increasing competitive powers of the cities (Yılmaz, 2015, p. 7). The benefits of smart cities could be listed as financial, urban life, brand and competitive power and those will lead to advantages in perception. (Turkish Ministry of Development, 2013): As a financial benefit, we can list “reducing capital expenses” to further benefit from capacity and assets; “reducing operating expenses” to give importance to real time data by protective maintenance instead of

repair through less use of service teams; “increasing incomes” which refers to price mechanisms (i.e. public transportation, smart park meters) or demand management tools (i.e. traffic jam billing) to optimize use and increase consumption by increasing quality of service in some solutions. As urban life benefits, we can list higher quality of life for the citizens and those benefits can vary based on the ways of solution produced depending on the problems of that city. For example, reducing time of transportation, high security, accelerating emergency care, etc. For example, if we consider European Parliament’s smart city definition, we see a specific emphasis on local managements and a more limited explanation when compared to 2023 National Smart Cities Strategy and Action Plan. European Parliament’s smart city is referred to as “a city which desires to address public issues by means of information and communication based technologies in a multi-shareholder, municipality based affiliation” (European Parliament, 2014). European Parliament’s smart city approach can be listed with the aspects of smart economy, smart transportation, smart environment, smart people, smart life and smart governance. While those aspects can be seen in several academic studies in Europe, there are other studies which have higher or lower number of aspects in this regard.

Bakıcı et. al. (2012) focuses on the aspects of smart city over Barcelona under the titles of smart governance, smart economy, smart life and smart human. While Giffinger et. al. (2007), Albino et. al. (2015) and Zubizarreta et. al. (2016) addresses the same aspects with the European Parliament; Chourabi et al. (2012) describes smart city in 8 aspects: management and organization, technology, governance, policy, human and society, economy, infrastructure and natural environment. Kasznar et.al. (2021) utters 10 themes under corporate, technology and society aspects. These themes are energy, security, transportation, smart city network architecture, health, structure, land use, hydrology, government and population.

2.Literature Review

Smart Cities transform the urban context to meet the modern urbanization challenges by integrating sustainability, social technology, and quality of living. According to a McKinsey report (McKinsey, 2020), the number of Smart Cities will reach 600 worldwide by 2021. In the last decade, various smart city frameworks have been introduced that have derived mainly from the research departments of large technological corporations. These technology leaders compete, invest, and strive to gain a dominant position in the smart cities’ platform market. IBM in Santander, Microsoft in Buenos Aires, Oracle in New York, Sysco in Amsterdam, Siemens in Masdar (Santana et al., 2016; Brutti et al., 2019) are identified as a few of the smart city platform vendors that implement the connected city vision through the Internet of Things (IoT) and other modern technologies (Aldairi, 2017). We developed a search strategy to identify relevant literature for this systematic search. This search strategy was tailored to two databases: Scopus and Web of Science; the search terms used were: “Smart city” or “Smart city concept” or “Smart city evaluation”. All searches spanned from database inception until 2021 and included journal articles, conference papers, review papers are published in English only. The selection criteria were based on the PRISMA statement (Moher et al. 2009). The search mainly focused on mapping existing literature on smart cities in social

sciences, environmental sciences, economics and finance, computer science, business management and accounting. The search then narrowed to the subject areas, including environmental science, social science and computer science. The search span was from 2011 to 2021, and 19 additional articles from other sources and years. The search was mainly focused on all countries; thus, articles from all countries were included. The study is based only on original research articles, review papers, and conference papers. Abstracts of the articles were checked deeply to analyse and purify the articles to ensure the quality and relevance of academic literature included in the review process. A careful evaluation of each research paper was carried out later. The following exclusion criterion was limiting the documents published in English only. There was 3 articles in the non-English language excluded from the study.

3. Data and Methodology

The debate on the role of cities in the global economy has been intensifying, particularly as an increasingly noticeable concentration of people is being observed in large urban centers. For several authors, it is extremely important to relate socio-economic trends with the characteristics of cities. For these authors, cities function as key spaces in the global economy, where the effects of globalization are observed: strong accumulation and influx of capital, de-industrialization, expansion, and spatial concentration of specific sectors of production and services, segmentation of the labor market, socio-spatial polarization, and ethnic and class conflicts. One of the most important designs of smart and sustainable cities is “technological convergence, and therefore the guarantee of sustainability and a higher level of social cohesion, competitiveness and security at its different levels”. These models necessarily imply an intensive and extensive use of ICT, mainly because “they imply technologies that promote a set of innovations, both technological and scientific, organizational, social and institutional, as well as generate new economic opportunities and social return in the most varied activities. In the educational context, they use computing using machine learning approaches”. Thus, ICT are now considered not only a vehicle for technical progress, but also for reducing inequalities in societies, especially in developing countries. This city model provides, according to the essentials of the inclusive innovation process, greater integration and social equality, that is, greater access to different public services. In addition to facilitating the implementation of environmental protection programs and increasing mobility and sustainable economic competitiveness, smart cities play an important role in providing a set of requirements for quality-based innovation.

The present days reveal that intense urbanization has associated losses of basic functionalities, which significantly affect the life quality of its citizens, point out, in this regard, the following problems: “deficiencies in waste management; scarcity, waste and poor management of natural resources; restrictions on health, education and public security systems; limitations in urban mobility and transport systems; and shortening the life cycle of public infrastructure”. Theoretically, smart cities are fundamental to counter the problems resulting from the intense urbanization that has been occurring over the last decades. Several authors include the notion of “quality of life” in their definitions of “smart city”. Therefore, smart cities ensure more efficiency in the management of scarce resources that society has at its disposal. Being managed “intelligently,” these urban spaces contribute to achieving more utility (in the sense of utilitarianism) from the available resources. This marginal utility

available due to the greater efficiency that smart cities allow to achieve in the management of resources is channeled to guarantee a better life quality for its inhabitants. And, in the twenty-first century, the improvement of people's living standards and the increase in the total utility generated in the territories depend heavily on inclusive policies, which ensure universal access to valences and urban functions whose access is typically conditioned for some population segments. Being the "city" entity, in the twenty-first century, a space of life and encounters, the convergence of social uses, and new models of sharing will continue to bring new life experiences and will give rise to new uses and services in practically all domains of urban intervention. For these reasons, it is crucial to use rationality first in planning and then in managing urban spaces. This premise is fundamental because only then, on the one hand, the use of resources with gains in scale is guaranteed and, on the other, the potential and dangerous social cleavages that may occur in urban spaces are prevented. Nowadays, there are already many examples of services and activities that, using "urban intelligence," promote social inclusion: car sharing, urban public spaces with free connection to the world wide web, distance healthcare (telemedicine), better quality of life for the senior population (digital proximity to many services considered essential for this population fringe), mass online education, open spaces for culture, art and leisure, participatory democracy, collaborative governance systems based on online information, among others. All these aspects of smart cities ensure more effective access to different urban functions and services. The conceptual nature of a smart city is a central model for promoting life quality and inclusion in the broadest sense.

3.1. Digital Divide definitions

The digital divide is a term used to describe the gap or disparity between individuals, communities, or regions that have access to and can effectively use digital technologies, such as computers, smartphones, and the internet, and those who lack such access or face barriers in utilizing them. It encompasses various dimensions, including physical access to technology infrastructure, affordability of devices and internet services, availability of relevant content and digital literacy skills, and socio-economic factors. The digital divide highlights the unequal distribution of opportunities and resources in the digital realm, impacting education, employment, communication, civic participation, and overall social and economic development. Efforts are being made worldwide to bridge this divide and ensure that everyone can benefit from the advantages offered by the digital age.

The digital divide can be defined as the gap or disparity between individuals, communities, or regions that have access to and can effectively use digital technologies, such as computers and the internet, and those who lack such access or face barriers in utilizing them.

Murelli (2002), "The Digital Divide may be perceived to be the gap between those people who have access to the new information and communications technologies and those who cannot."

Islam & Tsuji (2011), "The digital divide is usually measured in terms of people's access to ICTs. It has been applied to the gap that exists in most countries between those with ready access to the tools of ICTs, and those without such access or skills."

Tavani (2003), "The digital divide refers to the gap between those have ready access to computers and the Internet, and those who don't. There is certainly a digital divide between individuals who choose to avoid technology and those who choose to use it (assuming there are no barriers to use) and is one of the individual's own making."

3.2 Causes for the Digital Divide

The digital divide can have multiple causes, often influenced by a combination of factors. Here are some of the leading causes of the digital divide:

1. **Infrastructure and Connectivity:** Unequal access to reliable and affordable internet infrastructure is a significant cause of the digital divide. In rural and remote areas, the lack of broadband infrastructure and limited connectivity options can create Internet access barriers. Additionally, disparities in the availability and affordability of internet service providers contribute to the divide.
2. **Economic Factors:** Socioeconomic disparities play a crucial role in the digital divide. Lower-income individuals and communities may struggle to afford the necessary devices, such as computers or smartphones, as well as the cost of internet access. The upfront costs and recurring expenses associated with digital technology can be prohibitive for those with limited financial resources.
3. **Educational Disparities:** Access to digital tools and technology in educational institutions can significantly impact students' learning opportunities. Schools with limited resources may lack computer labs, high-speed internet access, or educational software, placing students at a disadvantage compared to their peers in schools with more robust technology resources.
4. **Geographic Location:** Geographical factors can contribute to the digital divide. Rural areas, in particular, often face challenges related to the availability and accessibility of Internet infrastructure. Remote locations may have limited or no coverage by internet service providers, making it difficult for residents in those areas to access the internet.
5. **Digital Literacy and Skills:** Lack of digital literacy and skills can be a significant barrier to effectively utilizing digital technologies. Some individuals, especially older adults or individuals from disadvantaged backgrounds, may have limited experience or knowledge about using computers, navigating the internet, or leveraging digital tools for various purposes. This lack of skills can limit their ability to participate in the digital world fully.
6. **Social and Cultural Factors:** Social and cultural factors can influence the digital divide. For instance, language barriers or cultural norms may discourage certain communities or population groups from engaging with digital technologies.

Additionally, disparities in gender or racial representation in the tech industry and lack of inclusive design can contribute to a digital divide among different demographic groups.

The impact of the digital divide on individuals, communities, and societies is profound and wide-ranging. At an individual level, a lack of access to digital resources and technologies hinders educational opportunities, job prospects, and personal development.

Those without internet access or digital skills face barriers in accessing online learning materials, job search platforms, and remote work opportunities, limiting their ability to acquire new knowledge and enhance their employability. This can perpetuate socioeconomic disparities and hinder upward mobility.

Communities also bear the brunt of the digital divide. Access to digital technologies is essential for community development, economic growth, and civic engagement. Without access to the internet, communities may struggle to attract businesses, provide e-government services, or access vital information. This further marginalizes communities and exacerbates geographic inequalities. Moreover, the absence of digital connectivity limits social

connections and isolates communities from opportunities for collaboration, knowledge sharing, and cultural exchange that the digital world provides.

Furthermore, the digital divide reinforces and intersects with other forms of inequality, such as gender, race, and socioeconomic status. Marginalized groups often face compounded barriers, making it even more challenging for them to access digital resources and reap the benefits of the digital age. This perpetuates systemic inequities and deepens social divisions, hindering efforts toward creating a fair and inclusive society.

Addressing the impact of the digital divide is essential for achieving social equity, economic development, and democratic participation. Efforts to bridge the divide must prioritize equitable access to digital resources, digital literacy initiatives, and inclusive design practices. By ensuring that everyone has the opportunity to participate fully in the digital realm, we can foster a more inclusive and prosperous society for all.

Digital literacy can be defined as a “range of complex and densely interwoven communicative forms that are digitally mediated, as well as the mechanical and navigational competence that is a prerequisite to working on a screen” . With the rapid development of digital technologies, individuals are required to use various technical, cognitive, and sociological skills to work and solve problems in a digital environment . These are often referred to in the literature as “digital literacy,” regarded as survival skills in the digital society . Digital literacy is often viewed as a digital divide itself and often understood as skill access in the literature. According to Hargittai , digital literacy emphasizes skills in using digital technologies, representing another dimension of the digital divide (second-level digital divide), which differs from the first-level digital divide initially defined with material access (Figure 1).

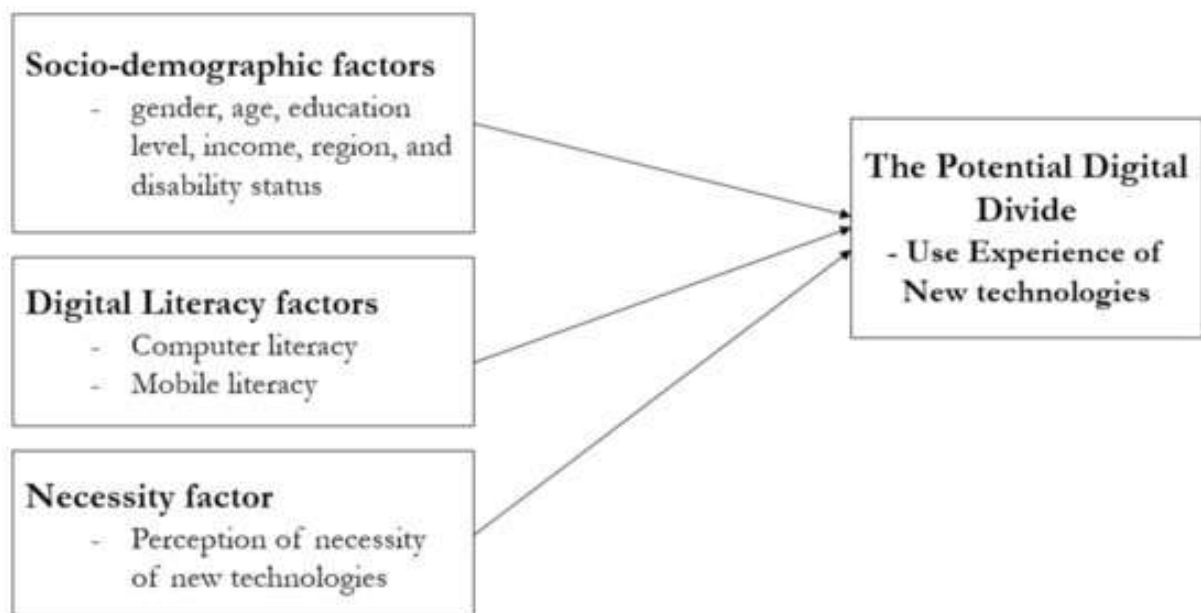


Figure 1. Conceptual model.

4. Results

This research is significant because it develops a new theoretical framework through which to view the division between information ‘haves’ and information doesn’t have within society. The research will illustrate that the digital divide involves more than just the availability of resources and funds to access those resources. It incorporates the internal forces of an individual that motivates them to use or integrate technology into their lives. Using

the Social Cognitive Theory by Bandura (1986) to examine these internal forces this research will add another layer of understanding to the digital divide pyramid. The findings of the study will provide support to the existence of the Social Digital Divide as proposed by Harper (n.d.).

This research is important because it expands current understanding of a phenomenon that has far reaching social and economic implications. The research will allow a more concise understanding of what is and who represents the digital inequality in society. Developing a clear and comprehensive picture of the forces behind the division in society between ‘haves’ and ‘have-nots’ is a vital step in bridging the gap. This research will allow organisations (such as the Brisbane City Council) involved in the digital divide solution, to develop and tailor services and programs to more accurately and effectively narrow the gap between information rich and information poor. As a consequence real steps can be made in bridging the gap between the ‘haves’ and the ‘have-nots’ in society. It will allow for all members of community to have an equal chance of establishing and maintaining productive personal and professional lives in this rapidly emerging digital age .

Descriptive statistics of the use experience with new technologies appear in Figure 2. We suggest the percentage of use experience with seven technologies. All seven technologies have relatively low levels of use. AI speakers ranked the highest among them with 32.07% of samples experiencing it, followed by biometrics, with 25.57% of the total samples experiencing it. Except for these two technologies, other values are extremely low at less than 10%. Approximately 8.67%, 7.61%, and 6.25% of the samples had experience using drones, smart homes, and mixed reality. Self-driving cars and blockchain had significantly lower experience rates with 2.22% and 1.41%, respectively.

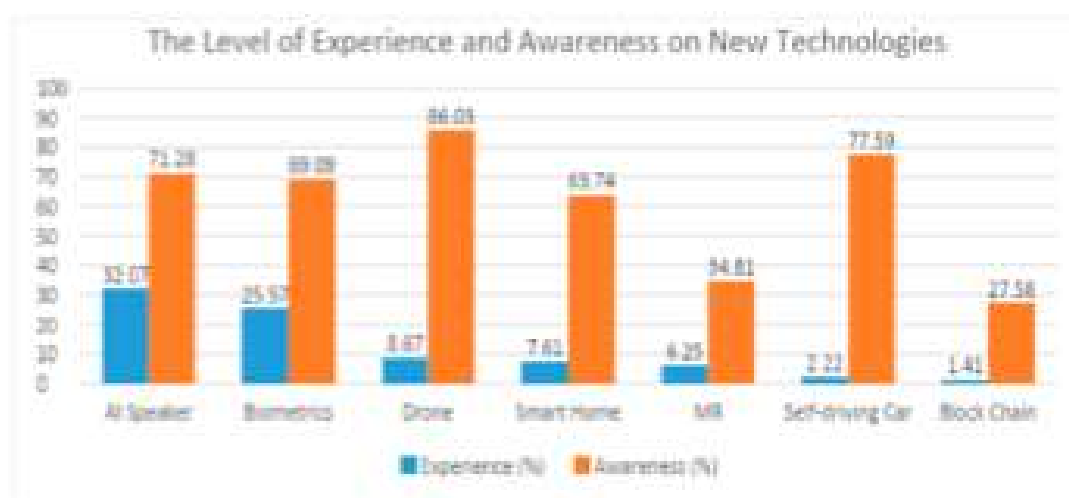


Figure 2. The level of use experience with new technologies.

Overall, digital literacy positively affected the possibility of using new technologies. However, depending on the characteristics of each technology, the types of digital literacy affecting the use of technologies were somewhat different. For example, the use experience for drones and smart homes, based on the mobile network and sensors, is only influenced by mobile literacy. Meanwhile, technologies related to financial investment, such as blockchain, are also used in mobile devices. However, so far, they are more likely to be utilized based on the PC. Hence, blockchain would be affected by computer operational skills rather than mobile literacy. Conversely, the effect of the necessity factor is relatively consistent and influential in the models except for drones. It refers to the perception of necessity for new technologies to play a crucial role in using technologies .

5. Conclusion

The digital divide is a complex phenomenon. Developing a more sophisticated understanding of this phenomenon will aid organisations such as the public library in developing programmes and resources that can more effectively bridge the gap between information and technology ‘haves’ and ‘have nots’. By examining the psychology of the digital divide using Bandura’s Social Cognitive Theory (1986) this study will expand our current understanding of the digital divide and lend support to the existence of the Social Digital Divide .

Furthermore, this study viewed the digital divide as a usage aspect rather than material access and operational skills. In this perspective, we explored the factors that affect the seven new technologies’ use experience. The results indicated that most socio-demographic factors that affect the digital divide on existing technologies still affect the digital divide in new technologies. Although gender has significantly disappeared in the use of new technologies, the results showed that age, education level, and the region still significantly affect the probability of new technology use experience. Furthermore, digital literacy levels and perception of the necessity for new technologies are verified to have a significant positive effect.

These results corroborate that, despite the progress of the information society, the digital divide issue arises and reappears based on the new or evolving technology environment. To be a sustainable and inclusive smart city, thoughtful consideration of diverse social groups of age, education level, and region are needed in smart cities urban policies. Moreover, the results that digital literacy and necessity have positive influences on the use of new technologies imply that continuous and regular education of digital literacy and knowledge for new technologies will be needed in smart cities to encourage citizens’ engagement in smart cities.

The above results of our study can contribute to the literature on the digital divide and provide policy implications to practitioners of smart cities. The digital divide can reappear based on new technologies that emphasize technologies’ usage. Thus, the results of our study support that a sustainable smart city needs preemptive consideration of various social groups’ engagement in society. Smart city policymakers can refer to our study’s results to predict the characteristics of potential citizens and their engagement level of high-tech urban services before introducing advanced services and infrastructure to smart cities. Finally, we suggested policy directions directly drawn to mitigate or prevent potential digital divide problems in smart cities.

Despite these implications and contributions, this study has several limitations. First, we utilized one-year and survey-based data. Second, there were some limitations in the model

estimation because the level of use experience in self-driving cars and blockchain was significantly low. These limitations will be supplemented and resolved in future research.

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Economic aspects of climate change

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ABSTRACT

This paper analyzes certain economic aspects of climate change. Namely, climate changes affect the movement of the gross domestic product, the cost of capital, the balance sheets of financial institutions, etc. Regarding the risks of climate change, one component is the state of physical risks, and the other component is the transition risks. For measuring and quantification of climate risks exists many composite indicators. One of these indicators is the scoring model of the EIB (European Investment Bank). This model has physical and transition components and many dimensions and sub-dimensions. This indicator includes the physical dimension, and dimension of adaptation capacity (included in physical component of the model). The transition component of the model is constructed by exposure and mitigation of the risks. Sub-dimensions of the model are the need to upgrade infrastructure, economic ability to respond to climate changes and risks, institutional capacity and level of energy efficiency. Also exists the Global Climate Risk Index, which measures the most affected countries and regions affected by climate change. One of the indicators of the index is losses of unit GDP in %. Strategies and policies should be constructed to mitigate the losses per unit of GDP. Climate change risk is linked with credit risk for that reason Market intelligence and Oliver Wyman implement a methodology for approximation climate risk exposure on lending and investment portfolios. To better manage climate change, a strategic approach is needed, as well as the development of circular economy and sustainability models.

Key Words: Climate Change, Risk, adaptation capacity, exposure.

In this paper, the findings of numerous types of research on the impact of climate change on economic growth are sublimated. This problem is significant for this stage of the development of this production system to improve the sustainability of economic systems. Climate change represents a risk for the realization of certain economic projects. It wasn't until 2020 that the US central bank listed climate change as a risk. That is why countries are developing strategic plans for climate change management. Namely, the programs and strategies tend to anticipate the risks related to climate change and to support the structural

transformation in the direction of green development. From the point of view of the business sector, business models based on a circular economy are current, the intention of which is a low level of air pollution, waste, etc. Regarding the structure of the paper, after the introduction, a brief literature review will be made, then methodological instruments for measuring climate change will be elaborated, and finally, a conclusion and recommendations for climate change management.

Literature review

Swiss Re institute (2021) notes transition risks of climate changes and finds that Asia can be most impacted. Also in this paper magnitude of the changes.

One publication of UN notes that climate changes can create risks for financial sector.

Framework of analysis

In this segment will be noted any segments as the indicators, channels of transmission the effects of climate changes on economy.

Wade and Jennings in his publication notes that components which be affected on climate changes, global warming etc is the damage on capital stock. Economic system should be provide mechanisms for mitigation the negative effects.

Framework of this analysis is assessment of the potential negative effects of climate changes, magnitude of the effects and measures and mechanisms for anticipation of the effects.

African Development bank for supporting resilience of the economy of the continent in general, prioritize financial resources as the fundamental input.

Financial resources as a basis of climate development

Developmental finances are crucial for setting the basis for climate changes and green development in general. Next, we present any estimations from empirical literature.

Sun et al (2023) presents that sustainable finances are important for pollution reduction. Green finances are push mechanism for green transition and climate changes.

Methodological aspects

In this paper, analyze indicators associated with the climate changes effects of the climate changes. Also, in this paper as a review we analyze the composite indicators, index linked with the climate changes.

Methodological tools for assessment climate changes

In this segment I will present methodological techniques and tools for climate changes assessments.

Miftakhova (2021) in her paper use sensitivity analysis for climate policies. Sensitivity analysis is important for optimal dimensionality of climate policies.

Sathyan et al (2018) in his paper notes the sensitivity analysis of composite indicator climate changes vulnerability index. Vulnerability is essential approach for assessment the resilience of economy on climate changes.

Impact of climate change on GDP

Kadanali and Yalcinkaya (2020) in their paper point to a negative effect of climate change on economic growth using the Cobb-Douglas production function. A Swiss institute in its stress test analysis indicates that the world economy may lose 18% of its GDP if actions are not taken in the context of anticipating the risks of climate change. Akram (2012) points out in his paper that economic growth is negatively affected by climate change, and in its structure, agriculture is a vulnerable sector. Fabris (2019) states in his paper that climate change can affect the balance sheets of financial institutions through the channels of taxation, effects on long-term investments, etc.

Analysis of climate change through a model of uncertainty

One dimension of analysis of climate change impact on the policies is uncertainty. Uncertainty can be defined as the risks which can't be predicted.

Uncertainty is important about expectations on economic subjects. Uncertainty is important in the prediction of climate change.

A Fiscal analysis of climate change

One of the important aspects of the analysis green, environmental and climate change policy, in general, is the government budget through government expenditures as an instrument of public policy. Zhao and Xu (2022) in their paper notes channels of impact budget expenditures on green total factor productivity as an indicator of green fundamentals of economic growth and development.

Climate Risk Index

The climate risk index shows the exposure of countries and regions to certain climate risks.

The latest 2021 Climate Risks Report states that Mozambique, Zimbabwe and the Bahamas are most affected by the impact of extreme weather events in 2019. In the period from Puerto Rico, Haiti and Myanmar are the most affected countries in the period from 2000 to 2019. Developing countries are particularly affected by climate change, due to the low capacity to cope. It is important to note that CovidThe 19 pandemic also affected the direction of international climate policy.

Climate change risk at the national level

Climate change risks can be categorized into two components, physical risks and transition risks, both of which are useful for identifying adaptation capacities as well as their financing needs. As for physical risks, they have direct implications on assets and productivity.

Low-income countries are more vulnerable to physical risks and they have a lower capacity to deal with the challenges of the energy transition, achieving the goals in the direction of low pollution. Furthermore, countries that are dependent on fossil fuel revenues are the most exposed to transition risks in this direction.

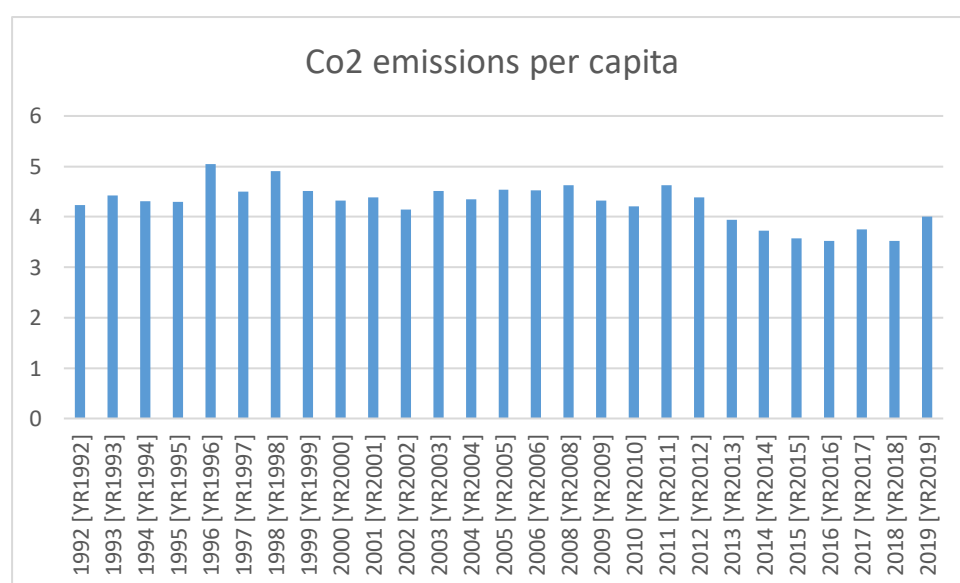
Climate changes in the Republic of North Macedonia

Regarding the strategic management of climate change, a good system for anticipating climate risks should first be established. In the domain of climate change management, it is necessary to increase the volume of financial resources intended for investments that could reduce the risks of climate change. It is also necessary to work on raising awareness of the importance of climate change by organizing tribunals, round tables, etc.

At the level of industries, agriculture is the most exposed sector to climate change. Hence, the incomes of the rural population have decreased as a result of climate change. Namely, in a study by the World Bank, it is stated that the opportunities in agriculture cannot be effectively used due to climate change. For this purpose, it is necessary to develop agricultural institutions that will have the capacity to anticipate climate risks. Also, to strengthen the competitiveness of agriculture, larger investments are needed that will help to improve the absorption capacity of climate change.

Climate change North Macedonia Data

Figure no.1



Source: World Bank(1992-2019) [World Development Indicators | DataBank \(worldbank.org\)](https://data.worldbank.org/)
(Accessed on 27/05/2023)

In this figure, we can see a high level of co2 emissions. Policymakers should focus policies on the optimization and reduction of co2 emissions.

Figure no 1.

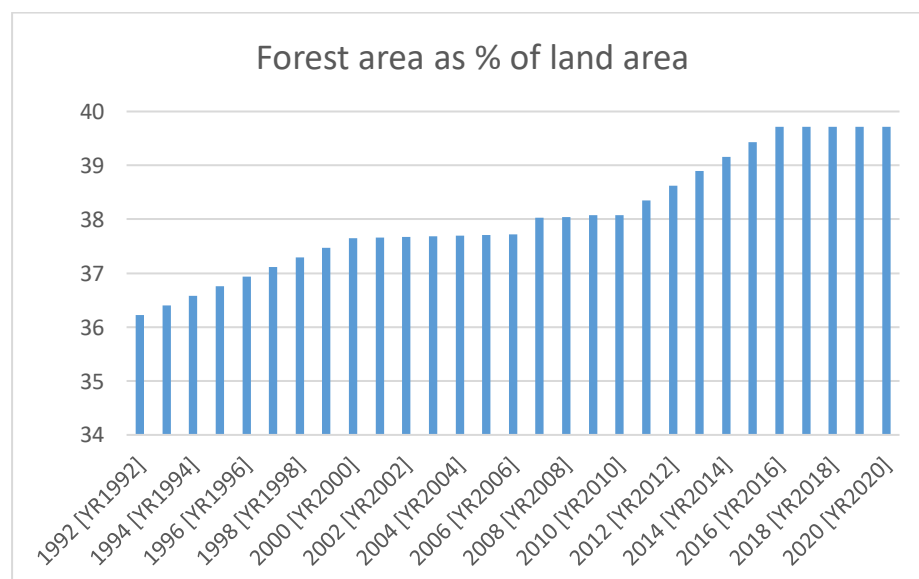
Total Energy Supply (TES)	2014	2019
Non-renewable (TJ)	96 671	102 879
Renewable (TJ)	25 162	18 254
Total (TJ)	121 833	121 132
Renewable share (%)	21	15

Growth in TES	2014-19	2018-19
Non-renewable (%)	6.4	13.7
Renewable (%)	-27.5	-5.2
Total (%)	-0.6	10.4

Source: International energy agency [North Macedonia Europe RE SP.pdf \(irena.org\)](#) ((Accessed on 27/05/2023))

Firstly, North Macedonia should optimize its energy policy in the context of energy transition and renewable energy production on the one side and stability and continuity of the energy system on the other hand.

Figure no.2



Source: World Bank [World Development Indicators | DataBank \(worldbank.org\)](#) (Accessed on 27/05/2023)

Development the model of circular economy for anticipation the climate changes

Namely, the circular economy is defined as an alternative to the traditional linear economy in which resources are used as long as possible, in order to maximize their value, through recovery, reuse, regeneration or recycling of materials at the end of the product's life. (Source: European Environmental Agency)

From this definition, it is evident that if this concept is implemented, we will automatically have better performance on several key economic pillars, namely:

A) Sustainability;

B) Innovation;

C) Productivity;

Namely, by the fact that the materials are retained for a longer period in the process, tending to their maximum utilization, the sustainability of production as a foundation of the economic system is improved. Furthermore, taking into account the fact that for the implementation of this model, better technological equipment of the capacities is needed, innovation will increase, which will have a positive impact on productivity in the Macedonian economy. of the economic policy, then strategic and program documents as well as staffing of the institutions.

Conclusion

To properly anticipate climate risks and deal with climate risks in general, it is necessary to strengthen the capacities for the realization of strategies and plans for climate change. Also, to improve our country's resilience to climate change, effective project management is needed. Within the institutions, efficient change management processes are needed to reduce the negative effects of climate risks.

For better adaptation on climate changes and for better resilience of the economy crucial is clear constructed policies and strategies for decarbonization and low carbon economy.

Also, policies for decarbonization are need on all level in our country. Most important in this context is coordination and coherence of the policies in vertical and horizontal dimension.

For better anticipation of climate risk and reducing the negative effects of the changes in our country, we should detect the circularity gap in the economy. With better readiness of the

economy for implementation circular business models, we build capacities in the economy for waste reduction and sustainability in general.

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ESG TRANSFORMATION IN FUNCTION OF CHANGE MANAGEMENT FOR SUSTAINABILITY

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Abstract

In methodological and empirical meaning, usually arises the challenge of the reasons for the increased importance of the ESG, particularly for advanced and change-oriented businesses ESG is sometimes referred to as sustainable investing, which involves conducting business that provides long-term value without producing any negative effects on the environment or society.

A good ESG strategy includes sustainability factors – such as a company's efforts toward reducing its carbon footprint, going green, encouraging diversity or introducing employee wellness programs. As such, an ESG strategy paves the way for a company to gain investor confidence, earn customer loyalty, reduce operating costs and improve both asset management and financial performance.

ESG should be a transformational, change management effort that touches every part of the business. Otherwise, managers will experience confusion over their role in implementing an ESG strategy, teams will continue to operate business as usual and ESG commitments will go unfulfilled. But leaders who commit to reworking norms, cultivating new behaviors and building new processes will create an environment in which ESG becomes part of the culture and a north star that helps orient all decisions. This, in turn, will position their organizations to lead on ESG and take a meaningful role in addressing the biggest environmental and social issues of our time. Companies need to take an active role in the community, beyond just making a profit. The positive benefits of this strategy include the company's expansion and durability of its success.

The goal of this research paper is to examine the influence of ESG towards the overall competitiveness and sustainable development of businesses.

Keywords: change management, ESG strategy, sustainability

1. Introduction

In recent years, investors have become more aware of the importance of ESG criteria in their investment decisions. As a result, many businesses have begun to integrate ESG into their operations and business strategies. ESG can be considered a subset of sustainability, which is defined by the UN World Commission on Environment and Development as *‘meeting the needs of present generations without compromising the ability of future generations to meet their own needs’*.

Sustainable practices support ecological, human, and economic health, and operate under long-term priorities with an assumption that resources are limited. ESG encompasses three pillars of responsibility:

- ✓ *Environmental:* refers to a firm’s impact on the environment, such as the company’s energy usage, pollution/waste, use of natural resources, and/or positive improvements like switching to renewable energy;
- ✓ *Social:* correlates to a firm’s impact on society and company stakeholders – this can include factors such as product safety, employee treatment and diversity, charitable initiatives, supply chain relationships, impact on local communities, etc.;
- ✓ *Governance:* refers to the company’s internal governance structure. Metrics for governance might include board diversity, accounting policies, executive pay and compensation, ownership structure, and ethical behavior within the higher management chain.

The term **ESG**, was coined by the Global Compact in 2004. However, the notion of incorporating all non-financial factors in business has been around for much longer, some might point to 2001 as the beginning of mainstream ESG with the launch of FTSE4Good indices. ESG influence has grown rapidly in recent years. But sustainable investing and responsible impact in business are not new and has been gaining more widespread acceptance in the past few decades.

2. Literature review

Environmental, Social, and Governance (ESG) goals have become increasingly important for businesses and investors in recent years. These goals reflect a growing awareness of the need to prioritize sustainability, ethical practices, and responsible management to create long-term value and mitigate risks associated with environmental and social issues. As companies worldwide strive to integrate ESG principles into their operations, they face various challenges that must be navigated to make meaningful progress.

The following list outlines nine key challenges organizations encounter when pursuing ESG goals: (Wastebits, 2023)

1. *Defining clear and consistent criteria;*
2. *Data availability and quality;*
3. *Short – termism;*
4. *Integration with business strategy;*
5. *Regulatory uncertainty;*
6. *Investor expectations;*
7. *Greenwashing;*
8. *Limited resources;*
9. *Supply chain complexities.*

In conclusion, pursuing ESG goals is a multifaceted and complex endeavor that requires companies to overcome numerous challenges. Despite these obstacles, the importance of ESG initiatives in fostering sustainable business practices and long-term value creation cannot be overstated. By addressing the challenges identified in this list, organizations can develop more effective strategies and build more robust ESG frameworks that contribute to a better, more responsible business environment.

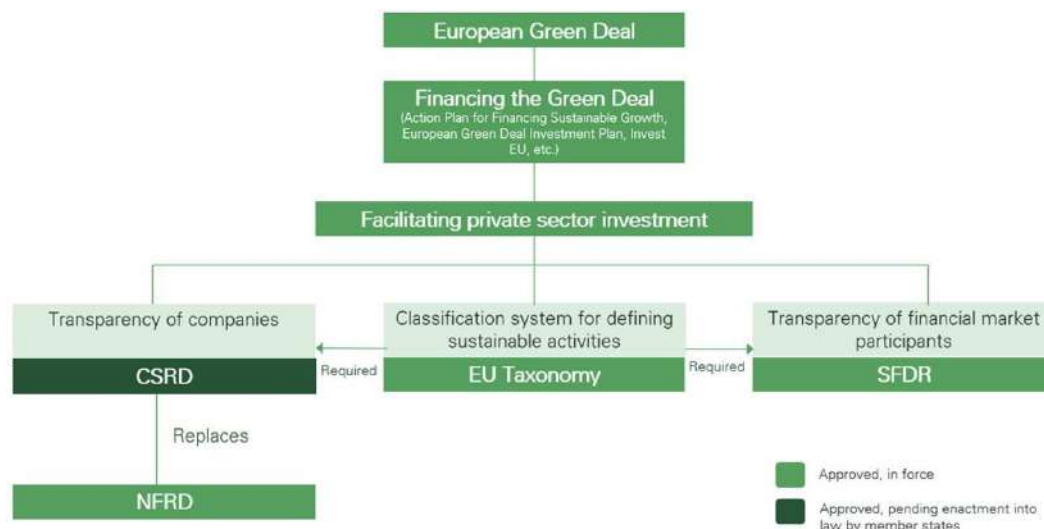
❖ ESG regulation in the EU

The CSRD (Corporate Sustainability Reporting Directive) is part of the European Green Deal, a set of policies and initiatives focused on shifting the EU to a more sustainable, responsible, and digital economy. To help fund the Green Deal, the EU launched the Action Plan for Financing Sustainable Growth that outlines reforms in three areas:

- Moving capital flows toward sustainable investment;
- Mainstreaming sustainability into risk management;
- Fostering transparency and long-termism in economic activity.

The CSRD is a key supporting element of this plan. By requiring companies to disclose finance-grade information on their ESG performance in their annual reports, it will improve the transparency, credibility, and comparability of this data. This will help investors and other stakeholders make informed decisions about the companies they engage with, funneling more capital toward sustainable businesses and investments. It also facilitates greater corporate accountability by encouraging companies to integrate ESG considerations into their business practices. (Trust, 2023)

Figure 2.1 How does the CSRD relate?



