SMES AND INNOVATION: LESSON FROM COOPERATIVE RELATIONSHIPS BETWEEN SMES AND LARGE FIRMS IN IRELAND AND ASIA – JAPAN AND OTHER ASIAN COUNTRIES

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ABSTRACT

The paper discusses: (1) there exist a variety of SMEs in terms of nature, (2) SMEs are classified depending on activity in relation to innovation, (3) kanagata making enterprise in Japan is taken as an example of relationships with large enterprise, in comparison with tool-making enterprises in Ireland, in terms of cooperation and innovation, (4) the community based performance of SMEs is shown in Japan, Thailand, and Indonesia in terms of solidarity, cooperation, and innovation. It would be claimed that innovation in SMEs could be distinctive from the case of large enterprises and it is basic for SMEs to cooperate each other to be innovative.

The paper argues: (1) there is a difference between Ireland and Asian countries in terms of cooperation among SMEs; the case studies show there exist few cooperations between SMEs or with principle firms in Ireland, (2) community-based innovative activity is picking up in the case of Japan and, apart from scale and scope, Thailand and Indonesia have witnessed the rise of community-based economic performance with innovation. While the nature of innovation between Japan and other South Asian countries is distinctive in terms of a variety of degree, and SMEs is overwhelmingly micro-sized in Thiland and Indonesia, it may be considered that there is a common feature in these countries. (3) It could be that their cultural core values are essentially community derived, but they are also the out come of a bottoms-up approach to community actualities to the top-down state policy, which is based on the recognition of community power. This can be observed in Japan, Thailand and Indonesia.

The paper claims the importance of cooperation for innovation both internally and externally. Cooperative activities are based on the cultural values of social structure, which can be observed in Japan as keiretsu relationships, 'community culture (*Watthanatham chumchon*)' in Thailand, and 'mutual spontaneous assistance (*Gotong royong*)' in Indonesia. However, the case studies of Irish toolmaking industry have possibly shown that principles such as keiretsu values can be learnt, even if partly so.

Key words: SMEs, innovation, cooperative relationships, Ireland, Japan and other Asian countries

JEL codes: Economic sociology

Either in Ireland or in Japan, more than 99 per cent are SMEs out of a total number of enterprises. Other Asian countries, this situation does not change. Thailand, Vietnam, and Indonesia are overwhelmingly micro enterprises in number. SMEs are fundamental for both national and local economy in terms of job creation and local prosperity. SMEs need to be innovative for survival, development and prosperity. This is especially true and urgent in the case of Japan. Many SMEs are struggling and fighting to survive two major hardships, one is the hollowing out of their clients – large

companies, and the other consumers' declining demand for domestic products because of much cheaper other Asian countries' imported products. Against such a trend, Japanese SMEs are challenging to divert it by innovation. Other Asian countries, Vietnam, Thailand and Indonesia, are at the different phase from Japan in terms of innovative performance. Recent studies (Mizuno, 1996; Sakata, 2012) show that rural industries in these countries are independent and showing the gathering of momentum. The paper will take a brief view of these rural industries about their innovative activities.

Innovation of SMEs is distinctive from large firms and depending on the country. This paper discusses: (1) there exists a variety of SMEs in nature, (2) SMEs are classified depending on activity in relation to innovation, (3) kanagata making (toolmaking) enterprises in Japan is taken as an example of relationships with large enterprise, in comparison with toolmaking enterprise in Ireland, in terms of cooperation and innovation, (4) the community-based performance of SMEs is shown in Japan, Thailand and Indonesia in terms of solidarity, cooperation and innovation. The paper argues: (1) there is a difference between Ireland and Asian countries in terms of cooperation among SMEs; the case studies show there exists few cooperation between SMEs or with principle firms in Ireland, (2) community-based innovative activity is picking up in the case of Japan and, apart from scale and scope, Thailand and Indonesia have witnessed the rise of community-based economic performance with innovation. While the nature of innovation between Japan and other these Asian countries is distinctive in terms of technological and organisational degree, and SMEs in these other Asian countries are overwhelmingly micro-sized, it may be observed that there is common feature in these countries, that the cultural core values as the principles of social structure are the base of innovative performance, and they are the source of the top-down state policy, which is based on the bottoms-up approach of community actualities and on the recognition of community power. This is observed in Japan, Thailand and Indonesia. The paper claims the importance of cooperation for innovation both internally and externally. They are observed as keiretsu relationships in Japan, 'community culture (Watthanatham chumchon) in Thailand, and 'mutual spontaneous assistance (Gotong royong)' in Indonesia. While the case studies of Irish toolmaking industry show a gap between Ireland and Asian countries in terms of cooperative performance, they have possibly shown that principles such as keiretsu values can be learnt, even if partly so.

