The Development of Start-Up Entrepreneurship in Greece Supported by Modern Financing Methods

Zafeiris SIDIROPOULOS*
University of Macedonia, Thessaloniki, Greece

"Whether you think you can or you think you cannot you are right"
HENRY FORD

Abstract

The purpose of this research is to identify proper financing options for the business development of startup entrepreneurship in Greece. Relevant data are collected through primary (EU official data) and secondary (e.g. startupgreece.org) sources. The idea of an economic model focused on the start-up ecosystem, new financing methods and development opportunities through clusters and incubators, will be analyzed. In conclusion, we summarize the best practices that we propose for the development of the Greek economy and entrepreneurship.

Keywords: Start-up, Financing, Ownership structure
JEL Nr.: G32

1. THE START-UP ENTREPRENEURSHIP IN GREECE DURING THE FINANCIAL CRISIS

1.1 The Greek business environment before 2008

The Greek entrepreneurship before the outbreak of the 2008 financial crisis was based on a rapidly growing model supported mainly by public and private consumption, which was "assisted" by the relatively easy and low-cost access to international credit. At the same time, the Greek business environment was particularly introverted; the net value of the investments and net exports were much lower than the European average. The balance of trade was constantly negative (trade deficits), while the growing private expenditure was supporting the demand and GDP growth. (McKinsey&Company, 2010)

The competitiveness of Greek enterprises declined further as the growing demand led to a rise in both commodity and real estate prices - more than its trade partners - while the increases in wage costs in the public and private sectors had a negative impact on unit labor cost in the Greek market. This deterioration was about 30%, compared to the corresponding data of the Greek economy in the late 90s. (Τσακλόγλου, Οικονομίδης, Παγουλάτος, Τριαντόπουλος & Φιλιππόπουλος, 2016)

* **Email:** fin1539@uom.edu.gr

It is more than clear that this model produced a low added value in the Greek economy. From relevant Eurostat data for 2008 it appears that in the tradable sectors[1] the contribution to the Greek economy in terms of gross added value is very low (35% vs. 38% for Southern Europe and 39% for the North) whereas for non-tradables Greece prevails over its trade environment (65% vs. 62% and 61%, respectively).

In other words, there were strong imbalances in the structure of the Greek market, imbalances that were widening from overspending with "borrowed" money. At the same time, even Tourism, the country's most export-oriented product, added less value (just 9%) to the domestic economy than its trading partners (15% for Southern Europe and 16% for the North).

This weak growth model of Greece, full of structural and funding handicaps, began to "collapse" after the public sector could no longer feed large domestic needs with external borrowing and Greece had to join the European Support Mechanism (2010). The immediate consequence of the above is that the Greek economy was gradually shrinked in the coming years, reaching a loss of 26% of its GDP (2008-2013). (Τράπεζα της Ελλάδος, 2016) This deterioration of the Greek market was characterized by the closure of many businesses - mainly small and medium-sized enterprises (SMEs) - and the loss of thousands of job positions during the crisis (According to Eurostat, the relative unemployment rates: 2008: 7.8%, October 2016: 23%).

According to relative data from Endeavor Greece, the situation between 2012 and 2016 seems to be even worse; the setting-up rate of new business is lower than 2012 (by 33%). This negative climate appears to be prevalent in all the "traditional" sectors of the Greek economy, namely restaurants (41% decrease), retailing (49% decrease), construction (25% decrease), manufacturing (9% decrease) and food processing (38% decrease). However, there is a tendency that more export-oriented enterprises are created (16% increase), with tourism-related businesses are one third more compared to 2012 (an increase of 31%).

1.2. The "birth" of start-up entrepreneurship environment in Greece

The start-up entrepreneurship in Greece seems to "be born" with the beginning of the crisis in the Greek economy. Although the relevant bibliography on Greek entrepreneurship is limited (Global Entrepreneurship Monitor, 2016; Sahinidis, Giovanis and Sdrolias, 2012; Sahinidis and Vassliou, 2013; Katsoni and Sahinidis, 2015), the crisis seems to act as a lever not only for the creation of new enterprises but also for their massive multiplication. Moreover, it was clear that the country's pre-crisis business model, based on introversion and internal consumption, could no longer be maintained, paving the way for new and innovative business ideas.

In relative data from Endeavor Greece, an international nonprofit organization that studies entrepreneurship issues, the Greek start-ups that are founded each year has

[1] Tradables are for example the manufacturing industry, tourism, business services, agriculture, shipping, energy. Non-tradables are retail and wholesale, real estate, public administration, health, education, postal and telecommunications, utilities, financial services, construction, etc.

risen from barely 16 in 2010 to 144 in 2013 (900% increase), while the investment in start-up entrepreneurship increased compared to 2010 by 80 times (2010: € 500,000, 2013: € 42,000,000). The same situation observed with business support organizations (an increase of 60 times) and the total number of investments by foreign and domestic angels.

There is no specific definition for start-up entrepreneurship. According to the Oxford Dictionary, *"A start-up is a newly established business"*. The Forbes magazine gives another interesting definition *"Start-up is a company that works to solve a problem that is not obvious and its success is not guaranteed*". The Business Dictionary enriches the above definitions: *"An early life-cycle company where entrepreneurs move from the idea stage to securing funding, defining the structure of the business model and initiating operations or trading."*

Amy Fontinelle, finance expert at Investopedia, a financial content website, provides a clearer and more comprehensive definition: "*A start-up is a young company that is just beginning to develop. Start-ups are usually small and initially financed and operated by a handful of founders or one individual. These companies offer a product or service that is not currently being offered elsewhere in the market, or that the founders believe is being offered in an inferior manner."*

In conclusion, we could summarize that a start-up business is:

- A business entity that has just been established or it is relatively new in the market.
- It is growing fast to meet a market need by developing or offering an innovative service, product or process.
- It is in the search for funding.
- It usually takes the form of a small business or collaboration, or even an organization with a purpose to develop rapidly a scalable business model.

1.3. The business environment in Greece today

Greece has made a significant economic and fiscal adjustment progress since it joined the first support mechanism (2010). (European Commission, 2012). Through the fiscal programs, the Greek government has tried to develop entrepreneurship and address the current problem of the proper allocation of limited resources for the benefit of enterprises. (Katsoni & Sahinidis, 2015) Nevertheless, the business climate in Greece has not improved significantly.

The structure of the Greek market does not differ from the rest of the European Union. According to Eurostat data (2012), SMEs, where the category of start-ups mainly belong, account for 99.9% of the Greek market, with the average of 28 countries standing at 99.8%. There are some differences in the total number of people employed in SMEs (Greece: 86.5%, EU 28: 67%) and the Gross Added Value (Greece: 72.8% EU 28: 57.5%). In other words, the backbone of Greek economy are, even today, the small and medium-sized entrepreneurship.

Nevertheless, small and medium-sized enterprises face serious problems mainly related to (a) high operating costs generated by (b) low consumer demand and (c) high

taxation, while there are (d) liquidity problems. According to relative data (2013) from a sample survey of the Institute of Commerce and Services (Greek: IN.EM.Y) that belongs to the Greek Confederation of Commerce and Entrepreneurship (Greek: Ελληνική Συνομοσπονδία Εμπορίου και Επιχειρηματικότητας), these factors were found to concern 34.5%, 46.8%, 56.4% and 61.6% of Greek SMEs respectively. In particular, the liquidity problem is perceived to be a major problem for Greek SMEs. The same situation is reflected in a recent survey of the National Bank of Greece for SMEs. (August 2016). Also, a very pressing problem is the large tax liabilities of SMEs.

At the same time, regarding the general environment, various economic and business indicators measure stagnation or slight improvement for the Greek economy. Greece's position remains at 61st (the last in the EU 28) according to the Doing Business Index, a World Bank index of 190 economies, which includes 10 sectors to express the friendliness of the business environment in the lifecycle of a business entity.[2] At the same time, the Global Entrepreneurship Index (GEDI), a more comprehensive indicator of the Global Entrepreneurship and Development Institute, that analyses the business environment through 14 entrepreneurship pillars, the country performance drops to 49 position (4 positions below 2016 and the latter in the EU 28).[3]

The most important thing to be mentioned is the change of Greek young people attitude towards entrepreneurship. Although the cultivation of entrepreneurial mindset may be due to various factors, such as personal characteristics and influences from the entrepreneur's environment (Fini, Grimaldi, Marzocchi & Sobrero, 2009), various demographic (Kobeissi, 2010) or geographic features or even the institutions (Díez-Martín, Blanco-González, & Prado-Román, 2016); the crisis seems to have a catalytic effect on the *entrepreneurial intention* of young people.

A recent extensive research of 4 organizations (Endeavor Greece, Ernst & Young, Athens University of Economics and Business and the Greek-American Chamber of Commerce) among 2,222 students in 30 Higher Education Institutions provides important insights into the prevailing perceptions of entrepreneurship in universities, the profile and incentives of young entrepreneurs as well as their opinion about the state support and society.

