2014•2015
FACULTY OF BUSINESS ECONOMICS
Master of Management

Master's thesis

The impact of innovation in SME's in Europe

Supervisor :
Prof. dr. Anna ROIJAKKERS

Godwin Joe Addai

Thesis presented in fulfillment of the requirements for the degree of Master of Management

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KNOWLEDGE IN ACTION

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Abstract

This thesis reports the findings of case study research on the impact of innovation on Small and Medium Sized Enterprises (SMEs) within Europe. Four European SMEs was interviewed for this dissertation. The case study research was done using a qualitative research method and an inductive research strategy. What was realized in this research is how important innovation is to the survival and growth of SME's business within the European Union. The research has examined different kinds of SMEs within the European Union economy cutting across different industry sectors to establish findings on the notion of how innovation has improved their business practices. The study also reveals the influence of technology in terms of product and process innovation on the growth in various sectors.

This research aims to establish a stronger link between growth and innovation of businesses and recommends that companies and governments work together to help encourage innovative strategies in businesses and those governments establish more flexible policies for an easier implementation in the business environment.

KEY WORDS: *Innovation, Growth, Product innovation, Process innovation, Technology, Performance*

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The Impact of Innovation on Small and Medium Sized Enterprise in Europe

1. Introduction:

Innovation is very important for businesses; Barden (2008) has indicated that companies cannot ignore innovation or consider it to be just an option. However, there is no consensus on the meaning of innovation. In this research, we follow Goffin and Mitchell (2010) who have revealed that innovation covers a set of common elements, namely:

a) What has changed (Product/service)

b) The degree of change (completely new output, modification on previous version of product/processes). When this happens, it will be seen as a complete change compared to an incremental change, which involve small or gradual changes to existing products or services). A research carried out by INSEAD shows that 84% of the innovations brought about by 100 companies were incremental generating 62% of the revenues.

The focus of this thesis is strictly based on the European economy; The European Union established in 1952[1] and has since added more countries to its formidable union. This union has become one of the most complex institutions in the world and has created more competencies for its member states. The EU in its current state is considered one of the largest economic areas in the world. This is in a class with continents such as Asia and USA. These three continents are strongly competing in the most challenging and lucrative sectors such as innovation in small businesses; setting standards for developing breakthrough technologies in the world market (Czarnitzki et al, 2007). For the EU to make its intensions visible the European commission has increased the percentage of gross domestic product (GDP), which is spent on research and development to about 3% (Europe 2020; 2010).

For some time now, there has been a massive shift in the European economy towards a year on year decline of production in the member states. This sudden event has triggered the minds of economists, scientists, and other scholars to research into which industry will best be able to re-start the European economy after some long years of recession. Many scholars have

[1] http://europa.eu/legislation_summaries/institutional_affairs/treaties/treaties_ecsc_en.htm

suggested that small businesses, which are inclined to develop innovative products and services in highly advanced technologies such as bio-tech and information sector, are the key to economic recovery/growth Wu (2007); Berger and Udell (1998); Schwienbacher (2007). Small and medium sized enterprises have been considered one of the driving forces in the European economy due to their numerical contribution in terms of technological innovation, employment generation, and export promotion to list a few (Subrahmanya et al, 2010). Innovation is key to the growth of SMEs as it provides firms with a competitive edge over other firms in the industry. Technological innovation plays a strategic role to provide firms with a competitive edge as well as help such firms to gain entry into new markets (Becheikh et al, 2006). Burrone and Jaiya (2005) mention that the ability of firms to innovate varies significantly depending on their sectors, size, focus, resources and the business environment in which they operate.

According to information provided by Eurostat, SMEs produces at least 58.6%- 60% of GDP in Europe (Eurostat, 2011). The concern that the European commission has (and this concern has been echoed by the data provided by Eurostat[2]), is that there are some regional differences in SMEs within the EU28 member states. Based on research conducted in 2009, only 15 EU member states accounted for 78.5% of the total number of SMEs in the EU28 while the other member states (EU12) accounted for 21.5% of GDP.

On the other hand, small and medium sized enterprises have been encouraged by government leaders to constantly innovate and thus ensure the growth of in the European economy. Tucker (2008) suggests that innovation is the best way to stimulate growth in a firm. Freeman (1982) argues that to be non-innovative is close to death to an organization. In this thesis, I investigate the impact of technological innovation in Europe on small and medium sized enterprises. How has a product innovation helped the manufacturing industry develop and what is the influence of process innovation in the manufacturing industries in the EU sector? What this thesis will aim for is to evaluate the empirical evidence with regards to whether investing in innovation in specific sectors of the European economy will help to re-boost the European economy to a healthy state. Some researchers have pointed out that investing in innovation is crucial to the growth of the European economy and evidence has proved that investing in innovation is lacking in the EU28 member states. This had led to the terrible state the European economy is currently in now. As a result, key business sectors such

[2]http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Enterprise_size_class_analysis_of_non---financial_business_economy_by_country,_2009.PNG&filetimestamp=20120410135400

as the SMEs need to innovate to enhance quality and ensure the timely manufacturing of durable products that will enable them to compete in the international markets. This thesis will evaluate information from various sources, researchers, and scholars to determine if investing in innovation in specific sectors of the European business economy will help the economy regain its growth and enable the SMEs to compete with continents such as Asia and the America's. While the importance of innovation is widely recognized, the literature highlights some gaps with respect to the link between innovation and SMEs. This dilemma had led to the conclusion that a work on technological innovation will fulfil this literature gap on the issue of innovation and the link between SME's in the EU.

The thesis is based on a case study research; this means a set of questions will be derived from the topic based on the theoretical framework. Companies were contacted randomly and invited to give their opinion to these questions which relate to innovation. All of these interviews were conducted either by telephone or by Skype. This is because of the geographical area which was covered. Before the interview, the interviewee was introduced to the topic of the research and the objective of the interview, assuring the confidentiality of the information given. Most of the interviews were recorded and in cases where recordings could not be done a detailed report was made up during the interview. The retrieved data were analyzed where similarities and differences were identified through cross-case comparisons.

The thesis is divided into 5 sections. Chapter 1 will consist of the overall introduction of the topic being discussed, the literature gaps discovered and how the research will be conducted. Chapter 2 is mainly based on the literature review. What this chapter will do is to bring the main topic into perspective. It will take the readers through a series of articles published by researchers and scholars on the topic at hand. Most of the articles will come the university of Hasselt library internal data source (EBSOL) and also from the European Union database. The rest of the information was obtained from Internet published sources. Chapter 3 is the methodology part that will introduce the case-based method used to study various SME cases within the European Union. Chapter 4 discusses the results from findings retrieved from the cases and the cross-case analysis. The findings will evaluate whether technology innovation has improved SME performance. Chapter 5 presents the findings, which are based on the interviews and the literature review. Chapter 6 highlights the conclusions and recommendations; summarizing the findings and providing an answer to the question of whether investing in SMEs within Europe is the right direction to restart the European economy.

2. Literature Review:

2.1 The Role of SME's in the EU Economy:

This literature section is divided into 2 parts. The first part analysis the role of SME's in the European economy whiles the second part looks at the role of innovation in SMEs performance. The table below provides an overview of the literature discussed in this chapter.