The paper begins with literature review on innovation, which is followed by SMEs classification in relation to innovation. Then the actuality of SMEs in Japan is discussed. Third, it is argued that keiretsu relationships, networking and cooperation are the basis for SMEs' innovative activities, and the core values, trust and dependence, as the principles of social structure underlie all these relationships. Fourth, Irish toolmaking industry is explored in terms of innovative activities and cooperation contrast with its Japanese counterpart. Fifth, SMEs in Vietnam, Thailand and Indonesia are briefly viewed from the aspect of innovation and cooperation.

1. Literature review

Whitley (2000, 1991) argues that the characteristics of SMEs are different and thus their innovation strategies as well among countries or regions in different environments. He argues above all the importance of institutional settings, which affect business systems and vary depending on the region or country. The concept of innovation has been defined in different ways. Schumpeter (1934 (2008)) states that innovation is not just technology development but the social process of destruction of gewohnten bahnen (beaten tracks). He defines innovation as the setting up of a new production function, which covers the case of a new commodity as well as those of a new form of organisation or merger, or the opening up of new markets (1939). He created the entrepreneur as purely economic existence and

carrier of innovation. The entrepreneur appears in the period of economic stagnation and carries out 'creative destruction' for breakthrough to dynamic economy with his followers. Schumpeter (1939) locates the entrepreneur as mediator between economic and social process. This entrepreneur is abstract persona conditioned by history and institutions, not as primary factor of change but as carrier of changing mechanism. This theory looks at 'creative destruction' or 'innovation' and 'innovator' from the viewpoint of historical scale and scope (Ohno, 1970). In the White Paper on Small and Medium Enterprises in Japan (Ministry of Economy, Trade and Industry; Japan Small Business Research Institute), innovation is understood as product and process innovation in narrow meanings, i.e. remarkable improvement or small inventions in process or product which lead the enterprise to new market and increased profit. A lot of SMEs are doing low risk but continuous innovation. Importantly, such a small scale innovation is continuously carried out by SMEs in Japan. Among them an enterprise with 10 employees has the 420 years' history (Suzuki, 2012). Schumpeter (1939) distinguishes innovation from invention, which produces of itself ... no economically relevant effect at all. In recent Japan, it is observed (Shibayama, 2011) that particular phenomenon of fresh relationships between enterprises or personnel has been shaped up in local industry. This phenomenon shows the birth of free and autonomous entrepreneurs in local Japan and it also shows new trend of innovation which is trying to add goods new meanings and values, i.e. innovation (Shibayama, 2011). Shibayama (2011) sees such a phenomenon as preliminary to the main historical event of 'creative destruction', involving cultural and sociological change. On the other hand, empirical studies (Suzuki, 2011, 2012) point out that innovation of SMEs in old industrial district in Tokyo is affected by the district's particular industrial atmosphere. These SMEs have evolved creative SMEs, diverted innovation product and developed into two types of SMEs manufacturers, 'problem solution product' and 'highly sensitive and functional product'. Marshall (1919, 1920) stated that social trust is important for institutional settings to work smoothly to maintain the 'industrial atmosphere' in 'industrial district'.

Otherwise it should be noted that many SMEs are struggling to survive two major hardships, one is the hollowing out of their clients – large companies and the other consumers' declining demand for domestic products because of much cheaper other Asian countries' imported products. Against such a trend, Japanese SMEs are challenging to divert it by innovation (Ministry of Economy, Trade and Industry; Japan Small Business Research Institute). Networking among them is one major way toward this direction. It is assumed that fruitful networking requires trust at the base. Marshall (1919, 1920) remarks that social trust is important for institutional settings to work smoothly to maintain the 'industrial atmosphere' in 'industrial district (Marshall)'.