Among the most important findings, 81% of respondents have a positive or very positive view of entrepreneurship; only 12% have a negative view of entrepreneurs while 66% of students believe that entrepreneurship is a tool for creating. In the same way they think business success as a product of hard work (74%), which offers a way out of the crisis (41%) and offers to the society (38%). At the same time, they believe

[2] See also p.209 for the overall performance of Greece in every sector in the Doing Business annual report 2017. Greece's position has improved in the "Contract Implementation" category, deteriorated in the "Tax Payment" category and remained stable in the other categories. Available at: <http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Annual-Reports/English/D B17-Full-Report.pdf>

[3] See also p.103 for the overall performance of Greece in the 14 pillars in the 2017 Global Entrepreneurship Index annual report. Greece is stronger in "start-up skills" but very weak in "high growth" ability. Available at: <http://thegedi.org/2017-global-entrepreneurship-index/>

that failure is more an opportunity for learning (68%).

However their participation in entrepreneurial actions is quite limited, while the intention of opening a business is quite high (43%), with the most likely branch of ICT and telecommunication (27%). Finally, they argue that the Greek state helps the entrepreneur only a little (78%) and should therefore focus on reducing bureaucracy (63%), improving the institutional environment for the start-up operations (48%) and provide financial support to start-upers (45%).

Lastly, it is important to note that there is no separate type of business entity in the Greek legislation for the category of start-ups. Moreover, none of the last two development laws of the Greek state (3908/2011 and 4399/2016) provide any aid for start-up enterprises; the latter is only generally referring to innovative enterprises and outward-looking companies.

2. THE FINANCING DIMENSION OF START-UP BUSINESSES

2.1. The economic dimension of a start-up nation

In order to draw conclusions about the economic importance of a market oriented to start-up entrepreneurship and the subsequent listing of proposals in this direction requires an analysis of the concept of the start-up nation, its specific characteristics and an evaluation of Greece performance in this model, based on the current international situation.

The term "start-up nation" was first used to describe the particular state of the business culture in the state of Israel. International studies and statistics emphasize the strong presence of start-up companies in the country's economy compared to its size (more than 4,800 start-ups in a small country of 7,6 million inhabitants), a very high per capita Venture Capital (Israel: $ 170, US: $ 70), as well as many examples of successful start-ups that were either taken over by large corporations or entered dynamically the global financial markets.[4] It is noteworthy that NASDAQ has more businesses from Israel than any other country except China.

At the same time, Israel has formed an institutional, operational and financial environment to foster the development of start-ups. Among other things, a network of mentors and accelerators in the Israeli economy, military training, and various state resources that support start-ups at the early stage create conditions for the development of such schemes. (Senor & Singer, 2011) Some experts, such as Oren Simanian, a consultant for start-up issues in Israel, also pay attention to the country's appropriate infrastructure, the linking of universities to the labor market through entrepreneurship education, to the R&D funds that prevent braindrain as well as strong partnerships and interconnections of start-ups inside and outside the Israel start-up ecosystem. However, even in such an environment it is very difficult for a start-up to become a big company. (Goldberg, 2012)

[4] Some of the most recent examples of Israeli start-ups are Waze (www.waze.com), a mapping company acquired by Google, iOnRoad (www.ionroad.com), a mobile application for road use, Teva (www.teva.com) with a capitalization in NASDAQ of more than 43 billion dollars and Check Point (www.checkpoint.com), founded by a group of Israeli military counter-intelligence, that is worthing more than 11 billion dollars.

In Greece, as it was mentioned, there is a proliferation of start-ups after 2010, as well as an increase in funding through Jeremie programs. At the same time, there are a number of prerequisites that can help innovative companies focused on Internet and communication technologies (ICT). In this conclude also, the Bloomberg Innovation Index, a Bloomberg measure of 7 factors[5] and the Global Innovation Index, published by Cornell University, INSEAD and the World Intellectual Property Organization (WIPO) that examines the innovation capacity of 128 countries in the world, using 79 indicators grouped into 7 input and output pillars.[6]

In addition, in recent years, several structures and schemes have been created to help reinforce and develop innovative enterprises and innovation ecosystems. In particular, several incubators (pre-incubators, incubators and accelerators), hubs and co-working spaces as well as open coffee events and various other entrepreneurial, research and innovation competitions that offer an initial start-up capital to leading business ideas.

At the same time, several state or European investment agencies[7] and entrepreneurship support organizations[8], innovation and entrepreneurship units at various Universities and Technological Educational Institutes have been founded as well as science and technology parks. The latter, gradually passed to the private sector, diversified and secured access to direct funding and venture capital thus supporting more innovative businesses more successfully than before. (Sofouli & Vonortas, 2007)

In some regions across Greece, the existence of highly organized entrepreneurial networks[9] have attracted various structures and funds in order to accelerate the development of start-up clusters similar to other networks in Europe. These structures create an environment where an entrepreneur can develop the idea into a start-up business in a short time under an appropriate place of business (e.g. incubator) and through organized help (e.g. accelerator) and targeted funding (e.g. Venture Capital) and eventually a start-up hub is created.

In this way, some recognizable start-ups were founded and also investment interest in the Greek market was increased. In 2013, Venture Capital funding in the Greek market exceeded $ 45 million and that continued the next years. The year 2017, was marketed by the acquisition of Taxibeat (taxibeat.gr), a taxi management company, by Daimler for 43 million euros. Earlier in 2013, another successful takeover example

[5] According to this indicator, Greece has risen to 30th place (33th in 2016) with advantages in "productivity" and "tertiary efficiency". Available at: <https://www.bloomberg.com/news/articles/2017-01-17/sweden-gains-south-korea-reigns-as-world-s-most-innovative-economies>

[6] According to this indicator, Greece occupies the 40th position (5 places higher than 2015), with a good performance in "Education" and weaknesses in the "Specialization and Quality of Business Networks". Available at: <https://www.globalinnovationindex.org/gii-2016-report#>

[7] Among others, the support programs through European funding (www.espa.gr), the European Investment Fund (www.eif.org) and the New Economy Development Fund (www.taneo.gr).

[8] Among others, Endeavor Greece, an international nonprofit organization (www.endeavor.org), Corallia Clusters Initiative (www.corallia.org), HIGGS (www.higgs3.org) and MIT Enterprise Forum (www.mitefgreece.org) .

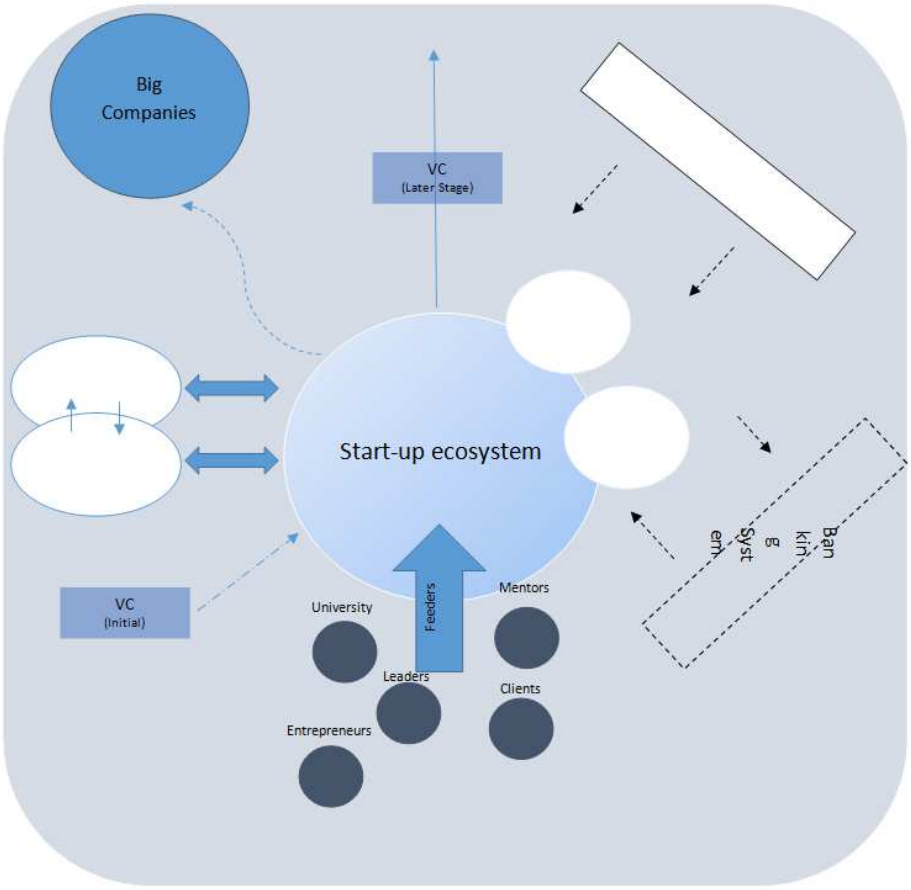
[9] Among others, Alexander Innovation Zone in Thessaloniki (www.thessinnozone.gr) and Patras Science Park (www.psp.org.gr).

was BugSense, a Greek start-up that developed a platform for application developers to find bugs in their code and fix them, from Splunk, a San Francisco-based company with capitalization of 9.2 billion dollars. Due to these, some international fora are talking about the possibility of Athens to become a start-up city.