Source: <https://www.onetrust.com/blog/ultimate-guide-to-eu-csrd-esg-regulation-for-businesses/>,

Accessed 21 June 2023.

2.1. Socially Responsible Investment

SRI is defined as an investment philosophy that combines ethical or environmental goals with financial goals. (MDPI, 2023) While the historical origin of SRI stems from religious roots that

date back two millennia, the demand for its implementation has increased sharply since the global financial crisis of 2008/2009.

The development of SRI has resulted in the emergence of different terminologies that focus on specific dimensions of investment strategies, such as responsible investing, ethical investment, and green investment. For example, green investment is considered a new subset of SRI, focusing on environmental issues, and is defined as the investment necessary to reduce greenhouse gas and air pollutant emissions without significantly reducing the production and consumption of non-energy goods. Terminological differences can be explained in terms of their cultural aspects. For example, references to responsible investment are commonly used in the United Kingdom, but avoided in France and the United States because they ignore important social aspects.

Much of the literature focuses on comparing the financial performance of traditional investments with SRI. A review of SRI between 1986 and 2012 found that most papers indicate that SRI performance equals that of traditional investments and positively affects SRI activities and financial results. A recent literature review of SRI covered a more extended period (1981–2018) and found five thematic foci: the comparison of SRI with traditional investments, investor behavior, SRI compared with corporate social responsibility, institutional investors, and the construction of an SRI portfolio. In addition, a systematic review of SRI identified three themes, mostly falling into SRI performance studies, followed by investor behavior and SRI development studies. Another study extended the work of Widyawati by finding eight common keywords in the SRI literature: *corporate sustainability performance measurement, organizational studies, market reporting and perspective on SRI, governmental and stakeholder perspective, firm strategy and sustainability, corporate financial perspective, methods and books, ethical/sustainable mutual funds*. Another study classified SRI into four types: *socially based investments that focus on solving social issues, environmental investment, socio-environmental investment, and sustainability*.

According to the Global Sustainable Investment Review in 2020, which provides a global perspective on investment strategies growth of SRI, ESG integration ranks first, followed in order by negative/exclusionary screening, corporate engagement and shareholder action, norms-based screening, sustainability-themed investing, positive/best-in-class screening, and, lastly, impact/community investing. A review examined an investment strategy, mainly referring to ESG

integration, in 190 academic papers from 1975 to the middle of 2009. The authors found that ESG integration is frequently mentioned in the SRI literature.

2.2. ESG Integration

Concerns about the environment have raised global awareness of sustainability issues, thereby shifting traditional investments directed toward profit maximization to those that support sustainability. The current tendency of the integration of sustainability and ESG in the financial market is termed SRI. SRI refers to ESG integration based on an explicit and systematic consideration of environmental, social, and governance factors in the investment decision-making process. The definition of ESG can be broken down in terms of three factors. Environmental factors consider how a company performs as a steward of the natural environment. Social factors examine how a company manages its relationships with its employees, suppliers, customers, and the communities in which it operates. Governance factors include a company's leadership, executive pay, internal controls, audits, and shareholder rights. These factors are used as a set of standards to assess a company's operations when screening for investments. (MDPI, 2023)

Empirical research shows that the effects of ESG on financial markets, as represented in firms' financial performance and value, are being debated in terms of both positive and negative impacts.

A study of more than 2000 empirical findings revealed that most ESG research findings indicate a positive impact of ESG on firms' corporate financial performance. In addition, a positive relationship was found between ESG disclosure and profitability in European firms. A survey of empirical research in accounting and finance literature spanning 45 years also found a positive link between ESG and financial performance.

However, other findings indicate a negative impact of ESG on financial performance.

Most of the literature provides mixed signals regarding the positive and negative market values of ESG reporting. One author argues that a socially responsible market leads to an increased number of stakeholders. Others find a negative impact on market value and recommend improving report quality to mitigate this.

Investors play an essential role in supporting ESG and ethical practices, which is reflected in the literature in terms of the investor-based integration of ESG in decision-making, the process

of investing in managing risks, and improvements to the investment process. However, research has also identified negative effects of investor integration of ESG, such as lack of consideration of the core issues that drive business models and finance, the lack of a business case, poor quality of data, and the absence of clear standards and definitions.

There are references to the manager-based integration of ESG into investment strategies at different levels, ranging from full integration to low integration, and using ESG reporting for reducing risk rather than for maximizing value.

2.3. Firm Sustainability

Addressing sustainability at firm level includes aspects such as the state of product recycling, sustainability issues within operations, strategies and business routines, and business models. Sustainability reputation significantly affects customer perception. For instance, a study reported a positive impact of sustainability (CSR and ESG) on a firm's reputation. Another study suggested that public awareness motivates firms to develop sustainability capabilities. Firm sustainability has been defined as successful adaptation to change and findings opportunities to offer valuable services—delivered efficiently and effectively—by achieving corporate sustainability through environmental, social, and economic factors to enhance efficiency. The management pillars that specifically address sustainability can be classified as follows: (1) corporate strategy, (2) management of human resources, (3) knowledge and innovation management, (4) measurement, (5) disclosure of independent assurance, and (6) integrated management systems. (MDPI, 2023)

The importance of integrating sustainability into a firm's strategy is discussed in the literature. For instance, it has been suggested that greenwashing occurs because of the absence of knowledge of the process of integrating sustainability into business routines and strategies. The authors examined the integration of economic, environmental, and social factors into different firm strategies, which they classified into an introverted strategy for risk mitigation, an extroverted strategy for legitimization, a conservative strategy for efficiency, and a holistic visionary strategy. In addition, another study provided a conceptual framework for linking sustainability strategies with Porter generic strategies. They suggest that radical innovation in sustainability initiatives

leads to positive financial performance. A further study investigated the factors involved in the successful implementation of a corporate sustainability strategy related to organizational structure, culture, leadership, management control, employee motivation and qualifications, and internal and external communication.

The literature on the integration of sustainability into the business model concentrates on identifying features and frameworks, developing archetypes, and visualizing and simulating sustainable business models.

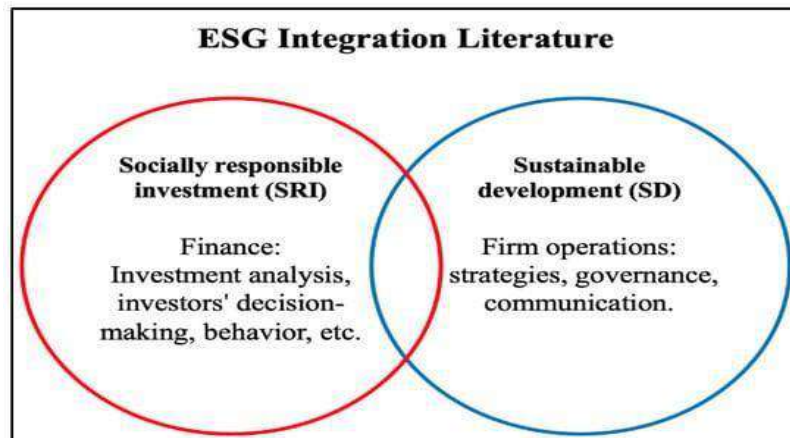
2.4. ESG Integration into Firms: Sustainable Development

The integration of sustainability and ESG into firm operations is referred to as SD. SD has been defined in corporate activities as balancing current sustainability with economic, environmental, and social aspects while also addressing company systems, such as operations and production, the organizational system, governance, assessment, and communication. (MDPI, 2023)

Few empirical studies have examined the impact of ESG on firm operations. The discussion is mostly limited to the positive impact of strategies that consider ESG performance, as well as corporate governance and ESG reporting. A positive impact of regulation on reporting strategies and governance practices is noted in firms becoming proactive in addressing sustainability through communication, transparency, stakeholder engagement, and the improvement of relationships with external resources.

However, ESG as an indicator of sustainability is criticized for not showing the position of firms with regard to the sustainability and trustworthiness of ESG data. Figure 1 illustrates ESG integration in the literature in terms of both investment and internal operations.

Figure 2.4.1 ESG Integration Literature



Source: <https://www.mdpi.com/2071-1050/14/5/2959>, Accessed 21 June 2023;

It quickly becomes clear that real impact will require companies to undergo a fundamental shift in how decisions get made at all levels of the business, from focusing primarily on profit maximization to considering a range of factors and stakeholders. Commitments must therefore be paired with organizational change efforts that empower day-to-day decision makers like this regional manager to work towards and be held accountable to these commitments.

This is business transformation at its purest. Just as a company undergoing a digital transformation would invest in reorganizing their operations, so too must ESG leaders deploy all the change management tools at their disposal to successfully embed ESG priorities into the fabric of the business. Companies committed to ESG must thus create a culture and operating system in which ESG goals are prioritized.

No company can prosper nowadays if it is not involved in the community and the people around it. Companies need to take an active role in the community, beyond just making a profit. The positive benefits of this strategy include the company's expansion and durability of its success.

3. Data and Methodology

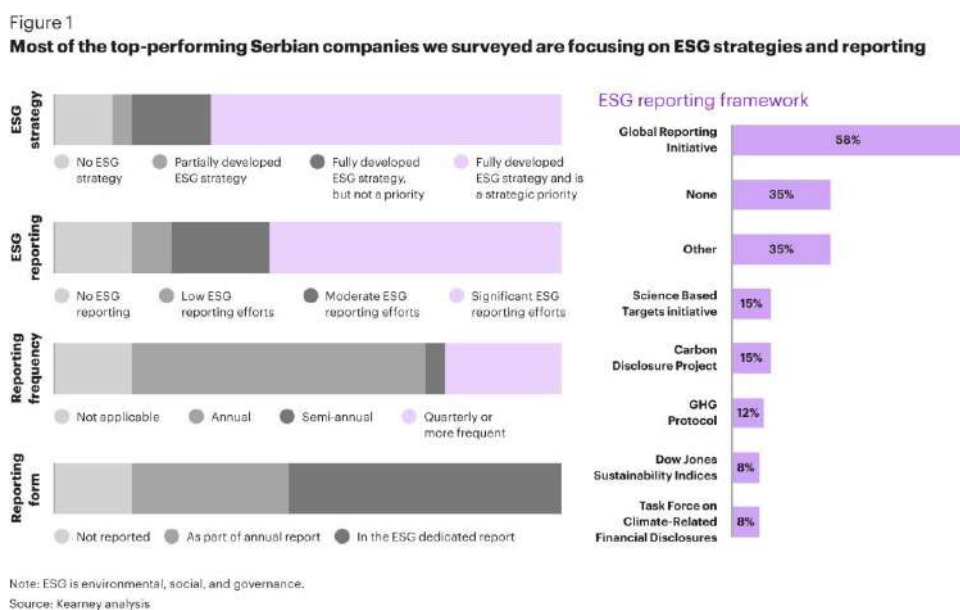
This research discusses the importance of ESG into operations of the business. With growing scrutiny on businesses' role in addressing environmental and social outcomes, many companies are embracing sustainable business practices. Sustainability has become a strategic imperative for

companies as they position themselves for the future. The environmental and social challenges the world faces today are complex and urgent. The stakes are getting higher. That's why value-led sustainability is everybody's business.

The data used are secondary, they are the result of research on Environmental, Social, Governance, Integration into the Business Model. In order to provide a comprehensive and transparent view of the relationship between ESG and business models, the data obtained is based on the SALSA framework. (MDPI, 2023)

❖ The growing importance of ESG for businesses in Serbia

Figure 3.1 ESG strategies: a priority for the top-performing Serbian companies



Source: <https://www.kearney.com/service/sustainability/article/-/insights/the-growing-importance-of-esg-for-businesses-in-serbia-from-strategy-to-reporting>, Accessed 21 June 2023

Figure 3.2 Big versus small: does it make a difference?

Figure 2

Larger companies tend to have a bigger commitment to ESG strategies and reporting

Level of ESG strategy development



Level of ESG reporting development



ESG reporting frequency



Note: ESG is environmental, social, and governance; SMEs are small to medium-size enterprises.
Source: Kearney analysis

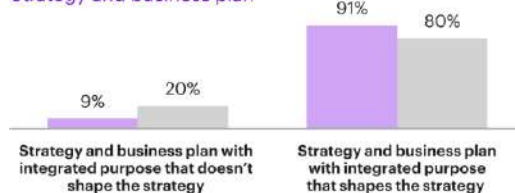
Source: <https://www.kenarney.com/service/sustainability/article/-/insights/the-growing-importance-of-esg-for-businesses-in-serbia-from-strategy-to-reporting>, Accessed 21 June 2023

Figure 3.3 ESG Strategies and business plans

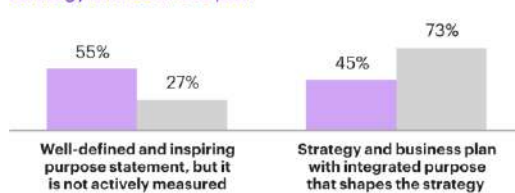
Figure 3

The overwhelming majority of SMEs say the company's purpose impacts its ESG strategy and business plan

Strategy and business plan

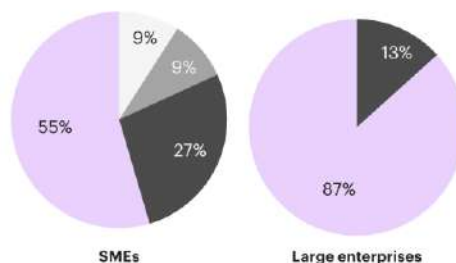


Strategy and business plan



Legend: SMEs (purple), Large enterprises (grey)

Key performance indicators



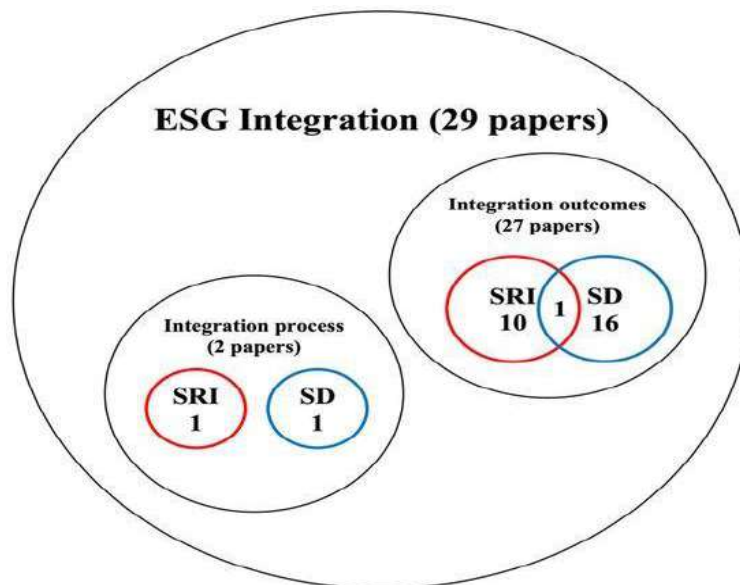
Note: ESG is environmental, social, and governance; SMEs are small to medium-size enterprises.
Source: Kearney analysis

Source: <https://www.kenarney.com/service/sustainability/article/-/insights/the-growing-importance-of-esg-for-businesses-in-serbia-from-strategy-to-reporting>, Accessed 21 June 2023

All of the companies say they have well-defined, inspiring purpose statements. On average, the statement is measured more often within large enterprises. Almost three-quarters of large firms say they actively measure it, compared with only 45 percent of SMEs. In terms of key performance indicators (KPIs), SMEs on average do not connect them with a purpose to the same extent as large enterprises. All large companies say they have both financial and non-financial KPIs. However, 13 percent of large enterprises and 27 percent of SMEs say they don't connect their financial and non-financial indicators with the organization's purpose.

4. Results and discussion

Figure 4.1 Paper analysis results of ESG integration process and outcomes



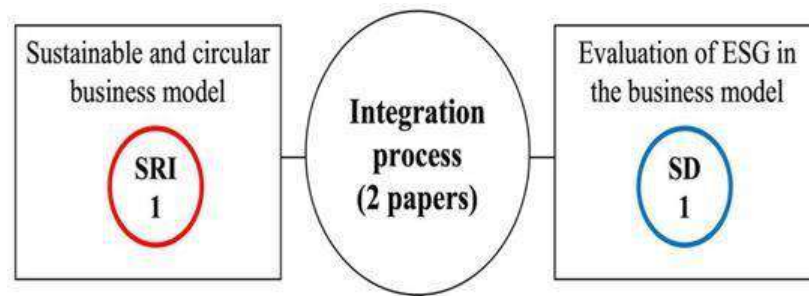
Source: <https://www.mdpi.com/2071-1050/14/5/2959>, Accessed 21 June 2023;

They found that 27 papers conceptualized ESG into the business model as an outcome, they included 10 papers along the lines of SRI, 16 papers following the view of SD, and 1 paper that addressed both SRI and SD. The papers provided only a general conception of the relationship between ESG and business models with no details of how the integration actually occurred. They grouped similar integration outcomes into four dimensions: (1) integration behaviors of ESG, in which the literature discusses the impact of government regulations, investors, and banks on integration behavior; (2) the advantages of ESG integration for firms and investors; (3) ESG

practices, such as an examination of current cases addressing ESG in the business model; and (4) critical views of ESG in the business model. (MDPI, 2023)

Of the remaining two papers, the first examined the integration process based on the SRI view, while the second paper addressed the integration in terms of SD. The latter dealt with a firm integrating the concepts of sustainability and circular economy into its business model through value proposition, value delivery, value creation, and value capture.

Figure 4.2 Integration process

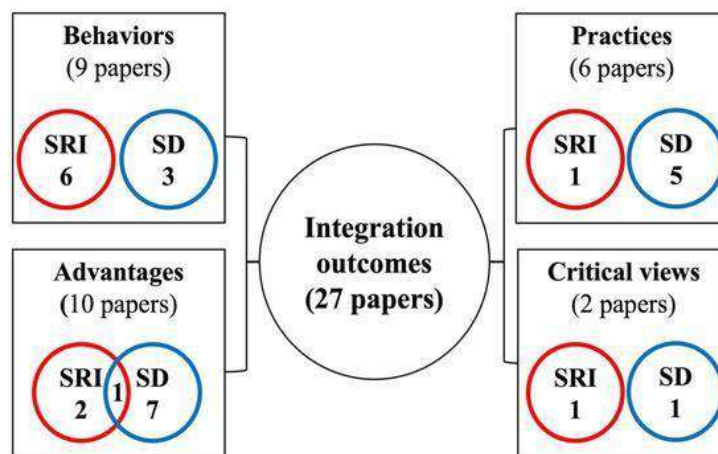


Source: <https://www.mdpi.com/2071-1050/14/5/2959>, Accessed 21 June 2023;

Figure 4.2 shows the two papers that discussed the ESG integration process. The first deals with the integration process from the SRI perspective and supports the evaluation of the firms' ESG performance through their ESG and business model links. The second discusses sustainability from an SD perspective in terms of the four ESG business model elements, value proposition, creation, delivery, and capture. In this case, the business model fosters sustainability.

4.1. ESG Integration: Outcomes

Figure 4.1.1 Integration outcomes



Source: <https://www.mdpi.com/2071-1050/14/5/2959>, Accessed 21 June 2023;

Figure 4.1.1 presents the details of their findings on the ESG integration outcomes, they found nine papers related to integration behaviors, ten related to the advantages of ESG integration, six to practices of ESG, and two papers related to critical views.

❖ Limitations and future changes for North Macedonia

ESG practices are still in the early stages of development in Macedonia, the Macedonian government has taken steps to promote sustainability and encourage responsible business practices in the country. In 2020, the government adopted the National Strategy for Sustainable Development, which aims to promote social, economic, and environmental sustainability in the country.

The inclusion of ESG factors in the Corporate Governance Code highlights the importance of responsible corporate governance practices and promotes transparency and accountability among publicly traded companies in Macedonia. However, it is worth noting that not all companies operating in North Macedonia have fully integrated ESG considerations into their corporate culture.

While some companies have embraced sustainability and social responsibility as core values, others have been slower to adapt to these trends. As such, the degree to which ESG factors are integrated into the corporate culture of Macedonian companies can vary widely. Overall, there is growing awareness of the importance of ESG factors in the business community in North Macedonia, and this is reflected in the country's regulatory framework. However, more work may be needed to fully integrate ESG considerations into the corporate culture of all companies operating in the country.

5. Conclusion

Companies committed to ESG must thus create a culture and operating system in which ESG goals are prioritized. Leaders can start by:

- *Acknowledging the challenges;*
- *Modelling the hard tradeoffs;*
- *Reworking the system;*
- *Empowering decision – makers.*

ESG should be a transformational, change management effort that touches every part of the business. Otherwise, managers will experience confusion over their role in implementing an ESG strategy, teams will continue to operate business as usual and ESG commitments will go unfulfilled. But leaders who commit to reworking norms, cultivating new behaviors and building new processes will create an environment in which ESG becomes part of the culture and a north star that helps orient all decisions. This, in turn, will position their organizations to lead on ESG and take a meaningful role in addressing the biggest environmental and social issues of our time.

❖ Sustainable Investing Principles to Enhance North Macedonia's Corporate Sector

The American Chamber of Commerce in North Macedonia (AmCham), supported by the Center for International Private Enterprise, has launched a project aimed at strengthening the role of the country's corporate sector in building a sustainable and resilient society. The project focuses on integrating ESG principles into business strategies and consists of two main pillars: business awareness and education. (AmCham, 2023)

Under the business awareness pillar, activities will include content creation and the development of an ESG booklet. Further, a thematic ESG conference will be organized to promote understanding and share best practices among companies.

The education pillar involves conducting a readiness assessment to evaluate companies' knowledge and preparedness for ESG implementation. This assessment will be followed by the organization of training courses for companies. The training modules will be tailored based on the assessment results, covering topics such as stakeholder analysis, baseline assessment, and reporting requirements.

The project activities are designed to bridge the knowledge gap, raise awareness, and assist companies in implementing ESG practices.

AmCham aims to be a driving force in achieving an ESG and sustainable investment-compliant corporate sector in North Macedonia. The project's specific objectives are to familiarize companies and stakeholders with the concept of ESG and to enhance companies' knowledge and expertise in integrating it into their business strategies. This will increase visibility and understanding of ESG among relevant stakeholders and promote the development of sustainable business models.

Acknowledgements

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Ethical Standards in Tourism and The Goal of Sustainability

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Abstract

Ethical standards in tourism have attracted an increased attention in recent years due to the negative effect that they could have on local communities, the environment, and the cultural heritage. This has been sustained by media involvement and has generated increased awareness of consumers. This paper aims to explore the attitude of industry stakeholders towards creating ethical standards aligned with the goal of sustainability and to shape a clear vision of what practices consumers currently consider to be able to minimize environmental degradation, social and cultural issues, and the exploitation of Romanian local communities.

Keywords: *ethical standards, sustainable tourism, community tourism, ecotourism, corporate social responsibility*

1. Introduction

Tourism is a key player and one of the most important world's contributors of the economic development. For the countries wealthy in natural resources and landscapes, investing in creation of new businesses related to the industry brings more benefits to the locals and to the state itself (Khayrulloevna, 2020). Investing in tourism, there are more job opportunities for the locals, a fact that shapes a faster and effective rise of cultural awareness and development of people. However, looking in the mirror, it could also have a negative impact on less-developed countries that still do not have the necessary natural and monetary resources. Thus, they are not able to create the greatest experience for tourists, leading it to a costly and long-lasting road to reach the point of gaining profit from the industry (Khayrulloevna, 2020) with no exploitation of communities.

The importance of tourism is on a large scale from any perspective but the impact that it could have on different communities depends on the resources they possess. Besides this, the stakeholders need a clear understanding on how to promote responsible tourism and how to implement effective practices in order to preserve the positive surface and to not transform it into a negative one even for the rich countries. Through responsible tourism, we refer to the recognition of the "importance of cultural, integrity, ethics, equity, solidarity, and mutual respect, placing quality of life at its core" (Jamal, 2019). Hence, this study seeks to discover what the attitude of the tourism industry stakeholders is towards sustainability considering that their pragmatism constitutes a main factor that could set the "benefits in terms of environmental protection and socio-cultural conservation" (Georgia Yfantidou, 2016).

In the last decade, the use of social media increased becoming “a key element for the companies as a way to communicate products and services to consumers (Gómez-Calvet, 2020). Regarding sustainable tourism and ethical standards adopted by organizations, social media helped travelers to expose their own experiences by posting reviews on sustainable options such as eco-friendly accommodations (Gómez-Calvet, 2020), influencing by this the holiday choices of people. To understand better the quality of the sustainable tourism, this research paper is searching for practices that are taken into consideration by organizations in order to align ethical standards with the goal of sustainability, making their services the best option for tourists.

Explicitly, this research paper aims to answer to the following research questions:

1. What is the attitude of the tourism industry stakeholders towards sustainability?
2. How are the ethical standards aligned with the goal of sustainability?
3. What practices do the consumers consider currently to minimize the negative effects such as environmental degradation, social and cultural issues, exploitation of local communities?

By answering to these questions, the paper contributes by establishing a better understanding of what practices are considered effective and how aware are all included parties about the necessity of creating long-term responsible tourism. Another contribution is the possibility of proposing solutions regarding awareness-rising of the stakeholders, depending on their actual attitude and mindset.

This paper is structured as follows. Firstly, it starts by reviewing relevant research on sustainable tourism and its alignment with the ethical standards, an analysis of the main concepts and theories being conducted. Following, the design of the research methodology is explained together with its structure and choice insights. Finally, a discussion based on the data results and a conclusion with limitations and future research implications are shaped.

2. Literature Review

2.1. Ecotourism and the ethics in sustainable tourism

Ecotourism, firstly appeared in 1980', also called “responsible tourism” or “green tourism” (Hussain, 2022) refers to the fact that the “host community receives the benefits” (Hussain, 2022) from a traveler’s adventure. The principal objective of ecotourism is to create “long-term sustainable development (Lishan Xu, 2021). The benefits could be results from two different types of impacts that the concept could have on the community. Firstly, there are direct impacts which could be translated in the profit made by the local business (Hussain, 2022) such as accommodation or restaurants. Secondly, we can talk about indirect impacts that are related to the community’s gains when the restaurants supply themselves with products from local food providers (Hussain, 2022). However, because of lack of public awareness of responsible tourism, “the increase in tourists has brought a series of negative impacts on the local ecological environment, including disrespect for local culture and environmental protection” (Lishan Xu, 2021). All these points lead to more finances invested, the need of new policies and establishment of ethical considerations to be re-examined for an efficient sustainable development. (Lishan Xu, 2021)

2.2. Corporate Social Responsibility (CSR)

Corporate Social Responsibility or CSR could be defined as the concept that the responsibility of a business is to take into consideration the social and environmental impacts that its actions could have on the community, not just acting for profit (Yinyoung Rhoua, 2020). However, most of the companies that have already implemented CSR policies are not taking the responsibility seriously, using the initiatives as a branding tool or to foster better public relations (Tamvada, 2020). Thus, the transparency of the organization practices decreases, leading to low management, changes at the environmental level becoming invisible, inefficiency being created. In 2014 a research conducted by Ernst & Young on the Romanian market, revealed that 74% of the top managers said that their CSR practices have the major reason to contribute “especially for recognition, visibility and notoriety” (Cătălina Crișan-Mitra, 2015). Creating a credible CSR strategy has become an outstanding challenge among large companies (Cătălina Crișan-Mitra, 2015) due to the multinational culture that is hard to be adjusted to each community.

2.3.The Concept of Community Tourism (CBT)

Defining CBT as Nicole Hausle did, it “is a form of tourism in which mainly local people develop and manage” (Huong & Hang, 2021) how “the economic benefits from tourism will stay in the local economy.” (Huong & Hang, 2021) However, if the concept does not have a good strategy and planning, it can lead to problems such as environmental degradation. (Huong & Hang, 2021) By environmental degradation, we mean all the factors that have a negative impact on human health, air quality, natural resources etc., such as CO2 emissions (Rahman, 2020).

In a research conducted in 2019 in various locations from Romania, community tourism had helped small rural communities such as Sâncraiu to become a tourist destination, concept “which contributed largely to the visibility and appreciation of the village” (Kinga Xénia Havadi Nagy, 2019). The strategy adopted by the locals sustained the beautification of the destination and at the same time the preservation of engagement at the local level so that no external interventions to enter in their economic activities. Besides accommodation and restaurants services, the inhabitants worked together in development of a transport company, souvenir production, groceries, etc. (Kinga Xénia Havadi Nagy, 2019)

3. Data and Methodology

As this research paper is written to understand better the personal opinions and how people experienced ethical standards and sustainable practices of tourism, a qualitative constructivist approach was considered appropriate (Loraine Busetto, 2020). The paper is built on a cross-sectional case study strategy, the focus of it being on the investigation of how ethical standards contribute to a sustainable future in the Romanian tourism market. The advantage in using this research design is because it “has the capacity to generate insights from intensive and in-depth research into the study of a phenomenon in its real-life context, leading to rich, empirical descriptions and the development of theory” (Saunders, Lewis, & Thornhill, 2016). The research has an exploratory purpose which is a mean “to ask open questions to discover what is happening and gain insights about a topic of interest” (Saunders, Lewis, & Thornhill, 2016). An inductive approach was used, primary data being explored and analyzed. This approach helps the paper because it seeks “to harness the potential qualitative data offer for nuanced, in-depth and sometimes new understandings of social issues” (Virginia Braun, 2020). Additionally, secondary

data was gathered from various literature reviews and case studies conducted in the past years based on responsible tourism and ethical standards needed to support it.

In order to guarantee the confidentiality of the participants no personal data was stored.

3.1.Data Collection and Sampling

The research was conducted in Romania using an online anonymous qualitative survey with twelve open-ended questions (Virginia Braun, 2020) among subjects with ages between 23 and 61 years old. All the respondents are Romanian stakeholders of the tourism industry possessing essential knowledge about the topic (academics, tourists, project managers in tourism, touristic guides, local residents). The survey was sent via email to all participants and acknowledge them about the confidentiality of their data. The survey contained twelve questions, with an average of three per research question. A purposive technique was used, a small number of participants related to the tourism industry being reached, highlighting the nature of the case study approach (Saunders, Lewis, & Thornhill, 2016). Also, a combination with the snowball technique was applied, the respondents having the liberty to choose if they are willing to participate in the research and to nominate qualified subjects to participate in with no probability of participation of individual outside the tourism area.

3.2.Data Analysis

The data carried out a thematic analysis, an inductive coding being conducting during the process. This helps the researcher to organize “data into categories” (Saunders, Lewis, & Thornhill, 2016) and “a relationship may begin to suggest itself between specific codes” (Saunders, Lewis, & Thornhill, 2016). The analysis of data was carefully conducted and passed through six steps: familiarization of the researcher with the data, generation of codes, search of suitable themes and review, describing and naming, report writing (Stronza, 2011).

4. Results and Discussion

The conducted research provided sufficient and valuable information in order to sustain the goal of the paper.

All the respondents emphasized that sustainability is very important to tourism industry having a major impact on the environment. To sustain this, they shared some practices taken into consideration by organization to ensure a more sustainable future, and the answers were strongly linked to education:

"A step would be the promotion of sustainable tourism, to introduce sustainability as a mandatory school subject, and to educate people based on it..."

Other practices underlined by the participants were the reduction of carbon footprint by implementing circular economy, production of green energy, implementation of virtual tourism or green travel transport, and overtaking net emissions polluting companies in order to protect the existent touristic destination. However, to implement these practices the organizations faced some challenges such as insufficient funds to implement them in a proper way or encountered difficulties when it comes to education:

“Instilling new values in their employees and teaching them about sustainability might also pose challenges at the ground level, especially when it comes to a workforce that is not educated when it comes to this subject and that is resistant to change.”

Beside this, the low involvement of the public authorities constituted a main factor in sustaining the implementation of the purposed practices, together with the bureaucratic paperwork.

Before implementation of sustainable initiatives, organization have to aligned them with ethical standards. Asking the subjects what the organizations should do in order to prioritize ethical considerations, they mentioned the implementation of a Code of Conduct and clear organizational values based in sustainability. Thus, the level of awareness could increase, developing an ethical behavior and visible care of the environment. Nevertheless, challenges such as using the practices just as a branding tool appeared in the survey:

“The challenges that intervene in the given context relate to the difficulty of harmonizing divergent interests (from the individual level to the group or even societal level).”

Another issue identified in aligning ethical standards with the sustainability goal is to make all stakeholders understand why sometimes even if a sustainable action seems to be the right choice, ethical concerns might contradict it:

“For example, building wind turbines might seem like a good way to create clean energy, however in order to achieve this, you need to cut down a forest and disturb the lives of the animals living there, then it might not be the right course of action after all.”

In order to mitigate the negative impact on environment of Romanian local communities, the subjects identified some actions that the organization have already implemented successfully. Multiple organizations collect plastic waste and some of them are transforming the waste in reusable products such as shopping bags. This implemented action was supported by the tourist aware of the sustainable importance, but the challenges were with those who saw it just a norm.

Implication of all types of stakeholders in the decision-making process is crucial for development and implementation of sustainable practices. One common idea exposed by the survey subjects is represented in the following participant's response:

“I believe it is important that local leaders are consulted when it comes to sustainability practices, because they know the community the best and have a better chance of painting an accurate picture of what the impact of those practices is going to be on the local community. [...] Activists and NGOs can also help by raising concerns related to the environment, that perhaps the business did not take into consideration.”

Social media as a tool of reaching people was also present as a way of raising awareness among stakeholders. By creation of government-owned campaigns and communicating the results of sustainable actions were outlined means of educating the population. Also, a contributing factor

described the initiative of the tourism business of informing tourists about local practices and culture.

5. Conclusion

Overall, the research demonstrated that the attitude of the tourism industry stakeholders is crucial in implementing efficient sustainable practices. It is important not only to create a policy, but also to put it into practice so that greenwashing to be avoided (Tamvada, 2020). Moreover, the relationship between ethics and the sustainability is strong bonded due to the need of transparency and accountability. Creating initiatives just for financial reasons is a mislead of sustainability and slows the awareness process.

6. Acknowledgement

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Financialization and its Consequences, a brief review

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Abstract The purpose of the paper is to provide a brief review of the literature on financialization. To this end the paper exposes the basic ideas of proponents and critics of financialization and outlines the basic channels through which financialization affects the economy and the society.

Keyword: Financialization, Financial Sector Expansion, Investment, Production, Credit

JEL Classification: A10, F00

1. INTRODUCTION

The last 4 decades have witnessed a strong expansion of the financial sector (FS) worldwide. The increased share of the FS in economic activity, especially in advanced economies, is reflected in the upward trend of the ratio of the FS profits to GDP. For example, this ratio in the US economy was 40% in the early 2000s (i.e., 4 times higher than the 1950-1985 average of 10%) (Epstein 2015).

The same period has witnessed an increasing participation of non-financial firms (NFF) in financial activities. According to some scholars, the investment interest of NFF has shifted away from traditional activities in favour of portfolio investments (Lapavitsas 2013; De Souza and Epstein 2014).

A large strand of the economic literature uses the term “*financialization*” to describe the rapid expansion of the FS. According to Epstein (2005), financialization is defined as “*the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of domestic and international economies*”.

The purpose of the present paper is to briefly review the literature that studies the phenomenon of financialization and its consequences on key socioeconomic variables.

2. Defining financialization

The concept of financialization owes its popularity to the rapid expansion of financial activity across advanced economies during the last 3 decades of the last century. So, it is frequently suggested that the beginning of financialization coincides with the processes of financial deregulation, integration and innovation that were intensified over the same period. Some other scholars, however, suggest that financialization is an ongoing economic process with its starting point situated at the dawn of societies with markets (Graeber 2011; Sawyer 2014).

Given the multidisciplinary nature of the literature on financialization, the precise meaning of the term is a source of some controversy. At a macro level of analysis, Palley (2008) defines financialization as the “*the elevation of the significance of the financial sector over real sector, the transfer of income from the real economy to the financial sector and the increase in income inequality combined with wage stagnation*” whereas Krippner (2005) describes it as “*a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production*”. Adopting a micro level approach, Martin (2002) states that financialization “*insinuates an orientation toward accounting and management into all domains of life*”.

How important is financialization to the construction of an efficient economic system? What are the implications of financialization on economic growth and other key socioeconomic variables? Depending on the answers provided to these questions, one may distinguish roughly between two schools of thought: The traditional (neoclassical) view and the critical view that departs from mainstream economics.

3. The traditional view on financialization

Proponents of the traditional view suggest that the evolution of national financial systems is an integral part of economic development. So, nations’ economic growth is naturally accompanied by the expansion of their FSs. In this respect, the term used to describe the rapid expansion of the FS is financial development or financial deepening.

According to this view, the richer is the mixture of financial instruments, markets, and intermediaries the faster is the pace of economic growth countries can obtain. Specifically, it is claimed that via (a) risk diversification, (b) information processing and spreading, (c) transformation of illiquid assets into liquid ones, (d) screening and monitoring of borrowers, a highly developed and efficient FS directs an economy’s savings to its most productive uses thereby leading to higher economic growth.

On a micro level, it is claimed that a rich set of financial instruments ameliorates households' access to illiquid, risky but high return investments. In this regard, the FS is viewed as a vehicle for the “democratization” of economies through a more equal distribution of wealth among its economic agents.

Early empirical studies that share the same spirit with the traditional view have shown that there exists a positive correlation between financial development and economic growth. However, more recent studies with richer data sets that capture the over-expansion of the FS show that the FS and economic growth exhibit an inverted U-shape relationship. This means that after a critical point, further expansion of the FS can have detrimental effects on growth as capital is directed to unproductive uses (Fagiolo and others, 2017¹; Beck et al 2014).

4. The critical view on financialization

Contrary to the traditional view, the critical view asserts that financialization is detrimental to economic growth. The explanation goes as follows: when “too much” capital is “intermediated”, as it happens to be the case over the last 40 years, a large part of it goes to unproductive projects or simply is recycled to financial instruments. In this way, modern economies become highly dependent on the FS (Sweezy, 1995)² and thus prone to minor or major financial crises (Battiston et al, 2018).

Another channel through which financialization exerts a negative impact on economic growth is related to NFF R&D activities and innovation. Specifically, it is claimed that the separation between agents who “risk and invest” in long-term projects and agents who simply finance these activities in the expectation of short-run profits creates a conflict of interests that results to insufficient investment in R&D activity. This logic of short-termism explains also why many companies use loanable funds and/or profits to finance share buybacks instead of productive investments.

Regarding inequality, the thesis of the critical view is that financialization has contributed to the economic inequalities in several countries. Kus (2012), for example, detects a positive relationship between indicators of financialization and economic inequality in 20 OECD countries for the period between 1995 and 2007. Lin et al (2013)³ show that financialization can explain more than half of the decline in the rate of labor remuneration. In general, it seems that financialization either directly or indirectly favours top income earners by (a) weakening trade unions and labour laws that guarantee a minimum wage (Kus 2012), (b) exerting pressures for tax

¹ Cited in Battiston, Guerini et al (2018).

² Cited in Aalbers (2019).

³ Cited in Battiston, Guerini et al (2018).

cuts on high incomes (OECD, 2014)⁴, and (c) demanding monetary policy actions that support the FS during financial turbulence (Battiston et al. 2018).