Authors	Year	Main Themes
Wu et al:	2007	Equity financing.
Berger and Udell	1998	Private equity and debt market in the financial growth cycle.
European Commission	2005	The new SME definition and Employment statistics
Crossen, M. M., & Apaydin, M.	2010	Multidimensional framework of organizational innovation
Tsoukas, H. And Vladimirou, E.	2002	Organizational Knowledge
Wierdsma, A	2004	Beyond Implementation
Yuan, F. And Woodman, R. W.	2010	Innovative behaviour in the workplace
Rosli, M. M. & Sidek, S.	2013	Innovation and firms' performance
Dobbs, M. And Hamilton, R. T.	2006	Small Business Growth
Hutchinson, John; Xavier, Ana	2004	Comparing the impact of Credit Constraints
Hyytinen, Ari; Toivanen, Otto	2003	Do financial constraints hold back innovation & growth
Laforet, S.	2010	Managing trends
Hoffman et al.	1998	Small firms, R&D, Technology & innovation in UK
Lehtimaki, A.	1991	Innovation process in Finland
Reid, G. C.	1993	The state of the British enterprise
Cosh, A and A. Hughes	1996	Changing the state of British enterprise
Subrahmanya et al	2009	R&D in small scale
Martinez-Ros, E.	1999	Product and process innovation

Lumiste et al.	2004	Innovative strategies
Bacheikh et al.	2006	Innovative empirical studies
Roper, S	1997	Product innovation and small business growth
Engel et al.	2004	Innovation and the impact on growth of SMEs
Coad, A.	2009	The growth of firms
Edward et al.	2001	Linking innovative potential to SME performance
Albaladejo, R. H.	2004	Determinants of innovation capabilities
Baker, K. A.	2002	Innovation
Hamel, G.	2000	Leading the revolution

The first part of my theoretical framework answers the question the importance of SMEs in the European economy. Based on the existing article written by Wu, Berger and Udell highlighted that SME's are the most mobile and constantly changing group of companies that are able to immediately adjust and respond to changing market conditions or technological requirement (Wu 2007; Berger and Udell 1998). Secondly, the European Commission defines SMEs based on the amount of workers they employ and the amount they contribute to the European economy. The European Union report on SME's emphases that for the past decade, SME's has been the backbone of the European economy; citing that there were 21.2 million SME's in the non- financial sector in 2013. These SME's accounts for 99.8% in this particular sector, indicating that 66.8% of the total employed and 57.9% of the total valve added generated by the non- financial business sector.

The Commission over the years has redefined the meaning of small and medium sized enterprises (SME's). The current definition[3] states that SME's are businesses which employees are less than 250 staffs and have an annual turnover of less than 50 million euro's and/ or their balance sheet total is less than 43 million euro's.

[3] As defined in EU law: EU recommendation 2003/361. The size-classes employed in this report follow the definitions employed by the Eurostat Structural Business Statistics database: micro-enterprises (0-9 persons employed), small enterprises (10-49 persons employed), medium-sized enterprises (50-250 persons employed), and large enterprises (250+ persons employed). It should be noted that this definition deviates from the official EU definition of SMEs which defines SMEs on the basis of a combination of the number of persons employed and turnover and/or the total size of the balance sheet. The SBS and EC employment size classes are identical.

TABLE 1: EU DEFINITION ON SME'S

Company category	Employees	Turnover	or	Balance sheet total
Micro	<10	< € 2 million		< €2 million
Small	<50	< €10 million		< € 10 million
Medium	<250	< €50 million		< €43million

Source: Eurostat, National statistical office, DIW Econ.

Moreover, the performance review of SME's is always conducted annually and serves as an indicator on how the European commission monitors the progress of different countries within the 28 member states (EU28) in accordance with the Small Business Act (SBA). The SBA Act was established by the European commission to help remove obstacles and foster growth within the SME's. The SBA is not bounded by no legal requirement, but rather are set of requirement/ or measures that can be adopted to suit each country's specification whiles advancing in the degree of harmonization across the 28 EU member states.

In 2013, an estimation of 21.6 million SME's employed 88.8 million people and generated revenue of 3,666 trillion in value added in the non- financial business sector. This trend helps generate about 28% of Gross domestic product (GDP) within the 28 member states (EU28). Refer to table 2 below:

TABLE 2: SME'S CONTRIBUTION TO EU28 FROM 2008-13

	Number of SMEs, Millions			Value added of SMEs, Trillion Euros			Employment of SMEs, Millions		
Size	2008	2013	contribution	2008	2013	contribution	2008	2013	contribution
Micro	19.59	19.97	108%	1.35	1.36	32%	39.90	38.63	65%
Small	1.40	1.38	-7%	1.15	1.15	0%	27.52	27.35	9%
Medium	0.23	0.22	-2%	1.13	1.16	68%	23.38	22.86	27%
All SMEs	**21.22**	**21.57**	**100%**	**3.62**	**3.67**	**100%**	**90.81**	**88.84**	**100%**

Source: Eurostat, National statistical office, DIW Econ.

Furthermore, the assessment of SME's accounted for about 99.8% of all active enterprises within the European Union non- financial sector, ensuring that 66.8% of total employment and 58.1% of value added. The table below gives the breakdown per sector.

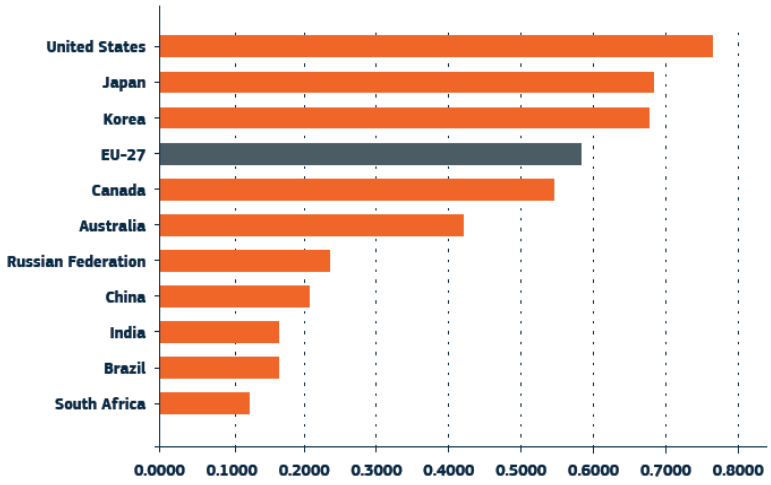
TABLE 3: COMPARISON OF SME'S & LARGE ENTERPRISES

	Micro	Small	Medium	SMEs	Large	Total
Number of enterprises						
Number	19,969,338	1,378,374	223,648	21,571,360	43,517	21,614,908
%	92.4%	6.4%	1.0%	99.8%	0.2%	100%
Employment						
Number	38,629,012	27,353,660	22,860,792	88,843,464	44,053,576	132,897,040
%	29.1%	20.6%	17.2%	66.9%	33.1%	100%
Value added at factor costs						
Million Euros	1,362,336	1,147,885	1,156,558	3,666,779	2,643,795	6,310,557
%	21.6%	18.2%	18.3%	58.1%	41.9%	100%

Source: Eurostat, National statistical office, DIW Econ.

The fact that governments within the European Union are promoting the idea of innovation in their various countries; the European commission (EC) has laid down plans to make innovation a forefront of a way out of the economic crisis. It has highly been observed that investment in research and innovation are going to drive long- term growth. The EU has recognized that the economic driver of growth is through innovation; the bar chart below shows a worrying indication why the EC needs to focus and improve its performance in the area of innovation to help restart the European economy.