However, the organized networks in Greece where they could use applied research in the business sector are not enough and sometimes the regulatory framework hinders entrepreneurship in a low-cost environment (investments, funds or bank credit). (διαΝΕΟσις, 2016)

To sum up, Greece has some advantages in human resources and an environment that can be characterized as attractive due to geographic position and high standard of living. The existence of some high technology start-ups has also positively influenced the external environment. Nevertheless, there is a need for a better organization of a community that will act as a feed-in, aiding, accelerating and funding mechanism by various actors in order the business idea to evolve properly into a structured and competitive business plan. One such mechanism is represented in the figure.

Figure 1: An organized start-up development ecosystem



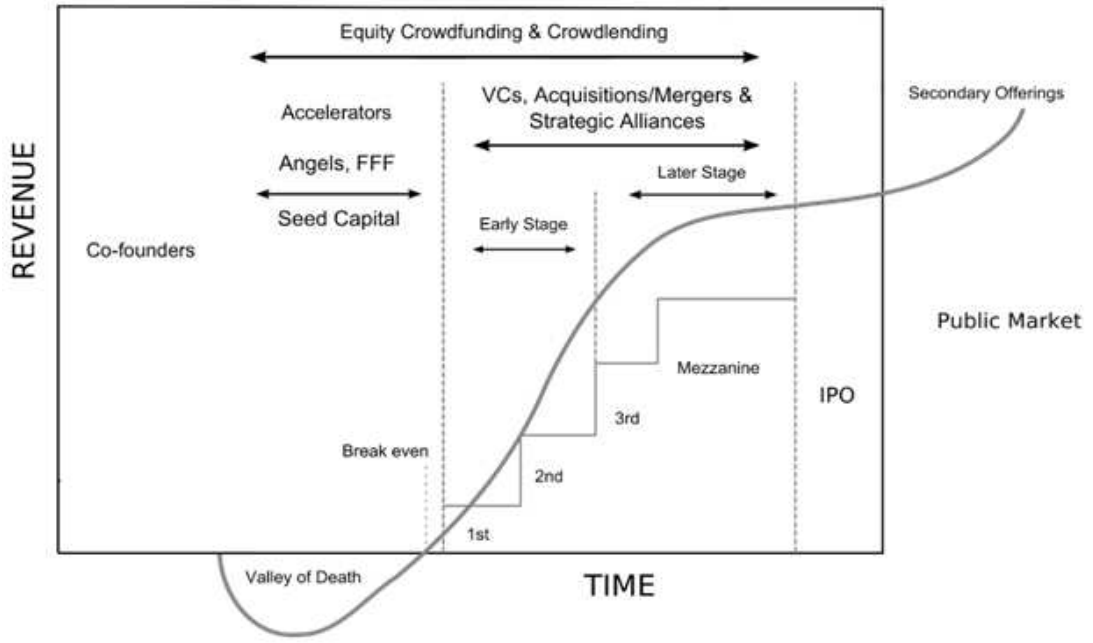
2.2 The business development of a start-up

Start-ups can be funded in many ways. These include either traditional methods such as self-financing, support from friends, relatives and "fools" (3F, Friends-Family-Fools), loans from banks or seed capital either new ways of financing such as venture capital, angels investors or crowdfunding. Initial funding can also be provided from

the state through various resources and programs that aim to support entrepreneurship or even prizes from business ideas competitions.

Generally, as a start-up moves from one stage of its lifecycle to another and its business plan is materialized and adjusted, different funding options appear. (Davila, Foster, & Gupta, 2003) The same can happen with start-ups of a different kind that may be at the same stage in their life cycle. Finally, the contribution of incubators and clusters to the creation of an environment where start-ups can access finance and develop business is important. (Piperopoulos & Scase, 2007)

Figure 2: Start-up Financing Cycle



Source: Life Cycle and Financing of a Start-Up (Dale & Zell, 2014)

2.2.1 Traditional tools of financing

Securing funding is one of the biggest challenges that a new company faces and that is also one of the most common reasons why original and ambitious ideas do not go forward. This paper continues with the most well-known means of financing a start-up, making a comparison with the current situation in the Greek market.

2.2.1.1 Bootstrap

Bootstrap is a common way of financing a business idea, especially in the early stages. This method is considered by the business community as a tool for converting human capital into financial capital. (Lahm & Little, 2005) This simple type of self-financing has both advantages and disadvantages.

On the one hand, the new entrepreneur can begin to develop his idea in business without waiting for potential investors and "losing" precious time. At the same time, the entrepreneur/start-upper retains full control over the new business by defining himself the appropriate business development tools. This is, at the same time, a disadvantage, as the entrepreneur is isolated from his external environment, from

associates and contacts in the business world. (Lopac, 2007) In addition financing from personal equity is usually limited and is only possible if the business does not require large investments in its early stages of development. As a result, the bootstrap can lead to the development of a beta version of the product that is not well-designed to convince potential investors for funding. (Κίου, 2015)

In Greece, the available data on funding instruments that start-ups have used to develop in their early stages is limited. In a survey of General Secretariat of Industry about the start-up environment in Greece, it was found that 83.5% of entrepreneurs have used personal equity as a source of financing their start-up idea.

A successful start-up example that managed to grow on the market by using initial only equity capital is ANTCOR (www.antcor.com). ANTCOR was founded in 2004 in Patras with a business model of designing microprocessors and their corresponding wireless networking software. The company worked through bootstrapping, proceeding to the beta version of its product and began entering the market and looking for external financing. After 3 successful rounds of funding from various investment funds, it was acquired in 2014 by the Swiss company u-blox (www.u-blox.com) for 8.5 million euros.[10]

2.2.1.2 Family-Friends-Fools

Several entrepreneurs are looking for initial funding of their business idea in their close circle, family and friends, but also to people who are willing to risk their money by investing in a start-up business (despite the fact that a large percentage of them fail in the early years of operation). In the international bibliography, this category is referred as family, friends and "fools" (3F, Family-Friends-Fools).

The funding method has several advantages as well as disadvantages. On the one hand, the approximation process is an easy method, as the environment is often convinced and provides funding without asking for an organized business plan such as investors. This is at the same time its major disadvantage because if the business idea fails there are significant risks of interpersonal breaks.

Funding from family and friends is probably a rule in Greece due to family tradition and culture. (Κίου, 2015) In this conclude also the previous referred GSI survey, where among the start-ups, this method is the second most popular one.

2.2.1.3 Seed Capital

Seed capital is a type of financing with a small amount of money in order to start a business. The capital is usually small (15 to 20 thousand euros) and is paid in advance to cover the initial operating costs of a new business. This provides some time for the development and commercialization of the business idea into the market. This method is usually addressed to very new businesses (less than 1 year of life), while seed capital are usually provided by private investors.

[10] Read more about the acquisition from the u-blox announcement. Available at: <https://www.u-blox.com/en/investor-news/u-blox-acquires-ip-industrial-wi-fi>

In Greek reality seed capital is provided both by the public sector[11] and the private sector for the development of new businesses in various sectors (e.g. IT). Particularly popular in Greece are various business ideas and innovation competitions[12] as well as some programs that provide business support at a very early stage[13]. In these cases, various institutions and agencies choose the strongest business models by providing them with an initial seed capital to develop the start-up and also business support, sometimes in exchange for taking part in the management of the new company.

An interesting example is Incrediblue (www.incrediblue.com), a Greek start-up that was founded in Volos in 2012, having developed a platform that allows the user to rent a boat for holidays in Greece or the Mediterranean, based on the idea of the cooperative economy – like Airbnb. With the support of seed capital from the *How to Web Contest*, it gradually managed to grow into a proper business and raise $ 800,000 in funding through several Venture Capital rounds.

Indicatively, in 2013, a landmark year for Greek start-ups, many Greek business start-ups[14] received seed capital funding from Venture Capital companies and individual investors. In all cases, the amount of the initial seed funding exceeded $ 100,000 per case, while in addition to Taxibeat and Intelen (www.intelen.com), a start-up in the field of energy informatics, they raised post-seed capital (2 million and 360 thousand dollars respectively).

Finally, as mentioned, egg (enter-grow-go) by Eurobank and Corallia (www.theegg.gr), is a seed accelerator program for start-ups in their first business steps. The objectives of the program are the development of innovative proposals after evaluation(enter), the physical and technical support of the new start-up, the establishment of a right network in order the business model to grow and capitalize the value of the idea (grow) with appropriate tools (go). After four rounds of participants that (since 2013), it has helped in the development of around 100 start-ups, which have attended more than 100 specialized seminars and mentor meetings, while some have filed applications for patents.