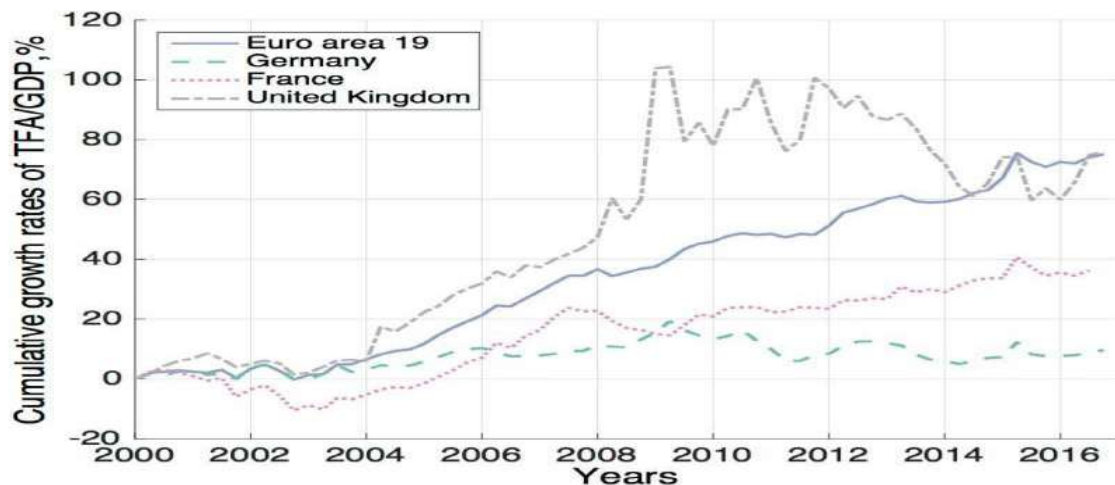
The overall conclusion of the critical view is that financialization fosters instability forces and accelerates the internal contradiction of market economies. In this sense, financialization is considered as a phenomenon so powerful which it could lead to the transformation of moder economies and societies.

5. Empirical Evidence of Financialization

To assess the degree of financialization either at an economy-wide or a sectoral level, the related empirical literature has proposed several measures. Battiston et al (2018) make use of the ratio of Total Financial Assets to GDP and the ratio of **Property Income Receivable (PIR)** of NFF to their **Gross Entrepreneurial Income (GEI)**.

As Figure 1 conveys, apart from Germany, financialization in the Euro Area exhibits an upward trend over the period 2000-2016. Using the second ratio, the analysis in Battiston et al (2018) reveals the increasing importance of finance as a source of profits for NFF in the Euro Area over the same period. In France, for instance, NFF income from financial activities made on average 30% of gross entrepreneurial income.

Figure 1: Total Financial Assets (TFA) to GDP



Compound growth rates of the macroeconomic measure of financialization for the Euro Area 19 and for largest EU economies. Financialization (y-axis) is measured as TFA/GDP. Each year has then been rescaled to obtain growth rates using the following formula: $(TFA/GDP)_t / (TFA/GDP)_{2000} - 1$. Source: authors' computations based on the ECB Data Warehouse.

Source: 'Financialization in EU and its Consequences' Battiston, S. Guerini, M. et. al. (2018)

The rising debt of the real sector either in absolute terms or in relation to GDP is another strong indication of the increasing role of finance in the operation of the economy. For example, drawing data from US national accounts and comparing GDP growth rates with the growth rates of NFF debt during the period 1973-2005 one finds

⁴ Cited in Battiston, Guerini et al (2018).

a significant difference: The debt of the NFF has increased by 1405% while GDP has increased by 760%.

Increased profits from financial activities and high debt levels of NFF in advanced economies would raise less concern if these sources of funds were used to finance productive investments. According to Mazzucato (2021), however, “...*most finance goes back into finance*...” thereby leading to higher degrees of financialization of the real sector. The figures reported by Mazzucato (2021) are impressive: During the period 2009-2019 the Fortune 500 companies spent more than \$4 trillion on paybacks and dividend pay-outs with the six biggest airlines of the US spending (on average) 96% of their income on stock buybacks.

Turning firms to households, there is growing evidence that the household sector either directly (via portfolio investments and borrowing) or indirectly (via pensions and insurance decisions) is highly involved in the financialization process. During the period 1995-2017 a vast expansion of credit supply coupled with a significantly downward trend of labour income share led to the expansion of household debt. With households seeking to maintain their consumption profiles (Barda and Pivetti, 2009) bank credit for consumption purposes substituted for wage growth in most OECD countries (Konzelmann, 2019). Using OECD Household Accounts data, Michopoulou (2020) studies the evolution of household debt ratio to household disposable income in the Eurozone for two successive time periods: 1995-2005 and 2006-2017. Despite variations across Eurozone countries, the findings of the study reveal substantial increases of the mentioned ratio for all countries except Germany. For example, the number of member states with (annual) household debt exceeding (annual) disposable income jumped from three during the period 1995-2005 to thirteen during the second period of the sample. Another salient feature that stands out of Michopoulou’s study is the rapid increase of household borrowing in Eurozone countries with the ratio’s rate of increase between the two periods ranging between 21,1% (Austria) and 508% (Lithuania).

Not surprisingly, the leading role in the financialization process is attributed to the financial sector itself. Via financial innovation and the creation of new financial instruments, financial intermediaries have managed to lessen regulation constraints, reduce financial transaction costs and, at the same time, attract more and more funds from the real sector and direct these funds to portfolio investments. In this regard, financial innovation (along with capital account liberalization) has become an integral part of the financialization process (Vercelli, 2013). Examples of financial innovation include asset backed securities such as the Collateralized Debt Obligations (CDOs) and Collateralized Loan Obligations (CLOs). CDOs flourished before the 2008 Global Financial Crisis with the size of the global underlying market ranging between \$1.2 and \$2.4 trillion in 2007 whereas CLOs experienced a significant growth after the GFC with the global CLO market estimated to amount to around \$1.8 trillion in 2018 (BIS, 2019).

6. Conclusion

Recapping, financialization affects social, economic and political life. The phenomenon grew rapidly in the past decades and can be described as the elevation of the significance of the financial sector over the real sector. A rich mixture of financial instruments and well developed financial markets can create fertile ground for an efficient financial system that directs capital to its most productive uses thereby leading to higher economic growth. On the contrary, from a more critical point of view, the literature showed that financialization promotes short-termism and the maximization of shareholder value, amplifies inequality and socioeconomic insecurity, and macro economically speaking, shifts liquidity from productive investment in industrial capital, to unproductive investment in financial institutions.

Looking on some empirical evidence we found that the process of financialization exhibits an upward trend and finance plays an important role as a source of profits for NFF, over the period 2000-2016 in the Euro Area.

Furthermore, households raised their debt ratio to disposable income to make up for the loss in labor income share to GDP and maintain their consumption profiles. And finally, financial innovation and ABS markets (such as the CDOs and CLOs markets) flourished at least till the GFC of 2008.

Last but not least, we quote some policy recommendations on the matter as sighted in Battiston et. al. 2018 (a) fostering the demand in the real sector, (b) establishment of mission-oriented programs by the state that go beyond just fixing the usual market failures, (c) encourage the alignment of top managers' compensation schemes with long-term profit goals, (d) setting a minimal ratio on banks for lending to the real economy, (e) setting a maximal level of intra-financial leverage for financial institutions.

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Food crisis in the Balkan countries - macro-policies and sustainable agricultural reconstruction

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Abstract

This paper examines the food crisis in the Balkan countries and explores macro-policies and sustainable agricultural reconstruction as potential solutions. The Balkan region has faced a number of challenges, including economic instability, political conflicts, and climate change, which have contributed to the food crisis. This paper analyzes the effectiveness of macro-policies such as trade liberalization, agricultural subsidies, and investment in infrastructure, and also explores sustainable agricultural practices such as organic farming, agroforestry, and conservation agriculture. By examining case studies from the Balkan region, this paper argues that sustainable agricultural reconstruction can provide a long-term solution to the food crisis, while macro-policies can offer short-term relief. The paper concludes by highlighting the need for a multi-stakeholder approach to address the food crisis in the Balkans, which includes collaboration between governments, civil society, and private sector actors.

Keywords: Balkan countries, food crisis, macro-policies, sustainable agricultural reconstruction, economic instability, climate change, agricultural subsidies, organic farming

JEL code: O-11, O-13

Introduction:

The Balkan countries have faced numerous challenges in achieving food security due to historical conflicts, political instability, and limited resources. The current food crisis has exacerbated these challenges, affecting both rural and urban populations. This paper aims to address the food crisis through macro-policy measures that focus on sustainable agricultural reconstruction.

1. Historical Context:

The historical context of the Balkan countries is intricate and has significantly shaped the region's current socio-economic and agricultural landscape. Several key historical factors have contributed to the challenges faced by the Balkans in achieving food security and agricultural sustainability:

1.1 Ottoman Legacy:

The centuries-long Ottoman rule in the Balkans left a lasting impact on the region's agriculture and land ownership. The Ottoman Empire's centralized control over agricultural resources and

taxation systems often stifled local development and hindered the growth of modern agricultural practices. The legacy of unequal land distribution and limited agricultural innovation persisted even after the Ottoman Empire's decline.

1.2. Post-World War II Reconstruction:

After World War II, many Balkan countries underwent reconstruction and attempted to modernize their economies. However, political factors such as the Cold War rivalry and the establishment of socialist regimes influenced the agricultural policies in the region. Collectivization and state-controlled agricultural systems were implemented, often leading to inefficiencies, reduced incentives for farmers, and neglect of sustainable practices.

1.3. Disintegration of Yugoslavia:

The disintegration of Yugoslavia in the 1990s due to ethnic conflicts and wars further disrupted agricultural production and distribution. Agricultural infrastructure, trade routes, and supply chains were severely impacted, leading to food shortages and insecurity. The displacement of populations and destruction of farmlands compounded the challenges faced by the region.

1.4. Transition to Market Economies:

The transition from socialist to market-oriented economies in the post-Cold War era brought about economic reforms, but also posed challenges for the agricultural sector. Privatization of land and agricultural enterprises often led to fragmentation of land holdings and a lack of coordinated agricultural development.

1.5. EU Integration:

Several Balkan countries aspire to join the European Union (EU), which has influenced their agricultural policies and practices. The process of aligning with EU standards and regulations has led to efforts to modernize agricultural sectors, but it has also presented challenges in terms of competition and meeting stringent requirements.

1.6. Climate Vulnerability:

The Balkan region's geographical location has exposed it to various climatic challenges, including extreme weather events, changing precipitation patterns, and temperature fluctuations. Historical trends of unsuitable land use practices and inadequate water management have contributed to soil degradation, reducing the region's overall agricultural productivity.

1.7. Ethnic and Cultural Diversity:

The Balkans' diverse ethnic and cultural composition has influenced agricultural practices and land management. Traditional farming methods and cultural norms have sometimes conflicted with modern, sustainable agricultural practices, hindering efforts to implement innovative approaches.

1.8. Post-Conflict Rebuilding:

The Balkan countries' efforts to rebuild after conflicts have often prioritized infrastructure and urban development over rural areas and agriculture. This has contributed to disparities between urban and rural development and limited investment in agricultural sustainability.

In conclusion, the historical context of the Balkan countries is characterized by a complex interplay of Ottoman rule, post-World War II reconstruction, political transitions, ethnic conflicts, and attempts at economic integration. These historical factors have significantly impacted the region's agricultural practices, land ownership, infrastructure, and socio-economic dynamics. Understanding this historical context is essential for formulating effective macro-policies and strategies for sustainable agricultural reconstruction, aimed at addressing the current food crisis and fostering long-term food security in the Balkans.

2. Challenges to Food Security:

The Balkan countries face a range of interconnected challenges that collectively contribute to the food crisis and hinder efforts to achieve food security and agricultural sustainability. These challenges stem from historical, environmental, economic, and social factors:

1. **Agricultural Productivity and Technology Gap:** Outdated farming practices, limited access to modern agricultural technologies, and inadequate knowledge transfer hinder agricultural productivity. Farmers often lack information about efficient crop management, soil health, and pest control, leading to lower yields and reduced food production.
2. **Land Degradation and Soil Erosion:** Unsustainable land use practices, deforestation, and improper soil management have contributed to significant land degradation and soil erosion. This diminishes the available arable land and reduces its capacity to support crop growth, further undermining food security.
3. **Climate Change Vulnerability:** The Balkan region is susceptible to the impacts of climate change, including increased temperatures, changing precipitation patterns, and extreme weather events. Erratic weather conditions disrupt crop cycles, damage infrastructure, and result in crop failures, threatening food production and supply.
4. **Water Scarcity and Irrigation Challenges:** Inadequate water management practices and inefficient irrigation systems limit agricultural potential. Water scarcity affects crop yields and can lead to crop failures, especially during drought periods, exacerbating food insecurity.
5. **Limited Access to Finance and Credit:** Many small-scale farmers in the Balkans face challenges accessing finance and credit for purchasing seeds, fertilizers, and machinery. This restricts their ability to invest in improved farming practices, hindering productivity and resilience.

6. **Post-Conflict and Political Instability:** The legacy of conflicts and political instability in the Balkans has disrupted agricultural activities, displaced populations, and damaged infrastructure. These factors have contributed to food insecurity by disrupting food production, distribution, and access.

7. **Economic Constraints and Poverty:** High levels of poverty and unemployment in rural areas limit households' ability to invest in agriculture and access nutritious food. Economic constraints prevent smallholders from adopting modern farming technologies and diversifying their production.

8. **Limited Access to Markets and Trade Barriers:** Inefficient transportation networks, lack of storage facilities, and trade barriers restrict the movement of agricultural products. These limitations prevent farmers from accessing broader markets, reducing their income potential and contributing to food insecurity.

9. **Lack of Agricultural Extension Services:** Inadequate extension services and technical support hinder the dissemination of knowledge about sustainable farming practices, pest control, and soil management. Farmers' lack of access to information and training constrains their ability to adapt to changing conditions.

10. **Dependency on Imports:** Many Balkan countries rely on food imports to meet domestic demand, making them vulnerable to fluctuations in global food prices and supply disruptions. This dependency limits their food security and exposes them to external market forces.

11. **Fragmented Land Holdings:** Land fragmentation resulting from historical factors, land inheritance patterns, and lack of land consolidation prevents efficient land use and mechanization. This hampers efforts to increase agricultural productivity and sustainability.

12. **Lack of Coordination and Policy Implementation:** Inconsistent policies, lack of coordination between government agencies, and insufficient implementation of agricultural and food security policies impede progress in addressing the food crisis.

In addressing these challenges, comprehensive strategies and policy interventions are needed to promote sustainable agricultural reconstruction, enhance resilience to climate change, improve access to markets, and support small-scale farmers. Recognizing the interconnected nature of these challenges is crucial for devising effective solutions and ensuring long-term food security in the Balkan countries.

3. Role of Macro-Policies:

Macro-policies play a pivotal role in addressing the food crisis and promoting sustainable agricultural reconstruction in the Balkan countries. These overarching policies, formulated and implemented at the national and regional levels, have the potential to create a conducive environment for agricultural development, enhance food security, and mitigate the challenges outlined earlier. The role of macro-policies can be analyzed through various key aspects:

1. **Investment in Agriculture:** Adequate public and private investments in agriculture are essential to modernize farming practices, improve infrastructure, and enhance agricultural productivity. Macro-policies should allocate sufficient funds to support research and development, extension services, and the adoption of innovative technologies tailored to the region's needs.

2. **Subsidies and Incentives:** Targeted subsidies and incentives can encourage small-scale farmers to adopt sustainable agricultural practices and invest in their farms. Subsidies for inputs like seeds, fertilizers, and irrigation equipment can reduce the financial burden on farmers and promote more efficient resource utilization.

3. **Research and Innovation:** Macro-policies should prioritize funding for research and innovation in agriculture. This includes developing climate-resilient crop varieties, sustainable farming techniques, and technologies that enhance productivity while minimizing environmental impacts.

4. **Climate Adaptation and Resilience:** Policies that support climate adaptation and resilience are crucial. These could involve promoting drought-resistant crops, improving water management practices, and encouraging the adoption of agroecological approaches that enhance soil health and ecosystem services.

5. **Market Access and Trade Policies:** Macro-policies should facilitate access to markets by improving transportation infrastructure, reducing trade barriers, and promoting regional trade agreements. Enhancing market access can provide farmers with more opportunities to sell their products and improve their income.

6. **Land Tenure and Land Use Policies:** Clear and secure land tenure rights, along with effective land use policies, can help address issues of land fragmentation and degradation. Policies that encourage land consolidation and promote sustainable land management practices are essential for long-term agricultural sustainability.

7. **Capacity Building and Training:** Macro-policies should prioritize capacity building and training programs for farmers. Providing education on sustainable farming practices, pest management, and post-harvest techniques can empower farmers to make informed decisions and improve their productivity.

8. **Social Safety Nets:** Implementing social safety nets, such as targeted cash transfer programs or food assistance initiatives, can help vulnerable populations access nutritious food during times of crisis. These safety nets can be an essential component of broader food security strategies.

9. **Community Engagement and Participation:** Macro-policies should facilitate the participation of local communities, farmers' organizations, and civil society in decision-making processes. Involving stakeholders at the grassroots level ensures that policies align with local needs and priorities.

10. **Policy Coherence and Coordination:** Ensuring coherence and coordination among various policy sectors, such as agriculture, environment, and trade, is crucial for effective policy implementation. Macro-policies should be harmonized to avoid contradictory measures and enhance their overall impact.

11. **Monitoring and Evaluation:** Establishing robust monitoring and evaluation mechanisms is essential to assess the effectiveness of macro-policies and make necessary adjustments. Regular assessments help policymakers track progress, identify challenges, and fine-tune strategies to achieve desired outcomes.

12. **International Cooperation:** Collaborative efforts with international organizations, neighboring countries, and development partners can provide valuable resources, expertise, and knowledge exchange to support sustainable agricultural reconstruction and food security initiatives.

In conclusion, macro-policies play a central role in shaping the trajectory of agricultural development and food security in the Balkan countries. Well-designed and effectively implemented policies have the potential to address the challenges to food security, promote sustainable agricultural practices, and create an enabling environment for long-term agricultural reconstruction. By addressing these challenges holistically and considering the specific needs of the region, macro-policies can contribute significantly to achieving food security and fostering sustainable agricultural development in the Balkan countries.

4. Sustainable Agricultural Reconstruction:

Sustainable agricultural reconstruction in the Balkan countries involves comprehensive and integrated strategies aimed at revitalizing the agricultural sector, enhancing food security, and promoting long-term environmental and economic sustainability. This process requires addressing the challenges identified earlier while considering the unique socio-economic and environmental context of the region. Analyzing the key components of sustainable agricultural reconstruction reveals its multifaceted nature:

1. Crop Diversification and Resilience:

- Encouraging farmers to diversify their crop selections can reduce the risks associated with climate variability and pest outbreaks.
- Promoting the cultivation of climate-resilient and indigenous crops adapted to local conditions enhances food security and reduces dependency on a single crop.

2. Agroecology and Organic Farming:

- Introducing agroecological practices, such as crop rotation, cover cropping, and integrated pest management, improves soil health, reduces chemical inputs, and fosters ecological balance.
- Promoting organic farming methods reduces the environmental impact of agriculture, enhances soil fertility, and produces healthier food.

3. Water Management and Irrigation Efficiency:

- Investing in efficient irrigation systems, such as drip irrigation and rainwater harvesting, conserves water resources and enhances crop yields.
- Improving water management practices minimizes water wastage and helps farmers adapt to changing precipitation patterns.

4. Rural Infrastructure Development:

- Upgrading transportation networks, storage facilities, and market access points improves the efficiency of food distribution and reduces post-harvest losses.
- Investments in rural infrastructure also attract private sector investments and stimulate economic growth in rural areas.

5. Technology Adoption and Digital Agriculture:

- Introducing modern technologies, such as precision agriculture and mobile applications, enhances productivity and resource management.

- Digital tools can provide real-time information on weather forecasts, market prices, and farming best practices, enabling farmers to make informed decisions.

6. Capacity Building and Knowledge Transfer:

- Providing training, extension services, and workshops to farmers empowers them with the skills and knowledge needed to adopt sustainable practices.
- Strengthening farmer cooperatives and organizations facilitates knowledge sharing and collective action.

7. Community Engagement and Participatory Approaches:

- Engaging local communities in decision-making processes fosters ownership of agricultural development initiatives.
- Participatory approaches ensure that policies and interventions are contextually relevant and aligned with local needs.

8. Economic Incentives and Market Access:

- Creating favorable economic conditions, such as access to credit, subsidies for sustainable inputs, and fair pricing mechanisms, encourages farmers to adopt sustainable practices.
- Facilitating market access through trade agreements and value chain development ensures that farmers receive fair compensation for their produce.

9. Policy Alignment and Institutional Strengthening:

- Ensuring coherence between policies across different sectors, such as agriculture, environment, and trade, prevents conflicting measures and promotes a holistic approach to sustainable reconstruction.
- Strengthening institutions responsible for agricultural development, research, and extension services enhances policy implementation and monitoring.

10. Climate Change Adaptation and Mitigation:

- Integrating climate-resilient practices, such as agroforestry and soil conservation, helps farmers adapt to changing climate conditions.
- Sustainable agricultural practices can contribute to carbon sequestration and mitigate the impacts of climate change.

11. Investment in Research and Innovation:

- Funding research on climate-resilient crop varieties, sustainable farming techniques, and post-harvest management contributes to continuous improvement and innovation in agriculture.

12. Promotion of Gender Equity and Social Inclusion:

- Ensuring equitable access to resources, training, and decision-making opportunities empowers women and marginalized groups, leading to more inclusive and sustainable agricultural development.

Sustainable agricultural reconstruction in the Balkan countries requires a coordinated effort among governments, civil society, development partners, and the private sector. By addressing the diverse aspects mentioned above, the region can transition towards a more resilient, environmentally-friendly, and economically viable agricultural sector that effectively tackles food insecurity and contributes to overall development.

5. Conclusion

The food crisis in the Balkan countries presents a complex and multifaceted challenge that requires a holistic approach for sustainable resolution. The historical context, characterized by a legacy of Ottoman rule, political transitions, and conflicts, has left enduring impacts on the region's agricultural sector and food security. These historical factors, combined with contemporary challenges such as climate change, land degradation, and economic disparities, have contributed to the current state of food insecurity.

To address these challenges, macro-policies play a crucial role in shaping the path towards sustainable agricultural reconstruction. These overarching policies can facilitate transformative change by channeling investments, promoting innovative practices, and aligning various sectors to ensure comprehensive and coordinated efforts. Effective macro-policies should encompass investment in research and technology, provision of incentives, enhancement of market access, and engagement of local communities, all while fostering climate resilience and sustainability.

Sustainable agricultural reconstruction, as a comprehensive strategy, encompasses a range of interventions that collectively enhance food security and promote long-term agricultural sustainability. By advocating for crop diversification, agroecological approaches, water management, and infrastructure development, the Balkan countries can build resilient agricultural systems capable of withstanding climate shocks and economic challenges. Empowering farmers through knowledge transfer, capacity building, and inclusive policies ensures the active participation of local communities in shaping their own agricultural future.

It is imperative to recognize that sustainable agricultural reconstruction is not a one-size-fits-all solution but rather a tailored approach that considers the unique characteristics of each Balkan country. Collaborative efforts among governments, international organizations, local communities, and the private sector are essential to overcoming the food crisis. By embracing sustainable agricultural practices, promoting equitable access to resources, and fostering innovation, the Balkan countries can forge a path towards food security, economic prosperity, and environmental resilience.

Ultimately, the successful resolution of the food crisis in the Balkan countries through macro-policies and sustainable agricultural reconstruction will contribute not only to the alleviation of immediate hunger but also to the establishment of a foundation for long-term prosperity and well-being for generations to come.

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GENDER PAY GAP IN SPORTS

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Gender pay gap in sports

The gender pay gap is a phenomenon present in many aspects of our lives, a topic that needs to be discussed and solved, a real asymmetry, not just an illusion, that should be left out and forgotten. Today, female soccer players represent idols and examples especially for young people, who amaze with their character, mentality and at the same time the reason why many children start playing sports. But despite that, women are paid drastically less than men in all sports, even though they make the same sacrifices, that is, they dedicate themselves completely and give their maximum. Proof for that is the 2018 released Forbes list of the top 100 highest-paid athletes, and they were all male athletes. Feeling less worthy or less powerful is one of the biggest downsides of the pay gap, which has affected on a psychological level the careers of many athletes themselves. Some of the potential solutions would be raising the minimum wage, greater incentive for support from sponsors and thus greater exposure in the media, better training conditions and fully paid maternity leave. Closing the pay gap in sports helps to create an environment where all female participants are motivated and encouraged to enjoy equal rights as males, which is an achievement worth striving for.

Key words: gender pay gap, female athletes, wage

Hypothesis: Sport or commerce? Is the gender pay-gap in sports an undeniable reality?



Media

The media plays a crucial role in promoting women's football and addressing the gender pay gap in sports. Over the years, media coverage of women's football has significantly increased, leading to greater visibility and awareness of the sport. This increased exposure has helped challenge gender stereotypes and create more opportunities for female athletes.

Here are some ways¹ in which the media influences the promotion of women's football:

1. **Increased Visibility:** The media has the power to bring women's football to a wider audience through television coverage, newspaper articles, online platforms, and social media. By showcasing women's matches, highlights, and stories, the media helps raise awareness about the sport and the talented athletes involved.
2. **Breaking Stereotypes:** Historically, women's football has been overshadowed by men's football, and there have been stereotypes and biases associated with women's involvement in the sport. The media can challenge these stereotypes by providing positive and accurate representations of female footballers, highlighting their skills, dedication, and achievements.
3. **Inspiring Role Models:** Media coverage allows female footballers to become role models for aspiring athletes. By featuring their stories, struggles, and triumphs, the media can inspire young girls and women to pursue football as a career, boosting participation rates and talent development.
4. **Sponsorship and Investment:** Increased media coverage can attract sponsors and investors to women's football, leading to financial support and development opportunities. The media's role in highlighting the potential and marketability of women's football helps attract resources that contribute to the growth of the sport.

Regarding the gender pay gap in sports, media coverage plays a vital role in highlighting the issue, advocating for change, and holding sports organizations accountable. Here's how the media can contribute to reducing the gender pay gap:

1. **Raising Awareness:** Media platforms can shed light on the gender pay disparities in sports by featuring stories, interviews, and investigative reports. By bringing attention to the issue, the media can engage the public, fans, and sponsors in discussions about equal pay and fair treatment for female athletes.

¹ <https://news.cnr.fr/opinions/why-do-women-football-players-earn-less>, accessed on 21 June, 2023

2. **Advocacy and Pressure:** Through editorials, opinion pieces, and documentaries, the media can advocate for equal pay in sports. By putting pressure on sports organizations, sponsors, and governing bodies, the media can push for policy changes and reforms that address gender pay disparities.
3. **Highlighting Success Stories:** The media can amplify the achievements of female athletes and showcase instances where pay gaps have been successfully reduced or eliminated. By highlighting positive examples, the media can motivate other sports organizations to follow suit and provide equitable pay structures.
4. **Transparency and Accountability:** Media scrutiny encourages transparency in pay structures and exposes any unjustifiable gaps. By reporting on wage discrepancies and publicly questioning sports organizations, the media can hold them accountable and push for greater transparency in financial matters.

It's important to note that while media plays a significant role, the reduction of the gender pay gap in sports requires a multi-faceted approach involving various stakeholders, including sports organizations, sponsors, athletes' associations, and policymakers. The media's influence can help drive change, but sustained efforts from all parties are necessary to achieve long-lasting progress.

Gender pay gap in sports and the influence on the society

The gender pay gap in sports has broader implications for society and the economy. Here are some ways² in which it can influence both:

1. **Reinforcing Gender Inequality:** The gender pay gap in sports perpetuates and reinforces gender inequality in society. When female athletes are consistently paid less than their male counterparts for similar levels of performance and success, it sends a message that women's contributions and achievements are valued less. This not only affects athletes directly but also has an impact on societal perceptions of gender roles and capabilities.
2. **Economic Disadvantage for Female Athletes:** Female athletes who experience a gender pay gap face economic disadvantages. Lower salaries, fewer sponsorship opportunities, and limited financial rewards for their sporting achievements can result in financial instability and hinder their ability to sustain a professional sports career. This economic disadvantage can also have long-term effects on their post-sports lives, including retirement savings, investments, and overall financial well-being.
3. **Limiting Career Opportunities:** The gender pay gap in sports can discourage young girls and women from pursuing careers in sports. When they see a significant disparity in

² <https://www.solegal.co.uk/insights/womens-football-equal-pay-equal-play>, accessed on 15 May, 2023

pay and recognition compared to their male counterparts, it can deter them from investing their time and energy into pursuing athletic careers. This limits the talent pool and diversity within sports, depriving the industry of the contributions of talented female athletes.

4. **Impact on Sponsorship and Investment:** The gender pay gap can affect sponsorship and investment in women's sports. Sponsors and investors may be hesitant to allocate resources to women's sports when there is a perception of lower financial returns compared to men's sports. This lack of financial support hampers the growth and development of women's sports, limiting opportunities for female athletes to excel and reach their full potential.
5. **Social Norms and Stereotypes:** The gender pay gap in sports reflects and reinforces broader societal norms and stereotypes about gender roles and capabilities. It sends a message that women's sports are less valuable and less worthy of investment, perpetuating the idea that men's sports are the norm and women's sports are secondary. This can have a negative impact on the overall perception of women's capabilities, both within and outside of the sporting arena.

Addressing the gender pay gap in sports is crucial for promoting gender equality, fostering inclusivity, and realizing the full potential of women in sports. It requires efforts from sports organizations, sponsors, policymakers, and society as a whole to challenge and change the systemic biases and structural barriers that contribute to the gap. Creating fair and equitable pay structures in sports can lead to a more balanced and inclusive society and contribute to the overall well-being and economic empowerment of women.

Marketing and promotion of women sports

Marketing and promotion play a crucial role in raising awareness and addressing the gender pay gap in sports. Here are some strategies³ for effectively marketing and promoting the issue:

1. **Engage Influencers and Athletes:** Collaborate with influential figures, both within the sports industry and beyond, who are passionate about gender equality. Engaging athletes, sports personalities, and social media influencers can amplify the message and generate wider reach and engagement.
2. **Social Media Campaigns:** Utilize social media platforms to launch targeted campaigns addressing the gender pay gap in sports. Develop compelling and shareable content, including videos, infographics, and personal stories, to educate and inspire the audience. Encourage the use of relevant hashtags to create a sense of community and encourage conversations around the topic.

³<https://www.weforum.org/agenda/2022/02/what-the-us-soccer-equal-pay-case-means-for-sports/>, accessed on 15 April, 2023

3. **Collaborate with Sports Organizations:** Partner with sports organizations, clubs, and leagues to jointly promote initiatives aimed at closing the gender pay gap. Collaborative efforts can involve co-branded campaigns, events, and fundraisers that highlight the issue and drive action.
4. **Sponsorship and Advertising:** Seek sponsorship from brands and companies that are committed to gender equality and advocate for fair pay in sports. Incorporate messaging and visuals addressing the gender pay gap in sports into advertising campaigns, sports events, and branded content.
5. **Storytelling and Personal Narratives:** Share compelling stories of athletes who have experienced the gender pay gap firsthand. Highlight their achievements, challenges, and aspirations to create an emotional connection with the audience. Personal narratives humanize the issue and make it relatable, fostering empathy and support for change.
6. **Media Partnerships:** Collaborate with media outlets and broadcasters to feature stories and discussions about the gender pay gap in sports. Organize panel discussions, interviews, and documentaries that shed light on the issue and inspire action. Media coverage helps reach a wider audience and initiate meaningful conversations.
7. **Educational Programs:** Develop educational programs and workshops targeting sports communities, schools, and youth organizations. These programs can raise awareness about the gender pay gap, challenge stereotypes, and empower young athletes to advocate for equal treatment and compensation.
8. **Athlete Endorsements:** Encourage athletes, both male and female, to publicly endorse equal pay in sports. Their support and influence can help shift public opinion and put pressure on sports organizations, sponsors, and policymakers to take action.
9. **Collaboration with Advocacy Groups:** Collaborate with organizations and advocacy groups focused on gender equality and women's rights. By working together, you can pool resources, expertise, and networks to amplify the message and advocate for change on a broader scale.
10. **Measurement and Progress Reporting:** Regularly assess and report on the progress made in addressing the gender pay gap in sports. Transparently communicate the steps taken, achievements, and ongoing challenges to maintain accountability and inspire further action.

By utilizing effective marketing and promotion strategies, we can increase awareness, drive conversations, and mobilize support to bridge the gender pay gap in sports. Ultimately, these efforts contribute to creating a more equitable and inclusive sports landscape.



Influence of sport

Sport has a significant influence on young girls and athletes, providing numerous physical, psychological, and social benefits. Here are some ways⁴ in which sport influences young girls and athletes:

1. **Physical Health and Well-being:** Engaging in sports promotes physical fitness, coordination, and overall health. Participating in regular physical activity through sports helps girls develop strength, endurance, and flexibility. It contributes to the prevention of obesity, improves cardiovascular health, and enhances bone density. By instilling healthy habits from an early age, sport lays the foundation for a lifetime of physical well-being.
2. **Empowerment and Self-confidence:** Sport empowers young girls and athletes by building their self-confidence and self-esteem. Through skill development and overcoming challenges, girls learn to believe in their abilities and develop a positive self-image. Successes and achievements in sports translate into increased self-worth and a sense of accomplishment that extends beyond the athletic realm.
3. **Leadership and Teamwork Skills:** Participating in team sports helps young girls and athletes develop valuable leadership and teamwork skills. They learn how to communicate effectively, cooperate with others, and work towards a common goal. These skills are transferable to other aspects of life, such as academics, careers, and personal relationships, enabling girls to become well-rounded individuals and leaders in their communities.
4. **Mental and Emotional Well-being:** Sport plays a crucial role in promoting mental and emotional well-being among young girls and athletes. Physical activity releases

⁴<https://www.sportanddev.org/latest/news/gender-pay-gap-sports>, accessed on 25 May, 2023

endorphins, reducing stress, anxiety, and symptoms of depression. Participating in sports also provides a healthy outlet for emotions, improves resilience, and helps girls develop coping mechanisms to navigate challenges both on and off the field.

5. **Social Skills and Social Integration:** Sport offers opportunities for social interaction, fostering friendships, and a sense of belonging. It brings together individuals from diverse backgrounds and creates a supportive community. Girls develop social skills, learn to respect differences, and build lifelong relationships through shared experiences in sports.
6. **Educational and Career Opportunities:** Sports can open doors to educational and career opportunities for young girls and athletes. Excelling in sports can lead to scholarships and access to higher education. Furthermore, sports participation develops transferable skills such as discipline, time management, and goal-setting, which can positively impact academic performance and future career prospects.
7. **Breaking Gender Stereotypes:** By participating in sports, young girls and athletes challenge gender stereotypes and break barriers. They demonstrate that girls are equally

capable of excelling in physical activities and competitive sports. This challenges societal norms, promotes gender equality, and paves the way for greater inclusivity and opportunities for female athletes.

The influence of sport on young girls and athletes extends far beyond the physical realm. It shapes their character, instills important values, and equips them with skills and qualities that contribute to their personal growth and success in various aspects of life.

Possible solutions

Minimizing the gender pay gap in sports requires a concerted effort from various stakeholders, including sports organizations, policymakers, sponsors, and athletes' associations. Here are some possible solutions⁵ that can contribute to reducing the gender pay gap:

1. **Equal Pay Policies:** Implementing and enforcing equal pay policies within sports organizations is crucial. This includes ensuring that female athletes receive the same compensation and benefits as their male counterparts for comparable levels of performance, achievements, and responsibilities.
2. **Transparency and Accountability:** Increasing transparency in financial matters and making salary information public can help expose any unjustifiable pay gaps. This

⁵www.statista.com/statistics/1120689/annual-salaries-nba-wnba-league-revenue/, accessed on 5 July, 2023

transparency holds sports organizations accountable and allows for informed discussions and actions to address disparities.

3. **Investment in Women's Sports:** Increasing investment in women's sports is vital for narrowing the pay gap. Sponsors, broadcasters, and sports organizations should allocate resources and funding to promote women's sports, provide competitive salaries, and create opportunities for growth and development.
4. **Media Coverage and Promotion:** The media plays a significant role in promoting women's sports and influencing public perception. Increased media coverage, both in traditional and digital platforms, can generate interest, increase visibility, and attract sponsors, ultimately leading to better financial support and pay for female athletes.
5. **Sponsorship and Endorsement Opportunities:** Encouraging sponsors and brands to invest in women's sports through sponsorship and endorsement deals can provide a significant boost to female athletes' earnings. Collaboration between sports organizations and sponsors can create mutually beneficial partnerships that contribute to closing the pay gap.
6. **Negotiation and Representation:** Encouraging female athletes to negotiate their contracts and seek professional representation can help ensure fair pay. Providing athletes with resources and support to navigate contract negotiations can empower them to advocate for equitable compensation.
7. **Addressing Unconscious Bias:** Recognizing and addressing unconscious biases within sports organizations and decision-making processes is crucial. Training and education programs can help create awareness and foster a culture of gender equality, ensuring that biases do not influence pay decisions.
8. **Collaboration and Collective Bargaining:** Athletes' associations and unions can play a significant role in advocating for equal pay and negotiating collective bargaining agreements that address the gender pay gap. Collective action can be instrumental in driving change and achieving fair compensation for female athletes.
9. **Long-Term Sponsorship and Funding Commitments:** Long-term commitments from sponsors and funding bodies are essential for the sustained growth and development of women's sports. Multi-year sponsorship agreements and consistent funding support can create stability and ensure that female athletes receive fair and consistent pay.
10. **Representation in Leadership Roles:** Increasing the representation of women in leadership roles within sports organizations and governing bodies can lead to more equitable policies and decision-making processes. Diverse perspectives and experiences at the decision-making table contribute to a more inclusive and fair sports environment.

It requires a commitment to change, collaboration, and ongoing efforts from all stakeholders involved.



Recommendations and Findings

Women's football in the USA has a long history of development and is highly popular. The sport has gained significant recognition, support, and media coverage, which has contributed to its overall growth. In contrast, women's football in Macedonia is still in the early stages of development, with a relatively smaller player base and fan following. At the same time, in Macedonia, the women's football structure is less developed, with a focus primarily on amateur and semi-professional leagues. The USA has a robust infrastructure for women's football, with dedicated stadiums, training facilities, and well-funded youth development programs. This enables players to receive high-quality coaching and support from a young age. In Macedonia, the infrastructure and resources for women's football may be comparatively limited, affecting the overall development of the sport. The USA has a more prominent sports culture, with a strong emphasis on gender equality in sports. This has contributed to greater acceptance and support for women's football. The fact that in 2018, USA decided to pay men's and women's teams equally is amazing.

Conclusion

In conclusion, the gender pay gap in sports is a multifaceted issue that encompasses several aspects. Discrepancies in prize money, sponsorship and endorsement deals, media coverage, contract negotiations, investment and resource allocation, historical factors, and social perception all contribute to the gender pay gap in sports.

Women athletes often face lower wages, fewer opportunities for endorsements, and limited media exposure compared to their male counterparts. These disparities can be influenced by societal biases, traditional norms, and the perception that men's sports are more valuable or entertaining.