FIGURE 1: INNOVATIVE COUNTRIES



Source: EU: Innovation union scoreboard 2011

Based on this evidence shown in the bar chart above, the EC has noticed that countries that invest in research and development are recovering faster from economic crisis. The commission has set up policies and programs that will help support the development of innovation and increase investment in research and development and also convert research into improved goods, service or processes in the market.

2.2 The Role of Innovation in SMEs Performance:

Most researchers find the impact of innovation on performance in an organization as crucial to the survival of day to day activities. According to Crossen and Apaydin (2010) suggested that innovation is the creation or acceptance, adaptation and utilization of value added novelty in trade and industry spheres, organization and expansion of product, services and markets, making of new ways of product development and establishing new management systems. On the same note, Tsoukas et al (2002) and Weidsma (2004) opines that innovation can be seen as a process of developing new outcomes by means of adapting new ways of working and product development. However, all this new structure put in place are directed towards the improvement and better performance of an organization that finally results in production of new process, product and services. Innovation is seen as evolving and firms have to perform to meet the changing demands of the environment.

The role of innovation becomes visible in the day to day activities and interactions of members in an organization whenever they carry out their work and goals according to Yuan and Woodman (2010). The researchers highlighted that to get the best out of innovation, individuals or groups needs to be capable to express their skills and insight in terms of creation, encouraging and endorsement of new ideas into actions. In relation to innovation and its impact on growth, some researchers argue that the company's growth is evaluated based on its performance or growth, according to Roslin and Sidek (2013) and Bonn (2000). Xavier and Hutchinson (2004) suggested that firm’s growth is associated with the law of proportionate effect. The law states that a firm’s growth is proportional to its firm’s size, but on the other hand, the researchers suggested that the law fails because the law does not factor in the age of the firm and shows a negative relationship between growth, the firm’s size and age. However, Hyytinen and Toivanen (2003) suggested that there can be a positive relationship between innovation and growth if there is a constant flow of capital investment.

The above literature leads to a looming question; Can SMEs achieve growth through innovation? From reviewing most of the literature works done on this topic indicate that there

is a link between growth and innovation and that innovation don't only trigger growth but also improves on company's processes/ services and products. According to Laforet (2010) suggested that even due company leaders might have visionary potential growth strategies, they still need innovation to grow. So is it important for SMEs to engage in either product, process or both to enable them to grow? In a real world business situation, SMEs turn to undertake either (a) only process innovation in a way of material substitution, change in technical process (such as manufacturing) etc. In a way to achieve cost reduction or improvement in quality or (b) SMEs go for product innovation in a direction that the products will be altered in terms of size or dimensions, shapes or in an extreme situation introducing improved or new products into the market or (c) doing both product or process innovation. Hoffman et al. (1998) opines that innovation within SMEs is more likely directed towards product innovation than process innovation.

According to Lehtimaki (1991) found out that SMEs in Finland is more focused in both product and process innovation. This evidence was replicated in countries such as UK, France and Portugal. Reid's (1993) conducted a survey and realized that 60% of firms undertake both product and process innovation. According to Cosh and Hugues (1996) studied SMEs from the period of 1986-1995 and found out that both product and process innovation have high among the surviving SMEs actually increased during 1992-95compared to 1986-91. However the intension among SMEs is to introduce new, improved and high quality products. Subrahmanya et al. (2001) observed that in the North East part of England, SMEs are highly engaged in product innovation.

Martinez-Ros (1999) suggested that product and process innovation are interdependent. Lumiste et al. (2004) opines that countries such as Estonia were developing their product innovation together with process innovation. On the other hand, Becheikh et al. (2006) suggested that there should be more research into process innovation; this is because most SMEs focus on product innovation.

Reviewing this literature, I could like to dive deeper to look at the achievement of innovative SMEs over the years. It is clearly noted from the discussions above that SMEs achieve either cost reduction, improvement of quality products or process or bringing together new products and these have led most SMEs to grow. This is because for firms to gain competitive advantage they need innovative products. According to Lee (1998) suggest that for SMEs to succeed in the modern day business environment, firms need to convert innovative products into total sales. Lehtimaki (1991) in his observation into Finnish SMEs realized that

innovative new products lead to more of total sales than to profit. According to Roper (1997) who focused on product innovation within the EU (i.e. UK, Germany and Ireland) suggested that the output of innovative SMEs grown exponentially compared to non-innovative SMEs, suggesting that innovative products contribute to the growth of such firm. In support, Engel et al. (2004) agreed with Roper's theory and also suggested that sales turnover of innovative firms grows faster than non-innovative firms.

Since innovation has helped SMEs in reducing cost, improve in creating new product dimensions, improve quality and increase in variety of products, but does it actually contribute to the growth of a firm's size in terms of turnover, employment and investment? According to Coad (2009) distinguished between product and process innovation by suggesting that product innovation is linked to employment whiles process innovation might have an opposite effect. Roper (1997) in his research into innovative SMEs between Germany, UK and Ireland noted that there is a strong relationship between innovation and turnover growth. Edward et al (2001) opines that growth is not directly dependent on factors attributed to "innovative potential", but also argues that it does not mean that innovation don't lead to growth, but suggested that there should be more time to investigate and develop methods to access the relationship.

On the contrary, Engel et al. (2004) and Coad and Rao (2008) focus on proving the relationship between innovation and growth by observing SMEs in craft industries in Germany and high tech sectors in the USA. Their results based on the probit revealed that there is a positive impact of innovation and sales turnover. According to the researchers, innovative sales ensure that small firms secure a market position and also offer some opportunity for growth. On the other hand, Coad and Rao (2008) argue that in their study into the high tech sector, they realized that firms on average might experience growth and may grow based on some number of factors influencing firms which may or may not be related to innovation.

On the other hand, growth in a firm cannot be complete without looking at capabilities needed to execute innovation processes in SMEs. According to Albaladejo (2004) defines innovation capability as the ability of a firm to make improvement and modification to an already existing technology and also to create new technologies. They also stated that the idea of innovation capabilities applies to product and process technology and the way in which production was organized and managed. Albaladejo (2004) suggested that capabilities contribute to the competitive advantage of companies, since it ensures the companies to keep up with responding to and initiates technological changes on a regular basis. Baker (2002) opines that SMEs must have capabilities at all levels; these include individual, project,

organization and environmental level. Hamel (2000) highlighted that to achieve capabilities in innovation; the business requires both internal and external competencies. He stated that to achieve these competencies, the business must;

a) Have a good idea of its boundaries and open market for talent.
b) Create an open market for capital investment and rewards.
c) Management must be able to manage risk. The researcher suggested that strategies should be sufficiently varied to allow organizational agility and flexibility.
d) Companies should create a culture and a structure to promote innovation. The researcher suggested that firms must open up innovation opportunities to all staffs and engage customers, suppliers, competitors, and other complementary firms to develop new approaches to help generate new wealth.

In conclusion, this literature review goes to prove that innovation is important to the growth of an organization in terms of sales, market penetration, profitability and sustainability of organizations especially when it concerns small and medium sized enterprises. Therefore, there is a need to investigate further into specific sectors to understand and analyze innovative SMEs within the EU and probe to find out the relationship between innovation and growth.