2.2.1.4 Bank Loans

Bank loans are the traditional funding tool for existing businesses. It is a method that is generally difficult for a new business, as it must be accompanied by a serious and a comprehensive business plan as the bank has to approve it. Borrowing may concern either an initial working capital or the financing of equipment and facilities. Funding in this case is secured if the bank approves the request. But the entrepreneur/borrower

[11] For example, the Manpower Employment Organization (O.A.E.D) provides funding up to € 20,000 and mentoring to 10,000 young entrepreneurs aged 18-29 to develop innovative business plans.

[12] See also Appendix. Among the most important: Greek Entrepreneurship Awards (www.hellenicaward.com), where start-up winners share a total amount of funding up to 700,000 for initial operating expenses and Papastratos Start-Up/Scale-Up Greece Awards (www.startupawards.gr).

[13] See also Appendix. Among the most important are the egg program, Orange Grove (orangegrove.biz) and the COSMOTE Startup program of Found.ation and OTEAcademy (www.cosmotestartup.gr).

[14] Among others, workable (www.workable.com) $ 780,000, Discoveroom (www.discoveroom.com) $ 150,000, i-kiosk (www.i-kiosk.gr) $ 450,000, zoottle (zoottle.com) 205 thousand dollars.

is required to provide significant guarantees, several times in exchange for his personal property. Consequently, in case of failure, the consequences are very negative. However, the entrepreneur still retains full control of the start-up, as it does not provide equity to secure financing. (Klačmer Chalopa, Horvat, & Lalić, 2014)

In Greece at this time, this method is extremely difficult and lending rates are high. These difficulties in financing businesses by banks are due to the lack of liquidity of the Greek banking system. (OECD, 2016) Especially for start-ups in Greece, according to the aforementioned survey of the GSI, only 4.7% has stated that received a bank loan.

2.2.1.5 Business Angels and Venture Capital

Business angels and venture capital funding are popular ways of securing significant external funding for start-ups. Business angels are private investors who are interested in investing equity in a high-risk business plan in exchange for corporate shares or equity. It is often the first "outside" financing of a company. This funding provides a great deal of convenience in contrast to financial institutions and VC funding is usually without personal guarantees. The advantages of this method is also the investor's experience and network; however the investor becomes actively involved in the company's management to the extent that the start-upper may lose the control. (Frederick & Bygrave, 2004) Generally, a business angel investment is up to $ 250,000.

Unlike business angels, Venture Capital investors are only interested in business ideas with great growth prospects and with an experienced and ambitious team able to turn their business proposal into a profitable company. In other words, the investment concerns the whole package of the company. VC is a medium to long-term funding method and the VC company acquire a stake in the company's capital. Frequently several investment rounds follow if the company needs more capital to grow. The total amount of a VC investment in a start-up business are much higher than the one of a business angel.

Venture Capital's partnership is not limited to provide funds, but also to provide help with management, marketing, HR and strategic planning. Also important for the company are VC's relationships with other market companies and its network that can be used to establish corporate partnerships. As a result, new businesses are becoming more competitive. (Hellmann & amp; Puri, 2000; Kortum & Lerner, 2000)

As with business angels, there is no need to provide guarantees for the provided capital, but the business development process is particularly demanding with the VC company being actively involved in business decisions, as the goal is to maximize profit. So the founders may lose their initial control of their business.

In general, there is a predominant view that VC investments are often used to fund an enterprise in order to gain entry to the stock and to resell the shares (Lefton, 1998; Leveque, Dhar, & Gould, 2015) as quickly as possible (Ghalbouni & Rouziès, 2010). This does not seem to be confirmed in Greek business environment, as the start-up market is not comparable to other countries such as the USA, Germany and Israel.

In the Greek market, large amounts of money have been invested in recent years through "JEREMIE" funds[15]. However, after careful study from the available data[16] it is obvious a wide disparity of these high-risk funds, with about 80% distributed to start-ups based in Athens or Attica in general. Specifically, out of the 51 million that have been channeled to the Greek market to date, more than 39 million supported start-up companies within Attica.

However, the Greek market has begun to show enough interest in the investment circles. In 2013, a landmark year for the start-up market in Greece, there were 32 VC investments totaling $ 45,388 million from Greek and foreign funds or Jeremie-type co-investments. Similar investments were made in the coming years, even in 2015, which was a year of turmoil for the Greek economy due to the imposition of Capital Controls.

Among the most successful start-ups that have been funded by foreign capital (VC and / or angel investors) have been Persado (2013: $ 15 million from VC), launched in 2012 with a focus on mobile marketing (Persak.com), inaccess (2013: $ 6.5m from VC and investors), a startup for monitoring energy and communications (www.inaccess.com), Transifex (2014) : $ 2.5 million from foreign VCs and business angels), a technology company that started in Patras (2009), moved to Athens (2014) and now is active in the US (el.transifex.com), Resin.io (2015: 3 million VC and private investors), operates in the Internet of Things (resin.io) and Book'n'Bloom 2016: $ 11.5 million from VC), a platform that allows small businesses to access a significant purchase from potential customers (booknbloom.com).

Finally, in a relevant EMEA Business Monitor study in 2013, foreign funding in the Greek market was mainly targeted at start-ups that provided services in the web and mobile services sectors. According current data, this trend seems to continue, perhaps due to the multiplication of start-ups for software and internet services in recent years.

2.2.1.6 Crowdfunding

Crowdfunding is a more modern type of financing for start-ups. It is based on online platforms where the entrepreneur submits a plan for crowdfunding and collects funds. (Pierrakis & Collins, 2013) The campaign's creator presents his idea directly to the public, defines funding packages ranging from a few to thousands of dollars and offers perks as incentives to the public[17]. (Belleflamme, Lambert & Schwienbacher, 2014)

[15] These funds that are distributed either from investment companies or banks, are European funds for boosting entrepreneurial activity in the field of technological innovation. Among other things, they provide funds for co-financing loans (so the bank's risk is shared), seed capital financing or even Venture Capital. For more see also the "Jeremie Initiative".
Available at: <www.digitalplan.gov.gr/portal /resource/section/jeremie>

[16] See also Appendix C.

[17] In terms of motivation, Bradford (2012) classifies crowdfunding in five different forms (a) the donation model where the supporter does not receive any reward for his contribution (b) the reward model, where the creator determines different rewards (e.g. the product or the service) depending on the value of the contribution. The same is with the (c) pre-purchase model. There is also the (d) lending model, where supporters is expected to be repaid the funds they contributed and the (e)

Typically, each idea presentation campaign lasts for a certain amount of time, while the platform holds as a commission a percentage of the collected funds. (Andersen & Mauritzen, 2016) The main advantage of the classic crowdfunding is that those who invest will not acquire a stake or shares in the company, the businessman retains absolute control and is well suited for the early stage of a start-up. In addition, a successful crowdfunding campaign allows the businessman to draw useful conclusions about the product's future demand. (Agrawal, Catalini & Goldfarb, 2015)

In Greece, since 2012, a number of crowdfunding platforms have begun to develop, such as Groopio (www.groopio.com), GIVE & FUND (www.giveandfund.com), OpenCircle (opencircleproject.com) and WINNERSFUND (www.winnersfund.com) offering different or even hybrid types for supporters of crowdfunding campaigns. Although the Greek crowdfunding market is in the infancy, the above platforms were originally organized on the basis of international practice or operated in English to attract more newcomers and supporters.

In the Greek start-up market, financing with the support of the "crowd" serves mainly to secure a seed capital but in some cases can provide to businesses a larger capital. In 2016, for example, the Greek start-up KYON (www.kyontracker.com) which have developed a collar for dogs with various capabilities (GPS, sensors etc) was funded by Kickstarter with about € 85,000 whereas one of the first Greek companies that used crowdfunding funding were Doxato Farm, a start-up in the field of agri-food. However, the relevant findings for the Greek market suggest that supporters prefer to fund social actions (e.g. 2016: Helping our Refugee Friends in Chios - 25,622 €) rather than innovative business products.