There is simply two ways of interpreting innovation as seen. One represented by Schumpeter sees 'innovation' from a historical point of view involving cultural and sociological change. Shibayama (2011) argues that new trend of networking among SMEs in local industry is a forerunner of historical new phase of 'creative destruction' in Japan. However, while highlighting such new trend of networking, he may neglect keiretsu relationships as traditional network which accounts for around 50 per cent on average of suppliers and is evolving (White Paper on Small and Medium Enterprises in Japan). Other view focuses on innovation as continuous and daily work's extension from the viewpoint of SMEs' actualities (White Paper on Small and Medium Enterprises in Japan; Suzuki, 2012). This paper will take a view that, while a bird's eye view, highlighting a new trend of

networking as could-be preliminary to dynamic economy, it is important to locate the innovation phenomenon in terms of economic history and sociology, this paper will look into the actualities of innovative activities in relation to networking and argue the central importance of core cultural values in social structure for innovation in Ireland and Asian countries.

2. Various SMEs

There are various aspects about how SMEs are related with innovation strategies, as follows.

• SMEs' early network establishment of relationships enhance innovation capacity (Jørgensen and Ulhøi, 2010).

• There is positive relationship between organizational size and innovation, particularly in manufacturing and profit making organizations (Damanpour, 1992).

• SMEs are similar to large firms concerning to the way that innovation strategy and formal structure are the key drivers of their performance, but do not utilize innovation culture in a strategic and structured manner (Terziovski, 2010).

Jørgensen and Ulhøi (2010) argue this aspect with regard to young SMEs, which focus on innovation, to develop and foster network relationships early on in their evolutionary life cycle in order to support learning, knowledge sharing and innovation. Damanpour (1992) demonstrated the distinguishable influence of organisaional types on the size-innovation relationship and concluded that the large firms are more innovative than SMEs in the manufacturing sector. Terziovski (2010), likewise, argued manufacturing SMEs are likely to improve their performance as they increasingly mirror large manufacturing firms with respect to strategy and formal structure. Further he concluded that SMEs do not appear to use innovation culture in a strategic and structural manner.

3. SMEs in Japan

• Variety of SMEs

The paper examines three types of SMEs in terms of organizational structure and capabilities in Japan. The paper used *White Paper on Small and Medium Enterprises in Japan* (Ministry of Economy, Trade and Industry) as the basic materials. SMEs in Japan are the pivot of supporting manufacturing industry. This is the case, particularly in the machinery manufacturing industry. In comparison with Large Enterprises (LEs), they are different in many ways. They account for 99.7 per cent of all firms and about 70 per cent of all employees (2011 White Paper on Small and Medium Enterprises in Japan). In manufacturing industry, they account for about 50 per cent of added value. Not only in their size but also SMEs are different from Large Enterprises (LEs) in their approach to innovation. SMEs are further divided depending on whether they are suppliers or independent enterprises.

• Three salient features in the innovation by SMEs

According to the White Paper (2009 White Paper on Small and Medium Enterprises in Japan), there are three salient features in the innovation by SMEs reflecting the compact size: 1. Managing Director (MD) himself/herself tackles innovation, taking a leadership from

planning measures to contriving ideas or originality in the working place. 2. Outside of continuous R & D activities, there is a great role of creativity and ideas which flashed in the working place and/or in daily life, and which turned into innovative products and improving production processes. 3. SMEs are instrumental for innovation in niche markets. In addition, flexibility and quickness in decision-making by MD may be taken into consideration as advantage for innovation. Generally speaking they are not willing to take risks

• Three categories of SMEs

In fact, SMEs in Japan may be divided into three categories: suppliers, independent enterprises or entrepreuner, and 'between' (White Paper on Small and Medium Enterprises in Japan). With regard to 'between' they are or were suppliers and trying to be successful at independent entrepreneur by innovation. Their approach to innovation is different depending on their nature.

Suppliers are officially, over 60 per cent, in the *keiretsu* relationships ¹⁴⁹ in every manufacturing sector: 100 per cent in electronic parts, devices and electronic circuits, 75 per cent in transport machinery and equipment, 72.2 per cent in general machinery (2010 White Paper on Small and Medium Enterprises in Japan). Under subcontracting conditions, they take orders from their clients and fulfill requirement for products and/or processings. SMEs in the keiretsu relationship share the plans and prospects of their principal firms (60 per cent), and their MDs involve in mutual exchange with their counterparts of LEs (54 per cent). Basically, because of such relationship, they do not have to do marketing activities. They do concentrate on and develop technical know-how and skills for the required products and/or processings. These expertise are fundamental. While the rate of R & D activities among these SMEs was basically low compared with independent entrepreneur, SMEs in the manufacturing sector are confronted with increased competition from cheaper manufactured products from such countries as China and India, and are consequently struggling to develop competitive products, process improvement and services through innovation. SMEs have a high rate of activities aiming to innovate through non-continuous research and development or methods other than research and development (2009 White Paper on Small and Medium Enterprise in +Japan).