3. Methodology:

The purpose of the research is to investigate (explore) how technological innovation has helped improved SMEs in Europe. What this research is to ascertain is that, if introducing technology innovation in SME's help improved the firms competitive edge in terms of product and process/ service innovation over other firms who do not implement this innovation is their firms. Creswell (1994; 2003) states, that qualitative research is related to exploratory and very useful when important variations are not examined. According to Pamela Baxter and Susan Jack (2008) opines that qualitative case study methodology is an approach that enable exploration of a phenomenon within its context by using an array of data source. They argued that this type of process ensures that the method is not only viewed through a single lens, but rather using a multiple facets of the phenomenon to be revealed and understood.

Nevertheless, there is a notion that exploratory research is linked to qualitative research or vice versa. What this research turn to do is to explore the research question but does not give conclusive solution to the existing problem. Exploratory research helps the researcher to have a better understanding of the problem. Saunders et al. (2007, p. 134) suggested that when conducting exploratory research, the researcher should be willing to change his/her direction as a result of revelation of new data and insight. Brown (2006, p. 43) highlighted that exploratory research tends to deal with new problems on which little or no previous research has been done. Singh (2007, p. 64) opines that exploratory research in its early stage forms the basis of more conclusive research. According to Sandhursen (2000) differentiate between exploratory and conclusive research by suggesting that exploratory research will result in a range of causes and alternative options for a solution of a specific problem, whereas, conclusive research identify the final information that is the only solution to an existing research problem.

To be able to achieve the goal of this research and draw conclusion to explain how SME's within Europe achieve success when technological innovation is implemented and whether the advancement in technology (such as product and process/ service innovation) has helped in transforming how businesses work in the modern day environment, there is a need to use exploratory research to enable the researcher dig deeper to unveil the situation facing SMEs with the European Union.

3.1 Case Based Methodology:

Case study is a research which reports past studies and allows a researcher to explore and understand complex situations. It is considered as a vigorous research method because of the need to complete an in-depth investigation. The research report and conclusion will be derived from case studies of some innovative SME companies within the European Union. To enable me to derive more information and deeper understanding from the case study, there is a greater need to use qualitative methods rather than quantitative methods. The ultimate findings from this research will be derived from surveys through interviews conducted with companies. There are different facts about what a case study is; to enable me find a common ground among these researchers, there is a need to analyze their views. Yin (2003), states that a case study is a research or an investigation into some contemporary phenomenon within a real life context, especially when the boundaries between phenomenon and context are not clearly evident. Yin (2003) also suggested that, during the design phase, there are four things a researcher should consider: (a) the researcher should focus on the study and provide answers to questions such as “How” and “Why”, (b) the researcher cannot manipulate the behavior of those involved in the study, (c) the researcher must cover the contextual conditions because of its relevance to the phenomenon under study and (d) when the boundaries are not clear between the phenomenon and context.

In another perspective from two researchers Coffey and Alkinson (1996) state their view that a case study is an appropriate strategy when the researcher is trying to answer questions such as “How" and "Why". In the same breath, an investigation was done by Yin (2003) argues that, whenever a case study is done, there should be six sources of references to be used. These sources are archival records, documentation, interview, direct observation, participant observation and physical artifacts. According to Russell (1996) have the view that case study shows the real situation which are analyzed through the summaries of an event that has occurred, the players concerned and other influencing variables. Analyzing a case study as part of a thesis report is very important. According to Brewer and Hunter (1989) suggest that a case study brings the real action of a situation which has occurred at a particular point of time. This means information has to be unearthed through a massive volume of theory when dealing particularly with exploratory study research. This means a researcher needs to create or include new theory (ies') and also adopting existing theories to enable the researcher to explain known and unexplained empirical theories.

In terms of sampling methods in a case study, there are many sampling techniques available which can be used in a research, but selecting the right technique may be difficult in certain situations. In this report a purposeful sampling is chosen under the qualitative research methods. According to Patton (2002), suggested that this type of sampling focused on selecting information, rich cases for the most effective use of limited resources. Purposeful sampling enables researchers to identify and select individuals, groups that are especially knowledgeable about or have experience with the phenomenon of interest (Crosswell and Plano Clark 2011). Barnard (2002) and Spradley (1979) highlighted that the use of purposeful sampling method gives the researcher importance of availability and willingness to participate and the ability to communicate experiences and opinion in an articulate, expressive and reflective manner. The samples for this present study were selected from Belgium, The Netherlands and United Kingdom. All these SMEs firms have successfully implemented some kind of technology in the past five years and have observed the ups and downs in terms of process or product innovation.

The collection of data is very significant in terms of case study research. As specified above, the data were collected using telephone interviews. Yin 1989 suggested that this type of interview was broadly accepted as a data collection tool and also a way of collecting primary data. Another view from Rubin & Rubin (1995), describe this type of interview as very important since it un-earth more information about the company than using structured queries. Yin in his journal stressed the importance of this approach by illustrating that there are 2 types of jobs that take place when doing an interview: (a) to follow your own line of inquiry as reflected in the case study protocol, (b) to be able to ask your actual questions in a way which is not biased. According to Oppenheim (1992) also suggest that the interview can help researchers get rich information as spontaneous answers are given out by participants. Oppenheim also highlighted that interviews usually have a higher response rate than other approaches of collecting data because it gives the researcher an opportunity to explain the purpose of the study. Therefore, to analyze these data I will be looking at similarities between their responses. These will help me to determine if there is a certain pattern developing in a particular working environment.

The issue of cross case analysis is an essential part of the case based methodology. Yin (2003) suggested that studying serials of cases makes it possible to build a logical chain of evidence. The cross case analysis is applied to seek that evidence from the framework, to generalize and analyze the role of SMEs and the factors that impact SMEs within the European

Union. It also identifies how SMEs within Europe understand and implement innovation as part of their business strategy.

Finally, the issue of reliability and validity is seen as another vital part when designing a case study because of its importance when dealing with issues of social research. Reliability consists of internal and external reliability; internal reliability refers to the consistency of results within a particular site and the plausibility of data within that site. According to Neuman (1994), suggested that external reliability refers to the consistency and duplicate attributes of data across the site. To ensure that internal reliability is achieved in this report, low inference descriptors were used in the qualitative research in order to create a careful audit trajectory by recording data and interviews using an appropriate device. To improve reliability, the measured variables in this research are not only those taken from other researchers, but also include those proved to be important in qualitative research results.

According to Sarantakos (1998), highlighted that validity comes in four phases; these are the face validity, content validity, construct validity and internal and external validity. The face validity represents how procedures appear in terms of how information are gained, does it seem well designed? Does it seem as though it will work reliably? As mentioned earlier in the literature review, SMEs differ across industries and as such it is hard to find common characteristics. Considering these differences, the sample is limited to SMEs within the EU member states. Sarantakos (1998) opines that content validity is needed if the research covers all aspects of the research topic. To ensure content validity the interview was done among senior employees of the companies within the research framework. Sarantakos (1998) also highlighted that construct validity is to find out if the theoretical construct is valid. The final phase is the internal and external validity, which ensures the validity, measurement used in this report. The internal validity concerns making inferences from data by considering alternative explanation and using converged data and related tactics, whereas external validity reflects how accurately the results represent a phenomenon and whether the results can be generalized (Yin 2003).