Addressing the gender pay gap in sports requires a comprehensive approach that involves promoting equal prize money, increasing sponsorship opportunities for women athletes, improving media coverage and exposure, challenging gender stereotypes, and advocating for fair contract negotiations. Additionally, investing in women's sports and shifting societal perceptions to value and support female athletes can help reduce the gender pay gap.

The hypothesis that gender pay gap is a reality is true. Efforts should be made by sports organizations, governing bodies, sponsors, media outlets, and fans to create an inclusive and equitable environment in sports. By recognizing and addressing the various aspects that contribute to the gender pay gap, we can work towards ensuring equal opportunities, recognition, and compensation for athletes, regardless of their gender.

Overall, it's left to say that the hypothesis is completely fulfilled. Taking into consideration all of the factors that contribute to the gender pay gap and the differences that exist between male and female athletes, we have to aim at achieving an equal environment, where female athletes will have more support and progress. From a psychological aspect, motivation is one that gets to the heart and that way we won't have any stereotypes, but everyone will be equal on the pitch.

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Identifying and measuring social and economic asymmetries of a national economy

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ABSTRACT: *'The world is your oyster' saying is often said to young people about to embark on adult life. The metaphor hidden in this quote indicates that there is a solid chance that there might be a pearl found in the oyster. It is very debatable whether we all get the same amount of prosperity and equal opportunity to have ourselves made/developed into something potentially successful in the future. Social stratification is the representation of having unequal starting point among individuals from different social layers. Occasionally, the economic asymmetry dividing two people is the consequence that one individual has to bear for living in a developing (not yet developed) country. Directly correlated with the individual welfare is the welfare of the state in which this person is a resident. Crucial sectors that determine whether one country is economically advanced or not, are the sectors of education, public health, justice system and the state financial system and economic power(purchasing power). Integrally, they will determine the placement and influence of each country in the fields of economic and political prosperity.*

The goal of this paper is to identify, measure and elaborate the critical sectors of high value (mentioned above) in Republic of North Macedonia, as a developing country, in order to achieve a satisfactory level compared to other advanced nations across the world/globe.

KEYWORDS: *social and economic asymmetries, critical sectors, stratification*

Introduction

Social and economic development is interconnected and mutually reinforcing. Social and economic development is a process that includes simultaneously improving the economic

well - being and quality of life of a nation, region, ethnic group and individual by achieving certain targeted goals and desired results.

Economic development otherwise known as “Modernization”, “Westernization” and “Industrialization” is a multidimensional approach that mainly works on reaching satisfying economic growth and structural transformation, reducing poverty and increasing GDP. Economic development describes the quantitative side of the implemented changes. It is important to note that each country has a different economic situation and different obstacles to pass, so depending on the current state, there can exist a unique set of various measures and tactics to trigger planned development.

On the other hand, social development is defined as persistence for raising the level of life quality, especially among those individuals who are considered socially vulnerable and have a life standard that is considered below accepted life standards of that society. In the economics study of the public sector, the whole study of social development revolves around the concept of life quality. This aspect of one nation’s development represents the qualitative dimension of the “Westernization”.

The degree of development of social and economic aspects of a country creates the contrast between developed and still developing countries. The higher this degree is, the more developed the country is and on the contrary the lower the degree, the less development has this country achieved. The importance of this economic and social development can be easily observed if we compare the quality of education, health system, law system, public financial system and other sectors of crucial meaning in an advanced economy and underdeveloped economy. We can conclude that the asymmetries in the development of every country create further differences in the placement of each country in global economy and the economic power and influence it contains as a national economy worldwide.

Literature review

Several authors have contributed to the topic of identifying and measuring social and economic asymmetries of a national economy. Here are a few notable authors in this field:

1. Thomas Piketty is a prominent economist known for his work on income inequality.
2. Amartya Sen, a Nobel laureate in economics
3. Anthony Atkinson was a renowned economist who focused on issues of income inequality and social policy
4. Joseph Stiglitz, a Nobel laureate in economics
5. Branko Milanovic is an economist known for his research on income inequality and global inequality.
6. Francisco Ferreira is an economist specializing in development economics and inequality.

Hypothesis: There are significant social and economic asymmetries within a national economy, as evidenced by disparities in income distribution, wealth accumulation, and access to resources and opportunities.

Human development index –HDI

As we know, on a global level the development of the countries is dividing them in 3 categories: developed, emerging and developing. So how is this separation made? The most used index to measure economic development is HDI - Human Development Index. It is very frequently used because of its variety of factors that are taken into account, more specifically health, education and standard of living.

The health part of HDI has the main purpose of measuring the average life expectancy in one country and then comparing it to the global average. The education part of HDI is accounted for determining the number of mean years of schooling and the number of the expected years of schooling in a country. The standard of living part of HDI estimates the gross national income (GNI) per head, using the principle of purchasing power parity, PPP. Each factor is equally validated and considered, bearing the weight of 33% of the total HDI.

Figure 1.1 The human development index is calculated based on the following three components:

HDI index component	Measures

Length of life	Life expectancy (in years)
Education	Average and expectedly duration of schooling (in years)
Standard of living	Real GNI per capita

Source: Tasevska Kalkasliev Biljana (2023). Study material of the subject „Economy of a social country” „Faculty of economics – Skopje” UKIM

HDI varies between the value of 0 and 1. The closer the HDI of a country to 1 is, the more developed that country is. The closer the HDI of a country to 0 is, the less developed that country is.

The UN provides data on human development in the publication Human Development Report. Countries are grouped into four groups, according to their human development index value:

- Countries with low human development ($HDI < 0.550$)
- Countries with medium human development ($0.550 < HDI < 0.669$)
- Countries with high human development ($0.700 < HDI < 0.799$)
- Countries with very high human development ($HDI \geq 0.800$)

Top 10 Countries with the Highest Human Development Index (HDI) - 2022

Switzerland 0.962, Norway 0.961, Iceland 0.959, Hong Kong (China) 0.952, Australia 0.951, Denmark 0.948, Sweden 0.947, Ireland 0.945, Germany 0.942, Netherlands 0.941.

Top 10 Countries with the Lowest Human Development Index (HDI) – 2022 South Sudan 0.385, Chad 0.394, Niger 0.400, Central African Republic 0.404, Burundi 0.426, Mali 0.428, Mozambique 0.446, Burkina Faso 0.449, Yemen 0.455, Guinea 0.465.

* HDI measured for Republic of North Macedonia in 2021 (last available information) is 0,770.

Figure 1.2 Strengths and weaknesses of HDI

Strengths of the HDI	Weaknesses of the HDI
RELIABLE (regularly updated data and has trustworthy sources)	SIMPLICITY (it has received critics for being too simple and not taking in account all the factors that influence the country's social and economic development)
ACCURATE (gives a broader perspective, using both social and economic data)	NOT EQUALLY WEIGHT (there are some concerns that wealth has too much weight in the HDI, richer countries can alter the rankings)
USEFUL (very helpful for governments when they create their national politics)	

Source: Tasevska Kalkasliev Biljana (2023). Study material of the subject „Economy of a social country’’ „Faculty of economics – Skopje’’ UKIM

Genuine Progress Index – GPI

The ideas of the famous economist James Tobin are taken into account in studies that talk about the Genuine Progress Index (GPI). There have been attempts to include activities that are today excluded from GDP, such as informal economy (grey economy) and to diminish the value of activities like pollution, unemployment and inequality (that are considered lost cause).

Figure 2.1 Genuine Progress Indicator formula



Source: <https://utahpopulation.org/our-projects/genuine-progress-indicator>, Accessed on 3.6.2023.

It is believed that if all these calculations are properly done, we will be able to have a clearer perspective of a national economy. GDP is a measure of current income and GPI is a measure of the sustainability of that income. The GPI takes GDP into consideration, but at the same time brings attention to the negative impacts of the economic growth. GPI takes away all the side effects of inequality in income, costs of crime, the destruction of the environment, loss of leisure time, but on the other hand GPI adds the value of public infrastructure services and the costs of volunteering and all the work that is done around the household. The GPI measures whether the environmental impact and social costs of economic production and consumption in a country increase or decrease well-being.

Human Poverty Index – HPI

The Human Poverty Index is a complex index of poverty that focuses on deprivations (lack of material benefits that considered being basic necessities) in human lives. It was established by the United Nation (UN) to complement the Human Development Index. The HPI includes various factors of poverty such as very low income, inadequate education and bad health conditions.

Multidimensional Poverty Index – MPI

In 2010 HPI was replaced by MPI. The MPI is different than HPI because it assesses poverty at the individual level. While both the HDI and the MPI consider three factors health, education and standard of living in their calculations, HDI uses only indicators at aggregate level, whereas MPI uses micro data and all indicators have origin from the same survey. This is the reason why MPI is only calculated for about 100 countries, while HDI is measured for almost every country in the world.

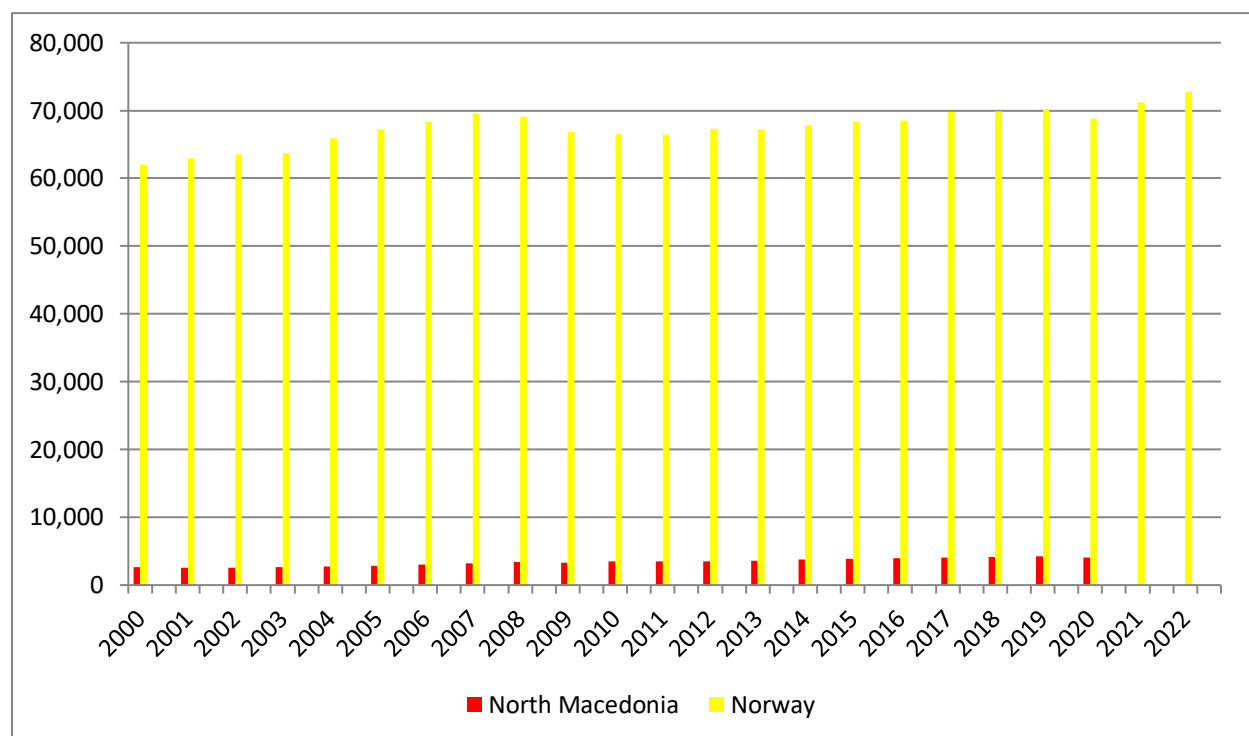
Real GDP per capita

Real GDP per capita is a measurement of the complete output of one economy divided by the number of residents in the country and adjusted for inflation. It is used for comparison of the current standard of living between countries and monitoring it over time. It consists of three concepts and each will be explained individually. The first concept is “gross domestic product” and it includes all that is produced by one economy in the duration of one year. Personal consumption, business investment, government spending, and exports minus imports are all considered as parts of GDP. The second concept “real GDP” refers to the actual value of GDP, which means that the effect of price changes is excluded. Inflation affects nominal GDP and makes it appear higher than the true value.

Furthermore, we can certainly say that real GDP is a way more accurate measure when you want to estimate the progress of one economy over time. The third concept is “per capita” and this phrase has a Latin origin, when translated literally it means “per person or per head”. Real GDP is divided by the number of people in one country to calculate real GDP per capita. GDP per capita is a global measure for determining the prosperity of nations and is used by economists to

analyze the prosperity of a country based on its economic growth. It is a trustworthy indicator of standard of living in each country, so it truly presents the nation's wealth or poverty.

Figure 3.1 Comparison of the total economic activity between North Macedonia and Norway



Source: Database of EU and North Macedonia (2000 – 2022)

* This graphic shows a visual representation of the enormous difference between Norway and North Macedonia. This is just an example of comparison that is made among a developed and developing country and as you can evidently see there is a huge gap between the total economic activity of Norway and North Macedonia. The economic situation later on affects every field of great importance in each state. So basically the power and influence one nation has worldwide, mostly depends on its financial balance. Just by looking at the real GDP per capita you can tell if the country is wealthy or not.

Results for discussion

The primarily set Hypothesis is accepted. This hypothesis suggests that a national economy exhibits notable imbalances and inequalities, both socially and economically. It implies that there are disparities in the distribution of income and wealth among individuals and households, as well as differences in access to resources such as education, healthcare, and employment opportunities. The hypothesis sets the expectation that these asymmetries can be observed and measured through various indicators and metrics, highlighting the presence of inequality and imbalances within the national economy. We can all agree that this is the reality which individuals face on daily basis.

Policymakers and researchers often study these disparities and consider various strategies to address them, such as progressive taxation, social welfare programs, and initiatives to promote equal access to education and healthcare. By understanding and addressing these inequalities, societies can work towards fostering a more inclusive and equitable economic environment for all their citizens.

Conclusion

To sum up, identifying and measuring social and economic asymmetries within a national economy is crucial for understanding and addressing systemic inequalities. By examining various indicators, such as income distribution, access to education and healthcare, employment opportunities, and wealth accumulation, policymakers can gain insights into the extent of disparities present in a society.

The HDI has played a significant role in shifting the focus of development discourse from purely economic growth to a broader understanding of human well-being. By incorporating education and health alongside income, the HDI recognizes that true development should encompass not only material prosperity but also access to essential services, opportunities for personal growth, and a decent quality of life.

Through comprehensive data analysis and robust measurement frameworks, it becomes possible to quantify the magnitude of social and economic asymmetries. This allows for evidence-based decision-making, enabling governments, organizations, and communities to formulate targeted

policies and interventions that promote inclusivity, social mobility, and sustainable economic development.

Furthermore, the identification of social and economic asymmetries can serve as a powerful tool for monitoring progress over time. By regularly measuring and tracking indicators, policymakers can assess the effectiveness of their initiatives and make necessary adjustments to reduce disparities. This iterative approach fosters a culture of accountability and ensures that resources are allocated efficiently to address the root causes of inequality.

It is important to recognize that social and economic asymmetries are complex and multifaceted, often resulting from a combination of historical, structural, and systemic factors. Therefore, addressing these disparities requires a comprehensive approach that involves collaboration between multiple stakeholders, including governments, civil society organizations, and the private sector. By working together, it becomes possible to implement integrated strategies that tackle both the symptoms and root causes of inequality, promoting a more equitable and inclusive society.

In conclusion, identifying and measuring social and economic asymmetries within a national economy is an essential step towards fostering a fairer and more prosperous society. By leveraging data-driven insights and adopting a multi-dimensional approach, we can strive towards creating an environment where everyone has equal opportunities to thrive and contribute to the overall well-being of the nation.

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The role of personal branding in B2B

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Abstract: This research aims to facilitate the role and utility of personal branding in understanding the interrelation of branding. Thus, the thesis explores the branding of companies in a B2B context. The research utilizes a deductive approach and a form of directed analysis. It was found that authenticity is a major aspect of communicating a personal brand. This is since supporting other salespeople, offering expertise, and creating relationships were essential. Furthermore, findings regarding the development of a personal brand indicated changes in professional and personal life as prominent factors. Moreover, the study identifies how personal branding can be involved in the B2B sphere. The research shows how personal branding can form the basis for the successful branding of B2B companies.

Keywords: Branding, personal brand, Business to business, networking, market.

JEL Classification: A- [General Economics](#) and Teaching, E-[Macroeconomics](#) and [Monetary Economics](#), M- Business Administration and Business Economics, Marketing, Accounting and Personnel Economics.

Introduction

It is no longer sufficient to participate in merely advertising or public relations for active business growth nowadays. Consumers are increasingly inclined to trust organizations whose managers and owners have transparent expert positioning, an active business position, and strong brands in the setting of increased competition and the growth of digital technologies.

The main misconceptions common among beginners in the field of personal branding, the key elements of a personal brand, as well as current trends in this area, will be taken into account, which will allow the readers of the article to create or strengthen their personal brand or the personal brand of their manager.

Literature review

The term “personal brand” could be described as referring to one’s reputation in the context of goal-driven online communication. A personal brand is based on appearance, choice of channels, presence, and actions.¹

Amazon CEO and founder Jeff Bezos once said, "Your brand is what people say about you when you are not in the room".

¹ Personal Branding on Social Media and Social Media Based Entrepreneurship
LAHTI UNIVERSITY OF APPLIED SCIENCES Faculty of Business and Hospitality Management Degree Programme in International Business Bachelor’s Thesis Fall 2017 Jenni Vilander

The concept was introduced by Tom Peters in 1997 and he means that individuals' can be brands in the same way as products can be, individuals should thereby market themselves correctly. A personal brand clarifies and communicates who a person is and continues to be built and developed around the clock through documents and statements. The personal brand is thus about how you want to be perceived by the outside world and not how you perceive yourself. To brand yourself, one should be different from others and try to stand out in the crowd. Marketing and positioning yourself can have an impact on your career.

Data and Methodology

This study paper examines the influence of personal branding in businesses. The scientific and informational basis of the article consists of key studies, statistical databases and reports related to the industry.

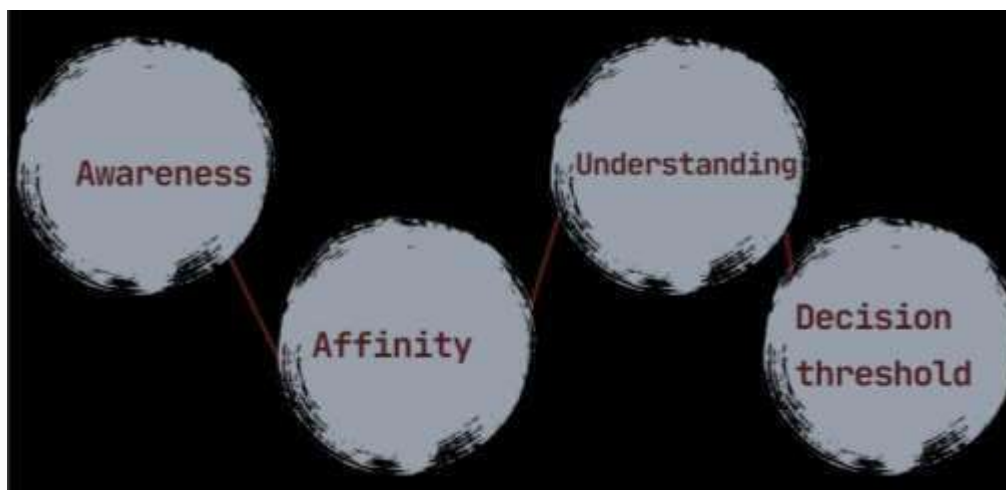
The article used well-known research methods in the economic sphere, in particular, on the other hand, science, science, graphic, fundamental, quantitative, qualitative. The approach of fundamental components is one of the most prevalent methods of looking for factors. Surveys of business representatives and their findings were also undertaken as a methodological basis for the study.

Results and Discussion

Personal branding is becoming one of the most important developments in the realm of public relations in general, as the notion of p2p (human-to-human) is gradually gaining traction. Regardless of the market or professional activity, engagement is always carried out between particular people rather than between corporations. Internet technologies replace individuals, but they also allow those who previously had little chance to actively grow and reach their target audience. Specialists from the regions, individuals with disabilities, outstanding musicians and authors, and others have the potential to "break through" as a result of them.

According to Peter Montoya, there are 4 basic levels of personal branding.

Figure 1: 4 basic levels of personal branding



² The Personal Branding Phenomenon By Peter Montoya Yana Kolodyazhnay

1. Awareness. This is where everything starts. You need attention. You need people to hear about your existence first. This is the starting milestone of every brand, whether it is a personal or a company brand.

2. Affinity. If the first step goes well and you manage to present your brand effectively, you have managed to create some sort of connection with an audience. Branding is not rational. Most of the people correlate brands with emotions. Brand actually has a lot to do with emotions and feelings.

3. Understanding. This level allows you to deepen your relationship even more. You might also want to look representative and have your background sorted out. A bit later, I will be talking about the importance of social media profiles, websites, and other channels for your personal brand.

4. Decision threshold. By now, your customer has a good amount of information about you, what you do, and how good you are at it. There are also positive feelings toward your persona. In plain language, they like you. If you manage to execute the first 3 steps in a good way, this step will be easy. By this time, the customer has thought about considering you and has reached the decision-making process.

This model proved to be functional, and it can be used in the B2B market. There are, of course, critics of it, such as those who say it is not quite as effective as personal selling. However, we do not have unlimited time and resources to go and personally sell our expertise to every single potential customer. This is where online branding is beating selling and giving a much wider range of opportunities and communication with the environment.

Why is personal branding important in the B2B? This is the main question of this paper.

Every B2B business needs a personal brand because.³

- it helps with talent acquisition,
- increases sales,
- helps control the narrative about brand,
- builds trust,
- tips for developing a successful personal brand,
- consider what business bring to the table,
- select and optimize social media accounts,
- create a consistent posting schedule,
- interact with audience to grow brand.

Talk about social media. Social media can be useful in several ways in brand enhancement. Using social media opens many possibilities such as:

- more contact surfaces,
- fast dissemination opportunities,
- ongoing monitoring of the world,
- long-term relationships and a dialogue,
- closer contact with customers.⁴

3 Why Every B2B Business Leader Needs A Personal Brand by Forbes Agency Council Kathryn Strachan Forbes Councils Member Aug 18, 2022,07:15am EDT

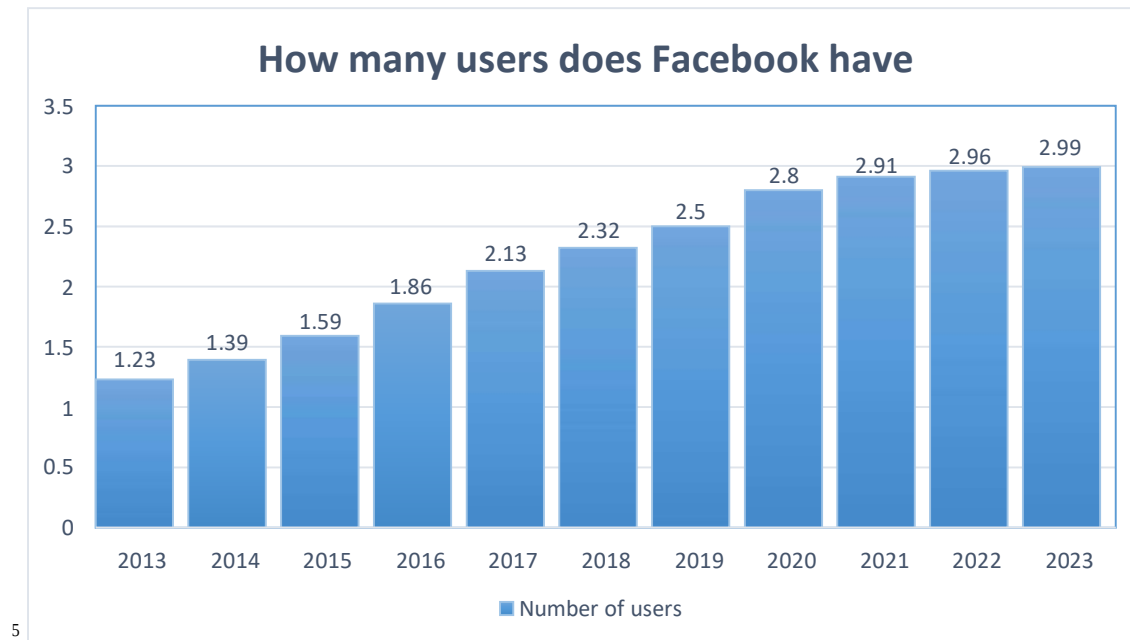
4 Mangold, W.G. and Faulds, D.J. (2009) Social Media: The New Hybrid Element of the Promotion Mix. *Journal of Business Horizons*, 52, 357-365.

The online environment brings a lot of opportunities for individuals who want to be seen and heard – the growth of social media has transformed the whole communication culture and created new online platforms that offer opportunities for businesses and for personal use.

Personal branding is much more about LinkedIn, according to Chris J. Reed, who wrote the book “Personal Branding Mastery for Entrepreneurs”. He thinks that LinkedIn is an entrepreneur's “first port of call”, because it is the first thing that shows up when someone is typing your name on Google. Afterwards, the one who is searching, then clicks on the person's LinkedIn profile and gets a positive or negative impression of it.

When we talk about the effectiveness of branding, we must notice that by 2023, there will be over 5 billion active internet users worldwide. Since the epidemic, the number of internet users has skyrocketed, and the majority of schooling, employment, and other communications are now conducted online. This is a great indicator and shows how important and useful digital marketing tools can be in promoting brands. Personal branding online involves managing different social networking profiles while giving people the opportunity to promote themselves as brands in a relatively cheap and efficient manner. People have noticed how much cheaper it is to market something online rather than through traditional media (Television, Radio, Newspapers etc.). This has let traditional media face enormous challenges when people are becoming producers and distributors of content themselves. Social media-based entrepreneurship is an interesting phenomenon that will only keep evolving and creating new opportunities in the social media market. Instagram and LinkedIn have evolved into the biggest platforms for personal branding. Facebook is the most used platform in the world, but Instagram is growing to be as popular as Facebook across all ages, locations, and brands. It has an enormous user base and it has higher per-post engagement rates than any other social platform. LinkedIn has matured into a professional and educational platform designed to feed any persona over time, and serious users of the platform are starting at a young age. LinkedIn is aimed at business professionals and skilled specialists and it has become the internet's primary source of professional or personal branding. LinkedIn can help to find jobs via influencers and build new connections that help in the transition to a business career. (Using LinkedIn..., n.d.) LinkedIn was originally a marketplace, which makes a professional's profile a product or a service that needs to be fed and promoted. The tools that LinkedIn offers are specifically designed to let users maximize the salesmanship of their professional products. There are hidden rules when using LinkedIn as a personal branding tool. According to Reed, the biggest mistake people make when using LinkedIn is just talking about their job. It is important that one stay relevant, interesting, and never boring. Also, posting clichés and buzzwords and not making the most of the recommendations can lose one's credibility on LinkedIn. If a person truly wants to maximize the sites' usefulness, the profile must be looked at as an ongoing brand promotional campaign. One should add their qualifications, achievements, relevance, and personality. These should come together to create a trustworthy brand worth investing in.

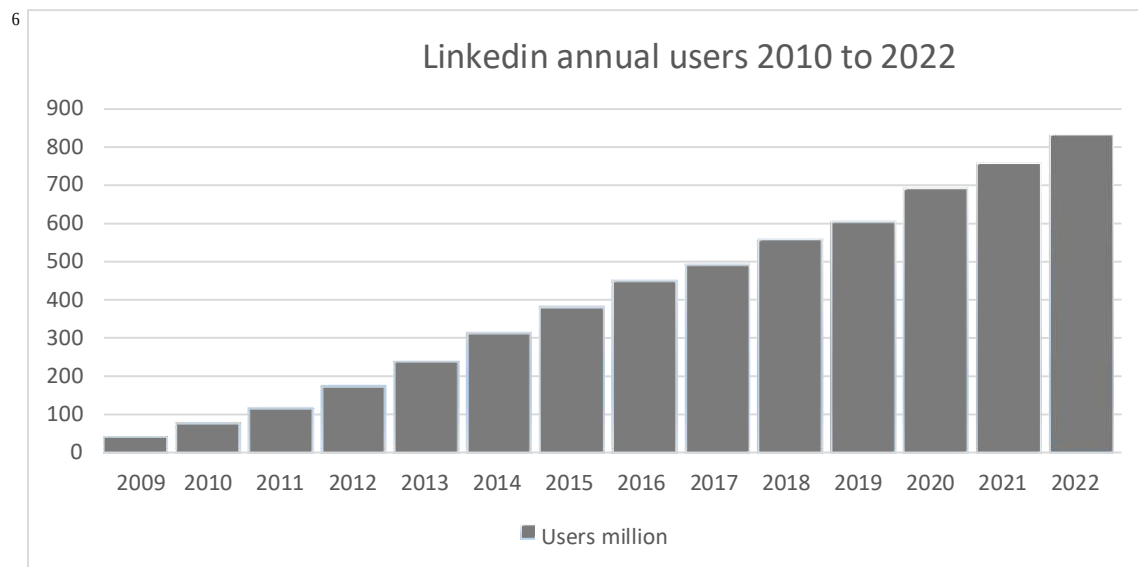
Figure 2: Amount of Facebook users.



Facebook is 2nd-most-used global app based on total usage time. Only YouTube tops it. Facebook Messenger comes in at number 9. Facebook is also the third-most downloaded app, after Instagram and TikTok. Over 58 Million Companies Are On LinkedIn. In addition to individual users, companies also have profiles on LinkedIn. These profiles are a means for marketing on the platform and recruiting new employees. 93% of B2B Marketers Use LinkedIn.

⁵ <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>

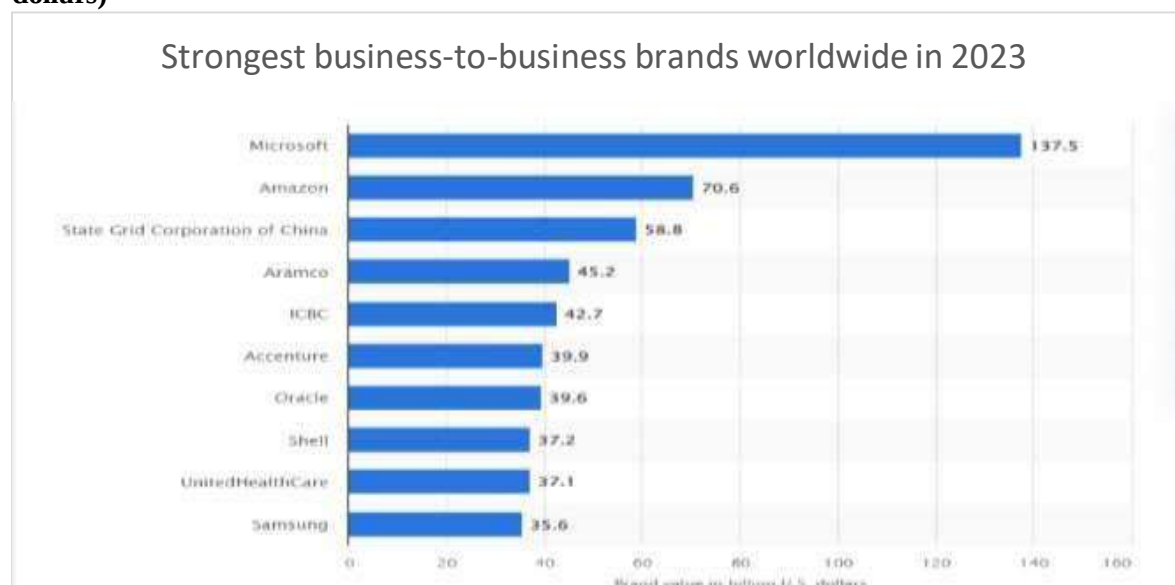
Figure 3: Ammount of Linkedin users.



B2B marketers use LinkedIn for their organic social marketing strategies because of the large number of professional users and the platform's advanced filter and target options. The LinkedIn is the most effective platfor for businesses for networking and hiring a highly qualified individuals. The strongest B2B brands use Facebook and Linkedin platforms for strengthening their brand power. There is the strongest B2B brands by index score.

With 62% of LinkedIn users claiming that only a quarter of their connections have added value to their own careers and 28% claiming that it is full of spam. It's also crucial to look for additional locations to interact while developing a personal brand.⁷

Figure 4: Most valuable business-to-business (B2B) brands worldwide in 2023(in billion U.S. dollars)



⁶ <https://www.statista.com/forecasts/1147197/linkedin-users-in-the-world>

⁷ Personal branding in a B2B world Published on: 22 September 2020 Tom Bestwick Digital PR lead

⁸ <https://brandirectory.com/reports/b2b>

There is most valuable B2B brands worldwide in 2023. When we talk about personal brands, we must mention Microsoft. Bill Gates' legacy will be complicated. In addition to being a legendary personality in the field of personal computers and a successful businessman, he is also a corporate philanthropist. Gates' brand is that of an extremely bright person who has succeeded in building massive buildings, whether they be aggressive enterprises or well-endowed foundations.

Brands are often formed around a single area of expertise. There are clear examples, such as Richard Branson, of people expanding these, but the bulk is based on only one. It is critical to maintain the brand's basics and to prevent diversification in favor of improving one's primary activity. There are several methods to specialize;

1. Strategic vision, understanding of first principles, and the capacity to communicate complexity
2. By behavior - such as leadership abilities, enthusiastic energy, or the capacity to listen
3. By lifestyle - such as living on a boat, not wearing ties, or traveling by motorcycle
4. By goal - for example, witnessing individuals achieve their own expectations
5. By product - the futurist who develops great work environments
6. By profession - a specialty inside a niche.

Conclusion

A personal brand is a stable system based on a promise made to the target audience that has remained unchanged for a fairly long period of time, It is based not only on the goal of forming a personal brand, but also on a person's mission, which is a non-monetary guideline of professional activity within which a personal brand is built. It can, for example, contribute to the growth of the region's economy, the enhancement of consumer culture, or the formulation of successful business thinking.

The role of personal branding in B2B business is irreplaceable, because it develops trust, increases interaction with the audience, generates loyalty through time and establishes a unique identity . Creating a personal brand is an investment in the professional development and the success of every B2B company.

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The common good in developing countries: A case study of Albania

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Abstract

This paper aims to explore the concept of common goods and their importance in developing countries, mainly in the case study of Albania.

The common good is a fundamental principle of social justice that emphasizes the welfare of the community rather than individual interests.

The findings of this case study contribute to the understanding of the opportunities and challenges for promoting and advancing the common good in Albania.

While progress has been made in Albania since the collapse of communism in the early 1990s in areas such as economic growth, infrastructure development, and social welfare, challenges such as corruption, weak governance, and inequality persist.

These challenges have implications for the realization of the common good, which make even harder the well-being and welfare of all citizens, especially the most vulnerable.

Overall, this paper stands for the impact that common goods have in supporting communities in developing countries and how government policies can use them to stimulate better welfare for their citizens.

Keywords: *Albania, civil society, common goods, developing countries, economic development, policy recommendations, social welfare.*

JEL classification: *H4, I3, O2, O3*

1.Introduction

The concept of the common good, often associated with the well-being and prosperity of a society as a whole, plays a crucial role in the development of nations worldwide. In the context of developing countries, understanding and promoting the common good becomes even more significant, as these nations face unique challenges and opportunities on their path to progress. This case study deepens in Albania, a developing country in Southeast Europe, to explore how the pursuit of the common good has shaped its social, economic, and political landscape. By examining specific initiatives, socio-cultural factors, we hope to uncover valuable lessons that can inform and inspire approaches to promote the common good in Albania.

2.Literature Review

Although nowadays technological and economic development is incredibly higher than ever, there still exist a considerable inequality between different categories of people. Therefore, is necessary a concept to amplify differences in society under which people have to achieve their personal goals. This concept is known as common good. According to The Stanford Encyclopedia of Philosophy the “common good” refers to those facilities—whether material, cultural or institutional—that the members of a community provide to all members in order to fulfill a relational obligation they all have to care for certain interests that they have in common. So, the common good contributes in everyday life of people in order to ensure them equality, justice, same opportunities and benefits to live a comfortable, fulfilling life. The common good has been a part of social and political discussions since ancient times.

Aristotle (384 BC-322BC) is considered as a fundamental thinker about the concept of common good. Aristotle stated in his Politics (1998, 1252a1–3, p. 1) that the city-state is a particular type

of community, and that, like all communities, it is “established for the sake of some good”. He specified that the good of the city-state is the most authoritative good, encompasses all other goods.¹ So inarguably is concluded that Aristotle have considered the wellness, wellbeing and welfare of community of a higher importance than that of the person. Thomas Aquinas (1225-1274) was an Italian priest and philosopher who studied and wrote about Aristotle ideas. He believed that people should act in accordance with common good. However, he believed there are personal interests that people have. “Therefore,” he concluded, “in every multitude there must be some governing power” to direct people toward the “common good.”

Thomas Hobbes (1588-1679) was an English philosopher believed that society was in a constant state of war, where all were against of all. In order to achieve the greater or common good, people needed to agree to a covenant, where it was up to sovereign to protect all citizens.

In recent literature John Rawls (1921-2002), moral, legal and political philosopher defined the common good as “certain general conditions that are...equally to everyone's advantage”.²

All in all, common good can be described as non-excludable, promoting benefits for all, its ownership belongs to everyone, but at the same time is rivalrous (if one person gains access over it, another person will lose it). Examples of particular common goods or parts of the common good include an accessible and affordable public health care system, and effective system of public safety and security, peace among the nations of the world, a just legal and political system, and unpolluted natural environment, and a flourishing economic system.³

3. Data and Methodology

The methodology used in this paper on the topic of common goods in Albania primarily relies on qualitative research methods. To gain insights into the concept of the common good, a systematic approach is taken to collect and analyze numerical data from various sources such as from statistical sources, international organization and demographic indicators. These data sources cover the period 2019-2022, providing a comprehensive view of Albania's development landscape. Through this method, the paper aims to provide objective insights into the common good in Albania, contributing to a more data-driven understanding of the topic.

4. Results and Discussion

Social and economic development in Albania

Albania is a developing country that has been through a long transitory period from totalitarian to a democratic regime.

The main incomes of Albanian economy are immigrant annual remittances, services, and the agricultural sector. In 2019 because of coronavirus Albanian economy was affected considerably, resulting this way in a decrease by 3,5% of real GDP in 2020, compared to 2019. However, the economic situation has been improving ever since. According to Albanian Economic Reform for 2023-2025, Albanian economy has been performing very well, resulting in a GDP increase by 4,2% in 2022.