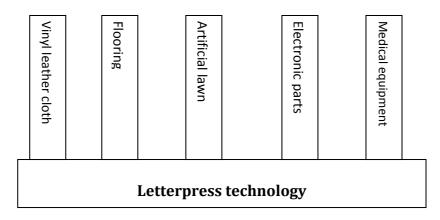
In large scale enterprises with more than 250 employees, more than 80 per cent of them are tackling innovation through continuous R & D on the one hand, and in small-scale enterprises with 10 to 49 employees, a half of them through continuous R & D and the rest of them through non-continuous or no R & D, on the other.

Independent or entrepreneur SMEs are instrumental in innovation in the niche market, not through R & D activities but ideas or creativity which flashed in daily life. Suppliers, who are trying to be independent, need to be innovative in products and/or process. As suppliers they have fundamental technical know-how and expertise. They exploit their expertise to develop new products and/or process innovation (numerous examples are shown in the White Paper on Small and Medium Enterprises every year). These phenomena are interesting. They display the essential importance of fundamental technology and skills.

¹⁴⁹ Keiretsu is the vertical relationship system between suppliers and users and lasts for generations since the 1950s. The relationships are based on the principles of social structure – trust and dependence – in Japan (Oikawa, 2011).

More precisely, they show tremendous potential of such assets for innovation of new products. Figure 1 shows one example.

Fig. 1 Approach to effective technological development: An approach based on a root technology



Source: Minato (1982: 10)

4. Networking

As a general trend, the *keiretsu* relationships are expanding by networking. This is recognised as 'meshing' for survival and development (Japan Small Business Research Institute, 2006).

It is noted that 57.1 per cent of small and medium-sized enterprises are still under the traditional *keiretsu* relationships, *i.e*, they belong exclusively to their long-term customers. This pattern is increasing (Japan Small Business Research Institute, 2006). Otherwise they exchange information, ideas or knowledge with other enterprises by joining the local industrial association (56.4 per cent) or a kind of heterogenious business exchange association and studying circles (64.1 per cent). More positively, they pay a visit to other companies on a daily basis and get merits such as, that they are able to judge precisely their customer's level of technology or skills (73.0 per cent), or that it is straightforward for them to modify or to propose technical matters with their customers (65.1 per cent) (2010 White Paper on Small and Medium Enterprises in Japan).

- Kanagata (die and mould) makers and users relationship are an exemplar In fact this relationship has contributed a great deal to product and process innovation. The relationships are characterised as follows:
- (1). The die and mould blueprints and processing data containing the know-how of the manufacture should be considered intellectual property. But it is presumed that there has been no consideration in terms of intellectual property and also that no contract existed between suppliers and customers.
- (2) The above relationship has been institutionalised as a social norm.
- (3) Kanagata industry is characterised by its highly specialised and subdivided structure of subcontracting system based on cooperative values

Kanagata makers are systematically organised based on the social structure of highly developed division of labour (Taguchi, 2001).

Kanagata makers consist of three layers, the major, the backbone and the small which correspond to different equipment, tehcnology, and market. The market for each layer parallels the social structure of the mass-produced machinery industry as shown in fig. 2.

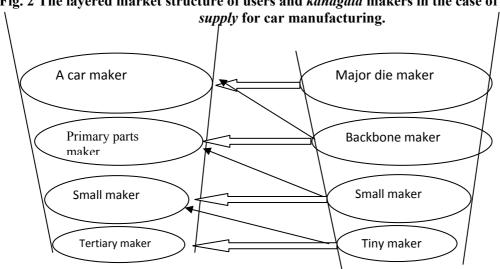


Fig. 2 The layered market structure of users and kanagata makers in the case of stumping dies

The white arrow shows the major transactions, which are not fixed and the thin black arrow transactions take place. Source: Taguchi (2001: 57)

Based on such highly specific skills and technological expertise, they could attain innovation or improvement using imagination and/or inference (Asai, 1996; Koike, 1999).