3.2 The Companies Studied in this Research:

The case study will consist of four SME’s whom are based within the European Union, due to the confidentiality which was signed between the researcher and the companies. The companies will be identified by using alphabetical letters:

TABLE 4: SUMMARIZATION OF COMPANIES INTERVIEWED

Number	SME's	Age of the company	Products/ Process	Who was interviewed
1	Company A	44 years	Innovative electrical products	Marketing manager
2	Company B	>15 years	Using innovative processes	Senior supervisors
3	Company C	>10 years	Using innovative processes	Manager for the car rental division
4	Company D	20 years	Using innovative processes	Event manager

Company A is the global leader in power and thermal management solutions. The company's mission statement is, "To provide innovative, clean and energy-efficient solutions for a better tomorrow," Company "A" main focuses on the role in addressing key environmental issues such as global climate change. The company continues to develop innovative energy efficient products and solutions. Company A has the view that more energy efficient their products become, the greater their impact on reducing global warming. Company A is devoted to innovation and systematically developing new products and technologies, particularly those that are high efficiency and energy saving, and invests over 5% to 6% of their groups' annual sales revenue in R&D and employs about 200-230 workers within Europe. Company "B" supplies, logistics and semi-industrial services to various industries and port services for the shipping companies. The company achieves great added value for its customers in the services it provides, the outstanding quality of the service and the continuous cost monitoring form the basis for sustainable customer relations. The company employs over 35 workers only in Genk (Belgium). The company is a private company and is not listed on the stock exchange so decisions can be made as part of a long-term vision. Due to the short lines of decision-making, management can very quickly decide in the interests of the customer.

Company "C" is a family owned business located in Genk, in the Limburg region of Belgium. The family business has been in operation for over 10 years and has 3 major segments that the company is focusing at. These segments are the petrol (fuel) stations, food corner shops, hiring of trucks and car washing business. All these sectors are highly dependent on

technological processes to achieve the day-to-day operation of the business and Company C employs 30-50 workers in the Limburg region. Based on this knowledge, make it an interesting company to interview for my research. The last company which was interviewed was Company “D” is an events management company based in the UK, one of the UK's most established and respected Asian event management and catering companies. Launched in 1995, The Company has a wealth of experience in creating exclusive packages for weddings, themed events, corporate functions and private parties. They offer a one-stop event planning and management service covering every aspect of your event and continuously deliver a high standard of quality and value for money to our clients.

In conclusion, this chapter outline the research methodology used in this study. A qualitative method was used to draw strengths and minimize weakness using this approach. Data collection was used on the qualitative research stage, which includes interviews, documentary studies, survey and case studies. Finally, reliability and validity issues were discussed to comply with all the processes used in this research.

4. Findings:

This part is divided into two sections; the first section which highlight quotes and discussions from the interviews whereas, the second section discusses the findings in relation to the literature review.

4.1 Innovation and the link to competitive advantage:

According to Porter (2004), differentiate between 4 types of competitive advantage; these are Cost leadership, differentiation, cost focus and differentiation focus. These can also be divided into 2 parts which are cost advantage and differentiation advantage. Cost advantage exists when a firm provides the same products and services as competitors, but at lower cost. This type of strategy can be achieved through various factors such as access to cheaper inputs, efficient processes, favorable location, skilled workforce, superior technology and/ or waste reduction or elimination. Differentiation advantage can be linked to when a company provide greater value at the same cost or lower than competitors. These can be attributed to certain factors such as unique benefits or characteristic of a firm, product or program that set apart a firm from its competitors in the view of the customer. All these factors can be attributed to the innovativeness of a firm. In SMEs, the competitive advantage comes through when a firm becomes different (i.e. Using differentiation advantage). From the interviews conducted with the managers of the four companies in this case study recognizes the importance of innovation as an added value and can also add different dimensions to the survival of SMEs in Europe.

"*Innovation is the key to keep competitive advantage and build on customer base".*

- *Company A*

"*Innovation equates to efficiency in our business".*

- *Company B*

"The performance of our day-to-day activities depends on innovative technologies".

- *Company C&D*

The data collected from the SMEs on innovation presents certain characteristics:

Among the four companies interviewed, only one was a manufacturing company and have its own patents, the rest were all service companies, and because of that they focus more on original technology development rather than incremental development which is much associated with the service industry. Secondly, it can also be identified that SMEs such as the manufacturing industry are more focused on product innovation than process / service innovation.

"We have an innovative new energy power supply called (innergie). This product charges laptops, and phones by using the same charging system".

- *Company A.*

Thirdly, SMEs tends to work in partnership with other big companies and universities. All the companies interviewed suggested working with other companies to share ideas, and also recruit graduates from universities to join the company with new innovative ideas.

"Employees are employed from competitors in the same industry".

- *Company A.*

"Our employees are hired by the recruitment agency".

- *Company B.*

"Most of our workers are from the family circle, just a few came as interns and are now fully employed".

- *Company C.*

"We have 3 permanent workers, which comprise of 2 chefs and 1 head waitress. The rest of their employees come from a recognizable recruitment agency".

- *Company D.*

4.2 Environment:

Environmental factors have a strong influence on SMEs performance:

"The company is looking for the (Big Cheese); this means looking at mega trends and understanding with products are ready for the market so that they can be able serve their customers better".

- *Company A.*

"We see a our business expanding in the next 5 years and with better software designs and programs, we as a company will be able to deliver goods faster to our customers".

-Company B.

"Limburg is a small region in Belgium and for us to grow and compete in the truck business, we have to move more into a technological era to ensure that we can reach more customers for our business". *- Company C.*

"We focus on moving our business from a seasonal to all year round business activity".

- Company D.

From the information above, it can be noticed that the environment has some influence on the companies.

a) Technological changes: all the companies interviewed suggested that utilizing new technologies make them stay ahead of their competitors, but the most important issue is if these companies can continue to follow technological changes when it happens and to continue to update their systems when it happens.

b) Industrial changes: from the discussion with the companies, all seem not to have any powerful influence on their industry. The only suggestion is for them to follow changes when it happens in their various industries.

c) Partnerships: the biggest problem for SME companies during the interviews was to find the right strategic partnership to help their products penetrate into different markets.

d) Geographical factors: all the companies interviewed agreed that with the expansion of the European Union gives them a big market area to explore and sell their

products. This influences the performance significantly in terms of developing new products, processes to satisfy their customers.

e) Competitors: with the big geographical area to serve brings about the huge number of competitors. With this in mind, the environment plays a major role in the market, regional laws such as entry barriers, segments and labelling etc.

f) Economic factors: all the companies who were interviewed highlighted that economic factors such as recession and currently the Greek problem has a major influence on products and services. They agreed that because of the recession, there are unwilling to develop new products and services for their customers. But they are also optimistic that soon it will be over and the European economy will return to a healthy one.

In conclusion, SMEs have a little influence on the market compared to big companies. The only solution is for SMEs to adopt faster to external environmental changes.

4.3 Internal Process:

Internal processes are very essential for SMEs in terms of growth and survival of the firm.

"Our company is highly influenced by cost, so our internal process is to always look for ways to reduce cost. By reducing cost we can invest more into R&D".

- *Company A.*

"Even though, our internal process is to reduce unnecessary cost. We are also highly influence in our internal process to train our workers so that they can get up to date with new technologies and also improve on the standard of delivering. – Company B.

"Training employees to use new technologies to improve on employee's efficiency. All this cost money and we need to cut costs, from R&D and also new market adventures until the recession has slowed down before injecting more cash into the business". – Company C.