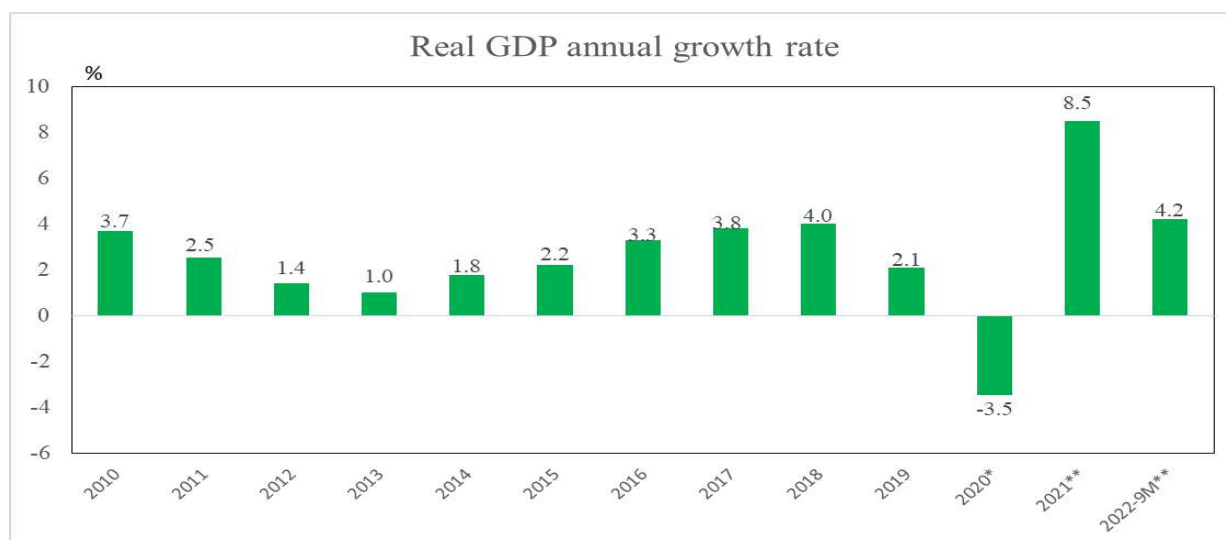
According to data from World Bank's, poverty has fallen significantly to 22% of the population in 2021. Unemployment rate has been decreasing through years, resulting in 11,8% in 2022, 0,9% less than unemployment rate in 2021.

¹ The concept of common good, Maximilian Jaede.

² The common good, Manuel Velasquez, Claire Andre, Thomas Shanks, S.J., and Michael J. Mey.

³ The common good, Manuel Velasquez, Claire Andre, Thomas Shanks, S.J., and Michael J. Mey.

Figure 1: Real GDP annual rate

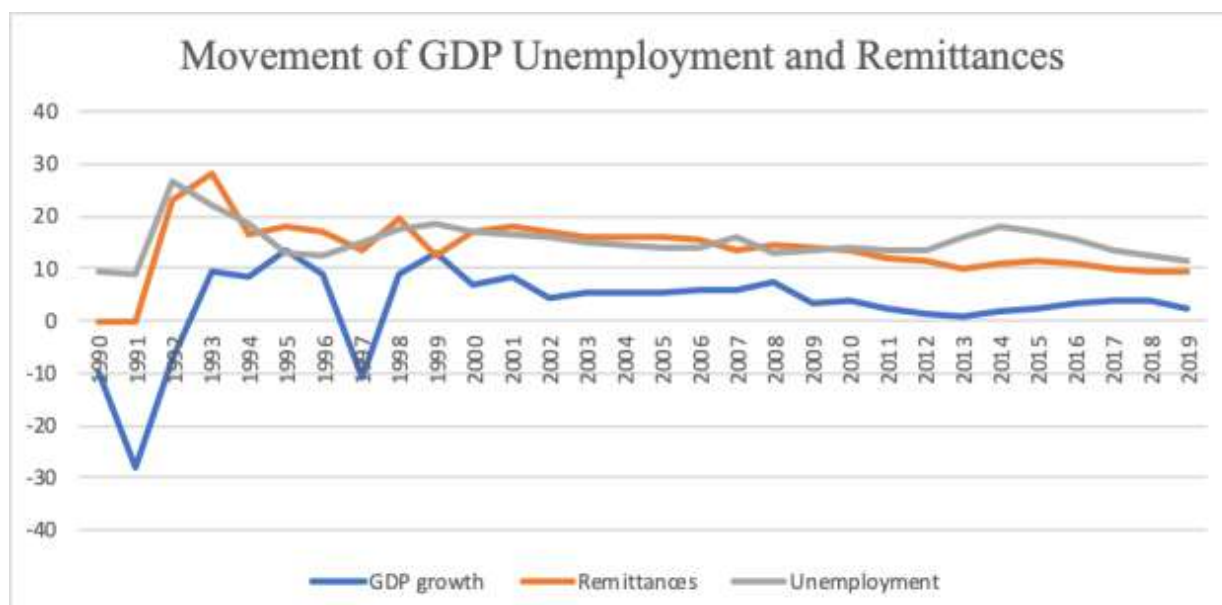


Source: Albania's Economic Reform Program 2023-2025

According to World Bank, GDP per capita is valued \$ 6802,8 in 2022, having an increase of 6,67% compared to 2021 and 42,4% compared to 2010.

Overall, Albania continues to have a lot of challenges and improvements that needs to be done in the future. But the current situation seems hopeful and goals achievable.

Figure 2: Movement of GDP, Unemployment and Remittances



Source: World Bank

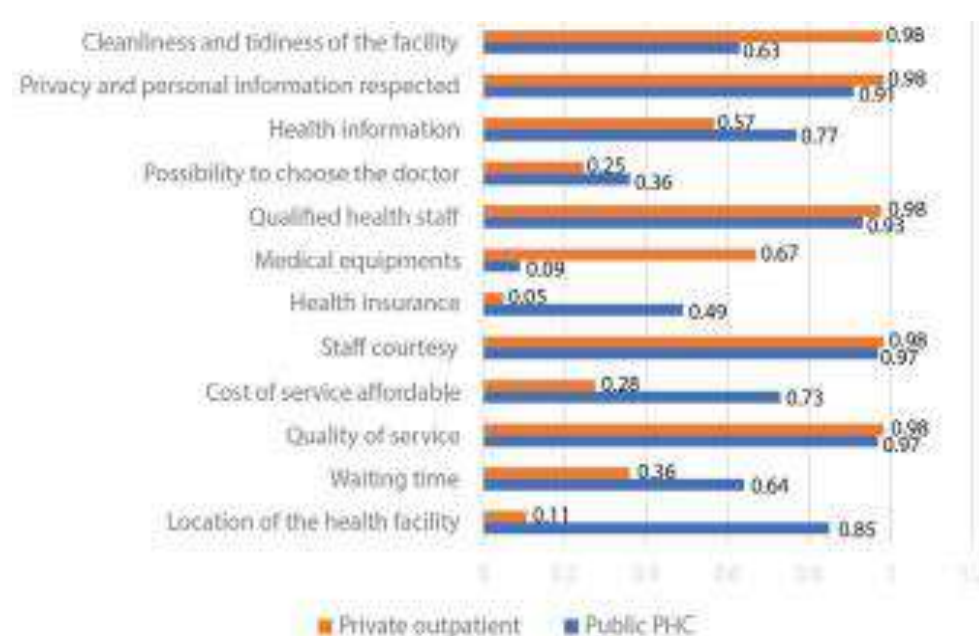
However, some of the challenges that affect Albania include unemployment rate (even though it has been decreasing lately), inflation etc.

Public healthcare and education

Healthcare is one of the most discussed over sectors in Albania. Lack of necessary equipment, insufficient public financing from government, or high corruption rate are some of challenges related to healthcare. Especially catastrophic health care expenditures do not only impose a higher poverty risk for people seeking health care but may also impose barriers to access for them.⁴ A noticeable trend in the recent years is the using of private rather public healthcare. This happens because private healthcare is considered to provide better care, adequate medical equipment and better professionalism regarding meeting patients medical needs.

However, this trend derivates a lower accessibility, availability, and affordability for patients from different economic categories. This means that not all people receive the same quality of health care, especially if they are of a lower status.

Figure 3: Principal reasons for using healthcare facility type



Source: Factors associated with the utilization of primary care services: a cross-sectional study in public and private facilities in Albania, J.G, CH. SCH, K.W.

Education has been one of the most criticized upon in Albania. Basic education in Albania consists of 9 years, through the years of 6 to 15 years, then in followed by higher education that is 3 years long. After that students can access higher education in forms of professional training or academic/university education.

It is considered to be available, affordable and inclusive of every category and status of pupils. However, a large number of Egyptian and roman adolescents drop out of basic education, are applied high tariffs, especially in higher education etc.

Social inclusivity and human rights

Over the years Albania has transitioned from a country with high inequalities among genders and races, to a place with higher inclusivity and equalities among different categories of people. In 2020 49,8% of population were men and 50,1% were women.⁵

⁴ Paying out-of- pocket and and informally for health care in Albania: the impoverishing effect on households, S.Tomini, W.Groot, M.Pavlova, F.Tomini.

⁵ Women and men in Albania, 2021, INSTAT.

According to the latest publication of INSTAT⁶ “Women and men in Albania”, 2021 the participation rate of women in parliament was 35,7%. The Gender Inequality Index (GII) in 2021 was 0,09 from 0,06 in 2020. However, this index has been improving in comparison to 5 or 10 years ago.

Egyptian and roman people are another fragile/vulnerable category of people that have faced inequalities regarding education, healthcare and social integration. Egyptian and Roman communities were granted national minority status in Albania only in 2017.⁷

According to a study by in Egyptian and roman youth faces difficulties such as lack of assets, mental health concerns, personal and structural discrimination etc.

In conclusion different social categories face different inequalities and challenges, such as faced include unprotected personal data (they were cyberattacked), cruel treatment in psychiatric facilities, discrimination etc. but in recent years there have been slight improvements toward a more equal society.

Infrastructure and urban development

Infrastructure and urban development are vital for advancing the common good in developing countries like Albania. As a small developing nation, Albania recognized the importance of modernizing its infrastructure to improve the well-being of its citizens and promote sustainable development. Key initiatives include enhancing transportation networks, public facilities, water, and electricity supply. These investments have increased market access, reduced transportation costs, and attracted business investments, leading to economic growth and job opportunities. Moreover, sustainable urban development has connected isolated communities, improved living conditions, and preserved the environment. However, Albania still faces challenges in competitiveness due to limited entrepreneurial and technological knowledge, high informality, unmet investment needs, and low spending on research and development.

Migration and “brain drain”

Internal migration has been a very relevant phenomenon in Albanian society after the dissolution of the communist regime in 1990. Consistently since that time, there has been a double pattern of internal migration in place. Some people move from rural mountainous areas in the northern and southern part of the country into the urban areas located in the western lowlands. Others leave the poorest urban areas with the most outdated industrial sectors (Kukës, Elbasan, Berat, Dibër), and move to the most dynamic cities (Tirana, Durrës, Fier).

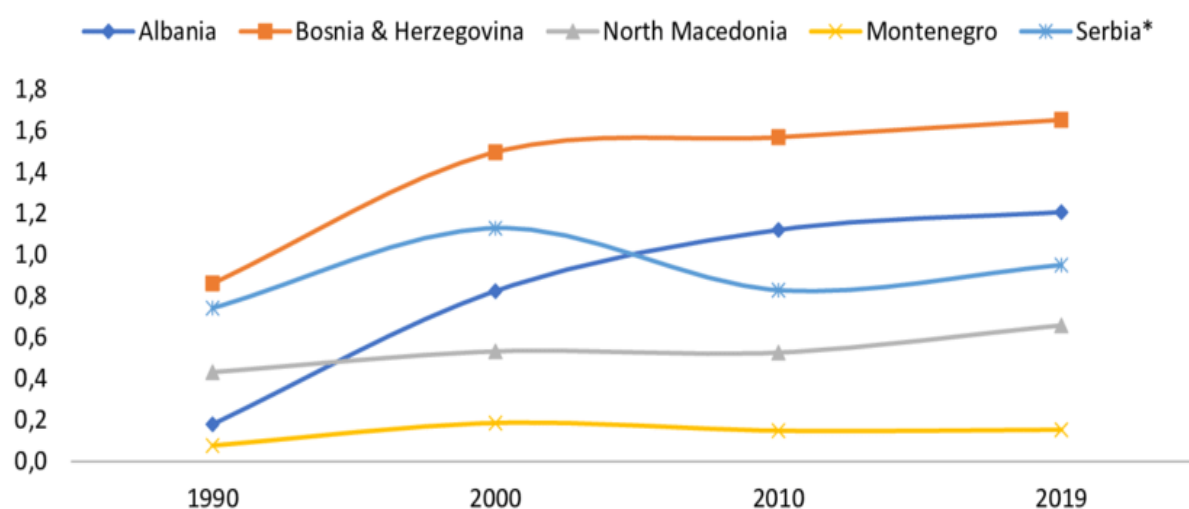
Migration in Albania, including the emigration of skilled workers, is primarily driven by economic factors. The country has faced challenges such as economic disparities, limited job opportunities, and low wages, prompting individuals to seek better prospects abroad. Based on the period 2011-2020, the trend of the number of immigrants appears to be decreasing, with the exception of 2011, which constitutes the largest number of the departed population with nearly 55,000 Albanian citizens and a marked increase in 2017 and 2019. In 2019, Albania has the second highest number of emigrants in the Western Balkans.⁸

⁶ Instituti i Statistikave, national institution of statistics.

⁷ Assembly of Republic of Albania, 2017.

⁸ INSTAT 2020.

Figure 4: Stock of emigrants from the Western Balkan countries, in million, 1990-2019

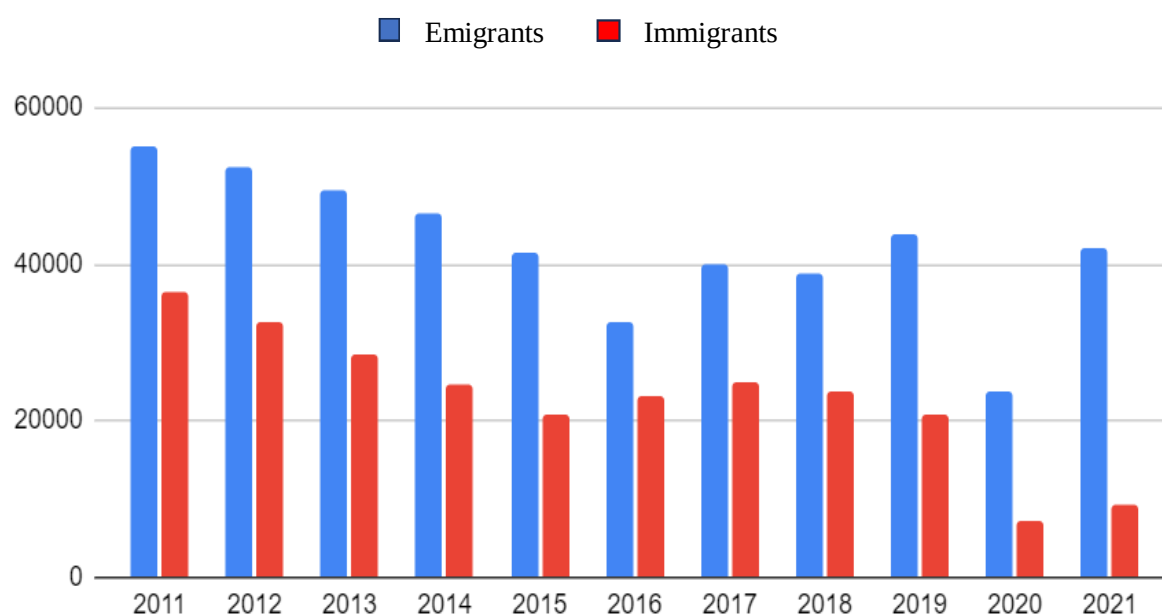


Source: Migration Information Source, 2020

Meanwhile, the year 2020, due to the tightening of preventive measures for the spread of Covid-19, with the closure of road, sea and air borders, has significantly reduced the number of emigrants leaving the country, reaching 23,854 emigrants.

The year 2021 has marked an immediate increase in Albanian emigrants leaving the country, reaching 42,048 emigrants.

Figure 5: The number of emigrants and registered immigrants in Albania, 2011-2021



Source: INSTAT, 2022

In 2022, about 46,460 Albanians left the country. This exodus was 10.5% higher than the previous year, with the majority, about 36,000, being young people.⁹

Skilled workers and educated professionals constitute 25% to 30% of those leaving.

⁹ INSTAT, 2022.

This has led to the phenomenon called "brain drain" effect.

This loss of talent can hinder economic growth, limit innovation, and aggravate societal challenges, as well as affecting the quality and accessibility of public services like healthcare, education.

According to (INSTAT,2022) 3,500 healthcare personnel have moved to Germany from Albania in the last ten years.¹⁰

Data also shows that fewer Albanian young people are entering and completing their studies. For example, in the academic year 2021-2022, about 30,910 students graduated from higher education, marking a 5.4% decrease from the previous academic year.¹¹

To address this challenge, Albania needs to invest in education, providing competitive salaries, and fostering a conducive working environment. If so, Albania can retain its skilled workforce and strengthen the provision of public goods for the benefit of its citizens.

While this emigration trend poses challenges, it also presents unique opportunities for the country. Remittances sent back home by Albanian expatriates serve as a crucial lifeline for many households, providing financial support that positively impacts the local communities. According to (World Bank 2021), remittances to Albania have consistently contributed to a notable portion of the nation's GDP, fostering economic stability and resilience.¹²

These financial inflows enable families to improve their living standards, access better education, and invest in businesses, ultimately enhancing the overall well-being of society.

Figure 6: Remittances,2008-2022 (mln Euro)



Source: Bank of Albania,2022

According to the balance of payments of the Bank of Albania, during the period January-June 2022, immigrants sent home 376 million euros, with an increase of 10.6% compared to the same period a year ago.¹³ This is the highest level of remittances since 2010.

Earnings from immigrants peaked from 2000, when those who left in the 1990s stabilized and started sending money home by 2009. Then they began their downward trend, which was linked to the emigration cycle, where those who left after a period of 10-15 years gradually begin to break ties with the motherland. This downward cycle continued until 2013.

¹⁰ INSTAT,2022.

¹¹ INSTAT,2022.

¹² WORLD BANK,2021.

¹³ BANK OF ALBANIA,2022.

Then the steady upward trend began (with the exception of 2020, which coincides with the pandemic period), peaking in 2022. According to experts, this trend is related to the revival of immigration, as part of the population continues to emigrate. Moreover, the new wave has included employees with good job positions such as doctors, nurses, or information technology specialists.

The role of government policies and international

Government policies and international aid have played a crucial role in promoting the common good in Albania. Remarkable progress has been made in reducing poverty, with the rate declining from 25.4% in 2010 to 22.0 % in 2021¹⁴ thanks to targeted social welfare programs and poverty alleviation schemes. The government's focus on education led to improved access, as reflected in the primary education enrollment rate rising from 87% in 2000 to 98% in 2019.¹⁵ Healthcare advancements are notable, with the infant mortality rate decreasing from 15.6 to 9.3 deaths per 1,000 live births between 2000 and 2020.¹⁶ For adults, the number of deaths in 2022 was 23,998 people, suffering a decrease of 21.3%, compared to the previous year.¹⁷ International aid, especially from the EU's Instrument for Pre-accession Assistance (IPA), funded infrastructure and environmental projects. United Nations collaboration enhanced efforts in gender equality, human rights, and environmental protection. Challenges remain with unemployment and regional disparities, necessitating ongoing support for Albania's progress towards the common good.

5. Conclusions

Looking ahead, Albania faces challenges and opportunities in pursuing the common good. Economic recovery post-COVID-19 is a top priority, requiring inclusive measures to address unemployment and poverty. Income inequality must be tackled by bridging gaps between groups and regions for equal access to opportunities. Balancing economic growth and environmental conservation is crucial, necessitating sustainable practices and transparency to combat corruption. Addressing rural challenges and reducing urban-rural disparities will foster inclusive development. Strategies to achieving all include multi-stakeholder partnerships, investing in human capital, transparent governance, inclusive policymaking, and environmental considerations. Embracing these perspectives will lead to a brighter future, prioritizing citizen well-being and preserving natural heritage in Albania.

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¹⁴ INSTAT,2021.

¹⁵ UNICEF,2020.

¹⁶ INSTAT,2020.

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Assessing the maturity of sustainable business model and strategy reporting under the CSRD shadow

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Abstract

This paper evaluates the maturity of Sustainable Business Model (SBM) and strategy disclosure in 30 listed Greek companies across various sectors, in light of the European Union's Corporate Sustainability Reporting Directive. It uses the Practices Evaluation Approach developed by EFRAG (2021) to assess the clarity and comprehensiveness of business model (BM) and strategy disclosure, the disclosure of BM's impact on sustainability, material sustainability issues, exposure to risks and opportunities, and sustainability strategy. Findings reveal that SBM reporting lacks holistic development, varies by sector, emphasizes sustainability risks over opportunities, lacks quantification, and has limited linkage between sustainability strategy and financial objectives. The paper concludes with pointing out some critical issues of SBM and strategy disclosure and hints useful for enhancing maturity of disclosure.

Keywords: EFRAG, Greece, Practices Evaluation Approach, Sustainability Reporting, Sustainable Business Models

1. Introduction

The concept of sustainable development has become a significant concern in the business world, compelling companies to incorporate sustainability aspects into their business models and strategies. Corporate reporting has also evolved to encompass non-financial drivers of value creation, driven by pressure from capital providers and EU directives such as the Non-Financial Reporting Directive (NFRD) and Corporate Sustainability Reporting Directive (CSRD).

This paper assesses the maturity of sustainability reporting in Greek firms under the influence of the CSRD, with a focus on communication related to sustainable business models (SBMs) and strategies in corporate reports. The evaluation framework used is the Practices Evaluation Approach (PEA), which encompasses seven criteria related to BM disclosure clarity, time horizons, sustainability impacts, material issues, exposure to risks and opportunities, sustainability strategy, targets, KPIs, and monitoring.

2. Literature review

2.1 Business Models

BMs are seen as a structured management tool that influences business competitiveness (Di Tullio et al., 2019). Although the initial approach to BMs was to tell a story that captures the architecture of a company's products and/or services in the context of producing value for customers, recently, the concept of SMB has gained ground. SBMs extended the initial notion of the BM as the one that describes, analyzes, manages and communicates: a) the sustainable value proposition of the company to its customers and all stakeholders, b) the way the business creates and transfers this value, and c) the way it captures economic value while simultaneously creating or maintaining its physical, social and economic capital beyond its organizational boundaries (Schaltegger et al., 2016, p. 268).

Regarding the concept of sustainable value proposition it has been defined as the promise of economic, environmental, and social benefits to customers, society, and the environment, taking into account short-term profit and long-term sustainability (Massa et al. 2016). SBMs, therefore, aim to reduce business-related harm to the environment and society while ensuring economic success (dual materiality concept; Boons & Ludeke-Freund, 2013).

2.2 The BM and strategy as elements of sustainability disclosure

Business model (BM) and strategy disclosures are invaluable for understanding complex non-financial information, especially sustainability data (Nielsen, 2010). Familiarity with an organization's BM helps users attribute value to individual data points (Mouritsen & Larsen, 2005), offering context for interpreting quantitative indicators (Holland, 2005, p. 97). BM disclosure provides a coherent narrative (Nielsen and Bukh, 2013), aiding users in recognizing interconnected aspects of value creation. Furthermore, strategy disclosures offer insights into strategic plans and milestones (Lu & Tucker, 2012, pp. 947–977), enabling investors to link operations to financial outcomes and predict performance sensitivity to future events (Athanasakou et al., 2023).

Companies describe their BMs and strategy, using various types of corporate communications such as annual reports, capital reports, in Integrated Reporting, in corporate social responsibility (CSR)/sustainability reports, in CEO letters, in initial public offering (IPO) prospectuses and on corporate websites.

2.3 Research on BM reporting

Overall, the empirical research on disclosures related to BMs can be divided into two main groups. The first group of studies raises the issue of *compliance of BM disclosures with the <IR> Framework* proposed by IIRC (see e.g., Albertini, 2018; Eccles & Krzus, 2014; Malola & Maroun, 2019), whilst the second group focuses on *assessing the quality of disclosed information on the BM* (see e.g., Agustia et al., 2020; Bagnoli & Redigolo, 2015; Bek-Gaik & Surowiec, 2020, 2021; Bezverkhyy et al., 2019; Bini et al., 2016; Di Tullio et al., 2019; EFRAG, 2021; Gerwanski et al., 2019; Kilin & Kuzey, 2018; Lai et al., 2018; Lai et al., 2013; Melloni et al., 2016; Pistoni et al., 2018; Sukhari & De Villiers, 2019; Songini et al., 2020, 2021; Zarzycka & Krasodomska, 2023).

3. Data and Methodology

3.1 Research strategy, sampling and data collection

A team comprised of six (6) researchers (all postgraduate students) working under the guidance of an expert in the field, a technical lead and a scientifically responsible academic was formed. The researchers collected publicly available information - mainly from CSR/sustainability reports and connected documents on companies' sites- on BM disclosure from thirty (30) listed companies in the Athens Stock Exchange (ATHEX) subject to NFRD non-financial reporting obligation (see Table 1). To standardize the sample, only the 2021 reports were considered (Bini et al., 2016). Purposively, the population of companies operating in six (6) important sectors of the Greek economy, where sustainability issues are of utmost importance namely: IT, construction, tourism and transportation, cosmetics, banking, and energy.

Initially, the researchers received extensive training on the PEA methodology (see section 3.2). Following that, each researcher was assigned the task to study the reports of the companies operating in one of the sectors under study and apply the PEA criteria, bearing in mind the following research question (RQ):

Are Greek listed- companies mature regarding BM and strategy disclosures?

To address the research objectives and answer the RQ, each company report (and company) was carefully scrutinized according to the PEA criteria (validity; see 3.2) and the collected data were recorded in an excel file and sent to the three (3) experts who randomly reviewed one (1) SR and other related documents per sector (investigator triangulation; Denzin, 1973).

3.2 The Practices Evaluation Approach

As already specified, the PEA qualitative framework proposed by the PTF-RNFRO was used as the framework to evaluate the sustainability reports regarding the maturity of BM and strategy disclosures (for a detailed presentation of the method please see EFRAG, 2021, pp. 25-29). Therefore, this research builds on and extends the EFRAG (2021) research on *Towards Sustainable Businesses: Good Practices in Business Model, Risks and Opportunities Reporting in the EU*.

In terms of the application of the PEA, the following content elements are likely to be relevant to users of the reported sustainability information:

- Comprehensive description of the BM, i.e., unambiguous and complete allusion to the company's BM (mission, inputs (resources and relationships), activities, value chain, outputs (products, outcomes, impacts and KPIs).
- Report of the short, medium and long-term potential of the BM.
- Clear description of BM's dependencies (i.e., tangibles, capitals, resources) and impacts (impact and financial materiality) on sustainability issues.
- Presentation of the material sustainability issues that are likely to affect business performance.
- The company's exposure to sustainability risks and opportunities.
- The sustainability strategy, targets, KPIs, its monitoring and progress.

4. Results and Discussion

In accordance with the aforementioned criteria, the survey findings are presented below. Before referring to the *comprehensive, complete and clear description of the BM criterion*, it is notable that most of the undertakings dedicated a section to their BM and strategy in their sustainability or annual reports, while, in a few cases in other related documents, such as integrated reports or financial statements.

Additionally, it appears that many companies in the sample rely the description of their BM and strategy on the use of either reporting frameworks or standards or authoritative guidance to interpret and guide their business-model-related disclosures, such as GRI (83.3%), ATHEX ESG 2019 (60%) and SASB (32.5%). The combination of these frameworks leads to visualization and more comprehensive information.

Narrative reporting and schematic representations of the BM - offering a focused and rather complete description of the key elements of a BM - was portrayed by 67% of the companies, especially from the large ones in each industry. Nonetheless, the weakest disclosure in the graphical representations of the BMs is the disclosure of the impacts of the BM regarding sustainability impacts and KPIs.

The present research also raised concerns associated with the *quality of BM elements* disclosures, mainly with their relevance, completeness and consistency. It is also worth pointing out that the *construction* industry appears to stand out from the other five (5) in terms of the completeness and quality of the information disclosed, whilst those lagging behind are the companies in the IT and Cosmetics sectors where graphical and visual illustration of the published data is lacking and the provided information is not value oriented.

Report of the short, medium and long-term potential of the BM. As observed in the current research, 80% of the studied reports mainly give prominence to the short-term potential of the BM and strategy, whilst the minority (26.7%) make reference to their long-term strategy and targets which relate mostly to climate change and zero environmental impact. Notably, no companies in the cosmetics and tourism and transportation sectors reveal their long-term plans.

Reporting on dependencies and impacts. Disclosures were found to lack a balanced approach between the reporting on impacts and dependencies of their BM. The analysis also revealed that impacts are frequently depicted in broad terms and even when a connection to the SDGs is attempted there is lack of information on the precise impacts on different SDGs. Regarding dependencies, reference is mainly related to climate change and energy and the reports are less inclusive of dependencies related to social and governance issues.

Presentation of the material issues that are likely to affect business performance. The research findings reveal that the key material issues that preoccupy the top management, regardless of the business sector context, are related to human resources, cyber-security, business ethics and the environment. Among the top material issues are: occupational health and safety, employee development and diversity-equality at work, fighting corruption-ethics, cyber security/data privacy protection and circular economy. Surprisingly, customer related material issues and financial performance are given less emphasis by the top management.

Additionally, most undertakings incorporate the corresponding graph (based on GRI guidelines) which reveals the procedure of prioritizing their material issues. However,

investment of resources is required in the procedures of selection and ranking of the important topics for sustainability, taking into account the material issues for each industry on a global level.

Exposure to sustainability risks and opportunities. It was obvious that the reports do not provide sufficient information on the linkage of the BM to sustainability risks. In fact, 50% of the reports refer to sustainability risks and 13.3% focus only on the exposure to climate change related risks. Also, complete disclosure of the BM exposure to sustainability risks, including the description of time frames and financial impacts is rare. It is notable that 50% of the reports make no reference to sustainability opportunities whilst 36.7% allude to sustainability opportunities related to corporate strategy description.

In general, it could be supported that less mature reporting of sustainability opportunities compared to sustainability risks was noticed. This ascertainment possibly supports EFRAG's (2021) conclusion that sustainability is perceived as a threat to the business, a cost or risk, rather than as an opportunity for development and innovation.

Sustainability strategy, targets, KPIs, its monitoring and progress. Most of the companies (90%) provide discussions about their sustainability strategy, targets, resources available to implement the action plans, and milestones that show progress towards the achievement of longer-term goals. Nonetheless, only half (50%) of the companies use metrics and timelines in relation to their sustainability strategy. The minority (10%) generally refer to their goals and relevant indicators. More precisely, this segment of the reviewed companies limits information to its comparative advantage, without discussing issues of sustainability or good sustainable practices.

The findings also shed light to the extent to which disclosure varies between different business sectors. Last but not least, the examined sectors are not at the same level of maturity in terms of sustainability reporting, i.e., companies in the energy and construction sectors are overall more mature than all the other companies in the sample, whereas companies in the sectors of tourism, transportation and cosmetics are the least mature.

5. Conclusions

Demands for corporate reporting have changed in structure and content in order to address issues related to BM and strategy (Athanasakou et al., 2022, 2023). The results revealed that most companies are not yet mature in their sustainability disclosures. The research reveals that managers should provide clearer, more quantifiable and comprehensive descriptions of their organization's BM and sustainability strategies.

Moreover, to enhance reporting maturity, companies need to emphasize the link between their BM and strategy and sustainability considerations, including dependencies, negative impacts, and opportunities. Neglecting these aspects can mislead stakeholders and signal a lack of transparency (Dumay & Hossain, 2019).

Companies should also quantify opportunities and risks, linking them to cash flow generation and impacts, aligning with the concept of double materiality, which considers both financial and impact perspectives. The first focuses on the risks and opportunities that environmental and social issues place upon a company's activity,

performance and value in the short, medium or long term, while the second considers the negative or positive impacts that the company and its activities, as well as its upstream and downstream value chain, have on the environment, people, and society (EFRAG, 2021).

This study, while contributing to BM and strategy disclosure theory, has limitations. It focuses on Greece, covering only large companies with a significant social-environmental impact, excluding smaller ones and not all sectors. This is particularly important since the relevant research suggests that sector and size matter in the quality of sustainability reporting (Zarzycka & Krasodomska, 2023).

Summarizing and setting aside the above limitations, this research enriches the literature on current reporting methods and paves the way for updating sustainability reports.

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Leadership in the organization, methods, and tools of an effective management system

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Abstract: *This paper takes an in-depth look at the types of leadership, and the importance of leadership. It's devoted to forming a managerial style based on leadership qualities, and the application of methods and tools for getting higher effectiveness and productivity. The algorithms of managerial activity are considered, on the basis of which the "Cycle of managerial functions" is proposed. In a result, a road map for selecting a leadership style for the organization was developed, taking into account three major criteria.*

Keywords: *Leadership, transactional leadership, transformational leadership, servant leadership, authentic leadership, employee satisfaction, motivation*

Introduction: In today's dynamic and rapidly evolving business landscape, effective leadership plays a pivotal role in shaping the success and growth of organizations. A well-established and competent leadership style is the backbone of any management system, providing the necessary direction, motivation, and guidance to steer the workforce toward higher levels of productivity and efficiency.

The scientific basis for writing this article draws from the works of some researchers in the field of personnel management and administration, particularly A. Maslow¹, David R. Kolzow²,

¹ A. Maslow, "Motivation and Personality", 3rd edition, 2019, 354 p., <https://bit.ly/3DAc1>

² David R. Kolzow, "Leading from within: Building Organizational Leadership Capacity", 2014, 34 p. <https://www.infobooks.org/pdfview/2450-leading-from-within-building-organizational-leadership-capacity-david-r-kolzow/>

Health knowledge³, Stephen J. Skripak⁴, Helena Kovac, Martina Sirol, Marinela Sumanjski⁵, Dennis Haley⁶.

The fundamental premise of this study is to establish a clear link between effective leadership and proficient management practices. Effective leadership not only enables the achievement of organizational goals but also nurtures a cohesive and empowered workforce, capable of thriving in an ever-changing environment. As the foundation of successful management, leadership qualities are the key differentiators between thriving businesses and those that merely survive. So the purpose of this paper is to develop a roadmap for choosing a leadership style by organizational type. And the problems are to study leadership styles and their application in modern organizations.

Literature review: Leadership gives direction to a business and its employees. Employees must be aware of the company's direction and who to follow in order to get there. Leadership entails routinely monitoring the accomplishment of tasks by team members and demonstrating to them how to carry out their jobs efficiently. Leadership is also about setting a positive example for staff to follow, by being excited about the work, being motivated to learn new things, and helping out as needed in both individual and team activities.

In his "The 21 irrefutable laws of leadership" book John C. Maxwell⁷ believes that leadership is primarily about positively impacting others and helping them reach their full potential. Warren Bennis is a renowned leadership scholar and author. He views leadership as a complex process that involves guiding and inspiring others toward achieving common goals. He emphasizes the importance of self-awareness, emotional intelligence, and the ability to adapt to changing circumstances as key traits of effective leaders. On the other hand, Kouzes and Posner⁸ believe

³ Health knowledge,"Introduction to Leadership & Management", 121 p.

<https://www.infobooks.org/pdfview/2451-introduction-to-leadership-management-health-knowledge/>

⁴ Stephen J. Skripak, "Management and Leadership", 2016, 29 p.

<https://www.infobooks.org/pdfview/2455-management-and-leadership-stephen-j-skripak/>

⁵ Helena Kovac, Martina Sirol, Marinela Sumanjski, "Leadership Handbook", Sarajevo 2017, 112 p, <https://www.infobooks.org/pdfview/2456-leadership-handbook-helena-kovac-martina-sirol-marinela-sumanjski/>

⁶ Dennis Haley, The 7 Crucial Skills of Leadership, 8p. <https://www.infobooks.org/pdfview/2457-the-7-crucial-skills-of-leadership-dennis-haley/>

⁷ John C. Maxwell, "The 21 Irrefutable Laws of Leadership", 1998, 336 p.

⁸ James Kouzes and Barry Posner, "The leadership challenge", 1987, 426 p.

that leadership is not about a specific personality or trait but rather a set of learnable behaviors that can be practiced and improved over time. They emphasize the importance of building credibility, inspiring a shared vision, and encouraging the heart as fundamental aspects of effective leadership. Due to W.C.H. Prentice “Effective leaders take a personal interest in the long-term development of their employees, and they use tact and other social skills to encourage employees to achieve their best. It isn’t about being “nice” or “understanding”—it’s about tapping into individual motivations in the interest of furthering an organization-wide goal”

Recently, people all throughout the world have shown a great deal of interest in leadership. Every day, we hear stories of powerful CEOs who have succeeded as well as similar stories of leadership failures. Government directors, chief executive officers, organizational directors, Army generals, and other leaders of various groups of people at all levels of our community are all targets of criticism or acclaim from the press and media. As a result, there are many levels of leadership qualities rather than it only belonging to those at the top. According to Budur⁹ (2020; Toor & Ofori, 2009), "positive attributes of leadership include character, honesty, integrity, altruism, trustworthiness, collective motivation, encouragement, and justice." Top leaders help those below them build leadership skills so they can be more in charge of their job and goals.

Methodology: To explore the relationship between leadership styles and effective management, a mixed-methods approach was utilized.

1. Data Collection and information obtaining: Qualitative data was gathered from reputable sources on leadership theories, including works by prominent researchers such as A. Maslow, David R. Kolzow, and others. Additionally, case studies of well-known companies like Apple, Coca-Cola, and The Container Store were analyzed to illustrate practical applications of leadership styles.

2. Case Studies: In-depth case studies were conducted on Apple, Coca-Cola, Starbucks etc. to showcase the impact of different leadership styles on their success. These cases provided real-world examples of how leadership practices shape organizational culture and outcomes.

⁹ Toor & Ofori, “Ethical leadership: Examining the relationships with full range leadership model, employee outcomes, and organizational culture”, 2009, p. 3-4, <https://link.springer.com/article/10.1007/s10551-009-0059-3>

3. Thematic Analysis: Qualitative data from literature and case studies were subjected to thematic analysis to identify key patterns and insights related to leadership styles and their effects on management practices and employee satisfaction.