5. Principles of the *keiretsu* relationships

Granovetter (1992, 1994, 2005) argues the importance to recognise how economic action is constrained and shaped by the structures of social relations in which all real economic actors are embedded. Granovetter (1994) also suggested the existence of the principles in the cooperative relations and indicated that these principles are identifiable by such factors as region, political party, ethnicity, kinship or religion. In the case of *keiretsu* it is identified that they may be 'trust and dependence' ¹⁵⁰. These principles are the foundation of the *keiretsu* relationships and have a basic effect on maintaining cooperative relationships for innovative performance, by sharing skills or tools or exchanging information about new technology or niche market.

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¹⁵⁰ This is based on my article (2011) Economic organization and Social solidarity: *Keiretsu* as a Local/Global Concept' in *Firm-Level Internationalization, Regionalism and Globalization*, Elaine Hutson, Rudolf Sinkovics and Jenny Berrill (Eds.).

6.-SMEs in Ireland – Toolmaking industry

The Irish economy is particularly characterised by the overwhelming presence of foreign multinational companies. While they have positive effects for both the high-and low-tech sectors (e.g. Görg and Strobl, 2002), for instance, they have shown volatility in terms of presence continuity in Ireland. Further, although foreign multinationals are more engaged in manufacturing, producing three times more than Irish-owned companies in terms of sales, their employment levels-257,000 in 2010-are less than in Irish-owned companies-854,000 in 2010-according to CSO. This explains a major tenet of industrial policies that the Irish government has tried to promote consistently for the indigenous manufacturing industry. As a matter of fact the substantial presence of Irish indigenous companies is vital in terms of employment, ubiquity and consistency for the Irish economy.

The competetiveness of indigenous industry is important as a source of economic growth and employment. The engineering sector is one of the traditional sectors comes predominantly from Irish-owned firms, while the output of modern sectors comes very largely from foreign-owned firms (O'Malley, 1998: 44). Irish SMEs are widely dispersed throughout Ireland and providing substantial employment and basic products in Ireland (WDC, 2004).

• Cooperataion and grouping

The importance of cooperating and grouping to help financial and organisational problems is highlighted and emphasised as follows (Kennedy, 1990).

'The importance of cooperation and grouping to expansion with other toolmaking companies as joint marketing, joint trading, shared equipmentand so forth rather than technical knowledge must be considered, but little evidence of this. The Irish toolmakers seldom consider trading among themselves. Working within a group might make better sense. Participating firms might become subsidiaries, or they might supply to a central toolroom, and these companies would have shares in a joint marketing operation (Kennedy, 1990: 41)'.

The reality is that 'Irish managers think that everyone outside the factory gate is a deadly rival out to take rather than give business (Kennedy, 1990: 42)'. Such a situation appears to have been changing, depending on the company. The case studies of five toolmakers in Ireland show some evidence relating to cooperation. Two companies can be considered a good model as toolmaker in Ireland in terms of the State agencies' strategic policy. Both companies illustrated a clear understanding of the fundamental importance of continuous adaptation in terms of both advanced technology and training. Both companies realised the importance of training to acquire skills for new machine tools. They have also been exploring new markets, through new innovative products and by challenging new difficult materials for component products. Both have invested more in improving technology thatn the other compnies surveyed. The fact that most employees have been working with the company since its establishment (20 years) should have made it possible for greater cooperation on the shop floor. When they encounterd a difficult problem, 90 per cent of such problems were resolved jointly. The other was established in 1998, at a later stage of technological change in Ireland. However, it is assumed that the relationship between workers and between the company and their suppliers and customers, is similat to that as found in the

former. The fact that the distribution of profit and reward is transparent to the employees may have encouraged them in working and led to non-abenteeism.

It is thought that both MDs' experiences as employees of the Japanese multinationals have made a profound impact on their management styles, as they referred to it. They have learned the importance of nurturing a continuous and close relationship of intra — and inter companies in order to maintain their customers and to get informal knowledge and/or information about possible markets or technologies.

• Issues 1. – Grouping, cooperation and cluster: the government strategic policy

The common ideas behind are reduction of expenses for equipment investment, sharing and exchanging knowledge and information for skills and trading with intra-and inter companies. For these strategies a degree of social relations is central. In reality, 'a big cultural change for a lot of companies' in the case of Ireland (Thoms McDermott, the AMT Ireland Manufacturing Technologies Centre's manager, quoted in Nolan, 1993: 30)

The 'fostering clusters' which was stressed as one of the central recommendations for industrial policy based on the idea of a cluster drawn from Porter's theory (1990), does not appear to have been put into practice nor adapted as recent empirical studies show. In fact, MD of the toolmaker I interviewed in 2009, said that they had no contact with other manufacturers in the cluster.