Finally, the Greek legislative framework raises several problems in the effective operation of the crowdfunding. In particular, as crowdfunding is set mainly by existing provisions rather than by a special legal framework, there are barriers to the loan and equity model of funding by the crowd. (European Crowdfunding Network, 2013)

2.2.2 Business development through incubators and clusters

2.2.2.1 Incubators

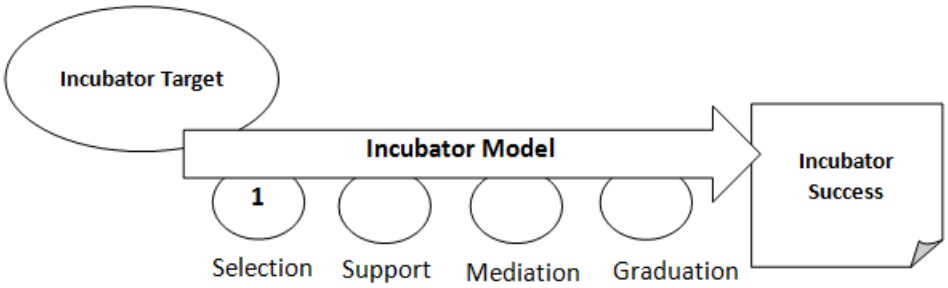
Incubators are business entities that provide to new and emerging businesses with space, equipment and a network to enable them to grow and provide their services or products in the market. Sometimes the support also involves small amounts of funding (much less than VC). Mostly, they enable young entrepreneurs to work in an environment similar to co-working spaces, while offering counseling and mentoring services. (Bergek & Norrman, 2008)

In general, the role of the incubator is purely supportive in order for the company to move forward, with proper infrastructure and preparation, to a sustainable business

equity model where the supporter expects a share of the company's profits or percentage of the equity capital. Generally, some platforms combine more than one crowdfunding model, while other platforms operate in a single form.

development after some time (usually 6 to 18 months and not more than 5 or 7 years), requesting capital from banks or investors. In return, incubators receive shares or a profit percentage from sales in the future. (Sofouli & Vonortas, 2007)

Figure 3: The incubator model of operation



Source: Incubator model of development (Bergek & Norrman, 2008)

In Greece, more than 17 incubators (or pre-incubators) operate with a geographical distribution mainly in Attica[18] (for example, only three in Thessaloniki[19]). Most of these were established after 2008 and offer additional accelerating mentoring. However, the success of their businesses is relative. Sotiris Siagas, Vice President at i4G incubator, one of the oldest in Greece (2003), estimates that out of the 50 and more companies in their "family" only half managed to grow. This percentage, he stated, is not only in their own incubator. Moreover, only half of them could finally move on into the Greek and foreign markets without any additional support.

Exothermia (www.exothermia.com) is a spin-off company from Aristotle University of Thessaloniki, which has managed to establish itself in the Greek business environment and at the same time to develop strong export activity after a "successful" incubation period. Its business activities focus on the development of automotive software applications for the automotive industry, supporting with its products or know-how large enterprises in the industry (e.g. Toyota).

2.2.2.2 Clusters

Business clusters are typically a business, vendor and customer network geographically concentrated in one region and working together in specific business activities. Because of their proximity (in terms of both geography and activities) cluster members are driven by a number of external factors (e.g. access to specialized labor markets and suppliers) in relation to their position. (Ketels & Memedovic, 2008) Studies have shown that cluster companies have increased their productivity and are growing to compete with businesses at national and supranational level. (Porter, 2000)

In Greece, despite clusters are limited, they have positively influenced the development of innovative small and medium-sized enterprises and the extroversion of their activities, even in relatively limited areas such as Thessaloniki. There are also several empirical results. (Piperopoulos & Scase, 2007)

[18] See also Appendix A for more information about the various start-up support organizations.
[19] In the prefecture of Thessaloniki there are the incubator i4G (www.i4g.gr), the incubator Thermi SA (www.thermi-group.com) and the Technopolis incubator (www.technopolis.gr).

An interesting system is the one of Corallia (www.corallia.org). Corallia, for over a decade, "*has been working intensively to create integrated productive and innovative ecosystems in which coordinated actors operate from specific industries and regions in the country where there is a competitive advantage, and above all, intensive knowledge and Export potentialities*". In recent years, this organization has managed to create sustainable innovation ecosystems, supporting smart specialization strategies (and using European Regional Development Fund resources) in export-oriented business sectors. (Vogiatzis, Sanchez-P & Makios, 2017)

Although the cluster concept is quite new in the Greek market, the successes it has brought are important. In the field of space technology, Corallia's Collaborative Space Applications and Technologies (Si-Cluster) has achieved an impressive growth trend over the past years. In this cluster, that participate in addition to industrial and academic research institutions several innovative Greek start-ups (e.g. weasic, Adamant Composites, etc.) in space technology, succeeded a significant increase (25%) in turnover and the overall added value of their activities in the Greek economy[20]. At the same time, the cluster has developed the first SpaceHackathons in the Greek market, contributing generally as a helper in the development of the space ecosystem in Greece.

Moreover, it has received significant European distinctions (Gold Label of the European Cluster Excellence Initiative) effectively supporting a number of Greek start-ups (e.g. Accusonus, GPC Works etc.) with the aim of bringing together Greek talent in creative industries and interconnect it through technology. Finally, even in the field of insurance, it has contributed to the creation of several innovative applications and services for the Insurance Sector through open innovation competitions and support for new ideas.

Overall, although the concept of a business cluster is a tool new to Greek reality, it has led to a high degree of entrepreneurial specialization in cutting-edge sectors with a strong export character for the Greek economy. At the same time, it has supported and developed a network of enough start-ups in these areas, helping them to grow at an early stage.

CONCLUSIONS

To summarize, Greek start-up environment has grown significantly over the past seven years and the Greek start-ups that are being created are growing year by year. At the same time, there is a change in the perception of young people about entrepreneurship and its role in modern Greek economy.

The Greek market has some comparative advantages in human capital and in the development of innovative applications. However, Greece's performance in the fields of state support of entrepreneurship, ease of entry and exit to the market and bank financing is very low. In addition, there are significant problems with the

[20] Among others, the si-cluster has led to a 15% increase in the number of jobs in the industry, an increase in exports by 46% (in turnover) and in the last year it attracted EUR 3.3 million of investment. See more at: <http://www.corallia.org /el/news/press-releases/3826-si-cluster-results.html>

interconnection of universities with industrial research. The Greek ecosystem has supported the development of some innovative start-ups so far, but the sustainability of a success ecosystem for Greek innovative business is controversial according to the existing data.

Funding of start-ups from various sources is also limited and most Greek start-upers use at least in the early stage own funds. From 2013 and on, there is a recognition from foreign funds and investors for Greek innovative start-ups, which are financed by substantial funds. The high-risk funds (Jeremie) has also played a positive role in the financing of Greek start-ups although the funding is unevenly distributed in the Greek territories. Financing through traditional mechanisms, such as bank credit, is very low due to the intense liquidity problems of the banking system in Greece and the high risk of start-up business model. Finally, crowdfunding model is also limited to the Greek market.

The existence of incubators and accelerators for start-ups has positively affected some start-up cases but the overall performance of these programs is limited. What seems to have strongly supported some Greek start-ups is the existence of cluster environments as it has increased recognition and networking among its members

BIBLIOGRAPHY

BOOKS

Τσακλόγλου, Π., Οικονομίδης, Γ., Παγουλάτος, Γ., Τριαντόπουλος, Γ., & Φιλιππόπουλος, Α. (2016). *Ένα νέο Αναπτυξιακό Πρότυπο για την ελληνική οικονομία και η μετάβαση σε αυτό*. Αθήνα: διαΝΕΟσις.

Ács, Z. J., Szerb, L., Szerb, L., & Autio, E. (2016). *Global entrepreneurship and development index 2015.* Retrieved from http://public.eblib.com/choice/publicfullrecord.aspx?p=4179473

Dutta, S., Lanvin, B., Wunsch-Vincent, S., Insead, World Intellectual Property Organization, & Johnson Graduate School of Management (Cornell University). (2016). *The global innovation index 2016: winning with global innovation*. Retrieved from http://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2016.pdf

European Commission. (2012). *The second economic adjustment programme for Greece first review, December 2012*. Brussels: European Commission, Directorate-General for Economic and Financial Affairs. Retrieved from http://ec.europa.eu/economy_finance/publications/occasional_paper/2012/pdf/ocp123_en.pdf

Goldberg, U. (2012). *What's Next for the Startup Nation?: A Blueprint for Sustainable Innovation*. IN, USA: AuthorHouse.

OECD. (2011). *Entrepreneurship at a Glance 2011*. Paris: OECD Publishing. https://doi.org/10.1787/9789264097711-en

OECD. (2016a). *Entrepreneurship at a Glance 2016*. Paris: OECD Publishing. https://doi.org/10.1787/entrepreneur_aag-2016-en

OECD. (2016b). *OECD Economic Surveys: Greece 2016* (Vol. 2016). OECD Publishing. https://doi.org/10.1787/eco_surveys-grc-2016-en

OECD. (2017). *Financing SMEs and Entrepreneurs 2017*. Paris: OECD Publishing. https://doi.org/10.1787/fin_sme_ent-2017-en

Senor, D., & Singer, S. (2011). *Start-up Nation: The Story of Israel's Economic Miracle* (Reprint edition). New York; Boston: Twelve.