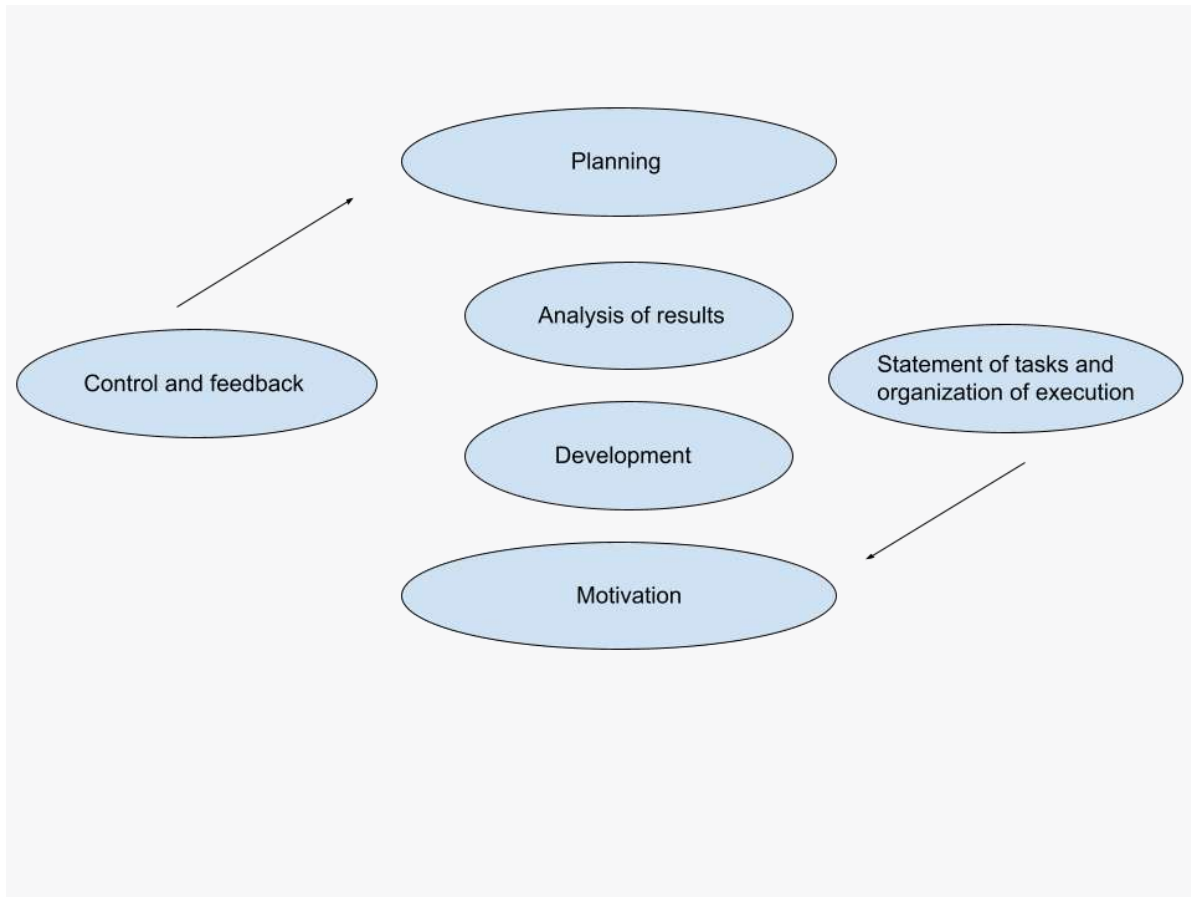
4. Implications and Recommendations: Based on the analysis, practical implications and recommendations were formulated to guide leaders in refining their leadership styles and management practices for improved organizational performance and employee satisfaction.

This methodology employed a streamlined approach, combining qualitative and quantitative techniques to provide a comprehensive understanding of leadership's role in effective management. The utilization of case studies and statistical data enhanced the credibility and applicability of the findings, contributing valuable insights to the realm of organizational leadership and management.

Results and Discussion: The "Cycle of Management Functions" is a system of sequentially implemented functions that ensure the effectiveness of the manager and department.

The cycle of management functions consists of four main stages and two additional ones: Planning, organizing, motivating, and controlling presented in Figure 1, are the main functions of a manager. On the other hand, analyzing and development are complementary functions that manifest themselves in the personnel management system during the stages of organization, control, feedback, and result in analysis¹⁰.

¹⁰ Киященко Т.А., Логвинова И.К. "Лидерство в организации, методы и инструменты эффективной системы управления персоналом", 2023, <https://1economic.ru/lib/117967>



Picture 1. The Cycle of Management Functions

Leadership has many styles, so it is necessary to discuss the main ones and bring examples of worldwide famous companies.

1. Transformational Leadership

Strengths: Transformational leadership empowers leaders to inspire and motivate employees to achieve extraordinary results. By setting a compelling vision, transformational leaders foster a sense of purpose and meaning in work, driving higher levels of employee commitment and engagement. They encourage innovation and creativity, creating a culture that values continuous improvement and adaptability. Transformational leaders also excel in managing change and guiding organizations through challenging transitions effectively.

Weaknesses: Despite its strengths, transformational leadership can be demanding and requires significant energy and charisma from leaders. It may not be suitable for all situations, especially

when immediate results are needed or in highly structured and hierarchical organizations where quick decision-making is essential.

2. Transactional Leadership

Strengths: Transactional leadership provides a structured approach to management, emphasizing clear expectations and rewards for performance. It can be effective in driving day-to-day operations, ensuring tasks are completed efficiently, and goals are met. Transactional leaders are skilled at providing feedback and holding employees accountable for their performance.

Weaknesses: While transactional leadership can achieve short-term goals, it may not inspire long-term commitment or foster innovation. It may create a transactional relationship with employees, where their motivation is solely driven by extrinsic rewards. This leadership style may also hinder creativity and limit employees' autonomy.

3. Authentic Leadership

Strengths: Authentic leadership emphasizes genuineness, transparency, and building strong relationships with employees. This approach fosters trust and open communication, creating a supportive and collaborative work environment. Authentic leaders serve as role models, encouraging ethical behavior and personal growth among their team members.

Weaknesses: Authentic leadership requires leaders to be self-aware and genuine, which may be challenging for some individuals. It may not be effective in highly competitive or results-driven environments that prioritize immediate outcomes over long-term relationships.

4. Servant Leadership

Strengths: Servant leadership places the needs of employees first, emphasizing empathy and compassion. This approach fosters a strong sense of community and teamwork, where leaders support the growth and development of their team members. Servant leaders prioritize the well-being of their employees, leading to higher job satisfaction and commitment.

Weaknesses: Servant leadership may face challenges in environments where authoritative decision-making is required, and quick actions are essential. It may also be misinterpreted as being too lenient or lacking in assertiveness.

Discussing the main styles of leadership, there is a need to understand how they work with examples. Table 1 is presenting worldwide famous companies and their leadership styles.

Table 1. Worldwide famous companies and their leadership styles

CEOs and their companies	Leadership Style
James Quincey, Coca-Cola Transactional leadership	Coca-Cola follows the transactional method to lead its employees. Quincey sets goals for all teams. He gives employees orders and processes documents to achieve the goals. If employees perform well, the company rewards them. If employees perform poorly, it punishes them ¹¹ .
Steve Jobs, Apple Jeff Bezos, Amazon Transformational leadership	Steve Jobs is known for being one of the most iconic transformational leaders in the world. People who worked for Jobs said he was constantly challenging everyone to think beyond what they had accomplished, that he always pushed for and wanted more. He encouraged them to think about products people didn't even know they needed and go for them at full speed. He used leadership to help transform his organizational structure, improve job satisfaction, and use products to change the world. Apple is well known for innovation and that is largely due to the way Jobs encouraged employees and used

¹¹ Impact of leadership on organisational performance by Int. J. Bus. Manag. Soc. Res. | Volume 06, Issue 02, 367-374 Article type: Research article, Date of Publication: 14 June 2019

	transformational leadership to allow everyone to use creativity. Another transformational leader is Jeff Bezos. His leadership style Involves always pushing employees and staff to think about new products and possibilities
Cheryl Bachelde, Popeye Kip Tindell, Garrett Boone, John Mullen, The Container Store Servant leadership	Cheryl is one of the most cited examples of servant leadership. In her book “Dare to Serve”, she describes how she turned fast-food chicken chain Popeyes’ ailing fortunes around by refocusing attention on serving not just customers, but franchisees and staff as well, enabling her to engineer double-digit growth in profits and market share. The pillars of her approach included moving the spotlight away from leadership and onto helping employees more widely achieve superior performance, as well as setting clear, purposeful, transparent goals and values that elucidated for everyone the trajectory envisaged by the company management¹². Another servant leadership example is “The Container Store”. The company includes an ongoing training and development program to ensure staff are always improving their skills base, and the idea that “communication is leadership” – in other words, that

¹² Preethi Jathanna, 11 Best Servant Leadership Examples in Business to Inspire You Business Management, January 4, 2023, <https://www.sorryonmute.com/servant-leadership-examples-8/#:~:text=Examples%20of%20servant%20leadership%20behavior,not%20just%20to%20superiors%20but>

	discussions with employees should always be consistent
Howard Schultz, Starbucks Authentic leadership	One example of an authentic business leader is Howard Schultz, the former CEO of Starbucks. Schultz was known for his commitment to creating a positive work environment and investing in his employees. He also took a stand on social issues, such as supporting marriage equality and gun control ¹³ .

In conclusion, each leadership style has its strengths and weaknesses, and its applicability depends on the organizational context and objectives. A comprehensive understanding of these leadership styles enables leaders to adopt the most suitable approach to guide their organizations toward success and cultivate a motivated and engaged workforce.

The styles of leadership, the working style, and strategy for many companies were discussed now it's necessary to understand the effectiveness of leadership in the management system, having the fundament of scientific research and statistics.

- For instance, organizations with successful leadership development initiatives are 1.5 times more likely to experience increased market share. This emphasizes the importance of nurturing and equipping leaders with the necessary skills to lead effectively¹⁴.
- Organizations with strong leadership practices experience a turnover rate that is 59% lower than those with ineffective leadership. This highlights how competent and supportive leaders can create a positive work environment, fostering employee loyalty and satisfaction.

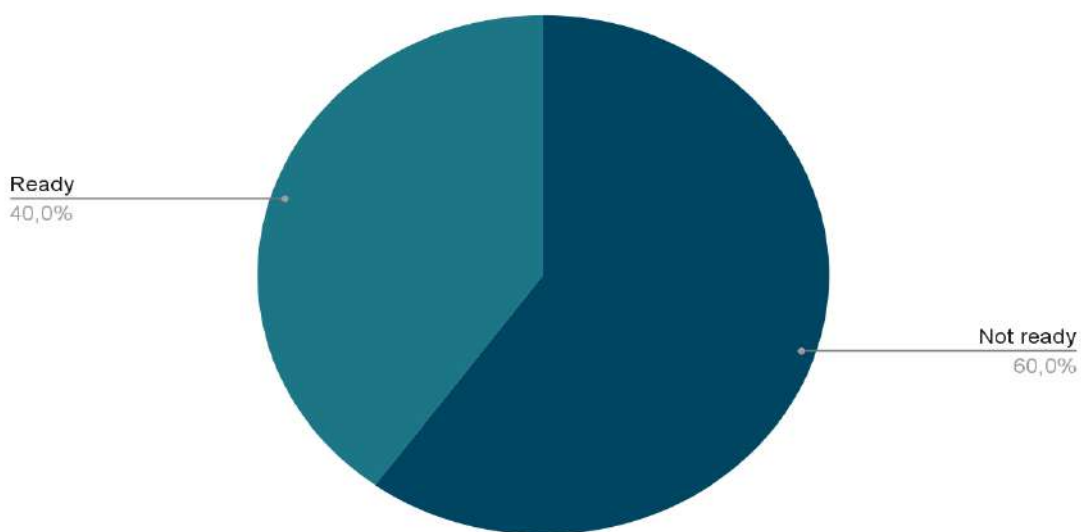
¹³ The Human Capitale HUB, “Why Authentic Leaders Matter In The Real World” article,<https://www.thehumancapitalhub.com/articles/Why-Authentic-Leaders-Matter-In-The-Real-World>

¹⁴ Gitnux, The Most Surprising Engaged Employees Statistics And Trends in 2023, March 24, 2023, <https://blog.gitnux.com/engaged-employees-statistics/>

- Data indicates that companies with strong leadership are 3.9 times higher earnings per share (EPS) growth rate compared to that of their industry peers. This underscores the role of leadership in promoting a culture of innovation and encouraging employees to embrace change and adapt to new challenges.
- When leaders effectively manage their teams and acknowledge their strengths, there is a potential increase in profits of up to 29%¹⁵.

These statistics underscore the imperative for organizations to prioritize leadership development, as it not only fosters innovation and adaptability but also directly translates into tangible financial gains and a harmonious work environment. However, the right leadership is too important, nearly 40% of organizations with both high-quality development and assessment had a strong bench of leaders ready for critical roles¹⁶.

The accountability of leaders for critical roles



Bar Chart 1. The accountability of leaders for critical roles

¹⁵ Gabrielle Solomons, 250+ Key Leadership Statistics: Women, Demographics, Training, Challenges, Culture, Burnout, Stress, Development, Skills & Diversity, July 10, 2023, <https://marketsplash.com/leadership-statistics/#link9>

¹⁶ Kevin Wayne Johnson, Recent Leadership Data and Statistics that You Should Know, May 25, 2021, <https://www.linkedin.com/pulse/recent-leadership-data-statistics-you-should-know-johnson/>

In spite of the leadership styles, there are some skills that each leader should have to improve the performance of his business and company.

A report “The State of Business Communication” in 2023 conducted by the Harris Poll¹⁷ shows that 72% of business leaders believe that effective communication has increased their team’s productivity, and 52% of knowledge workers agree. Additionally, 60% of the 251 business leaders surveyed agreed that effective communication increased employee confidence. Meanwhile, 56% of the 1,001 surveyed knowledge workers claimed that it increased work satisfaction as well.¹⁸

Conclusion: The primary leadership styles, as well as their strengths and limitations, were reviewed in this paper. It also demonstrated which leadership style the CEOs of major companies worldwide used to improve the performance and output of their organizations. We created a guide for selecting a leadership style based on the type of organizational setting, considering the information study conducted for the article. The 3 independent factors are the size of the company, the main resource, and the product type.

Servant leadership style: Servant leaders encourage and assist their team members' growth and development. Servant leaders focus their employees' well-being, which leads to increased job satisfaction and dedication. So, when human capital is the primary resource, it is critical to have a leader who is always eager to assist them in advancing their careers. Servant leaders prioritize their employees' comfort, therefore so when company produces service and HR is the key, utilizing this form of leadership is essential.

Authentic leadership: When a corporation focuses its efforts on material production and material quality is more essential than human resources, the leadership style should be authentic in order to produce as many items as possible.

¹⁷ Grammarly, The State of Business Communication: New Threats and Opportunities February 21, 2023. <https://www.grammarly.com/business/learn/state-of-business-communications-2023/>

¹⁸ Pumble, Communication in the workplace statistics 2023, <https://pumble.com/learn/communication/communication-statistics/>

Transformational leadership: Considering the success stories of Apple and Amazon, we see that large companies, where the key is again human resources and which focus on creating new products in the market, whether it is a service or material products, require transformational leadership. As here we have long-term goals and need a quick decision-making.

Transactional leadership: Transactional leadership is ideal for medium and large-sized businesses that manufacture tangible goods, however this leadership style can stifle creativity and limit employee autonomy. So it's the best option for material manufacturing and the worst for service production.

Taking into account the size of the company, the product type and the main resource we suggest such road map for selecting a leadership style in a corporation based on the above-mentioned criteria.

Table 2. Road map for choosing a leadership style in company

Company size	The main resource	Product type	Leadership style
Small	Human capital	Service	Servant
Small	Human capital	Material production	Servant
Small	Material	Service	Transformational
Small	Material	Material production	Authentic
Medium	Human capital	Service	Transformational
Medium	Human capital	Material production	Transactional
Medium	Material	Service	Transformational
Medium	Material	Material production	Authentic
Large	Human capital	Service	Servant

Large	Human capital	Material production	Transformational
Large	Material	Service	Transactional
Large	Material	Material production	Authentic

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The individual right to property and forced expropriation – Analysis of Law and Economics

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Vilfredo Pareto describes the excellent distribution of economic resources which simultaneously achieves maximum productive efficiency and social justice. The Constitution of Greece describes the process of compulsory expropriation of property when there is a public need. The compensation criteria for this expropriation do not take into account the positive and negative externalities that the subsequent public project will cause. The consequence of this paper is the unjust social distribution of economic resources. The aim of this paper is to investigate this weakness of the compensation system that does not meet the criteria for Pareto improvement, while a constitutional analysis of comparative law concerning the provision of property is made. An appendix to the case law of the Greek Court of Audit is provided. The Contingent Valuation Method (CVM) is proposed as the most complete for the experimental assessment of the maximum amount of compensation of owners during the process of forced expropriation through Experimental Economics tools.

Keywords: property, expropriation, constitution, comparative law, compensation.

Introduction

Jean-Jacques Rousseau starts from the position that a guarantee for the existence of the state can only be a unanimous contract, which is called a social contract. It is an implicit and permanent contract, which binds all the persons who constitute a political community, and which, to be fundamental (that is, to legitimize the political state) must be a contract of each one with himself, from I'm different with everyone. This, after all, is one of the key points of differentiation between Rousseau and Locke and Hobbes, for whom the social contract is accepted as an agreement of submission to the sovereign (Grigoropoulou, 2002).

The importance of the Rousseauian "social contract" lies in the fact that it transforms the isolated individual, the simple numerical unit, into a collective body, which at once acquires its unity, its common ego, its life and its will. Characteristically, he notes, *"To find a form of community that defends and protects with all the joint power the person and goods of each member, so that each one, as he unites with all, obeys only himself and he remains just as free as before..."* In the framework of the symbolic, creative supra-individual entity, an act of association *"everyone puts together his person and all his power under the supreme direction of the general will"*, ceding his

rights and the privilege of his natural state in order to obtain political freedom whoever does not refuse to obey the general will, will be forced to obey it by the whole body (Grigoropoulou, 2002).

To a large extent, the purpose of establishing the state and the principle on which society is governed is the common interest. In order to achieve this (the common - general interest), each individual citizen subordinates his individual will to the general citizenship requires a kind of degeneration, which consists in replacing his individual interest with the common one. Each member desires the general good, because through it his private interest is also served, since these are obviously interrelated and if any member is left to his personal interest, he will cause the destruction of the entire collective body politic, on which he wishes to rest. On the one hand, the general will by its nature necessarily wants the good of everyone, on the other hand, for everyone, deeper than their individual interests, lies the common interest (Grigoropoulou and Steinhauer, 2004).

The general will, which results as an agreement of the body with each of its members and which originates from all and applies to all, is approached by Rousseau abstractly and algebraically, in the sense that it is not a sum of particular wills, but a "*sum of differences*", through which the common interest is determined. According to his characteristic formulation, "*if you remove from the individual wills the pluses and minuses that neutralize each other, the general will will remain.*" After all, what generalizes the will is less the number of votes and more the common interest that unites them. As has been aptly pointed out, the "social contract" has no other foundation than the general interest, which is reduced to an inviolable rule and to which the sovereign, inalienable and indivisible general will tends, as it is also approached as follows, as one of its components favored Rousseau state (Grigoropoulou and Steinhauer, 2004).

From the concluded "*social contract*" and the general will, as a product of the union of forces and wills, the collective and at the same time moral person of the State is formed, which constitutes the dominant force. In a time (18th century), when especially in France, the term "*sovereign*" is identified with the king or the absolute monarch, Rousseau defines as sovereign the entire body politic and its general will. Although the "*Social Contract*" mentions monarchy, aristocracy and democracy as forms of government, in reality these are forms of democracy, since the power of the State stems from popular sovereignty, i.e. the people and only the people are considered sovereign (Theocharis, 2020).

Popular sovereignty, therefore, can neither be expropriated nor divided, and it is direct and not subject to the principle of representation, since it is through this (principle) that, according to Rousseau, the political freedom of the citizens is granted. Thus, Rousseau opposes the feudal institution of representation and stands in favor of a political system in which dependence on individuals is replaced by the equal relationship of all citizens before the law. In this way, in the Rousseauian State, popular sovereignty is necessarily guaranteed by the law, in the sense that it is nothing more than an expression of its will, that is, of the general will, which reflects the common interest and to which everyone must citizens to obey indiscriminately. The fact that the general will is placed above the law is also demonstrated by the fact that the will of even a citizen, as long as it expresses the general will, is sufficient for the enactment of some laws (Chrysanthis, 2020).

In addition to this, a necessary condition for the preservation of sovereignty and thus for the safeguarding of the common interest is the removal of the antinomy between the latter, as it follows from the general will, and the particular goal of each act. This lifting requires finding a body to be established between the subjects and the sovereign, which will ensure responsiveness, communication and balance between them. This body is called the government, which is charged with the mandate emanating from popular sovereignty, guards the political freedom of its members and ultimately ensures political legitimacy. As has been aptly stated, *"if we knew how to achieve justice without mediation, we would have no need of government or laws; but for men, who are not gods, maneuvers are inevitable..."* (Spiliopoulos, 2021).

A basic condition of Rousseau's State is that the government faithfully and precisely executes the laws enacted by the sovereign body politic and representing the general will; otherwise, the executive function is fully subordinated to the law and merely mediates as an intermediate body between it and the popular sovereignty, also made at all times controllable by the body politic. In this framework of the legitimate constitutional state, where a fundamental characteristic is the direct popular sovereignty and the expression of the general will in the law, the equality of rights and the concept of justice that it implies emerges. The power of the State lies in alienating individuals from their physical rights, in order, however, to "return" them to them as political rights. Within the political order, it is impossible for the individual to maintain the primacy of the feelings of nature; however, a web of protection for him and his rights develops. Fiercely fighting social inequality, which was born of the invention of private property, Rousseau points out that the terms of the *"Social Contract"* are equal for all and that by obeying this and other laws, individuals *"obey no one but the will their"*. Therefore, the State built, by virtue of the *"Social Contract"*, ensures, in the end, and promotes the very freedom of its members, since each individual loses the negative qualities of natural freedom, the possibility that he has to harm the other, and he gains, through the collectivity, his political freedom and security, part of which is the constitutional guarantee of property and the method of expropriation only to serve the general interest.

Content of the constitutional right to property is the authoritative relationship between a subject (the bearer of the individual right to property) and a good with economic value. The right to property is guaranteed by article 17 of the Universal Declaration of Human Rights, by article 1 of the First Additional Protocol to the European Convention on Human Rights and from article 17 of the Charter of Fundamental Rights of the European Union. It is observed in both texts that in order to raise the question of deprivation of the immovable property of natural or legal persons under private law, a conflict of interest is required. Such a conflict will obviously have the interests and priorities of individuals on the one hand and the state interest on the other. And of course the state interest does not have as its own goal to serve its narrowly *"personal"* interest, that is the interest of the respective government, nor certainly much more a narrowly private interest, but above all and primarily to serve and secure the interests of society as a whole. This social totality and the wider public interest is what must prevail over private interest. And the private must give way in favor of the public regardless of whether private interests are served behind the public interest. Incidentally, or if in order to serve the public interest, this can be done by serving another private one. However, we must emphasize, to avoid misunderstandings, that the end in itself in any case should not be the serving of private interests but the pure interest of society as a whole (Barbas, 2014).

The conflict ends with a fundamental compromise, which is embodied in the institution of forced expropriation. Article 17 para. 2 et seq of the Greek Constitution regulates this procedure. If we want to give a definition of the concept of forced expropriation, we can say that it is "the deprivation of property by a unilateral act of the state for public benefit, determined by law, and against judicially determined compensation of the owner".

In order for the state to proceed with the deprivation of the private property of a legal or natural person, mainly real estate, or otherwise in order to take the measure of forced expropriation, since both concepts as mentioned above can be taken into account as identical, it is imperative that certain guarantees are observed. These guarantees are necessary so that the term deprivation does not have the meaning of forced removal without or even with insufficient compensation. And this is because in the past the forced expropriation carried out by the state at the expense of a private individual was a coercive measure, as is the case today, but also an unfavorable and burdensome measure for the managed property owner (Fortsakis and Savvaidou, 2013).

Compulsory expropriation under the Greek Constitution is allowed only if three conditions are met: (a) public benefit, (b) legislative provision and (c) judicially determined compensation. But in de facto deprivation of property, compensation is not a condition but a legal consequence of the administrative activity. There may be a deviation from the above conditions in the cases of the dissolution of agricultural holdings, the purchase of small ownership under implanter and the abolition of peculiar real relations (Michaelidis, 2006).

According to decision 1781/2008 Greek Supreme Court (472022) the compensation defined in the case of forced expropriation must be paid compulsorily no later than one and a half years from the publication of the relevant court decision, otherwise the expropriation is lifted automatically. The decision 1054/2008 of the Supreme Court (453323) refers to the special compensation given due to devaluation of the value of the remaining after the expropriation of part of the property. The part remaining to the owner, according to the reasoning of the court, which is based on article 13 of Law 797/1971 "*on forced expropriations*", suffers a significant devaluation of its value with the consequence that the owner needs compensation even though it is still an element of his property. Decision number 825/2008 of the Greek Supreme Court (452558) mainly refers to the question of the final or temporary determination of compensation, as well as in cases of automatic lifting of forced expropriation. Most modern constitutions provide for the vesting of property and the method of taking property for the public good (Finokaliotis, 2014).

Economic Analysis of Expropriation

Pareto efficiency is usually considered to be a necessary condition when studying the welfare brought about by a particular mechanism. This, because obviously and regardless of ideology, it is good to first 'maximize the pie', before determining how it will be shared. A mechanism that fails to maximize it is therefore inferior to a mechanism that offers the maximum output with the given raw materials. Nevertheless, the constitutional prohibition of incorporating positive or negative externalities into compensation leads to yet another distortion of the functioning of Adam Smith's '*Invisible Hand*' due to state interventionism.

Public Economic Analysis seeks to internalize the externalities (positive or negative) caused by the production or consumption of a private good so that resources are not unfairly distributed. Expropriated property in so far as it causes external economies or external diseconomies can be characterized as an intermediate good that lies between public and private goods and which awaits the internalization of the externality in order for the system to be at the point of general macroeconomic equilibrium. At the point where social welfare is maximized given the financial resources for the specific time period. The criteria for determining state compensation in the case of forced expropriation of property 'in the name of greater public need' have occupied many authors from time to time.

Optimizing the Allocation of Financial Resources during Compulsory Expropriation

Vilfredo Pareto describes the optimal allocation of economic resources that satisfies the criterion of efficiency and social justice. The Constitution of Greece describes the process of forced expropriation of properties when there is a public need. The compensation criteria for this expropriation do not take into account the positive and negative externalities that the resulting public project will cause. The consequence of this fact is the socially unfair distribution of economic resources. The purpose of this work is to investigate this weakness of the compensation system that does not satisfy the criteria of Pareto optimization.

Vilfredo Pareto defines the optimal allocation of economic resources between two contracting parties. At this sweet spot of exchange there is no possibility of moving from this distribution of economic resources in a way that benefits all individuals in the economy. Also, in the optimal distribution of economic resources, there is no possibility of moving from the specific distribution in such a way as to benefit one consumer without at the same time harming another. So any movement that benefits one consumer must necessarily harm another. That is, there is no possibility to make mutually beneficial transactions between consumers, all the benefits from the transactions have been exhausted.

The Pareto set where both consumers benefit relative to the point of their initial assets is called the contract curve. The Pareto Welfare Theorem (FWT) points to the competitive market as a general resource allocation mechanism that can be used to achieve Pareto-optimal outcomes in the economy. FWT is the formal formulation of Adam Smith's position on the "*invisible hand*" of the market. Since every competitive equilibrium is Pareto optimal, the only justification for intervening in the economy is to achieve redistributive ends. Externalities or external economies exist when the actions of one market participant affect another participant in a way that is either unfavorable or beneficial and no financial compensation takes place. An externality can result from either the demand side or the supply side.

The Greek Constitution places property under the protection of the State. The "*protection of the state*" mandated by Article 17 of the Constitution means a combination of individual right and institutional guarantee. The institutional guarantee means that private property as an institution is constitutionally guaranteed. This guarantee is directed in particular to the legislator and obliges him to establish a core of legal rules that make possible the existence, functionality and private utility of property. In particular, the property cannot in its

entirety or in its main part be converted into public property. Nationalization or forced expropriation is allowed only in specific cases, under the conditions provided by the Greek Constitution and the Greek laws.

Conclusion

In article 17 of the *Greek Constitution*, the constitutional legislator defines, among other things, the criteria for compensation of the expropriated person. Compensation will be determined by criteria that will not take into account the surplus or minus values that the resulting public project will cause. That is, the compensation does not take into account the positive or negative externalities that the resulting public project will cause. This fact will result in the non-optimal distribution of financial resources during the expropriation transaction. Therefore, V. Pareto's criterion is not satisfied. The state intervenes, according to Adam Smith, in the market in order to alleviate the social inequalities created by the market distribution of resources. Property is a constitutionally guaranteed right and its loss is permitted only for great public need. Compulsory expropriation entails a state compensation to the owner in order for said owner to remain in the same state of well-being. In the event that the resulting project causes positive or negative external economies, these should be taken into account as criteria for determining compensation in order to have an optimal distribution of resources according to V. Pareto satisfying the criteria of economic efficiency and social justice. Ultimately, the determination of the optimal amount of compensation during forced expropriation can be determined after previously asking the interested party himself through the classic *Willingness to Accept (WTA)* question which is a tool of *Experimental Economics* and especially the *Contingent Valuation Method (CVM)*.

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The influence of climate changes and energy costs on the competitiveness of business sectors, national and international perspective

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ABSTRACT: *Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, but since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels (like coal, oil and gas), which produces heat-trapping gases.*

Climate change is already happening, and concerted action is needed to prevent its worst impacts. If we don't take action now, global greenhouse gas (GHG) emissions will rise by about 70% by 2050, pushing world temperatures up 4oC - 6oC by 2100. Global warming, melting of glaciers, rising sea levels and temperatures and weather changes are the most important problems we are facing these days. Emissions of pollutants such as, sulfur dioxide, nitrogen oxides, carbon monoxide, solid particles and gases (known as primary pollutants in air), that cause the greenhouse effect, are increased in many areas all over the world, especially in countries with lower economic growth.

Many countries fear their industries may lose competitiveness and hence, their sustainable development should incorporate, at the same time, economic, social, as well as environmental dimensions of national development

The goal of this paper will be achieved through analysis and synthesis of empirical information, content analysis of different publications and papers in the field of economics, ecology and climate change, as well as practical examples to capture business sector competitiveness caused by energy costs and climate changes in Republic of North Macedonia, compared to more developed countries.

Keywords: *Climate change, energy costs, sustainable development, national competitiveness*

Introduction

The climate changes and humans have been mutually connected since the beginning of days. This would be a logical assumption if we have in mind the fact that human activities are the primary drivers of the rapid and significant climate changes observed in recent decades.

The Industrial Revolution, which began in the late 18th century, marked a significant turning point in human history. The burning of fossil fuels such as coal, oil, and natural gas for energy became widespread. These activities released large amounts of carbon dioxide (CO₂) and other greenhouse gases into the atmosphere. The Industrial Revolution brought about significant changes in human societies, ecology, economies, and technologies. While it resulted in numerous advancements and improvements in various aspects of life, it also had significant implications for the Earth's climate.

Energy cost and climate change are closely interconnected. The production and consumption of energy play a significant role in contributing to climate change, while the effects of climate change, in turn, can influence energy costs.

The main motive behind these activities (mentioned above) is the pursuit of economic growth and development. Business owners have always been greedy for more and more revenues and higher income, no matter the cost that everybody else and environment has to pay. The desire for dominance, superiority, wealth, overtaking and becoming a leader on the main markets has created competitiveness among businesses in same sectors. This rivalry between firms with conflicted interests is not limited within the borders of one national economy, but on the contrary it has risen on international and global economic level.

At the national level, businesses in countries with higher energy costs may struggle to compete with those in countries with lower energy costs. This is because energy costs can be a significant part of a business's operating expenses, especially for energy-intensive industries such as manufacturing. Higher energy costs can also lead to higher costs for transportation and logistics, which can further impact a business's competitiveness.

Literature review

International authors that have contributed significantly to the understanding of the relationship between climate changes, energy costs, and the competitiveness of business sectors from both national and international perspectives are:

1. Michael Porter is a renowned economist and professor at Harvard Business School.
2. Paul Krugman, an economist and Nobel laureate.
3. Joseph Stiglitz, another Nobel laureate in economics.
4. Jeffrey Sachs is an economist and director of the Earth Institute at Columbia University.
5. Nicholas Stern is an economist and academic.
6. Mariana Mazzucato, an economist and professor at University College London.

The expectation that climate changes and increasing energy costs will negatively impact the competitiveness of business sectors both nationally and internationally is widely recognized and supported by various stakeholders, including governments, businesses, researchers, and environmental organizations. Here are some key reasons why these factors are expected to have adverse effects on business competitiveness: Higher Production Costs, Resource Scarcity and Disruptions, Consumer Preferences, Regulatory Pressures

Hypothesis: Climate changes and increasing energy costs negatively impact the competitiveness of business sectors both nationally and internationally.

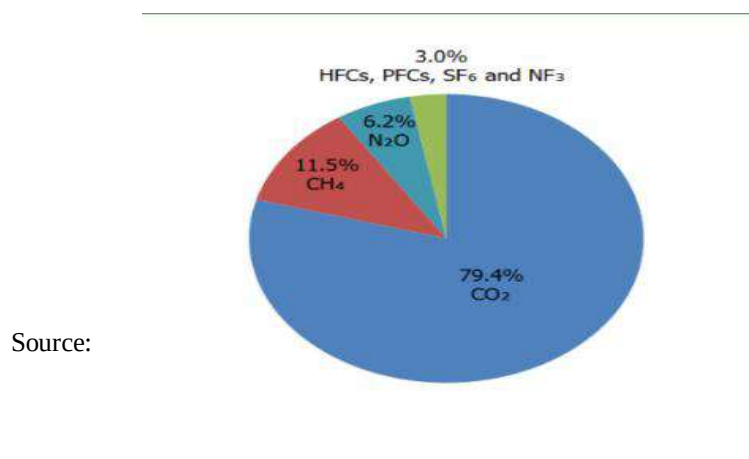
Greenhouse gases (GHG)

Greenhouse gases are gases that trap heat in the Earth's atmosphere and contribute to the greenhouse effect, leading to global warming and climate change. These gases are the reason why sunlight enters the Earth's atmosphere, but they obstruct the heat from going back into space, so consequently this is the cause of global warming.

The primary GHG that are worthy of attention are the following gasses:

- Carbon Dioxide (CO₂): This gas (the main GHG) is emitted by human actions such as burning fossil fuels (coal, oil, and natural gas), deforestation and industrial processes. The CO₂ concentrations have significantly risen since the beginning of the industrial revolution.
- Methane (CH₄): Methane is the second most important GHG, that is produced in smaller quantities than CO₂. CH₄ is emitted while producing and transporting coal, oil and natural gas. It is also emitted by livestock and other agricultural practices, as well as the decay of organic waste in landfills.
- Nitrous Oxide (N₂O): Nitrous Oxide is released from agricultural and industrial activities, and is also released from the combustion of fossil fuels and solid waste. N₂O can naturally appear from biological and chemical processes in soils and oceans.
- Fluorinated Gasses: These are synthetic gasses used in various industrial applications such as refrigeration, air conditioning, electrical equipment, and certain manufacturing processes. Their global warming potential is very high and these gasses can last longer in the atmosphere.

Figure 1.1 Overview of Greenhouse Gas Emissions



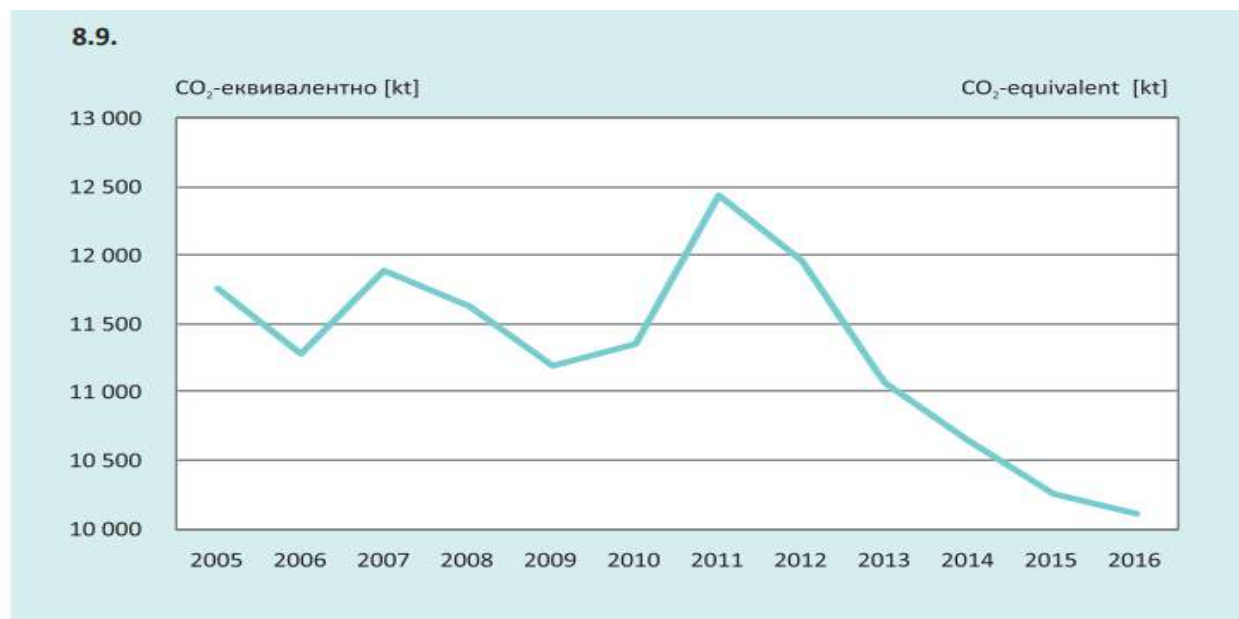
Source:

<https://www.epa.gov/ghgemissions/overview-greenhouse-gases> . Accessed on 7.6.2023.

*We will take Republic of North Macedonia as an example of a country which has various economic activities that are causing emissions of Greenhouse gasses and we will furthermore present these gasses in percentiles, so we can give a more visual representation of the pollution in North Macedonia.

This graphic showing the total emission of greenhouse gases, we can see that the biggest emissions took place in 2011. In 2016 the total emissions of GHG were reduced by 1.3% compared to emissions in 2015, and by 17.8% compared to the baseline year 2000, which was due to the global economic crisis, low industrial production and energy demand and changes in agricultural practices.