Issues 2. – The concept of core technology and industrial policy

According to Dept of Industry and Commerce (1990) the 'key technologies' is used to mean that on which industrial development depends. It is described as 'enabling technologies' such as nano technology, biotechnology, microelectronics, optoelectronics, advanced manufacturing technologies. The skills and technology of toolmaking are defined as low to medium technology in Ireland, and there seems to be no concept to approach the dynamics from low to high technology because of the absence of a concept of core technology. In Ireland it seems that they have chosen to deal not with a technological accumilation structre, but with new specific high technologies, which are located at the centre of mapping in terms of different technologies for manufacturing industries. This is a new perspective adopted in the so-called the 'new economy'. As a result, the toolmaking is located on the periphery. It could be said that there are two viewpoints on mappning industrial technologies, one is structural and the other spatial.

7- Rural industry in South East Asia – Vietnam, Thailand and Indonesia;

The landscape of SMEs in South East Asia is very different from in Japan. SMEs in South East Asia are greatly highlighted as supporting industry for multinationals. This section, however, is concerned with rural industry, which consists overwhelmingly of micro enterprises. It is worth noting that they have shown a remarkable development or they could show the potential for further development, to be the leading or a viable rural industry in Vietnam and Indonesia (Fujita, 2006; Sakata, 2008, 2012; Mizuno, 1996; Sato, 2011).

In the case of Japan, it is rural traditional industry that maintains traditional craftwork and vitalises rural economy as rural based industry (Seki, 1985). In contrast with modern

manufacturing industry, which while expanding to local areas, has not always played a role to make the areas prosperous. Such modern manufacturing industry has created only a dearth employment and not much benefit to rural industry. They have just formed a region as dispersed branch factory, isolated from rural society.

• Rural industry in Vietnam

In Vietnam entrepreneurship is quite active; from the 1960s until 2000~2005 there was 75.2 per cent increase of enterprise (Kurose, 2011). There is a view that Vietnam is developing led by rural industry (Fujita, 2006). In fact, it is one of important characteristics that the rural population rate remains 70 per cent of the total in 2010, and the real number is increasing while Vietnam is entering into the real industrialising phase (Sakata, 2012). The question is what are the means rural residents are making a living. In Vietnam small enterprises are overwhelming in number. Enterprises less than 10 employee account for 51.7 per cent of the total number and less than 50 for 85.7 per cent. Almost all of them are of non-state sector. Vietnam has two sectors, state sector and non-state. So far as industrial production is concerned, non-state production showed sharp increase. In line with it the number of micro enterprise (less than 2 employees) increased more than small enterprises (less than 50 employees) (Sakata, 2008). It is noted that rural industry is leading a remarkable development not only after doi moi (socialist-oriented marker ecoonmy started in 1986 in Vietnam) but also after joining WTO. As a matter of fact, rural Vietnam is increasing in construction and service sector, which accounts for less than 40 per cent out of micro enterprises in rural Vietnam (Sakata, 2012). On the other hand, industrialisation of craft villages is quite remarkable, suggesting the considerable importance with regard to economy. Craft village is a typical example of rural industrialisation. Craft village has developed and formed clusters in which micro enterprises produce craftwork in community based clusters. Most prosperous craft village is Bat Trang in suburb of Hanoi. Such villages are based on domestic handicraft industry. This kind of village is 1077 to 2000 in total number in 2006. Inside the village division of labour has meticulously and systematically well organised. As a result there exists no competition or conflict among producers or retailers (author underlined)(Sakata, 2012).