"Regular visits to seminars to communicate and introduce the business to more clients".

- Company D.

To conclude, all the managers highlighted that internal process is more important than the environment. They suggested that if they do not organize their finances in terms of reducing costs, especially during the recession, they may not be able to pay their bills such as employee salaries, taxes, supplies, etc. Based on this assessment, they recognize internal process as a major priority that companies which are especially SMEs have to consider if they need to survive.

4.4 Resources:

Resources are another important key element that managers agreed on during the interview. Managers are required to look for adequate resources to ensure the future of their business. Some managers link resources to a company's performance, suggesting that with the right resources for their business, they are assured of having a competitive edge over their competitors.

"Employees are employed from competitors in the same industry. They arrive at the work environment with their own innovative products in mind. Few of the employees are employed through the university streams or through job vacancies". *– Company A.*

"Our employees are hired by the recruitment agency. This means we employ little permanent workers, this is due to the economic crisis, but we are thinking of recruiting more workers when the economic crisis is eventually over". *– Company B.*

"As a family owned business. Most of our workers are from the family circle, just a few came as interns and are now fully employed". "Our employees also are involved in our innovative processes and this means sharing innovative ideas with each other make us beat the competition". *– Company C.*

"We have 3 permanent workers, which comprise of 2 chefs and 1 head waitress. The rest of their employees come from a recognizable recruitment agency". – Company D.

However, some managers think that resources are actually not the main factor but rather capital. They argued without the necessary capital a company cannot purchase resources.

"*Our company relies heavily on capital and without that tangible and intangible resources cannot be purchased. So you can realize that resources are important, but not a key determinant".* *–Company A&C*

Other managers also highlighted the importance of resources. They suggested that resources are becoming very scared and when it is not used appropriately may lead to business failure.

"*Our business demand using a lot of resources, both tangible and intangible. Both are sources of life for the survival of our business".* *– Company B&D.*

4.5 Strategies:

Strategies are very important to small companies such as SMEs, and most companies consider it second to none in terms of importance. During the interview all the companies describe the fast changing technological environment as one of the factors that companies need to adjust their strategies to meet these challenges. Therefore, having a good company strategy is important for the performance of SMEs.

"Manufacturing companies which produce a lot of innovative products for the market invest a lot of capital into R&D to develop their new products. So it is paramount that we place our product strategically in line with the demands in the market. So if we don't align our strategies properly, we may suffer the loss of market share". *– Company A.*

"The strategy is set based on performance for a year or two and we have to be sure our strategy meets the current environmental conditions" *- Company B.*

"Our Strategy is to achieve top partnerships with clients in the industry to enable us penetrate into the market". *– Company C.*

"Focus on customer service by delivering high quality, fast delivery time and on budget. Also compete on low price". *– Company D.*

From the interviews conducted with the companies, managers agree that strategy is crucial for the business and companies that do well in their various industries have employed correct strategic plans/ processes. The insight I got from the interviews highlighted some factors which makes strategic planning important.

a) Companies that follow a strategic planning turns to be aware of their industry and the kind of technological changes going on in the industry.

b) When company strategy is aligned properly with competencies, this allows the company to have advantages over others. They are also aware of what their competitors are doing and by so doing improve on their products and processes to compete with them.

c) Finally, by aligning company's strategy in the right way, also allows the company to focus on their strategic objectives and how to achieve them.

4.6 Capabilities:

Capabilities are referred to as a way in which a company is able to execute its business strategy. Capabilities define the way of organizing people, process and technology gathering for a specific purpose. From the interviews conducted with managers in this case study, establishes the fact that using capabilities wisely helps reduce inefficiencies in capabilities that reduces customer impact and therefore direct its efficiencies in areas with high financial leverage whiles investing in capabilities for growth.

"Because of the huge demand in the catering sector, the business has purchased a software from a third party which helps them with the calculation of the day to day food stocks available to be used, the number of employees needed for the daily operations and the type of event available for the day". "This means that when a customer books for an event, we enter all the information into the software which helps us to generate the estimated cost, the amount of employees needed to work on that particular day so that the event can go on successfully".

-Company D.

"In our truck rental business which is one of their newest business adventures, we have installed somehow sophisticated software in our computer systems, which highlights which trucks have been hired and which trucks are free and ready to be hired by customers. It makes it easier for the company to serve customers faster by offering them those available trucks and also reduces customer waiting time". *-Company C.*

"The company's products are developed and manufactured very fast to serve the ever growing demands of customers". *-Company A.*

To summarize this chapter, the following information below is provided vital factors on SME performance:

a) It can be observed that people and teams are the most significant factor for SMEs. Every manager suggested that highly qualified people are vital to help the firm achieve excellence. At the same time building on competitive and competent team is also important to the firms. The managers also highlighted that organizational culture, structures, communication, management style and leadership are very influential to the growth and performance of SMEs.

b) Strategy influences SMEs performance and growth and often influences the survival of SMEs especially when it is associated with risk management.

c) Both short and long term performance is influenced by customer satisfaction. This factor depends on product/ service quality, delivery time and frequent communication with customers. This suggests that customers with high customer satisfaction have developed superior communication. Example is company A, dealing with customers directly allow the company know what their customers need and manufacture that kind of products in collaboration with their engineers to meet customer satisfaction.

d) Resources establishes SMEs development and performance; the factors within the resources (I.e. Tangible and Intangible resources) helps SMEs achieve competitive advantage. Also the utilization of resources helps SMEs achieve excellent performance.

e) Internal processes are also considered as one of the most important part of the firm. This process provides the firm with efficiency and effectiveness by clamping down high cost and collaborating with departments to be more cost mindful.

f) Core competencies are another important element when it comes to SMEs. This can come from how fast the company can manufacture or deliver products or services to customers; or the capability of selling its products and distribution networks.

g) Environmental factors are highly a determinant of the success of SMEs especially when it comes to strategic partnerships, technological developments to meet the current changes and competitive factors in terms of price, product, place and promotion.

h) Innovation is the basis for SMEs survival; SMEs must innovate through various factors which include technological innovation, business model innovation and sales channel innovations.

5. Discussions:

Among the four companies, Company “A” is an electronic manufacturing company who design its own patents. Company “B” is a warehouse where big retail stores keep their goods to be distributed to their various stores around Europe. Company “C” is a family transport business, and Company “D” specializes in event management. All these companies each have a feature of using technology; i.e. Technological innovation is very important as a success factor for the firms. This section will analyze the information from the interview and comparing it to the literature review.

5.1 INNOVATION:

All the companies interviewed in this report agreed that innovation is very essential to their company. Innovation creates competitive advantage, efficiency, quality, and customer responsiveness. As discussed in the literature review, most researchers agree with this situation. In accordance with the claims from Tsoukas et al (2002) and Weidsma (2004), that innovation can be seen as a process of developing new outcomes by means of adopting new ways of working and product development. Other researchers such as Crossen and Apaydin (2010); Yuan and Woodman (2004); Lehimaki (1991); Cosh and Hugues (1996); and Roper (1997) all concurred with the idea that innovation helps SMEs in many dimensions which may be either in the company’s product or process innovation.