Figure 1.2 The total emission of greenhouse gases without taking account data from LULUCF (Land use, Land-Use Change and Forestry),

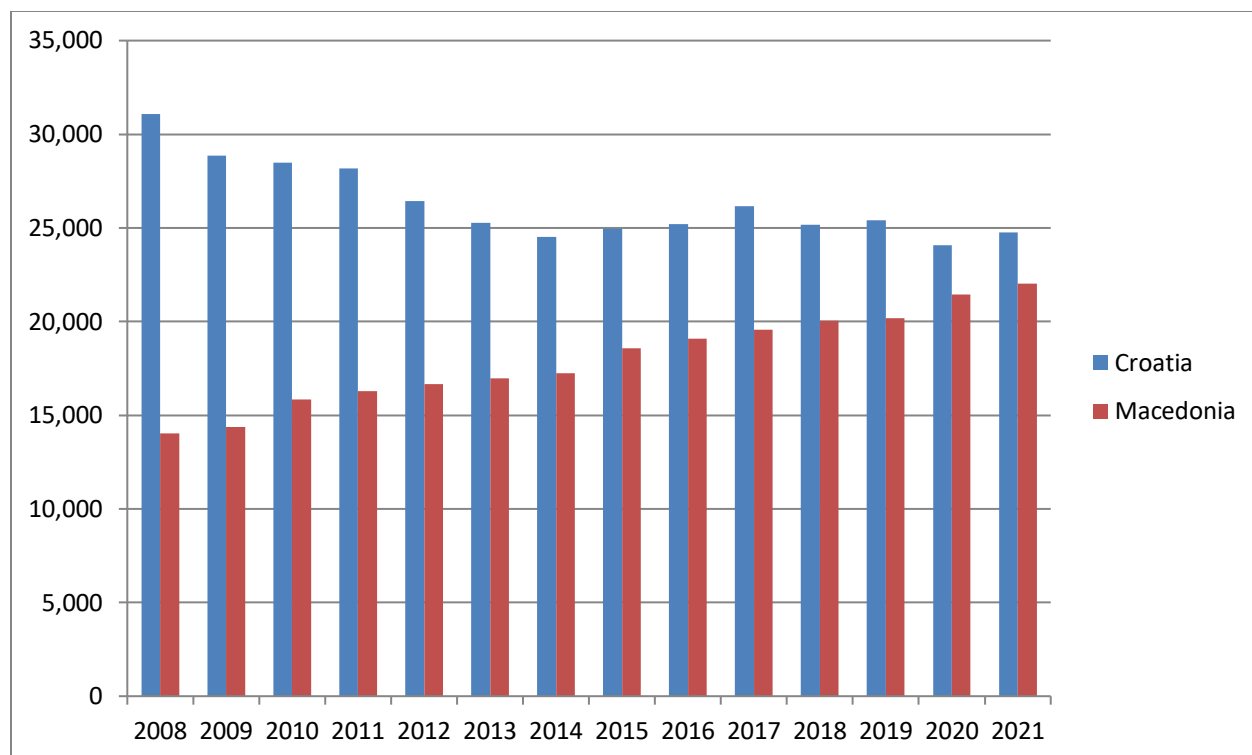


Source: Ministry of Environment and Physical Planning (2005 – 2016)

The following bullets reveal a set of information about the GHG emissions for the upcoming years after 2016:

- North Macedonia greenhouse gas (GHG) emissions for 2019 were 11,250.00, an 8.59% increase from 2018.
- North Macedonia greenhouse gas (GHG) emissions for 2018 were 10,360.00, a 4.78% decline from 2017.
- North Macedonia greenhouse gas (GHG) emissions for 2017 were 10,880.00, a 5.02% increase from 2016.

Figure 1.3 Comparison of GHG between North Macedonia and Croatia



Source: Database of EU and North Macedonia (2008 – 2021)

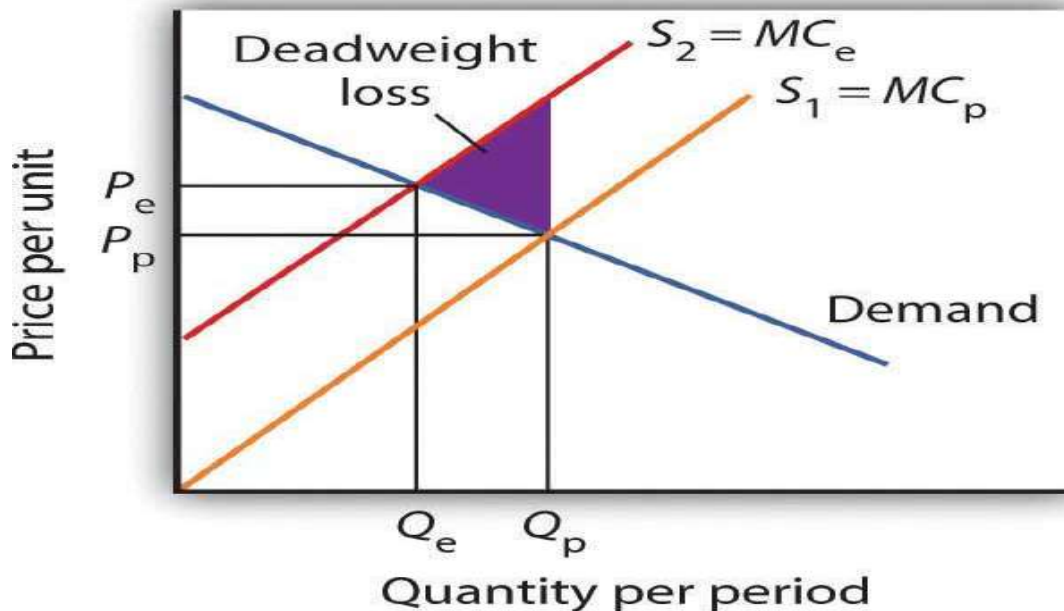
* This graphic shows a comparison between Republic of North Macedonia and Croatia (as a country from EU) about Greenhouse gasses. Colored in red is the number of GHG in North Macedonia over the years, whereas in blue color is the data of Croatia. We can easily observe that Croatia has a significantly larger amount of GHG emissions in the early 2010s compared to North Macedonia, but this difference has downsized over the years. The bigger number of emissions in Croatia is supposedly a consequence of bigger quantity of economic activity. The reason why GHG have reduced in time is the active policy that is led by Croatia, which puts focus on the environment, prevention and decrease of negative outcomes of economic activeness. Evidently, implementing measures creates difference and pays off in the long run.

Market failure

In the field of economics, when free markets do not maximize society's welfare, they are said to 'fail' and policy intervention may be needed to correct them. Climate changes are considered to be market failure by many honorable economists. The basic idea behind these "assumptions" is that the greenhouse gasses are in fact a side - effect of the economic activities. We can assume with a small dose of risk, that every owner of a company would much rather choose to expand the profits and revenues of his company than to implement the expensive solutions for preventing environmental pollution. Thus, if the state does not interfere, the rational economic individual would endlessly continue to poison the environment. Most of the impacts of emissions

do not fall on those conducting the activities – instead they fall on future generations or people living in developing countries, for example – so those responsible for the emissions do not pay the cost. This situation is called negative externality in the study of economics.

Figure 2.1 External costs



Source: <https://courses.lumenlearning.com/suny-microeconomics/chapter/market-failure/>. Accessed on 8.6.2023,

Government can lead an active role in discouraging negative externalities by taxing goods and services that generate spillover costs. Market failure can be corrected through interventions such as new laws or taxes, tariffs, subsidies and trade restrictions.

Energy costs

The influence of energy costs on the competitiveness of the business sector is substantial and complex. For many businesses, especially those in energy-intensive sectors like manufacturing, transportation, and heavy industries, energy costs represent a significant portion of their operational expenses. Consequently, fluctuations in energy prices directly impact the profitability and competitive position of these businesses.

Elevated energy costs can erode profit margins, posing challenges for businesses to maintain their competitiveness in the global marketplace. When energy expenses rise, businesses are faced with the dilemma of either absorbing the increased costs, leading to reduced profitability, or passing them on to consumers through higher prices, potentially affecting consumer demand and market share. In either scenario, there is a risk of losing the competitive edge.

Furthermore, energy costs play a crucial role in determining the comparative advantage of businesses across different regions. Regions with lower energy costs tend to attract investments

and business relocations, potentially resulting in the migration of industries and job losses in regions with higher energy costs. This disparity in competitiveness between regions can have implications for overall economic growth.

However, it is important to recognize that the impact of energy costs on competitiveness is not exclusively negative. Rising energy costs can serve as a catalyst for innovation and the adoption of energy-efficient technologies. Businesses that invest in energy-saving measures and sustainable practices can improve their cost efficiency, strengthen their competitive position, and simultaneously reduce their environmental footprint.

To mitigate the influence of energy costs on competitiveness, businesses employ a range of strategies. These strategies may involve implementing energy efficiency measures, diversifying

energy sources, integrating renewable energy, negotiating favorable energy supply contracts, and engaging in energy management and conservation practices. Additionally, government policies and incentives play a crucial role in supporting businesses to manage energy costs effectively and foster a fair business environment.

In conclusion, energy costs have a significant impact on the competitiveness of the business sector. High energy expenses can pose challenges to profitability, affect comparative advantage across regions and countries, and influence trade dynamics. However, businesses that proactively address energy costs through efficiency measures and sustainable practices can enhance their competitiveness and position themselves for long-term success in an evolving energy landscape.

Results for discussion

The primarily set Hypothesis is accepted. This hypothesis suggests that the changing climate patterns, such as extreme weather events and shifts in temperature and precipitation, coupled with rising energy costs, have adverse effects on the competitiveness of various business sectors. It implies that businesses face challenges in terms of cost management, resource availability, supply chain disruptions, and meeting changing consumer demands due to climate-related factors and high energy expenses. We can all agree that this is the reality of business sectors nowadays.

To mitigate the negative impacts of climate change and energy costs, many businesses are adopting sustainable and energy-efficient practices, integrating renewable energy sources, and implementing circular economy models. Governments and international organizations are also providing incentives and support for businesses that prioritize sustainability. Embracing environmental responsibility can not only enhance competitiveness but also contribute to a more resilient and sustainable business environment.

Conclusion

In summary, the influence of climate changes and energy costs on the competitiveness of business sectors is a critical issue that demands attention from both national and international perspectives. The escalating effects of climate change, such as rising temperatures, extreme weather events, and resource scarcity, have significant implications for businesses across various industries. Simultaneously, the increasing costs of energy production and consumption further exacerbate the challenges faced by businesses in remaining competitive.

From a national perspective, governments and policymakers play a vital role in mitigating the impact of climate changes and energy costs on businesses. Implementing effective climate change policies, such as carbon pricing mechanisms, renewable energy incentives, and sustainable infrastructure development, can create a favorable environment for businesses to adopt eco-friendly practices and technologies. By providing clear regulations and support, governments can encourage innovation and investment in sustainable solutions, enhancing the competitiveness of businesses in the long term.

The influence of climate changes and energy costs on business competitiveness is multi-faceted. While these challenges may present short-term obstacles, they also provide opportunities for businesses to innovate, diversify their operations, and create sustainable business models. Companies that proactively adapt to the changing environmental landscape can gain a competitive advantage by reducing their carbon footprint, improving resource efficiency, and appealing to environmentally conscious consumers.

In conclusion, the effective response to climate changes and energy costs necessitates a full and synchronized effort from governments, businesses, and society as a whole. By acknowledging the interdependencies between these challenges and taking resolute measures, it becomes feasible to achieve a harmonious equilibrium among economic growth, environmental sustainability, and business competitiveness on both national and international scales. The shift towards a low-carbon and resilient economy is not only imperative for the enduring prosperity of businesses but also for the well-being of future generations and the preservation of our planet's health.

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Influence of Artificial Intelligence on the Marketing Industry – New Reality

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Abstract

During the coronavirus, the development of the IT sector has moved forward firmly. This article concerns artificial intelligence in the marketing industry and the possible challenges for marketing specialists.

As a marketer, I question people's skills using such technologies. In the near term, technology will not replace people, and only less educated people will increase competitiveness in the labor market. The issues we face are:

- *How to stand out from less competent employees.*
- *How to prove our value.*
- *How to use AI tools effectively.*

Hypotheses studied:

- *Artificial intelligence affects the quality of marketers.*
- *The speed of producing marketing content has increased.*
- *Artificial intelligence has an impact on the competitiveness of marketers in the labor market.*

I used the Google questionnaire in Polish, Russian, and English to verify these hypotheses. The survey was conducted among people from the marketing industry and individuals cooperating with marketing departments.

Keywords: *AI influence, Artificial Intelligence, AI tools, Marketing Industry.*

JEL Classification: *M31, M59, O33.*

1. Introduction:

To get closer to the problem of this paper, let us define what AI is and its history.

Artificial intelligence (AI) refers to systems that display intelligent behavior by analyzing their environment and taking actions – with some degree of autonomy – to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e.g., voice assistants, image analysis software, search engines, speech, and face recognition systems), or AI can be embedded in hardware devices (e.g., advanced robots, autonomous cars, drones, or Internet of Things applications).

We use AI daily, e.g., to translate languages, generate subtitles in videos, or block email spam. Many AI technologies require data to improve their performance. Once they perform well, they can help improve and automate decision-making in the same domain. For example, an AI system will be trained to spot cyberattacks based on data from the concerned network or system. (European Commission, 2018).

1.1 AI History in Marketing. (Lori Goldberg, 2018)

Year	Key Developments
1950s-1960s	Early AI concepts and research laid the foundation for future advancements. Researchers explored the potential of machine learning and natural language processing. (Yahong Zhang, 2021).
The late 1990s	Introduction of recommendation systems and predictive analytics. Marketers began using algorithms to analyze user data and provide personalized product recommendations.
2013	AI targets the labor of content creation.
2014	AI optimizes decision-making and reduces labor in advertising.
2015	A search result that understands user intent.
2016	AI is listening, learning, and responding.
2019	84% of marketing and sales professionals were either already using AI as part of their business operations or were in various stages of planning and implementing their AI strategies. (Ben Aflalo, 2020).
Present	AI continues to evolve and transform marketing. Applications include predictive analytics, natural language processing, image recognition, and AI-powered marketing automation. Machine learning revolutionizing workflows and processes

1.2 AI in marketing - Business perspective

Business owners and Management Boards tend to use all possible tools that may bring the company a profit, cutting costs and saving the identity (mission/vision). Many companies use AI in their businesses in different fields of work, particularly in marketing.

Awareness of AI in marketing seemed to begin with a bang in 2012 with the infamous story of Target accidentally figuring out a young woman was pregnant before her father did by automatically analyzing her shopping habits and sending her advertisements for baby necessities. Now, perhaps startled by the technology's abilities, companies have convinced themselves of AI's impact. 55% of CMOs expect AI to have a "greater impact on marketing and communications than social media ever had." (Hal Conick, 2017).

AI-based tools help us to understand human behavior deeper and faster. That allows companies to react rapidly to all kinds of changes in the market and directly influence their

positions in rankings, market shares, and other crucial business statistics. Moreover, using AI tools by marketers allows companies to cut costs and reduce hiring or, at least, make the process cheaper. For example: instead of hiring an experienced person with a lack of deep knowledge in AI, they can hire somebody who is like a fish to the water with AI tools and can do the same job but faster and cheaper for the employer.

While there are talks that we will work less and have more extended weekends, it is unlikely to become a reality. Business owners are greedy, so they will not let people work less if they see that their business starts bringing in profits. They will use all out of there. Companies will get greater profits and better-ranking positions, which may not influence the employee's salary. It will influence the outcomes of the companies and the salaries of executive boards and business owners.

Meabh Quorin, co-owner, and CEO of the Foresign Factory & Future Foundation says: "It is not just about automation for automation's sake, but if we can go faster, there is more money to be made." (Hal Conick, 2017). It shows clearly that profit is the main priority for some companies.

1.3 AI in Marketing - Employees' Perspective

Many articles highlight the benefits of AI for companies but overlook the benefits for employees aside from the ability to work faster, which primarily benefits the company. While AI aims to simplify our lives, we must question where it will end. We tend to make it all around easier but what about the simple literacy of people? This topic is concerning nowadays. Concern that less educated and literate individuals will create competition in the job market. Literacy definition according to UNESCO Institute of Statistics. (UNESCO Institute for Statistics).

We can observe a trend of people entering the workforce without pursuing higher education, relying on various tools and courses. In 2020, 50% of Gen Z representatives were freelancers, making job portals such as Upwork or Fiverr more popular. (Grafton Recruitment, 2022).

The statement that AI is reshaping the market and customer experience and our individual and collective identities sounds correct. (Hal Conick, 2017). However, several things could be improved in this shift. The formal importance of education may lead people to prioritize immediate monetary gain over acquiring knowledge and expertise, potentially impacting the quality of professionals in various fields. Furthermore, our lives have become endless cycles, with people sacrificing simple joys and relationships in pursuit of money and fame, resulting in loneliness and a sense of disconnect.

Another issue is that some people choose marketing as a career where creativity and analytics can coexist. For those who enjoy working in groups to create communication plans, experiment with voice tones, and try new things, brainstorming and design thinking are all very appealing. However, when employers rely heavily on AI, employees may need more personal interaction. Maslow's hierarchy of needs includes Love and Belonging as one of its components. (Research History, 2012). With the development of devices and digitalization, this need becomes less achievable as people lose opportunities for real-life

interactions. This reduction in hiring also affects our ability to socialize and feel like we belong.

In summary, while AI marketing tools offer numerous benefits, such as improved efficiency and better market positioning, there are concerns regarding employment, education, and the human touch in marketing interactions.

2. Data and Methods

The problem this study raises is that less educated people will increase competitiveness in the labor market and how to prove the value of marketing specialists. The research was conducted to verify the hypothesis of the study. Respondents fulfilled the survey via google forms. The survey was created in 3 languages and, in sum, has 108 respondents:

- Russian - 23 respondents
- Polish - 45 respondents
- English - 40 respondents

Essential data to know about the respondents:

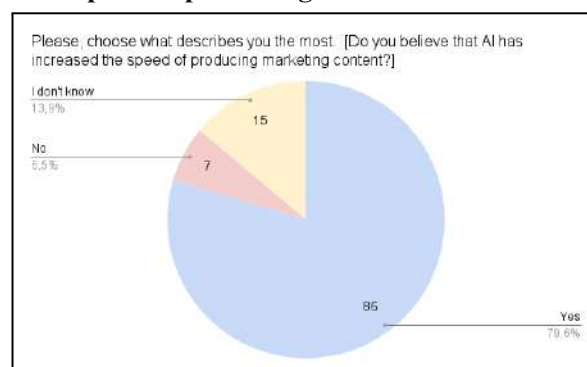
- 60% of responders have professional experience in marketing
- 98% of respondents are familiar with the AI concept in general
- 59% of responders are familiar with AI in the context of marketing.
- 35% of responders have used AI-based tools in their marketing activities.

The data above shows that we have a representative sample for this study. We have responders from the marketing field and other job areas.

3. Results and Discussion

Most responders - 79,6% (Figure 1) - believe that AI-based tools increase the speed of producing content. The most used tools of the responders are for the following marketing activities: copywriting, graphic creation, advertisement, project management, and market research.

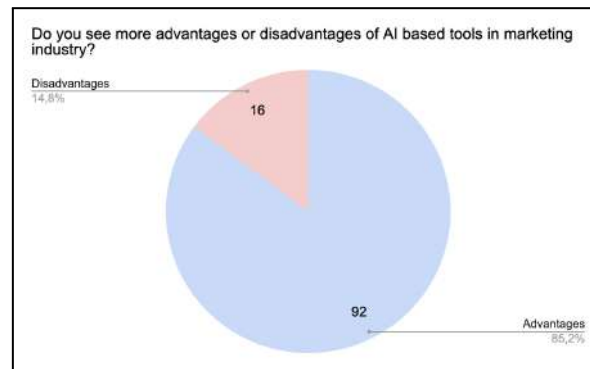
Figure 1: AI influence on the speed of producing content:



Source: own research.

Additionally, 85,2% (Figure 2) of responders consider AI-based tools in marketing as an advantage. As was discussed earlier, AI-based tools have many advantages in terms of the time consumption and effort needed for their usage.

Figure 2: Advantages and disadvantages of AI usage in marketing

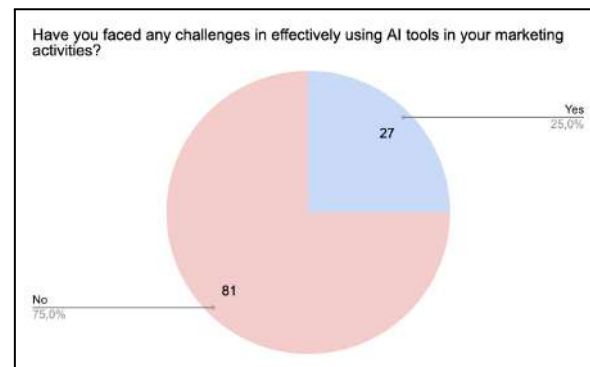


Source: own research.

Nevertheless, 25% (Figure 3) of responders faced some challenges while using AI tools. The struggles are the following:

- Information is not always accurate (copywriting, research) - a person without knowledge of a specific topic may fail at work if the AI tool generates inaccurate information.
- Complexity - there are many AI tools, and we have to use them separately and choose in which case we have to use a particular tool.
- Time-consuming to create a request for AI - which confirms that there are still fields of work that cannot benefit from AI.
- The copywriting tools usually use a similar structure to the answer - it's easy to identify and generate the exact text a few times with changed words.

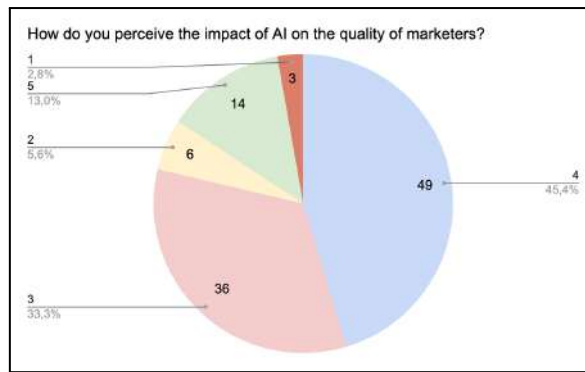
Figure 3: Challenges faced while using AI tools in marketing



Source: own research.

58,4% (Figure 4) of respondents believe that AI strongly influences the quality of marketers, and 85,2% (Figure 2) of the respondents see more advantages of using AI tools in marketing. Indeed, AI positively influences the quality of marketers. However, it only applies to educated and experienced marketers who can work without AI tools wisely and are intelligent enough to filter the information they get from AI-based tools.

Figure 4: Impact of AI tool on the quality of marketers



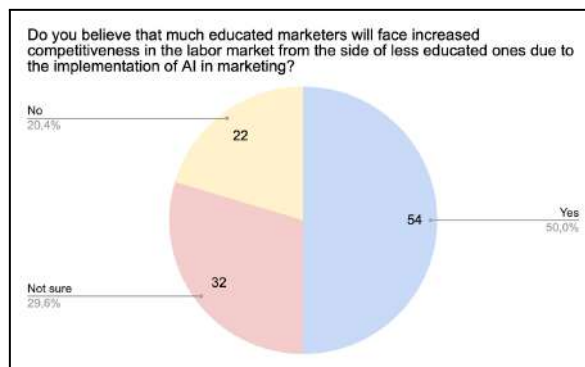
Source: own research.

Going back to the main problem of the study - will AI create additional competitiveness among marketers in the labor market?

Although AI brings many good things to the work of marketers, it can still cause great inequality in the labor market because companies are interested in cutting costs and may hire less experienced and educated individuals familiar with AI tools.

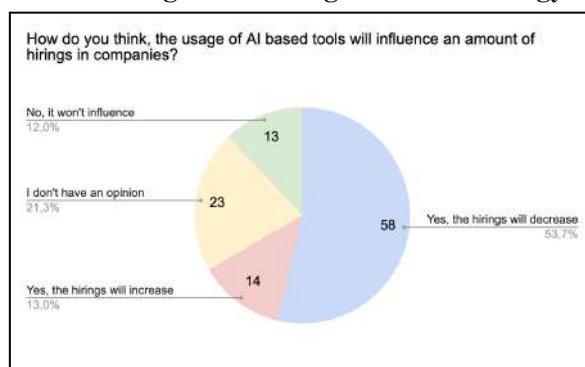
50,0% (Figure 5) of responders believe that much-educated marketers will face increased competitiveness in the labor market caused by less educated individuals due to the implementation of AI in marketing. 53,7% (Figure 6) of respondents think that implementing AI-based tools will decrease the number of hirings.

Figure 5: Increased competitiveness in the labor market



Source: own research.

Figure 6: Decreased amount of hirings due to usage of AI technology



Source: own research.

4. Conclusion

The given data shows us that despite the lasting positive impact of AI tools on business processes, such as cost-cutting, reduced time consumption, and flexibility in adjusting content to different types of audiences, there are still potential drawbacks and challenges to consider. It highlights the need for marketers to stay updated and adapt to the changing landscape of technology, including AI, to remain competitive in the job market. Additionally, there is a need to address potential inequalities that may arise from implementing AI, ensuring that opportunities are accessible to educated and less educated individuals.

There are specific ways how we can support marketers and help young talents become great specialists. Actions must be taken in all possible areas to strive for excellence and create a healthy and sustainable environment for marketers and businesses growth. Below are the propositions for particular areas and solutions:

For companies:

- Take educational background and grades into consideration very carefully,
- To pay attention to the courses completed - maybe even create a proposition list of essential courses/workshops,
- To pay attention to the extra-curricular activities (volunteering, ambassadorship, and other activities),
- To define the salary based on educational and extra-curricular backgrounds,
- To implement admission tests for the role.

For candidates:

- Learn languages,
- Learn how to build an effective CV and prove their value on the market (to use a solution-oriented approach: “Look, there is a solution” and not “how we will make it”),
- Improve Education background,
- Take part in extra-curricular activities (volunteering, ambassadorship, courses),
- Creating the mission and vision of why you are in marketing or any other field of work - it will help to find the company that shares your values,
- Learn from AI, know how it works, and its pros and cons,
- Learn new skills in different environments and know their usage.

Skills that are now in demand:

- Data science and analysis (Bill Hobbib, 2020),
- Conversion rate optimization,
- Understanding of AI and Machine Learning,
- Creativity and Adaptability,
- Collaboration and Communication,
- Continuous Learning,

- Strategic Thinking.

Universities:

- To make theory follow current practice trends and continuously implement it in the syllabuses,
- To create such subjects as career development - students need to learn how to act in the real competitive world,
- To focus on practical usage of the subjects that are given in the specific specialization courses. If it is statistics for marketers, explain how it will be helpful to marketers and give examples,
- To create a subject to teach students AI tools in practical usage,
- To invite experts from the industry. Sometimes courses from different experts in the market have a higher authority level than university professors. Attracting these experts to some classes will make education more exciting and engaging.

Government:

- To promote the idea of higher education:
 - Why it is a worthwhile experience,
 - Use the language of teens without mentioning the business perspective of it,
 - Create value around the courses,
 - Show students a mission of learning something.

The hypothesis proved:

- Artificial intelligence affects the quality of marketers - yes (Figure 4).
- The speed of producing marketing content has increased - yes (Figure 1).
- Artificial intelligence impacts marketers' competitiveness in the labor market - yes (Figure 5).

To sum up, there is a lot people can do to create a safe workplace for people and guarantee equal opportunities for all people without reducing human interactions and keeping a reasonable competitiveness level.

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The role of SMEs in addressing the energy crisis to support sustainable development

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Abstract

The present paper reveals the energy crisis and the causes of this phenomenon. Also, analyzes the role of SMEs in this issue, whether promoted of them and in what way. It will also explore the way that energy crisis could be theoretically promoted through the SMEs and the what the lack of projection could entail. In this paper, in addition to investigating some ways of solving energy issues it will be also carried out a quantitative survey, where statistical data will aid to discover a general assessment of the situation. More specifically, the introduction will contain a brief description of the term "Energy crisis" and how that would work in contrast to the SMEs. In addition, there will be detailed comparison of Greece and the rest of the Europe in the edit sector, but also on society's relationship with the environment. Finally, there will also be qualitative research with the case-by-case study, which will help to understand the reason and serve as an example to enhance identification and also to achieve the presentation of a complete investigation.

Methodology and Data

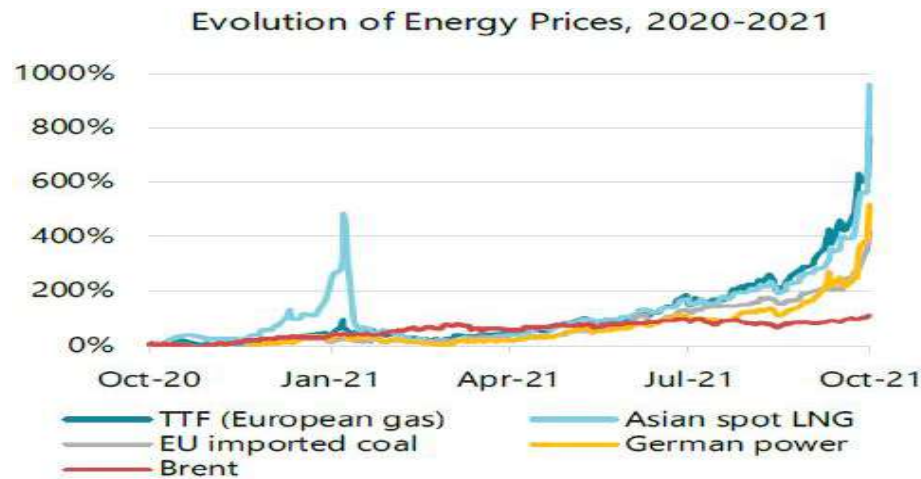
The paper analyses a specific issue which has not been thoroughly research and any theories are unsubstantiated or unproven. My paper is about the "Role of SMEs in the energy crisis and their function in sustainable development" Therefore, at an initial stage, the concept of 'energy crisis' will be analyzed globally and in Greece from 2021 to 2023. Also, the definition of "Sustainable Development" and what it means. Still, I will talk about my personal assumptions and expectations before I start the research. Finally, as the results are controversial, we will make a comparison between Greece and the rest of the European countries and we will use "Google Trends" to get some practical results.

What is energy crisis?

The energy crisis is a phenomenon that is spreading around the world and has serious implications for both the economy and the quality of life of citizens.

This phenomenon is the reflection that the world's demands on the limited natural resources that are used to power industrial society are diminishing as the demand rises. These natural resources are in limited supply. While they do occur naturally, it can take hundreds of thousands of years to replenish the stores. Most people don't feel connected to reality unless it impacts their daily lives. Such as the increase in the price of petrol and electricity

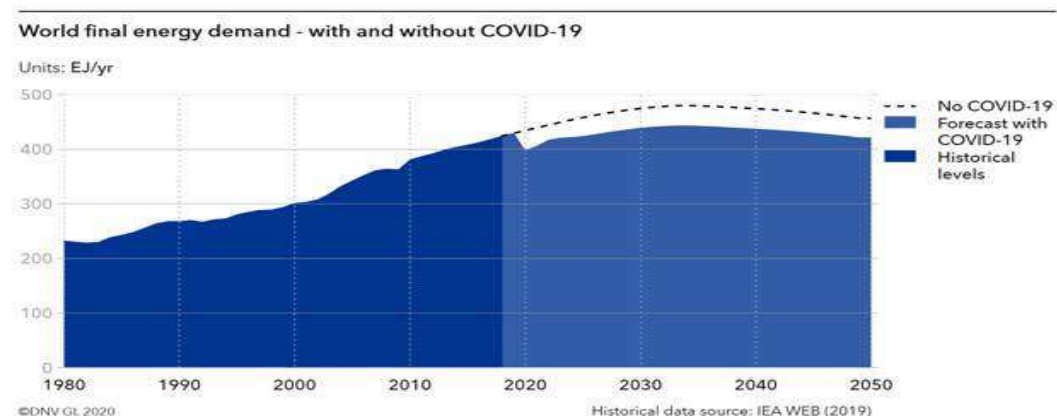
The reason for this is that there is no broad understanding of the complex causes and solutions to the energy crisis that would allow an effort to be made to resolve it. For example, governments, social media, homes, churches and universities are some of the socializing agents that can contribute to the relationship between humans and the environment ([conserve energy future, 2023](#))



Causes of energy crisis in 2021-2023 in Europe:

The energy crisis in Europe in 2021 refers to the tight supply and increasing demand for energy resources across the continent. Several factors have contributed to this situation, including the COVID-19 pandemic, rising gas prices, and a surge in demand for electricity due to extreme weather conditions. As a result, some European countries are facing power shortages, and energy prices have surged. Governments and energy regulators are working to find solutions to this crisis, including increasing renewable energy sources and investing in energy storage technologies.

First of all, energy crisis in combination with Covid 19 has played a significant role in the energy crisis in Europe. The pandemic caused a decrease in demand for energy, particularly in the early stages of the pandemic when many businesses and industries shut down. This caused a drop in energy prices, which made it difficult for energy companies to invest in new projects. However, as the pandemic restrictions eased and the economy started to recover, there was a surge in demand for energy, which led to an increase in prices.



In the European Union the energy crisis is largely due to the Russia-Ukraine war. The decline in Russian gas exports to Europe following its invasion of Ukraine in early 2022 created a natural gas shortage and there have been price surges across the continent. Increasing demand for energy since COVID-19 restrictions ended has added to price rises and as a result Europe is facing record natural gas prices which are also feeding into high electricity prices in many countries. In winter 2022/23 households across the EU are experiencing a surge in energy prices, with the impact on poor households being most significant. Many vulnerable households are struggling to maintain thermal comfort, and some must choose between energy and other essentials including food and health. Businesses are suffering too. There are some various reasons behind the current energy crisis. First, both the industries that waste unsustainably and the lack of education for the citizens of this state who do not know how to acquire an environmental attitude (Yael Parag,2023)

Overpopulation is a very basic reason for the increase of the energy crisis phenomenon. The relationship between the energy crisis and overpopulation is complex and multifaceted. While they are distinct issues, they can intersect and influence each other in several ways.

No doubt, such a large increase in population leads to a wide and uninterrupted increase in consumption. The energy crisis and issues of excessive consumption are intertwined in Europe. Excessive consumption patterns contribute to the strain on energy resources and exacerbate the energy crisis in the region. The energy crisis in Europe is further fueled by the region's dependence on imported energy sources, such as natural gas and oil, which increases vulnerability to supply disruptions and price fluctuations. Excessive consumption exacerbates this dependency and exposes the region to risks associated with energy security. (Cristooher Weare,2003)

Another important reason of energy crisis is natural disasters because in this way can exacerbate the energy crisis through several avenues. Firstly, natural disasters can damage energy infrastructure, including power plants, transmission lines, and distribution networks. Severe weather events like hurricanes, floods, or earthquakes can cause physical destruction, leading to power outages, reduced energy generation capacity, and disruptions in energy supply. (Kyle Farmbry,2013).

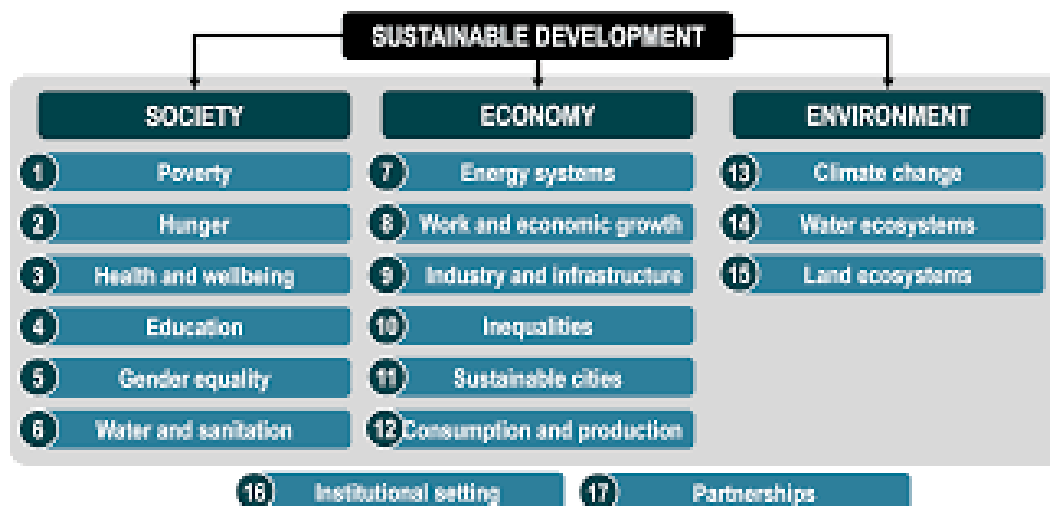
The earthquake struck in the early hours of April 6, 2009, catching residents by surprise and causing significant structural damage to buildings. The historic center of L'Aquila, with its centuries-old architecture, was particularly affected, with many buildings collapsing or sustaining severe damage. The destruction led to the displacement of thousands of the residents and created a humanitarian crisis.

The disaster prompted a massive response from emergency services, including search and rescue teams, medical personnel, and volunteers who worked tirelessly to locate survivors, provide medical assistance, and support the affected population. The recovery and rebuilding efforts took years, with the reconstruction of damaged infrastructure and the restoration of homes and public buildings.

SMEs and sustainable development

Small and midsize enterprises (SMEs) are businesses that maintain revenues, assets, or several employees below a certain threshold. Each country has its own definition of what constitutes a small and midsize enterprise. Certain size criteria must be met, and occasionally, the industry in which the company operates is considered as well. The media are referred to by many as the backbone of the European labor market, as they are a very large part of the market and of Europe in general. SMEs are an integral part of the European supply chains. They often collaborate with larger companies, acting as suppliers, subcontractors, or partners. This interdependence strengthens the overall competitiveness of the European economy. The European Union has implemented various policies, initiatives, and support mechanisms to facilitate their growth and success. These measures aim to improve access to finance, foster innovation and entrepreneurship, simplify regulations, enhance internationalization opportunities, and promote a favorable business environment for SMEs across Europe (investopedia, 2022)

SMEs make a major contribution to job creation and sustainable growth and play an important role in stimulating economic growth. However, in addition to the flexibility and the potential for economic advancement that they offer, they very often face certain difficulties in the way they operate. The truth is that as the media has a tremendous impact worldwide, its influence is decisive, whether positive or negative. (IEMed, 2005)



My research hypotheses and a comparison of Greece and Europe

There is no doubt that the media at an ethical level play very important role in the formation and development of any society. The media can help to organize society, its intellectual development, its qualitative upgrading and its degradation both at the social and individual level. As is logical, SMEs also play a role, important or not, in the restructuring of the sustainable development of the society concerned. The truth is that the literature on this issue is limited because most of the research that has been carried out focuses on the economic benefits of the media. However, my own personal assumption before I started my work was that the media ethically can help sustainable development but in practice they are aimed at the economic support of the state in question. According to the most recent research from 2008 to 2022, the media have shown tremendous growth, according to a survey by ‘statista,2022’ in

the last year there were about 719.296 SMEs in Greece. Such a large number demonstrates the inability of society to concentrate on the broadcasts of a channel, station or newspaper, and so we often end up with misinformation. For example, depending on the quality of the transmitter, its target and therefore what it transmits will vary. Without a doubt, Greece is quite different in most areas compared to other European countries (economy, tourism, unemployment). Thus, it notes various and regarding the role of the media. In Greece, being a much smaller and developing country compared to other European countries, SMEs are much smaller enterprises with less scope and power. Greece is a country that has faced a difficult economic crisis that started in 2009 and continued until 2018, which is about ten years that have been the main pillar of its economy today. This is certainly not characterized as development country, but developing. Other European countries with more stable economics are more capable of devoting themselves sustainable development and not only to the economic development of the country. A country like Greece that has faced so many difficulties in the economic sector. It would be much more difficult to focus on the development of the state on an environment consciousness. Even Greece as a country that gave birth to civilization has writing and traditional media quite a lot in its culture. This is evidenced by the fact that in Greece newspapers have a high sales rate. According to research by medialandscapes, in 2023 there will be about 280 local newspapers in Greece. However, across the rest of Europe, newspapers account for 21%, which is considerably lower than the 37% recorded in 2012. It is important to stress that Europeans by 49% show more confidence in the printed word (wordstrated, 2023). The number of trees used to make a newspaper can vary widely depending on several factors, such as the size of newspaper, the type of paper used, and the efficiency of the production process. On average, traditional newspapers are printed on newsprint paper, which is made from wood pulp primarily sourced from trees like spruce, fir and a pine. A standard newspaper page is about 22 inches by 14.75 inches, and a typical newspaper contains multiple pages. It is so logical to conclude that in Greece, since newspapers still play an active role in informing people, trees are wasted and thus a more ecological way of informing is not followed. We should also note that there are recyclable materials for printing newspapers and magazines.