• Thailand - watthanatham chumchon (community culture)

The national culture in Thailand consists of a wide variety of numerous community cultures, which vary depending on the district (tambon). Originally watthanatham chumchon is based on local agricultural groups in terms of traditional mutual cooperation and friendships. It is claimed that rural people and their mutual trusted relationships and culture are understood to be 'community'. For example, there was a change to accommodate to economic problems caused by market economy in the rural area. Around the 1980s rural people had created new type of economic organisation such as 'savings cooperative' and 'rice bank'. These organisations are funded and managed by the people themselves (Shigetomi, 2009). This thought, watthanatham chumchon, has spread wide in Thai society and had considerable impact on politics in Thailand at present (Shigetomi, 2009).

watthanathan chumchon has four components. 1. Rural people has their own viewpoint and culture; 2. At the base of such culture there is the principle of mutual aid; 3. Culture and economy cannot be parted; 4. Community is traditional rural socio-economic system, which provides happiness, identity, and potential to develop negotiating power for the people. It is

noteworthy to mention OTOP (one village one product) policy, which started in 2001and is known it has been successful. In 2004 the gross sales was equivalent to one per cent of GDP (three quarters for domestic use and the rest for export) (Takei, 2007). This policy came originally from Japan and is spreading other Asian countries.

• Rural industry in Indonesia — *Gotong royong* (mutual assistance)

Distinctive from the case of rural industry in Vietnam or Thailand, Indonesia has no definite leading industry for development and looks that leading developing industry is dispersing (Sato, 2011). The section sheds light on one of them, community-based weaving industry surveyed in two different regions in West Java respectively (Mizuno, 1996; Hashimoto, 2008). These examples show that product and process innovation has been successfully carried out in rural industry based on the cultural core values *Gotong royong* (mutual assistance).

Majalaya region [Mizuno, 1996]:

The Majalaya region has a long history as weavers. This region showed the will power of independence of the weavers when their textile industry faced the crisis, which was caused by the breakup of its weaving factories. They turned products whose markets had not yet been completely monopolised by large corporations or power-loom operators. In order to these products they cut production costs and resulted in a new division of labour, as a large number of locally based traders took innovative measures to open up new marketing networks. What happened was the formation of a weaving production area/community centring around the village that was freed from dependence on either factories or wholesalers in other regions. Further there is one added point. In spite of the fact that the pay is better working for others as wage labour, the choice of lower paying independence can be attributed to in part to the weavers' character, which prefers self-employed work to working for someone else. Another point is that independent businesses, despite the low income offered for weavers, produce about the same amount of income as rice farming among middle-strata owner operators in the village.

Takusimalaya prefecture [Hashimoto, 2008]:

It has only around 10 years old history. The West Java silk industry has suffered the sharp rise of imported cocoon after Asian economic crisis and many domestic market-oriented enterprises in silk industry were closed down. Silk industry in Takusimalaya prefecture is maintaining the production. It is an integrated production system based. Such a rural industry above is meticulously and systematically organised by the cooperative and resulted into low cost production system. It is claimed that rural industry creates employment for unskilled labour by forming social division of labour of production

The historical background of *gotong royong* in origin is opaque. However, it is since the independence day of Republic of Indonesia in 1st of June 1945 that *gotong royong* is publicly and officially declared as the embodiment of the principles of the national foundation. There are the three cultural operator in contemporary Indonesia, *koperasi* (cooperatives), *musyawarah* (consensus), and underlying all the others, *gotong royong* (mutual and reciprocal assistance, as in the traditional Javanese village (Bowen, 1986). The term *gotong royong* itself implies spontaneous and mutual aid altogether among people (Gumisawa, 2004).

Gotong Royong in the strict sense can be rendered as collective social activities. But the deepest meaning of *gotong royong* can be explained as a philosophy of life that takes the collective life as the most important. The philosophy of *gotong royong* is now a part of Indonesian culture because *gotong royong* is not the property of a particular ethnic group (Sinar Harapan, June 22, 1984: 6; cf. Bowen, 1986:546)

8. Conclusion

Theories of Schumpeter above all seem great to understand significance of innovation in historical and sociological context. Then, case studies of SMEs in Asian countries and Ireland will provide the concrete, detailed knowledge for SMEs how innovation should be carried out. The difference of the core cultural values between Ireland and Asian countries may affect the difference of innovation between these countries. The basis of these difference could lie in individualism and community-based culture, trust is in the very centre, respectively.

What is missing in the ideas of Schumpeter or Marshall could be the acknowledgement of basic importance how the core values or the principles of social structure affect the industrial atmosphere and cooperative relationships for innovation in SMEs. At least this is the case in Japan and other these Asian countries. In Ireland there may exist not such principles of social structure in Japan—trust and dependence—or cooperative spirit and trust as cultural core values in Vietnam, Thailand and Indonesia, but individualism which is the base of social relations in Ireland, same as other Western countries. From this viewpoint innovation of SMEs in product or in process may vary depending on culture.

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