In addition, it can be realized from the information gathered from the interview shows that most companies are focused on incremental innovation rather than radical innovation. Incremental innovation is not to make huge changes, but rather an innovating bit at a time. The reason why SMEs, mostly opts to go this direction is because it reduces risk in comparison to radical innovation. It can also be observed from the interview, especially from “Company A”; once the company has its product up and running they turn to build on a considerable amount of human capital and competencies so the firm may well devote time to making it better or reduce cost. To conclude, all indications go to prove the importance of innovation to the growth of SMEs within Europe.

5.2 RESOURCES:

Resources are mainly defined as an economic or productive factor required to accomplish an activity or as means to undertake an enterprise and achieve desired outcomes (Business dictionary). There are three basic resources and these are land, labor, and capital; other sources of resources are management, expertise, information, entrepreneurship and time. According to Platts et al. (2000) differentiated resources in 2 categories; these are tangible and intangible resources. The tangible resources consist of building, plant, equipment, exclusive licenses, patents, stocks, debtors and employees whereas, the intangible resources consist of skills, reputation, experience and knowledge of employees, advisors, suppliers and distributors.

This goes to show how resources play an important role for SMEs. All the interviews done with company leaders agree that resources are the key to exceptional performance. The information derived from the interviews suggested that because of the economic recession company B, C and D are all hiring from accredited agencies, but the company A only hire expertise from competing firms to boost their work force. In accordance with the literature review, Yuan and Woodman (2010) highlighted that for companies to grow and achieve innovation at the same time; individuals, groups need to be capable to express their skills and insight in terms of creation, encouraging and endorsement of new ideas into actions. Hyytinen and Toivanen (2003) suggested that there can be a positive relationship between innovation and growth if there a constant flow of capital investment. Other researchers such as Laforet (2010) agreed with the importance of resources and the link between resources, the company's growth and performance of a company. The use of talented workers and leaders always encourages growth in SMEs and this helps the firm increase in market share and also make the firm becomes competitive in the market.

5.3 CAPABILITIES:

Many researchers and scholars have defined capabilities in many ways. Grant (1991) suggested that resources are the firm's capabilities whiles capabilities are the main source of competitive advantage. The researcher expanded this theory by linking it to firms and suggesting that the capabilities of a firm are what it can do as a result of a group of resources working together. Another view from Neely, Adams et al. (2002) opines that capabilities are the combination of an organization's people, technology, practices and infrastructure that collectively represent the organization's ability to create value for its stakeholders through a

distant part of its operation. In a related study, the relationship between resource based capabilities and firm's performance has also been studied widely. Chandle and Hanks (1994) defined capabilities as the capacity for a coordinated set of resources to perform a specific task. Chandle and Hanks suggested that even though they identify the differences between resource and capabilities, they still find difficulty separating them.

Moreover, analyzing the data collected from the interviews conducted for this study, Company A, B, C and D all embrace capabilities as an additional source which helps strengthen firm's ability to create a competitive advantage over other firms. All the companies interviewed agreed on using human capabilities and technological capabilities to develop their product and improve their services to customers, this helps them to create a competitive advantage over their competitors. In accordance with the literature review, Albaladejo (2004), highlighted that capabilities contribute to the a firm competitive advantage since it ensures that companies keep up with responses to and initiate technological changes on a regular basis. Other researchers such as Baker (2002) and Hamel (2000) all highlighted the importance of capabilities as part of the firm's structure to gain an edge over your competitors in terms of competitive advantage.

In addition, capabilities can be developed by companies interested to do so; rather resources can be "purchased" using money gained from investments from the company. Furthermore, capabilities can only be achieved through a long operation period. Capabilities can also be improved by means of managerial innovation, learning and training. Organizational capabilities are reliable for perceiving, controlling and reacting to external environmental factors. Based on this situation SMEs should be able to adjust their capabilities to meet these challenges.

5.4 THE ENVIRONMENT:

The relationship between performance and environment has been studied by many business practitioners over the past two decades. The external operating environment is seen to have a greater impact on performance for small and medium sized enterprises (Hambrick 1981). According to Cadogan et al. (2002) and Jaworski and Kohli (1993) suggested that environment changes occur during external uncertainty such as changes in the market, technology, customer demand and competition. Long et al. (1997) and Pineda et al. (1988) highlighted that when small and medium sized enterprises are faced with a threat or opportunity, they tend to increase their search for information by scanning the external environment. Lang

et al. (1997) and Smith (1998) also highlighted that this kind of trend is currently observed in small firms and run parallel to their increasing attention to aspects of the strategic planning process.

In the survey conducted by the four companies in this case study, it was observed that all the companies focus on the modern trends around them and adjust their businesses to cater for these changes. Example are Company A and B; in Company A, which is a manufacturing company is always scanning the environment to develop the right product at the right time for the right market. Company B is also looking to purchase the right technology to be able them to serve their customers better and move ahead of its competitors. In the literature review, Lee (1998) argues that for SMEs to succeed in the modern day business environment, small and medium sized firms need to convert innovative products into total sales to be able to survive. This view was also accepted by many researchers such as (Engel et al. 2004; Hoffman et al. 1998; Bonn 2000; and Roslin and Sidek 2000). Therefore, for SMEs to overcome the volatile environmental condition, firms need to keep good relationships with suppliers, regulatory group and maintain a good supply and regulation network and also gauge competitor products and abilities.

5.5 STRATEGY:

Strategies are decisions that every company has to put in place to be able to achieve its long term goals. It also lets the company focus on its long term plans and how to achieve them. An appropriate strategy depends on the firm present and future direction and also includes some factors which the most important in this case can be directed towards innovation. The major type of innovation that companies turns to undertake technological innovation, product innovation, and management innovation. In reference to Porter five forces model; threats of substitutes are constantly being an important indicator for firm to innovate. The threats also create ways to potential benefit to competitive market entrants. For firms to achieve substitute, a firm needs to improve their management to achieve the target of reducing cost, speed up processes and delivery time and improve quality, this is referred to as managerial substitute.

Secondly, firms need technological innovation to improve their substitutes. These substitutes utilize new technology, products, services and materials to compete with the current products in the existing market. Balance scorecard is another management tool that firms use to accomplish their strategies which include clarifying and translating the vision and strategy,

communicating and linking strategies objective and measurement, planning and target setting to align with strategic initiatives and enhancing strategic feedback and learning (Kaplan and Norton, 1996). In the interviews with the companies, there was an indication that strategy is one of the most important managerial processes that they use to project the firm's success and growth into the future. Cosh and Hugues (1996) highlighted this situation in the literature review that studies carried out between SMEs within the period of 1986-95 reviled that for companies to survive they make embark in both product and process innovation as a long term strategy plan. In support of this theory, researchers such as Laforet (2010) suggested that leaders of firms may have visionary growth strategies but still need innovation to grow. Other researchers who support this theory are (Roper, 1997; Coad and Rao, 2008; and Hyytinen and Toivanen, 2003).

5.6 INTERNAL PROCESS:

Most managers view the internal process as processes which are only important in a big organization, but actually this is not true. Internal processes are crucial for companies such as SMEs to help them grow. According to Neely, Adam et al. (2002) identify reasons why some firms fail because their processes are not aligned with the company's strategy. Business processes must be and always be aligned with the company's strategy. There are four categories in which internal processes can be grouped, these are: developing product and services, generate demand, fulfil demand and plan and manage the enterprise. Each of these categories also includes different sub- processes which can be measured in five different ways which are based on quality, quantity, time, and ease of use of money. According to Mills, Platts et al. (2002) suggested that all these categories can further be grouped into 2 groups which are effectiveness and efficiency. From the interviews conducted in this research, three of the companies (i.e. Company B, C, and D) which is in the service industry all focus on scanning the external environment to look for new technology which will enable them serve customers better and also in a shortest possible time. They use their internal process to focus on employees and train them to improve in using advanced technology to achieve customer satisfaction.