Results in different region- Google Trends

According to "Google Trends" searches, you can see how many searches are made for a word per country. The word we will look for is "climate" and we will compare the results of Greece, Germany, Algeria. We are comparing developed and undeveloped countries in parallel. This will help us to determine whether a country's economy plays a role in its environmental development. Let us analyze the individual examples we have mentioned. In Greece, there has been no particularly large difference in green growth from 2013 to 2023. There has been some growth in the clicks of the word climate, but it is not remarkable compared to other countries such as Germany. To illustrate, in Germany, there has been a tremendous development in the environmental issue, from 2013 to the present day. Germany is a country with a very good economy and a country that is constantly growing. A completely opposite example is that of Algeria, which is a less economically and socially undeveloped country, so the level of sustainable development is quite low. Therefore, a key conclusion that can be drawn from this research is that a country's economy plays a key role in this further development. Greece and Algeria, two countries with developing economies, have not invested so much and so

substantially in their environmental development. On the other hand, Germany, a country with a very good economic and social situation, is investing more and more in green economy and its development.

Conclusion

In conclusion, the role of Small and Medium-sized Enterprises (SMEs) in addressing the energy crisis is pivotal for supporting sustainable development. SMEs possess unique characteristics that make them well-suited to contribute to a more sustainable energy future. Through their commitment to energy efficiency, renewable energy adoption, innovation, and community engagement, SMEs can drive positive change and promote a balanced approach to economic growth, social progress, and environmental protection. As already mentioned, SMEs can act as an adjunct to energy efficiency but also promote the adoption of renewable energy sources.

They can also be seen as drivers of innovation and a catalyst for the renewal of sustainable development. They are also able to interface with the local community which allows them to penetrate and influence people's environmental behaviour.

Moreover, SMEs can advocate for supportive policies and regulations that encourage energy efficiency, renewable energy adoption, and a resilient energy system. Their active involvement in policy advocacy and representation allows them to shape favorable frameworks, access funding opportunities, and influence energy-related decision-making processes.

In conclusion, the active participation of SMEs is essential for achieving sustainable development goals and addressing the energy crisis. Their efforts contribute to energy efficiency, renewable energy adoption, innovation, community resilience, and policy advocacy. By harnessing the potential of SMEs, we can pave the way for a more sustainable and prosperous future, where energy is accessible, affordable, and environmentally friendly for present and future generations.

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Unemployment problems and Solutions in the modern world

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Abstract: *The article analyzes state employment policies according to individual programs, using the example of several countries: Germany, Russia, Sweden, China and Armenia. The study of the international experience of the state employment policy allowed to classify the implemented programs according to three groups: employment maintenance programs, employment creation and promotion, financial support programs for the unemployed or those excluded from the workforce. According to the results of the study, each of the considered countries, according to the priorities set by themselves, implements their own employment state policy to promote the increase of employment of the population in their countries, as well as thereby establishing social guarantees for the country's population.*

Keywords: *employment programs, state employment policy, unemployment problem*

JEL Classification: *E24, E60, J01, J64*

1. Introduction:

According to the theoretical justifications accepted in international practice, different types of unemployment imply different steps and implementation of tools to achieve the desired result. For example, the implementation of steps to improve the professional abilities of employees can act as a means of combating technological unemployment, which will promote the growth of employees' abilities and reduce the probability of them becoming unemployed. Measures to create new jobs through the organization of public works can be applied by the state against another of the widespread types of unemployment, cyclical unemployment, which will also reduce the number of potential unemployed people in the economy.

From the study of the international experience of state employment policies, we can conclude that in international practice are mainly used 2 types of employment policies. Targeting both

supply and demand of labour, countries in the first group link macroeconomic and sectoral policies to government employment programs such as vocational training and education, State employment service activity, programs targeting uncompetitive persons in the labor market, wage subsidy etc. This group of countries includes Armenia, China, Kazakhstan, Moldova, Norway, Slovakia, Slovenia, Sweden, Russia and a number of other countries. The countries of the other group mainly focus on labor market policies, with direct independent goals of economic policy limiting the rate of inflation or the rate of economic growth and deriving employment growth from them. Countries of this type include Latvia, Lithuania, Switzerland, Germany and other countries.

2. Literature review.

An inseparable part of the state employment policy is the institutional framework of the employment policy, sources of financing, policy implementers the necessary mechanisms for their implementation, coordination, control, monitoring and evaluation, policy targets, action plans to implement them.

Within the framework of research employment policies in several countries were discussed and analyzed. In particular, currently, one of the key strategic documents for the implementation of the state employment policy in Sweden is "A good work environment for the future - the Government's work environment strategy 2021-2025", In China: "The 14th Five-Year Plan of the People's Republic of China — Fostering High-Quality Development", in Germany: "Social Code Book - Third Book - Employment Promotion" (Sozialgesetzbuch - Drittes Buch - Arbeitsförderung (SGB III)), in Russia: "Program for Ensuring Employment of the Population 2022-2024", as well as separate documents of employment policies implemented in different countries.

3. Data and Methodology

In the framework of this article, comparative, numerical, legal analysis, strategic management and planning methods were implemented. The state employment policies of Sweden, Germany, China and Russia were presented within the framework of the research. The basis for collecting the necessary data and information was the official employment data published by the observed countries, strategic plans and a number of other documents. A comparative analysis of these

programs was carried out according to a number of countries accordingly, the problems arising from the main objectives of the program were recorded.

4. Results and Discussion

In the compared countries, the necessary budget funds for the implementation of measures to maintain, create and promote employment are generated from different sources. For example, in Sweden they are financed from the state budget, in China from the central budget, local budgets and the unemployment insurance fund, in Russia from the federal and consolidated budgets, in Germany, from unemployment insurance and unemployment benefit funds, from employers and their occupational accident insurance funds (Berufsgenossenschaften). As for the coordination of the state employment policy, it is implemented from three interrelated components: inter-agency coordination at the national level, inter-departmental coordination at the local level and vertical coordination between national and local governments. Comparable countries apply the mentioned components.

In countries applying comprehensive employment policies, inter-departmental vertical coordination works effectively, in which non-governmental institutions also participate. For example, among the countries being compared, the coordinators in Germany are the Ministry of Labor and Social Affairs, the Federal Employment Agency and its local employment agencies, government agencies, employers, and civil society organizations. In China, the interdepartmental committee is headed by the vice-premier of the State Council. From 2020, the committee includes about 30 state institutions and social partners. In China, local governments implement the employment policy action plan in the local context or develop their own employment policies, while the State Council monitors and evaluates and finances the implementation of the state employment policy.

An important aspect of employment policy is the transformation of all priorities into measurable targets. The targets of the state employment policy in China are registered urban unemployment, the number of newly created jobs, the average duration of education of the working-age population, In Germany, the employment rate, the employment gap between women and men, the proportion of young people not working and not studying, in Russia, the unemployment rate, the poverty rate, the share of mass social services, in Sweden, the employment rate.

The state employment policy of countries should include a set of measures implemented through macroeconomic and sectoral policies, which should promote the creation of new jobs by stimulating demand. In other words, the employment policy should include micro, small and medium enterprise promotion, as well as various sectoral target programs.

According to ILO 2019 estimates, 70% of employment in the world is provided by small economic units. The share of self-employment in employment in low-income countries is 54%, and in high-income countries - 11%. In low-income countries, those employed in small enterprises (10-49 employees) make up approximately 3% of total employment, and in high-income countries - 25% (International Labour Organization, (2019)).

The study of the international experience of state employment regulation programs shows that they are divided into three groups:

- ✓ maintenance of employment,
- ✓ employment creation and promotion,
- ✓ financial assistance programs for the unemployed or those excluded from the labor force.

Employment maintenance programs have a preventive nature and aim to preserve jobs. They are the programs of wage subsidy in case of reduced working hours, compensation of social security payments, training during employment, direct and indirect support to business.

At the macro level the purpose of measures to maintain employment is to prevent the reduction of employment during economic crises. These include short-term work schemes, wage subsidies, tax and credit holidays, deferral of social security payments, direct cash support and reimbursement of fixed business costs(Z. Tadevosyan et al. (2021)).

There are countries that employ measures to maintain employment, such as wage subsidies, short-term employment or temporary layoffs, also for individual companies experiencing temporary financial problems for economic reasons or undergoing restructuring. For example, in Sweden there is a short-term work program of 7 months duration, in which the state can compensate 19-72% of the wages of reduced working hours (depending on the duration of reduced working hours) to prevent reduction of employment due to temporary financial

difficulties caused by the employer against his will. Within the framework of the program, the entrepreneur can also receive compensation for reduced working hours, for employee skill development programs.

Germany also applies the above tool, and the amount of assistance depends on the amount of lost income and net deductions of the employee. The worker receives 60% of lost net income, and 67% in the case of at least one child. The maximum benefit duration is 12 months. In Germany, an insolvency benefit also applies when an employer becomes insolvent. Employees who have not been paid for 3 months before the employer is declared insolvent receive the benefit. In addition, instead of the Employer, the state employment agency pays the insolvency benefit from the monthly insolvency fund. The insolvency benefit is equal to the salary before tax, if the employee's gross income does not exceed the maximum amount of the benefit (from 2020 EUR 6,900 per month in West Germany and EUR 6,450 per month in East Germany). The State Employment Agency also pays mandatory social security payments and employment promotion benefits for the last 3 months. The benefit is paid 2 months after insolvency(Federal Ministry of Labour and Social Affairs, (2020)).

In 2018, China's State Council adopted a program of measures to promote small and medium-sized enterprises, the ultimate goal of which was to increase employment or curb the decline. According to the program, small and medium-sized enterprises receive 50% compensation of unemployment insurance payments to prevent layoffs. Compensation may also be higher for companies experiencing temporary difficulties but retaining employees. Individual entrepreneurs and small businesses can also get a state-guaranteed loan of up to USD 21,800 and USD 435,600, respectively.

Employment creation and promotion tools target new job creation measures, as well as job seekers, and ensure the transition from unemployment to suitable employment. These include hiring additional workers to support the business, self-employment promotion, job matching, counseling and career guidance, professional preparation and training of the unemployed.

In Sweden, there are a number of programs that aim to boost employment by creating new jobs. One such program is the "Additional Service" job creation target program, within the framework of which the costs of employers offering permanent or temporary work (it can also be

additional part-time work) in government, cultural or non-profit organizations are fully subsidized. "Introductory work" is a program to employ the long-term unemployed, in which case 80% of the employee's expenses are subsidized, including the salary. The duration of the program is 12-36 months and according to 2022 data, the Swedish government spent 701 million Swedish kroner (SEK) to finance these two projects.

In Sweden, within the framework of the "Wage Subsidy" program, the employer receives a wage subsidy for hiring disabled job seekers and adapting the workplace and work to them. The long-term goal of the program is to provide the employee with a job for which the state will no longer provide financial support. The period of wage subsidy for the first time is one year. If the employee needs a longer adjustment period, the duration can be extended. For this purpose, in Sweden, the employer receives support in the amount of SEK 60,000 per year, and the self-employed with limited opportunities receive SEK 120,000.

Beneficiaries of the Wage Subsidy Program in Russia are college and university graduates, the disabled, parents with multiple children, and single parents with disabled children. The amount of the subsidy is three times the minimum wage multiplied by the regional factor and added insurance fees. The employer receives the first payment 1 month after hiring the unemployed person, the second - 3 months, and the third - 6 months.

There is insufficient practical evidence of the effectiveness of tax incentives as a tool to promote targeted employment. For example, in Sweden, the 2007-2015 tax reforms reduced payroll taxes for employers in rural areas and levies on youth. Empirical evidence showed that they had no significant effect on rural employment and a small positive effect on youth employment (Forslund, A. (2019).

To promote self-employment in Germany, there is a Start-up Grant (Gründungszuschuss) program for people who choose self-employment as their main occupation, which compensates them for their first few months of living expenses and social security contributions. To receive a grant, applicants must demonstrate that they have the necessary knowledge and skills to carry out the activity in question. It is paid in two installments. For the first 6 months, new business owners can receive a grant equal to their last unemployment benefit to cover their living

expenses, plus 300 euros per month for social security costs, which can be paid for the following 9 months if the applicant demonstrates intensive entrepreneurial and business activity.

In Sweden, unemployed jobseekers benefiting from the program "Support for starting a new business" can receive support for 6 months (can be extended up to 12 months), for which the requirements for business profitability and providing long-term income are defined. And Disabled beneficiaries also get an additional benefit. In Russia, too, job seekers have the opportunity to receive one-time financial support as self-employed.

Some countries target the creation of "green jobs" in their employment creation and promotion policies, others take measures to create new jobs in traditional industries while developing "green skills". In addition to direct support (tax incentives, social security fee subsidies, loan guarantees, and interest subsidies) for green employers in China, the government subsidizes skills training for the new equipment an organization acquires. It is important to note here that China is the global leader in renewable energy and in 2019, China accounted for 39% and 44% of global renewable energy and wind energy jobs respectively; 4.1 million and 510,000 jobs, respectively.

The long-term goal of the German government is to obtain 60% of the energy used from renewable sources by 2050. By 2030, its aggregate impact on employment may reach 23,000-258,000 additional jobs (depending on the implemented policies) (Pestel N. (2019)).

In Sweden, the green jobs initiative was implemented during the pandemic, for which the state provided 150 million SEK in 2020. The initiative aims to improve the integration of new immigrants and the long-term unemployed, develop their skills and employability, reduce the shortage of personnel in green industries, strengthen environmental protection and forest management, as well as promote outdoor activities, entertainment and recreation.

Governments provide support to employers within the implementation of regional programs to increase the mobility of labor resources. For example, in case of employment away from the place of residence in Russia, a stable and highly paid job is guaranteed with a salary supplement, the costs of moving and settling in a new place are paid, the family is provided with an apartment, a one-time monetary compensation is given, an opportunity to increase qualifications is given in some regions, food is also reimbursed. 80% of the mentioned program

is financed by the state and local authorities, the remaining 20% is paid by the employer. The hiring employer receives state support, which amounts to no less than 225,000 rubles for each specialist hired.

In the modern technological world, information technologies enable to optimize not only production, but also its management and control processes, as a result of which the demand for IT specialists increases, while other jobs are pushed out of the labor market. In this context, during the selection of directions of training programs, countries often give special importance to the IT sector itself. For example, within the framework of the "Digital Profession" federal project of the "Digital Economy" national program in Russia with 50% co-financing of the state, a citizen of the Russian Federation with secondary professional and higher education in any specialty has the opportunity to receive IT education remotely (more than 55 programs) in more than 30 organizations selected by the state. It is planned that at least 110,000 citizens will become beneficiaries of the program by the end of 2024. According to the national project "Demography" in Russia, until 2024, participants in the professional education and pre-professional education program can be unemployed jobseekers, citizens aged 50 and older, persons before retirement age, unemployed women with children up to 3 years old, unemployed women with children of preschool age, and the duration of the program is from 3 weeks to 6 months.

There is a training program for professionals without professional experience in Sweden, within which they can do an internship under the supervision of a supervisor and a final assessment, which lasts up to 3 weeks. At the end of the internship, the job seeker receives a certificate from the internship site describing the acquired skills.

In China, the government is implementing a vocational skills training subsidy program for youth aged 16-24, recent graduates and the unemployed. Skills vary from region to region as local governments develop their own recycling programs based on labor market demand. The goal of the program is also to increase the number of high-tech workers to 33.3% of the total trained workers in 2021. Programs are generally free or discounted for college students, and completely free for non-competitive individuals. Each participant can use the program for free 3 times a year. In order to avoid risks, a participation fee is also set, which is returned only after

successfully passing the final test. In the 2021 five-year plan, it is planned to increase the number of people who have received subsidized training to 75 million.

From financial support tools the most common are unemployment protection and cash support for seasonal workers.

Seasonal work allowance (Saison-Kurzarbeitergeld) is used in Germany to support seasonal workers in the construction industry, which is paid for a maximum of 4 months between December 1 and March 31. A company must have at least 1 employee in order to be eligible for the benefit. The amount of the allowance is equal to the short-term work allowance. In addition to the seasonal work allowance, employees can also receive an additional winter allowance (Zuschuss-Wintergeld) of up to 2.50 euros per 1 hour lost and a winter expenses allowance (Mehrawandungs-Wintergeld) from 15 December to the last day of February , 1 euro per hour worked.

In Armenia, too, the state employment policy contains both a social and an economic component. This fact is also fixed in the RA Law on Employment. Every year, the RA Government develops the State Employment Regulation Program, where the priorities of the given year are defined according to individual directions and measures. According to the current employment law, about two dozen separate employment regulation programs and services can be included in the annual program. RA laws define the main goals, the scope of beneficiaries, the nature, amount, duration, etc. of the provided financial support. Summary descriptions of all programs to be implemented in a given year are included in this program in separate sections. Such are:

- ✓ Organization of vocational training for the unemployed, those at risk of dismissal, as well as job seekers with up to six months remaining in prison. The unemployed person involved in the courses is paid a stipend in the amount of 50% of the minimum monthly salary every month during the entire training period.
- ✓ Providing assistance to the unemployed to gain professional work experience in the acquired profession. The duration of the program is 3 months, and during the entire period of the program's implementation, the unemployed person is paid a salary from the state budget in the amount of the minimum monthly salary. The

employer is also given money: income tax and stamp duty calculated from the salary of the unemployed person, in cases defined by law, to compensate the targeted social contribution. And the specialist who organizes the process of gaining work experience at the employer is paid a sum of 50 percent of the minimum monthly salary on a monthly basis.

- ✓ Provision of one-time compensation to the employer in case of employment of uncompetitive persons in the labor market. It can range from 50,000 to 200,000 AMD, and up to 500,000 AMD if the unemployed person is disabled.
- ✓ Provision of support for non-competitive persons in the labor market to engage in small business activities, the maximum amount of which is 1 million. 350 thousand drams as well as the law sets maximum limits and other criteria for individual types of expenses.
- ✓ Providing support to the agricultural economy through the promotion of seasonal employment.
- ✓ Provision of temporary employment of the unemployed through the organization of paid public works and a number of other programs.

5. Conclusion

From the study and comparative analysis of the mechanisms of development and implementation of state employment policies, it becomes clear that although they differ from country to country, they are everywhere interconnected with many economic and social problems, necessitating the development of an inclusive comprehensive strategy. In this context, the development of state employment policies requires the integration of all competing policies and target components. Such multidimensional policies also necessitate social dialogue between different interest groups, on the basis of which tripartite and inter-ministerial committees for the development and implementation of employment policies have been formed in some countries.

Of course, there is no universal model of state employment policy, and its features depend on the economic growth rate of the country, the degree of development of various institutions, financing possibilities, peculiarities of state administration, etc. However, its development should be based on three pillars: coordination (structure, coordinating body), accountability (targets, work plan,

monitoring, evaluation and improvement mechanisms) and support (public and private employment agencies, related bodies, funding) structures.

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Reduce climate change by promoting new energy vehicle

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Abstract:

With the increasing severity of global climate change, governments and all sectors of society are actively looking for effective solutions. Among them, the promotion of new energy vehicles is considered to be one of the effective ways. Compared with traditional fuel vehicles, new energy vehicles use electrification technology, which helps mitigate the impact of climate change. This article will first introduce the basic situation of reducing climate change through the promotion of new energy vehicles, and then discuss the importance and feasibility of reducing climate change through the promotion of new energy vehicles from the perspectives of economy, environmental protection and energy, and put forward relevant suggestions.

Keywords: climate change, economy, environmental protection, energy

Introduction

Climate change has become a hot topic of global concern. According to the United Nations Framework Convention on Climate Change (UNFCCC), global carbon dioxide emissions have continued to increase over the past few decades, leading to an increase in the Earth's average temperature. Transportation is one of the world's largest sources of CO₂ emissions. Therefore, reducing greenhouse gas emissions from transportation is an urgent task to mitigate climate change.

Governments around the world are implementing strategies and programs to reduce carbon emissions (Ustun et al., 2011). By 2020, the UK aims to reduce carbon emissions by 45% (Huang & Infield, 2009). European Union (EU) countries are planning to reduce their emissions by 20% (European Commission, 2010). Currently, one of the most prominent sustainable answers to drastic reductions in oil consumption and carbon emissions is electric vehicles (EVs).

New energy vehicles mainly refer to electric vehicles, hybrid vehicles and fuel cell vehicles. The driving mode of these vehicles is different from traditional cars, and the use of clean energy such as electric motors and fuel cells instead of traditional internal combustion engines fundamentally eliminates the problems of exhaust pollution and noise pollution, and can also save oil resources and promote the upgrading and development of domestic industry.

The development of new energy vehicles has broad prospects and is one of the mainstream trends in the future development of the automobile industry. In promoting new energy vehicles, the government can take a variety of measures, such as tax exemptions, subsidies, and infrastructure construction, such as the construction of

charging piles, while strengthening the publicity and promotion activities of new energy vehicles through various channels to improve the public's awareness and understanding of new energy vehicles.

The promotion of new energy vehicles not only plays an important role in protecting the environment and reducing climate change, but also an important way to achieve sustainable urban development and low-carbon economy, and also has many advantages in promoting scientific and technological innovation, reducing production costs of enterprises, and improving people's travel experience. It is believed that in the future, new energy vehicles will become more popular and reliable, and become an important part of people's travel life.

The promotion of new energy vehicles can effectively reduce climate change for the following reasons:

- 1.Reduce greenhouse gas emissions. The emissions of traditional fuel vehicles produce a large number of greenhouse gases, of which carbon dioxide is the most important one, and greenhouse gases are one of the main culprits that cause climate change on the planet. New energy vehicles use clean energy such as electricity, hybrids, and fuel cells instead of fuel, which greatly reduces the emission of greenhouse gases such as carbon dioxide, thereby reducing the rate of global temperature rise.
2. Save energy resources. Automobile oil using new energy technology greatly reduces the emission of greenhouse gases. In order to use energy more efficiently during use, it is more energy-efficient than traditional cars, and can better meet the needs of sustainable urban development in the future.
- 3.Promote industrial upgrading. The promotion of new energy vehicles is not only conducive to solving environmental problems, but also an important way to achieve national economic transformation and upgrading and optimize industrial structure. The materials and equipment required for the production of new energy vehicles are different from those of traditional vehicles, which will have a positive effect on the development of steel, electronics, energy and many other fields related to automobile production.
4. Demonstrate international responsibility. In the face of global climate change, all countries should shoulder their due international responsibilities and take active action. Taking China as an example, the promotion of new energy vehicles is not only an important task to achieve environmental sustainable development, but also one of the efforts to promote global efforts to combat climate change. Such realistic actions will help China play a more active role in global environmental governance.

Therefore, the promotion of new energy vehicles is not only an important way to mitigate the impact of climate change on the environment and human beings, but also the only way to achieve sustainable economic, social and environmental development, which requires our joint efforts and support.

Literature review

The promotion of new energy vehicles is a very important issue, from the three aspects of economy, environmental protection and energy, the promotion of new energy

vehicles has a role that cannot be ignored.

First of all, in terms of economy, the promotion of new energy vehicles can drive the development of related industries, create new jobs, and provide infrastructure and other related products and services for national and regional construction. The article cites the study, which analyzed policy incentives in China's electric vehicle market, and the results showed that policy incentives are critical to the development of the electric vehicle market, and the government should further improve policy measures to promote the sales and promotion of electric vehicles.

Secondly, from the perspective of environmental protection, new energy vehicles can reduce air pollution, reduce noise pollution and save energy. These aspects are very prominent in the management and development of modern cities. Use Beijing as a case study to analyze the impact of factors on the electric vehicle market. The results show that the government should promote the promotion of electric vehicles in the Beijing market by improving policy measures, strengthening charging infrastructure construction, and enhancing market demand. 6+++

Finally, in terms of energy, the promotion of new energy vehicles can effectively reduce the dependence on traditional energy and optimize energy consumption. New energy vehicles use clean energy such as lithium batteries to replace fossil energy such as oil, reducing the dependence on traditional energy sources and providing huge opportunities for countries and regions to diversify and clean energy structures.

Results and Discussion

The above content shows that the promotion of new energy vehicles is an important way to mitigate climate change and protect the environment, and it is also a necessary choice to achieve sustainable economic and social development.

However, the promotion of new energy vehicles still faces some challenges, such as technical level, industrial chain completeness, market demand and other issues. Therefore, with the strong support and cooperation of policy, market, technology and society, we can better promote the popularization and promotion of new energy vehicles and achieve a win-win situation in the economy, environmental protection and society.

How Elinor Ostrom shaped our understanding of the Commons

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Abstract

This paper refers to the life of the US-political scientist and economist Elinor Ostrom and situates her life and contribution on how she globally and sustainably shaped our understanding of the common goods in a general discussion on the way institutions actually work – beyond theories and the idea of a supposedly perfectionism. As systems are not disconnected from society, human factors cannot be neglected, since citizens build, shape, and maintain these structures. The evaluation system that examines institutions according to their ability to cope with two human imperfections including the problem of inadequate knowledges and limited benevolence is called Robust Political Economy Analysis and will be also discussed.

Keywords: Common Goods, Elinor Ostrom, IAD Framework

JEL Classification: A12, A13, B31, B54

1. Introduction

Elinor Ostrom (1933–2012) became in 2009 the first woman to be awarded¹ the Nobel Memorial Prize in Economic Sciences for her analysis of the commons. This distinction was of great significance not only because of women's underrepresentation in the economics profession, which is »more pronounced in the United States compared to heterogeneous Europe²«, as a research group delineated it in a recent survey from a transatlantic perspective. Ostrom's contribution and the recognition of her work gave us the opportunity to seriously rethink the commons in crucial periods of time. Back in the prize-giving year her research was for some scholars »an appropriate reaction to free-market failures highlighted by the 2008 financial crisis³.« Today, in a world of increasing asymmetries and global challenges within an environment of multicrisis, studying Elinor Ostrom prevent us for instance from the dilemma of free markets or governmental regulation⁴ extending our knowledge beyond the efficacy of this scheme.

Further, Ostrom's legacy helps us to rethink complex settings. The mechanisms' complexity of the Commons can for instance be depicted on the paradigm of *polycentricity*, »the coexistence of many decision centers with autonomous and sometimes overlapping prerogatives, some of them organized at deferring scales, and operating under an overarching set of rules⁵«, which

¹ Along with corecipient Oliver Williamson, University of California at Berkeley.

² Auriol, E.; Friebe, G.; Weinberger, A.; Wilhelm, S. (2022). "Underrepresentation of women in the economics profession more pronounced in the United States compared to heterogeneous Europe". In: Proceedings of the National Academy of Sciences, Volume 119, Issue 16, April 2022.
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³ Burke, Maureen (2011). "People in Economics. The Master Artisan". In: *Finance & Development*, September 2011, pp. 2–5.

⁴ Cf. Ostrom, Elinor (2010). "Beyond markets and states: Polycentric governance of complex economic systems". In: *American Economic Review*, 100(3), pp. 641–672.

⁵ Tarko, Vlad (2012). Elinor Ostrom's life and work. In: Ostrom, Elinor. *The Future of the Commons: Beyond Market Failure and Government Regulation*. London: The Institute of Economic Affairs (iea), pp. 60–61.

was one of her work's focuses. Regarding her research, a definition of the term common goods or commons and the distinction from the common good (singular) would be essential:

»As these definitions already suggest, those who use this concept speak both of "common goods" plural, and of "the common good" singular, the latter being in some sense overarching, macro as opposed to micro. No doubt the language of "common good" can be used imprecisely, vaguely and rhetorically. This section aims to show how it may be used with some analytical precision and thereby to spell out the meaning it tends implicitly to have even when used without clear elucidation. We proceed by distinguishing conceptually between collective action/goods and common action/goods⁶.«

2. Literature Review

The essay is based on a literature review of recent English-written publications (2010–2022) mentioned in the footnotes and alphabetically listed in chapter 6. References–Bibliography. The main source for the research was the anthology of essays in the book Ostrom, Elinor (2012). *The Future of the Commons: Beyond Market Failure and Government Regulation*. London: The Institute of Economic Affairs (iea).

3. Data and Methodology

The entire data and information were drawn on the above-mentioned literature review. The research method includes interpretative methods of social sciences that are focused on understanding and explaining the complex phenomena related to the Commons in a comprehensive and holistic way including human factors. An additional approach that could be received as not typical in Economic Studies is bringing some biographical data of Elinor Ostrom into the equation and highlighting the person behind ideas and theories. This method aims to underline the reciprocity process of how the social environment shapes the personality of scholars and how intellectuals can influence and revolutionize their field according to their own experiences. The aim here is not to write a hagiography⁷ of Ostrom. This is being avoided by including for instance critical opinions such as the one of Mark Pennington who constructively criticizes that Ostrom's theories on common-pool resource management are indeed working on bottom-up governance institutions; Pennington nevertheless expresses his skepticism on how the theoretical frame of Robust Political Economy can apply on top-down governance arrangements. Ostrom, also according to Pennington, uses further an RPE framework for endogenous rule formation in order to draw attention to the inter-relationships between different layers of rule-making. The author points here out that Ostrom »was by no means the first to adopt this perspective.⁸«

4. Result and Discussion

In the following, the main topics for further discussion are presented. The material is structured in chapters referring to the personality of Elinor, which had a crucial influence on the school founded by her and her husband Vincent⁹ Ostrom, and her contribution.

⁶ Deneulin, Séverine; Townsend, Nicholas (2007). "Public goods, global public goods and the common good". In: *International Journal of Social Economics*, Vol. 34 No. 1/2, 2007, p. 25.

⁷ A hagiography admires and idealizes the subject and is written like a biography of a saint, without skepticism or criticism.

⁸ Cf. Pennington, Mark (2013). "Elinor Ostrom and the robust political economy of common-pool resources". In: *Journal of Institutional Economics*, 2013, 9:4, p. 455.

⁹ »Vincent Ostrom developed a theory of human action that was not based on abstract formal attributes of the actor, like full rationality, but on stylized facts derived from an anthropological and historical understanding of what would be the central issue in social science: choice.« Groenewegen, John (2011). *The Bloomington School and American Institutionalism*. In: *The Good Society*, Vol. 20, No. 1, 2011, p.30.

4.1 Elinor Ostrom: A biographical approach

»While it was a challenge being a poor kid in a rich kid's school, it did give me a different perspective on the future¹⁰«

Elinor Ostrom was born in Los Angeles, California on August 7, 1933, and grew up during the Great Depression. According to autobiographical narratives, their house had a large backyard filled with vegetable gardens and fruit trees. Thus, she learned how to grow vegetables and how to preserve apricots and peaches during the hot summer months. Her childhood was spent learning and practicing traditional activities for girls from the last century. This included »to knit scarves during World War II for "boys overseas"¹¹«.

There is no doubt that her early life and socialization were important components for shaping an open-minded scholar, who thought out of the box, as even terms like poverty and wealth were fluctuating for her. Moreover, the environmental respect growing up in a backyard was also given. Finally, even if she was raised as a typical girl in the 1940s, she managed later to assert herself in a male-dominated field in such an extended way that even if she closely worked together with her husband Vincent Ostrom, she succeeded in making her personality a synonym for *The Ostroms*.

4.2 Practicing and experiencing interdisciplinarity

»The strengths of the disciplines lie in the boundaries they have set around their knowledge-seeking tasks and the focusing of the tools to investigate the worlds within those boundaries.

But those same boundaries have made it difficult to remember what they have set aside and to remake connections across boundaries¹²«

Being a political scientist by her own, Elinor Ostrom nonetheless revolutionized the fields in the Economic Studies and has contributed to an endeavor in order to rethink the functionality of common-pool resources. Intellectually and also ideologically – as Ostrom never was dogmatically in favor of either private markets or governmental¹³ regulations – it would be difficult to classify her into certain categories. Ostrom was an interdisciplinary spirit that allowed her to think widely and holistically in her research. In her own words on the occasion of the Nobel Prize she described the lack of an interdisciplinary as following:

¹⁰ "Elinor Ostrom: 1933–2012. Biographical Memoirs". A Biographical Memoir by Bonnie J. McCay and Joan Bennett, 2014. In: National Academy of Sciences, p. 2.

Available under: www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/ostrom-elinor.pdf

¹¹ "Elinor Ostrom – Facts". In: Nobel Prize Org, 8 Aug 2023. Available under: www.nobelprize.org/prizes/economic-sciences/2009/ostrom/facts/

¹² Bazerman, Charles (2011). "Standpoints: The Disciplined Interdisciplinarity of Writing Studies." In: Research in the Teaching of English, August 2011, Volume 46, Nr. 1, p. 10, www.jstor.org/stable/23050587

Cf. also Wrigglesworth, John, & McKeever, Mary (2010). Writing History: A genre-based, interdisciplinary approach linking disciplines, language and academic skills. In: Arts and Humanities in Higher Education, Band 9, Nr. 1, pp. 107–126, journals.sagepub.com/doi/abs/10.1177/1474022209349987

¹³ Government could, according to Ostrom, be involved in the ownership of regulation of some common-pool resources that are too high. The state's useful role could: 1. promote the development of dispute resolution procedures, 2. Ensure legal concession agreements, 3. Serve as a trust source for spreading information on new scientific and technological knowledge. Cf. Pennington, Mark (2012). Elinor Ostrom, common-pool resources and the classical liberal tradition. In: Ostrom, Elinor. The Future of the Commons: Beyond Market Failure and Government Regulation. London: The Institute of Economic Affairs (iea), p. 35.

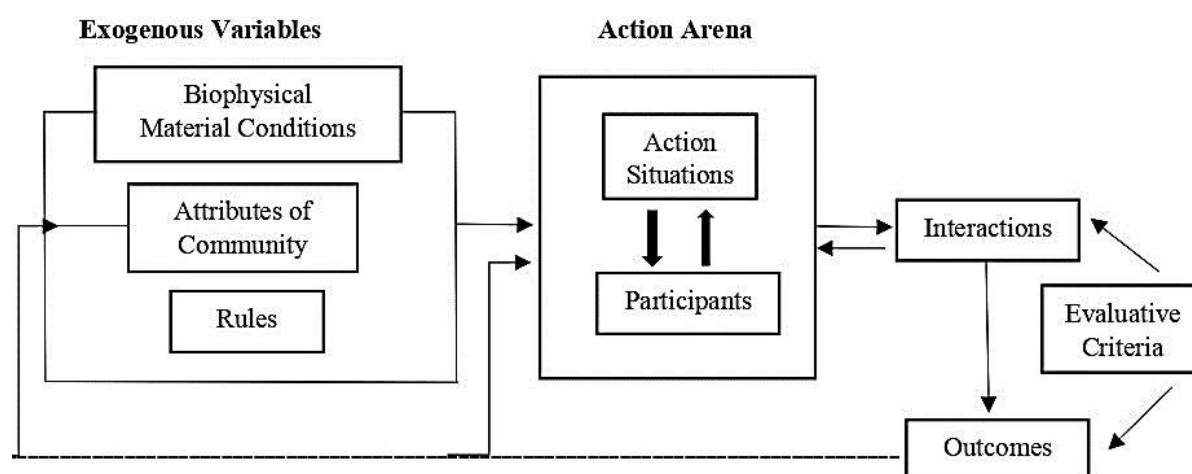
»The National Research Council created a special committee in the mid-1980s to review the empirical research written about common-pool resources. Scholars began to recognize that much research on this topic had been conducted but was divided by discipline, sector, and region. Consequently, scholars who studied inshore fisheries in Africa did not know about other studies of resources in Africa. If they were sociologists, they did not know any of the work done by economists and vice versa. Participating in the NRC committee, and seeing the immense amount of research that had been done but not synthesized, taught me a major lesson. The way we organize the modern American university fragments our knowledge badly. Not only are we divided by discipline, but we are divided by the methods that scholars use. Economists using nationwide statistical data are critical of economists using the experimental lab to test theory. Scholars who do field research are critical of the use of any other method¹⁴.«

As Vlad Tarko summarizes, »Elinor Ostroms contributions, as part of the Bloomington school, have challenged in important ways the conventional expert wisdom about the ways in which communities work and social cooperation emerges or fails. These contributions have led to a very important theoretical development – the construction of the IAD framework, and the associated theory of society as an interacting system of action arenas¹⁵.«

4.3 The IAD Framework, socio-ecological systems and design principles for the Commons

IAD is the acronym of Institutional Analysis and Development, and it is a framework initiated by Ostrom and her research team in order to analyze institutions through individual choices.

Table 1: IAD Framework Components¹⁶



Further, the multilevel framework provided by Ostrom, and her team can be better understood if we take into consideration following principles: a. Boundaries to facilitate exclusions, b. The importance of internal rules, c. The importance of locally adapted rules, d. The importance of monitoring and enforcement, e. Dispute resolution, and f. Interaction between systems of rules¹⁷.

¹⁴ "Elinor Ostrom – Facts". In: Nobel Prize Org, 8 Aug 2023. Available under: www.nobelprize.org/prizes/economic-sciences/2009/ostrom/facts/

¹⁵ Tarko, Vlad (2012). Elinor Ostrom's life and work. In: Ostrom, Elinor. The Future of the Commons: Beyond Market Failure and Government Regulation. London: The Institute of Economic Affairs (iea), p. 64.

¹⁶ Ostrom, Elinor (2005). Understanding Institutional Diversity. Princeton, NJ: Princeton University Press, p. 59, fig. 2.3.

¹⁷ Cf. Pennington, Mark (2012). Elinor Ostrom, common-pool resources and the classical liberal tradition. In: Ostrom, Elinor. The Future of the Commons: Beyond Market Failure and Government Regulation. London: The Institute of Economic Affairs (iea), p. 26–29.

5. Conclusion

Elinor Ostrom's work focused on the study of common-pool resources and how communities can effectively manage and govern these resources without external regulation or privatization.

Her research challenged the prevailing notion that common pool resources, such as forests, fisheries, and irrigation systems, were doomed to overuse and degradation due to the "tragedy of the commons" - the idea that individuals acting in their own self-interest would deplete shared resources. Instead, she found that communities around the world have developed various systems of collective action and self-governance to manage these resources.

This contribution is fundamental, as Economists have long argued that natural resources used collectively by users will be overexploited and destroyed in the long run. Elinor Ostrom counters this idea through field research on how people in small local communities manage shared natural resources such as pastures, fishing waters, and forests. She proved that as natural resources are shared among users, self-made rules are established over time about how to use these resources and to use them in an economically and ecologically sustainable way.

One of Ostrom's most significant contributions was her development of a framework known as the Institutional Analysis and Development (IAD) that provides a systematic way to analyze the complex interactions between individuals, institutions, and the physical environment in the management of common pool resources. This helps us to identify the key factors that contribute to successful self-governance and provides guidance for policymakers and practitioners in designing effective governance systems. In this frame we also mentioned the Robust Political Economy Analysis and critical comments made by Pennington.

Ostrom's research also emphasized the importance of human and systemic imperfection, local knowledge, social norms, and trust in facilitating successful collective action. She argued that communities are often better equipped to manage their own resources than external authorities, as they have a deep understanding of the local context and can develop rules and norms that are tailored to their specific needs and circumstances.

Overall, Ostrom's research has had a profound impact on the field of economics and beyond and has challenged conventional wisdom about the management of common pool resources. Her work has provided valuable insights into the potential for collective action and self-governance to address environmental and social challenges, and her ideas continue to influence people around the world.

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