World Bank. (2016). *Doing Business 2017: Equal Opportunity for All*. The World Bank. https://doi.org/10.1596/978-1-4648-0948-4

REPORTS AND OFFICIAL DOCUMENTS

GREEK LANGUAGE

διαΝΕΟσις. (2016). *Η ΕΡΕΥΝΑ ΩΣ ΜΟΧΛΟΣ ΑΝΑΠΤΥΞΗΣ ΤΗΣ ΕΛΛΗΝΙΚΗΣ ΟΙΚΟΝΟΜΙΑΣ*. Retrieved from http://www.dianeosis.org/wp-content/uploads/2017/01/research_policy_gr_final.pdf

INEMY. (2013). *ΕΤΗΣΙΑ ΕΚΘΕΣΗ ΕΛΛΗΝΙΚΟΥ ΕΜΠΟΡΙΟΥ 2013*. Αθήνα: INEMY. Retrieved from http://www.inemy.gr/%CE%95%CE%BA%CE%B4%CF%8C%CF%83%CE%B5%CE%B9%CF%82/TabId/159/ArtMID/760/ArticleID/292/%ce%95%cf%84%ce%ae%cf%83%ce%b9%ce%b1-%ce%88%ce%ba%ce%b8%ce%b5%cf%83%ce%b7-%ce%95%ce%bb%ce%bb%ce%b7%ce%bd%ce%b9%ce%ba%ce%bf%cf%8d-%ce%95%ce%bc%cf%80%ce%bf%cf%81%ce%af%ce%bf%cf%85-2013.aspx

INEMY. (2016). *ΕΤΗΣΙΑ ΕΚΘΕΣΗ ΕΛΛΗΝΙΚΟΥ ΕΜΠΟΡΙΟΥ 2016*. Αθήνα: INEMY. Retrieved from http://www.inemy.gr/%CE%95%CE%BA%CE%B4%CF%8C%CF%83%CE%B5%CE%B9%CF%82/TabId/159/ArtMID/760/ArticleID/618/-%ce%95%cf%84%ce%ae%cf%83%ce%b9%ce%b1-%ce%88%ce%ba%ce%b8%ce%b5%cf%83%ce%b7-%ce%95%ce%bb%ce%bb%ce%b7%ce%bd%ce%b9%ce%ba%ce%bf%cf%8d-%ce%95%ce%bc%cf%80%ce%bf%cf%81%ce%af%ce%bf%cf%85-2016.aspx

Μυλωνάς, Π., & Τζιάκου-Λαμπροπούλου, Ν. (2016). *Μικρομεσαίες Επιχειρήσεις: Έρευνα Συγκυρίας*. Αθήνα: Εθνική Τράπεζα της Ελλάδος. Retrieved from https://www.nbg.gr/greek/the-group/press-office/e-spot/reports/Documents/Employment_SME%27s.pdf

Τράπεζα της Ελλάδος. (2016). *Έκθεση του Διοικητή για το έτος 2015*. Αθήνα. Retrieved from http://www.bankofgreece.gr/BogEkdoseis/ekthdkth2015.pdf

Endeavor Greece. (2015). *Δημιουργώντας Θέσεις Εργασίας για τους Νέους*. Endeavor Greece. Retrieved from http://endeavor.org.gr/wp-content/uploads/2015/07/END_GR_F.pdf

Endeavor Greece, ΕΥ, Οικονομικό Πανεπιστήμιο Αθηνών, & Ελληνο-Αμερικανικό Εμπορικό Επιμελητήριο. (2015). *Η επιχειρηματικότητα μέσα από τα μάτια των νέων: κάτι αλλάζει*. Endeavor Greece. Retrieved from http://endeavor.org.gr/wp-content/uploads/2015/12/Survey_digital_091215.pdf

McKinsey&Company. (2010). *Η Ελλάδα 10 χρόνια Μπροστά - Προσδιορίζοντας το νέο Μοντέλο Ανάπτυξης της Ελλάδας*. Athens: McKinsey&Company. Retrieved from http://www.sev.org.gr/Uploads/pdf/Greece_10_Years_Ahead_Executive_summary_Greek_version_small.pdf

ENGLISH LANGUAGE

European Crowdfunding Network. (2013). *Review of Crowdfunding Regulation, Interpretations of existing regulation concerning crowdfunding in Europe, North America and Israel*. Belgium: European Crowdfunding Network. Retrieved from

http://eurocrowd.org/wp-content/blogs.dir/sites/85/2016/12/ECN-Review-of-Crowdfunding-Regulation-2013.pdf

Global Entrepreneurship Development Institute. (2017). *2017 Global Entrepreneurship Index*. USA: Global Entrepreneurship Development Institute. Retrieved from http://thegedi.org/2017-global-entrepreneurship-index/

Kraemer-Eis, H., Signore, S., & Prencipe, D. (2016). *The European venture capital landscape: an EIF perspective* (Working Paper 2016/34 No. Volume I: The impact of EIF on the VC ecosystem). Luxembourg: European Investment Fund. Retrieved from http://www.eif.org/news_centre/research/index.htm

Leveque, H., Dhar, N., & Gould, M. (2015). *Considering an IPO? An insight into the costs post-JOBS Act* (A publication from PwC's Deals practice). United States: PwC. Retrieved from http://www.pwc.com/us/en/deals/assets/ipo-costs-considerations-pwc-deals.pdf

JOURNAL ARTICLES

Agrawal, A., Catalini, C., & Goldfarb, A. (2015). Crowdfunding: Geography, Social Networks, and the Timing of Investment Decisions: Crowdfunding. *Journal of Economics & Management Strategy*, *24*(2), 253–274. https://doi.org/10.1111/jems.12093

Ahlers, G. K. C., Cumming, D., Günther, C., & Schweizer, D. (2015). Signaling in Equity Crowdfunding. *Entrepreneurship Theory and Practice*, *39*(4), 955–980. https://doi.org/10.1111/etap.12157

Belleflamme, P., Lambert, T., & Schwienbacher, A. (2014). Crowdfunding: Tapping the right crowd. *Journal of Business Venturing*, *29*(5), 585–609. https://doi.org/10.1016/j.jbusvent.2013.07.003

Bergek, A., & Norrman, C. (2008). Incubator best practice: A framework. *Technovation*, *28*(1–2), 20–28. https://doi.org/10.1016/j.technovation.2007.07.008

Davila, A., Foster, G., & Gupta, M. (2003). Venture capital financing and the growth of startup firms. *Journal of Business Venturing*, *18*(6), 689–708. https://doi.org/10.1016/S0883-9026(02)00127-1

Díez-Martín, F., Blanco-González, A., & Prado-Román, C. (2016). Explaining nation-wide differences in entrepreneurial activity: a legitimacy perspective. *International Entrepreneurship and Management Journal*, *12*(4), 1079–1102. https://doi.org/10.1007/s11365-015-0381-4

Frederick, H. H., & Bygrave, B. (2004). How we finance our new and growing firms. *International Journal of Entrepreneurship and Small Business*, *1*(3/4), 287. https://doi.org/10.1504/IJESB.2004.005660

Hellmann, T., & Puri, M. (2000). The Interaction between Product Market and Financing Strategy: The Role of Venture Capital. *Review of Financial Studies*, *13*(4), 959–84.

Hellmann, T., & Puri, M. (2002). Venture Capital and the Professionalization of Start-Up Firms: Empirical Evidence. *The Journal of Finance*, *57*(1), 169–197. https://doi.org/10.1111/1540-6261.00419

Katsoni, V. (2015). Funding and Sponsoring Innovative Entrepreneurial Practices and Icts in the Greek Tourism Sector. *Archives of Economic History*, *XXVII*(1 Jan-Jun 2015), 75–91.

Katsoni, V., & Sahinidis, A. (2015). Individual and contextual variables affecting entrepreneurship, innovation and application of new technologies in Greece. Case study from the Greek tourism and transport sector. *International Journal on Integrated Information Management*. https://doi.org/10.15556/IJIIM.02.02.002

Ketels, C. H. M., & Memedovic, O. (2008). From clusters to cluster-based economic development. *International Journal of Technological Learning, Innovation and Development*, *1*(3), 375–392. https://doi.org/10.1504/IJTLID.2008.019979

Klačmer Čalopa, M., Horvat, J., & Lalić, M. (2014). Analysis of financing sources for start-up companies. *Management : Journal of Contemporary Management Issues*, *19*(2), 19–44.

Kobeissi, N. (2010). Gender factors and female entrepreneurship: International evidence and policy implications. *Journal of International Entrepreneurship*, *8*(1), 1–35. https://doi.org/10.1007/s10843-010-0045-y

Kontogiannidis, P., Theriou, G., & Sarigiannidis, L. (2017). Crowdfunding: exploring the factors associated with the users' intention to finance a project online. *International Journal of Web Based Communities*, *13*(1), 73. https://doi.org/10.1504/IJWBC.2017.082721

Kortum, S., & Lerner, J. (2000). Assessing the Contribution of Venture Capital to Innovation. *RAND Journal of Economics*, *31*(4), 674–692.

Kousari, A. (2011). New Solutions to the Funding Dilemma of Technology Startups. *The Open Source Business Resource*, 22–27.

Pierrakis, Y., & Collins, L. (2013). *Crowdfunding: A New Innovative Model of Providing Funding to Projects and Businesses* (SSRN Scholarly Paper No. ID 2395226). Rochester, NY: Social Science Research Network. Retrieved from https://papers.ssrn.com/abstract=2395226

Piperopoulos, P., & Scase, R. (2007). Business clusters and competitiveness in Small and Medium Enterprises: the case of the IT sector in Thessalonica, Greece. *World Review of Entrepreneurship, Management and Sustainable Development*, *3*(2), 109. https://doi.org/10.1504/WREMSD.2007.013606

Porter, M. E. (2000). Location, Competition, and Economic Development: Local Clusters in a Global Economy. *Economic Development Quarterly*, *14*(1), 15–34. https://doi.org/10.1177/089124240001400105

Sarkar, A.N. (2016). Financing Mechanisms to Support MSME and Startups: Role of the Capital Market. *International Journal of Adcance Research and Innovation*, *4*(1), 244–255.

Sofouli, E., & Vonortas, N. S. (2007). S&T Parks and business incubators in middle-sized countries: the case of greece. *The Journal of Technology Transfer*, *32*(5), 525–544. https://doi.org/10.1007/s10961-005-6031-1

Vogiatzis, N., Sanchez-P, J.-A., & Makios, V. (2017). Corallia's Cluster Development Programme: An ERDF-funded Initiative Supporting Smart Specialisation in Greece. *European Structural and Investment Funds Journal*, *5*(1), 69–76.

CONFERENCE PAPERS

Fini, R., Grimaldi, R., Marzocchi, G. L., & Sobrero, M. (2009). The foundation of entrepreneurial intention. Presented at the Social Entrepreneurship & Entrepreneurship Research Study Group Meeting, Case Western Reserve University, Cleveland, USA.

Lahm, R. J., & Little, H. (2005). BOOTSTRAPPING BUSINESS START-UPS: A REVIEW OF CURRENT BUSINESS PRACTICES. Presented at the 2005 Conference on Emerging Issues in Business and Technology. Retrieved from http://paws.wcu.edu/rjlahm/teaching/entrepreneurship/Bootstrapping_Lahm.pdf

MASTER THESIS

Andersen, L. M. K., & Mauritzen, L. J. (2016, March 30). *Crowdfunding as a tool for startups to raise capital : why and how to use it*. Retrieved from https://brage.bibsys.No/xmlui/handle/11250/2382919

NEWSPAPER ARTICLES

Lee, R. C.-J., Dave. (2014, February 10). Next Silicon Valleys: What makes Israel a start-up nation? *BBC News*. Retrieved from http://www.bbc.com/news/technology-26071818

These Are the World's Most Innovative Economies. (2017, January 17). *Bloomberg.com*. Retrieved from https://www.bloomberg.com/news/articles/2017-01-17/sweden-gains-south-korea-reigns-as-world-s-most-innovative-economies

What next for the start-up nation? (2012, January 21). *The Economist*. Retrieved from http://www.economist.com/node/21543151

PRESENTATIONS AT CONFERENCES

Simanian Oren. (2015, February). *Critical Success Factors for Start-up Expansion*. Presented at the Athens University of Economics and Business, Athens.

INTERVIEWS

Σιάγας, Σ. (2014, May 15). Personal Interview

OTHER WEB SOURCES

GREEK LANGUAGE

Antcor: Η επόμενη μέρα μετά την εξαγορά. (2014, December 29). Retrieved 23 May 2017, from http://startupper.gr/antcor-%ce%b7-%ce%b5%cf%80%cf%8c%ce%bc%ce%b5%ce%bd%ce%b7-%ce%bc%ce%ad%cf%81%ce%b1-%ce%bc%ce%b5%cf%84%ce%ac-%cf%84%ce%b7%ce%bd-%ce%b5%ce%be%ce%b1%ce%b3%ce%bf%cf%81%ce%ac/

DELTA Startup Office: Εργαλεία Χρηματοδότησης. (n.d.). Retrieved 4 May 2017, from http://www.delta-iek.gr/Startup-Office/Εργαλεία-Χρηματοδότησης

Ευκαιρίες χρηματοδότησης για startups. (n.d.). Retrieved 4 May 2017, from http://www.dealnews.gr/roi/item/159239-%CE%95%CF%85%CE%BA%CE%B1%CE%B9%CF%81%CE%AF%CE%B5%CF%82-%CF%87%CF%81%CE%B7%CE%BC%CE%B1%CF%84%CE%BF%CE%B4%CF%8C%CF%84%CE%B7%CF%83%CE%B7%CF%82-%CE%B3%CE%B9%CE%B1-startups#.WQtphcYlGUl

Κίου, Β. (2015, November 1). Τρόποι χρηματοδότησης μιας start-up εταιρείας. Retrieved 4 May 2017, from http://www.epixeiro.gr/article/1659

ΜΙΚΡΟΜΕΣΑΙΕΣ ΕΠΙΧΕΙΡΗΣΕΙΣ ΣΤΗΝ ΕΛΛΑΔΑ ΚΑΙ ΟΙΚΟΝΟΜΙΚΗ ΚΡΙΣΗ. (2013, November 8). Retrieved 18 May 2017, from http://www.indeepanalysis.gr/analyseis/arthra/mikromesaies-epicheirhseis-sthn-ellada-kai-oikonomikh-krish

Πού βρίσκουν χρηματοδότηση οι ελληνικές start ups. (n.d.). Retrieved 4 May 2017, from http://www.euro2day.gr/news/economy/article/1206344/oi-ellhnikes-start-ups-kerdizoyn-diethnh.html

Πώς η Ελλάδα μπορεί να γίνει ένα Startup Nation - STARTUPS. (2015, February 27). Retrieved 4 May 2017, from http://www.fortunegreece.com/article/pos-i-ellada-bori-na-gini-ena-startup-nation/

Το αισιόδοξο πρόσωπο της επιχειρηματικότητας στη χώρα μας - NEWS. (2015, March 3). Retrieved 4 May 2017, from http://www.fortunegreece.com/article/esiodoxo-prosopo-tis-epichirimatikotitas-sti-chora-mas/

Ψήφος εμπιστοσύνης από το επενδυτικό ταμείο Elikonos Jeremie στη Nubis - STARTUPS. (2015, May 4). Retrieved 4 May 2017, from http://www.fortunegreece.com/article/psifos-empistosinis-apo-to-ependitiko-tamio-elikonos-jeremie-sti-nubis/

ENGLISH LANGUAGE

Fontinelle, A. (2012, December 3). What exactly is a startup? Retrieved 18 May 2017, from http://www.investopedia.com/ask/answers/12/what-is-a-startup.asp

Ghalbouni, J., & Rouziès, D. (2010, July 1). The VC Shakeout. Retrieved 23 May 2017, from https://hbr.org/2010/07/the-vc-shakeout

Global Entrepreneurship Index | Global Entrepreneurship Development Institute. (n.d.). Retrieved 18 May 2017, from https://thegedi.org/global-entrepreneurship-and-development-index/

Lopac, B. (2007). How to fund a Web startup. Retrieved from http://www.cromotion.net/76/kako-financirati-web-startup/

Robehmed, N. (n.d.). What Is A Startup? Retrieved 9 May 2017, from http://www.forbes.com/sites/natalierobehmed/2013/12/16/what-is-a-startup/

start-up - definition of start-up in English | Oxford Dictionaries. (n.d.). Retrieved 18 May 2017, from https://en.oxforddictionaries.com/definition/us/start-up

Statistics on small and medium-sized enterprises - Statistics Explained. (n.d.). Retrieved 18 May 2017, from http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_small_and_medium-sized_enterprises

Why Israel is a Startup Nation. (n.d.). Retrieved 9 May 2017, from https://www.techinasia.com/israel-startup-nation

Fontinelle, A. (2012, December 3). What exactly is a startup? Retrieved 18 May 2017, from http://www.investopedia.com/ask/answers/12/what-is-a-startup.asp

Ghalbouni, J., & Rouziès, D. (2010, July 1). The VC Shakeout. Retrieved 23 May 2017, from https://hbr.org/2010/07/the-vc-shakeout

Global Entrepreneurship Index | Global Entrepreneurship Development Institute. (n.d.). Retrieved 18 May 2017, from https://thegedi.org/global-entrepreneurship-and-development-index/

Lopac, B. (2007). How to fund a Web startup. Retrieved from http://www.cromotion.net/76/kako-financirati-web-startup/

Robehmed, N. (n.d.). What Is A Startup? Retrieved 9 May 2017, from http://www.forbes.com/sites/natalierobehmed/2013/12/16/what-is-a-startup/

start-up - definition of start-up in English | Oxford Dictionaries. (n.d.). Retrieved 18 May 2017, from https://en.oxforddictionaries.com/definition/us/start-up

Statistics on small and medium-sized enterprises - Statistics Explained. (n.d.). Retrieved 18 May 2017, from http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_small_and_medium-sized_enterprises

Why Israel is a Startup Nation. (n.d.). Retrieved 9 May 2017, from https://www.techinasia.com/israel-startup-nation

APPENDIX

APPENDIX A

Start-up support organizations in Greece

Egg – enter-grow-go	Corallia	Colab Academy	Center of Sustainable Entrepreneurship Excelixi S.A.	BIOS Romantso Creative Hub	BIC of Attica	Athens Startup Business Incubator – THEA	Athens Center for Entrepreneurship and Innovation	Aephoria.net / BlueGrowth	Organization
-	-	-	-	*		-	-	-	Hub
-	-	-	*	-	-	-	-	-	Educational programs
-	-	-	-	-	-	-	*		Pre-incubator
-	-	-	-	*	-	*	-	*	Co-Working Space
*	*	-	-	-	*	*	*	*	Incubator
*	-	*	-	-	-	-	*	-	Accelerator
-	-	-	-	-	-	-	-	-	Science and Technology Parks
-	-	-	*	-	-	-	-	-	Accelerating mentoring
*	-	*	*	*	*	*	*	*	Attica based
-	-	-	-	-	-	-	-	-	Start before 2008
*	*	No	*		No	*	*	*	In operation

Orange Grove	NBG Business Seeds	Metavallon	Kick Athens	Iqbility	InQLab	Innovation Farm	Innovathens	Incubation for Growth i4G	Gate2Start Atlantis Consulting S.A.	Found.ation	EU-XCEL European Virtual Accelerator	Endeavor Greece
*	-	-	-	-	-	-	*		*	*	-	-
*	-	-	*	-	-	*	-	-	-	*	-	-
-	-	*	-	-	-	-	-	*	*	*	-	-
-	-	-	-	-	-	-	-	-	-	*	-	-
*	-	-	-	*	*	-	-	*	-	*	-	-
*	*	*	-	*	-	-	*	-	-	*	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
*	-	*	*	*	-	*	*	-	*	*	*	*
*	*	*	*	*	-	No	*	No	No	*	*	*
-	-	-	-	-	*	-	-	*	-	-	-	-
*	*	*	No	*	No	*	*	*	No	*	*	*

Thessaloniki Technology Park	Thessaloniki Start up Innovation Hub	Thermi SA	Technopolis Thessaloniki BIC of CERN Technologies	Technopolis Thessaloniki	Start Tech Ventures	Sev4enterprise	SEV Ekinisi Lab	Seed4business	Epirus Technology Park	STP of Crete	Patras Science Park
-	*	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	*	*	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
*	-	*	-	*	*	-	*	-	-	-	-
-	-	-	-	-	*	*	-	-	*	*	*
*	-	-	*		-	-	-	-	*	*	*
-	-	-	-	-	-	-	*	*	-	-	-
No	No	No	No	No	*	*	*	*	No	No	No
*	-	-	-	-	-	-	-	-	-	-	-
*	No	*	*	*	*	No	*	*	-	*	*

pointzero.io/	stonesoup.io	p-space.gr	Openspace.gr	ecinisi/bakouone	Microsoft innovation center	athens.impacthub	Hackers pace	Athens place	Athens Investment Centre	Co-ho
*	*	*	*	*	_	*	*	*	*	*
-	-	-	-	-	*	*	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
*	*	*	*	*	_	*	*	*	*	*
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
*	*	*	*	*	*	*	*	*	*	No
-	-	-	-	-	-	-	-	-	-	-
*	*	*	*	*	No	*	*	*	*	*

OK Thess	Venture Garden	The cube athens	3 venizelou	make	Tzaferi 16
-	-	*	*	*	*
*	*	*	-	-	-
*	-	-	-	-	-
-	-	*	*	-	*
-	-	*	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
No	both	*	No	No	*
-	-	-	-	-	-
*	*	*	*	*	*

APPENDIX B
Competitions and other start-up financing organizations in Greece

Organization	Entrepreneurship and Innovation competitions	Social groups-support organizations	Active
AEGEAN Startups	*		No
Angelopoulos Clinton GIU Fellowship	*		No
Ανοικτοί Επιχειρηματικοί Ορίζοντες	*		*
AppWARDS	*		No
Athens Startup Digest		*	No
Beyond Hackathlon	*		*
Blue Growth Competition	*		*
Breakthrough Greece	*		No
Business IT Excellence	*		No
Business Plan Competition of Anatolia School of Business	*		*
Business Talents		*	*
Call to innovation		*	No
CANVAS – Debating Business Ideas		*	No
CleanTech Open Global Ideas	*		No
ClubNE		*	No
Crazy Business Ideas	*		No
Creative Business Cup Innovation Challenges	*		No
Designathon	*		No
Destination Change		*	No
Digital Gate	*		No
Ennovation	*		*
e-awards.gr	*		No
e-volution awards	*		*
Ermis awards	*		*
Καινοτομία – Νέα Επιχειρηματική Ιδέα	*		No
Enterprise Europe Network – Hellas		*	No

Entrepreneurs' Organization Greece		*	No
ESYNE Hellenic Associations of Young Entrepreneurs		*	-
European startup initiative Athens Founder Institute		*	No
Ευρωπαϊκός Διαγωνισμός Κοινωνικής Καινοτομίας της Κομισιόν		*	*
European Social Innovation Competition		*	*
Global Shapers Community		*	No
Global manager		*	No
Go hackathlon		*	No
Greece Innovates!	*		No
Greek Startup Manifesto		*	No
Greek startup map		*	No
Greek startups		*	No
Hellenic Entrepreneurship Award	*		*
Hellenic Startup Association		*	No
Hult Prize Greece		*	No
i-bank Innovation and Technology Competition	*		*
ideatree	*		No
Industry Disruptors-Game Changers		*	*
Institute of Entrepreneurship Development		*	No
Imagine Cup		*	No
Innovation project	*		No
JADE Hellas		*	No
Kepnet		*	No
Kickoff	*		No
Make Innovation Work	*		
MIT Enterprise Forum Greece		*	*
Odysseys Innovation	*		No
Open Coffee		*	No
Reload Greece		*	*
Repower Greece		*	No

Social impact awards		*	No
Start up/scale up	*		*
Stelios Award Young Entrepreneur of the Year – Greece	*		*
studentsact.tedxaueb		*	No
Thessaloniki Tech Community		*	No

APPENDIX C

The allocation of Jeremie funding to start-ups in Greece

Enterprise	Funding (in thousands of euro)	Field of operations
	Odyssey	
Attica		
Motion FX system	100	Software
Locish*	333	Apps-entertainment
Aftersearch	25	Services
Pinnata	1800	Advertisement services-Design
Travel Plan	2600	Trip advices
Polfish	2200	Εκθέσεις ιχθυοκαλλιέργειας
AVOCARROT	2000	Πλατφόρμα διαφημίσεων σε apps
Liater	25	Internet retail services
Sum	**9083**	
Out of Attica		
Econais	1700	
IQTAXi	500	Taxi Services
sensoflare	25	LED manufacture
swapdom	1500	Software
Vertitech	550	Education software
Sum	**4275**	
Total Sum	**13358**	
	Openfund	
Attica		
Discoveroom	400	Booking services
Dopios	240	Travel services
Incelligent	380	Network management
Longaccess *	410	Digital storage services
Pockee	500	Cash reward platform based on supermarket purchases
Tapely *	500	Music
Workable	5750	Recruiting services

Resin.io	3000	Software
Forky	2800	Food services
100mentors	200	Mentoring
Sum	**14388**	
Out of Attica		
Incrediblue	2200	Vacation services
The singularity lab	305	Web development services
talos Avionics	200	Technology services
tribe	100	Healthy living
Goodvidio	800	Visual commerce platform
Fieldscale	700	Software
Total Eclipse	400	Game development & Consulting
Sum	**4705**	
Total Sum	**19143**	
	PJ Tech	
Attica		
Captainwise *	60	Travel services
intale	3250	Retail services
Mist.io	59	Cloud services
Offerial	300	Hotel connection channel
parkaround	185	Parking services
qrator	227	E-shop
Radiojar	617	ICT services
Pinnata	515	
Pinnata (series B)	1000	Advertisement services
Pinnata(series C)	1200	
Douleutaras	1350	Recruitment channel
Sum	**8963**	
Out of Attica		
Centaur Analytics	1300	Agricultural services
Sum	**1300**	
Total Sum	**10263**	
	Eikonos	
Attica		
Deliveras.gr	350	A channel that connect food enterprises with customers
Olive media	1700	Media
raymetrics	220	Technology
Travelplanet24	3400	Air tickets channel
Nubis	1000	Software
Hotel Genius	570	Tourism marketing
Customedialaps	1300	Digital marketing
Sum	**8540**	
Total Sum	**8540**	