The only manufacturing company which is part of this survey is Company "A". They use their internal processes to minimize cost and improve efficiency. Company "A" scans the external environment to look for new ideas and technologies which will help the company develop new products for its customers. In the literature review, Tsoukas et al (2002) and

Weidsma (2004) highlighted innovation can be seen as a process of developing new outcomes by means of developing new ways of working and product development. Other researchers such as (Bonn, 2000; Roslin and Sidek, 2013; Laforet, 2010) all agreed with the notion that internal process helps SMEs to continue to develop new products and processes by means of being efficient and effective and at the same time reducing cost.

To conclude, this chapter summarizes and discussions of results from the interviews and comparing it to the literature review to enable the reader get a clear understanding of the situation facing SMEs in Europe. The empirical study proves that it is not only internal factors affecting SMEs but also external factors also have a greater effect on the performance of SMEs. The indicators such as innovation, resources, capabilities, strategies, and internal processes were used in the interview to draw answers from the interviewees representing the companies which are being studied in this report. The interviews also provided an indication that, SMEs that improve in their capabilities can also get an advantage to utilize their resources and develop new innovative products and processes and at a long run improve on the growth of the firm. Finally SMEs should quickly respond to external environmental changes to enable them serve their customers better.

6. Conclusion:

The present study was conducted to investigate the impact of innovation on SMEs in Europe and to find out whether innovation have impacted on the growth of European SMEs. From the observation and interviews conducted by the companies indicated that innovation continues to be an important role/ factor influencing businesses such as SMEs within Europe. Even through the link between innovation and SMEs has become a critical part of every business. However, because of recession SMEs are skeptical to invest more in resources such as R&D activities or acquire new and advanced technologies.

The companies studied in this report show that more companies are engaged in developing the skills and capacities of employees through various trainings. The results also suggest that manufacturing firms are more customers driven than before (i.e. Searching for what customers want and manufacturing the right product at the right time for such market). This situation had made manufacturing firms more involved in research and development than the service industry. The literature review and the interview data collected indicated that for companies to grow, they have to innovate and become more competitive with their national and international competitors. Taking this route will not only create competitive advantage for the companies, but also allows the firms to gain market share and become more sustainable in a long term.

According to a research done by Ellie and Bridge (1982) reinforce the idea of technological polices in an organization which involve attitude and obligation towards innovation. It identifies recruiting people who are technologically knowledgeable, investing in the advancement of new technologies and also maintaining technological leadership. Moreover, the European Union has moved forward by introducing new innovative programs and also implementing some interesting new innovative programs for SMEs with the European Union. The European commission has put in regulations to relax some of the regulations/ policies governing trade policies within the European countries to ensure that more SMEs have the opportunity to extend into other market economies not only in Europe but also continents around the world.

Finally, based on what I have observed in this case study is how vital innovation is to the survival of SMEs in Europe. SMEs is seen as the “Heart Beat” of the European economy and with the forecast that the recession may soon disappear whiles the EU is working hard to

solve the Greece economic problems, the economy may move to a positive growth. With these predictions, SMEs are intended to hire more workers either on a temporary or permanent basis to help with the demand. Furthermore, as the economy move to a healthier state, firms will be encouraged to invest more into both technological improved products and processes to achieve a higher satisfaction rate between the firm and their customers. When these are done correctly could help increase the revenue for companies and also open other business environment for investment.

6.1.1. Managerial implications:

To understand the problems that innovative SMEs faces, it is appropriate to understand the idea behind innovative management. Innovative management is viewed as a set of informal or formal systems that companies use to accomplish new business ideas or strategies, with the aim of improving the company's competitive position through fundamental changes. Strategies are always decided by senior leaders in the company and normally approved by the board of directors. Senior leaders in the companies need to persuade the board of directors, shareholders and employees that this strategic decision is the best way for the company.

Managers are bound to face a series of problems when faced with such long term strategies. Some of these problems can be either external or internal. Below are some of the managerial implications that managers are faced with;

6.1.2. Uncertainty:

All business leaders face the issue of uncertainty in which global economic credit markets, new regulations which may or may not affect their business, uncertainty about their competitors and how new technology impact on the business. These kinds of uncertainties establishes fear in management and turns their focus from a long term strategy to a rather short term strategic focus. Whiles this decision might be seen as the right direction, it may also be seen as a danger in destroying the value of the company. For SMEs to survive, they must have the tendency to plan five years into the future, by doing so can potentially solve many problems such allowing the company to balance the need to be more reactive, short term focus with the need for informal long term strategies to help the company survive.

6.1.3. Globalization:

All the managers interviewed in this case study highlighted the challenges facing them globally. Understanding foreign cultures and adapting to, it seems to be a major concern for SMEs. Cultures are very important issue when companies are trying to penetrate into new markets and designing new products and services for customers in the new market. For SMEs to overcome these difficulties, they must invest time to better understand international cultures and markets through information gathering and analyzing information to achieve better understanding of cultures before entering into such markets.

6.1.4. Governmental policies and regulations:

Changes in regulations are always a problem for managers, especially when it concerns energy, environmental and financial policies makes it more difficult for managers to take decisions. But in recent year's managers seems to be enjoying the European Union policies that cut across countries within the union. But these policies are seen by managers within SMEs not to be enough for most European police fail to deal with regional policies. The unforeseen regional laws and polices restrain many SMEs to grow faster. Companies whom are faced with such laws such as green tax laws, carbon tax, etc.; finds it difficult to expand and managers have to find ways to comply with such laws to be able for their company to survive.

6.1.5. Technology:

Technology is also increasingly becoming a problematic issue for most SMEs who are either trying to innovate or have innovated or still following the current technological trends to upgrade their systems. The fast pace of technological improvement is running very high and companies need to invest more to get current generation technology before their competitors to enable them gain competitive advantage over their competitors. For SMEs to achieve this, managers need to find ways to invest capital to enable them achieve this milestone over its rivals.

These topics highlighted above are problems that managers are faced on a daily basis when making decisions on the future of their business.

For further studies, I will suggest that more investigate should be carried out into some sectors such as:

- The European Union policies on funding SMEs
- Regional policies and the impact on SMEs
- Banking policies and the impact on assessing loans for SMEs

6.1 Limitations of the current research:

First and foremost, this research is limited to the European Union sector, SME's and the markets within the European Union. Secondly, most of the data and information will be based on EU published data on SME's and other commentaries made by researchers and scholars. Last but not the least, due to time constrains, I will not be able to go into details on some of the information provided.

An overall conclusion based on what I have observed in my case study is how vital innovation is to the survival of SME's in Europe, since SME's are seen as the "heart beat" of the European economy and with more SME's hiring more workers for their operations. Companies need to invest not only in technological products or processes, but rather combine both to active a higher satisfaction rate between them and their customers. When these are done correctly could bring an increase in revenue for the companies and also open other business environment for investment.

7. Recommendation:

1. Governments, (i.e. both local and national) should work together with SMEs to establish a more friendly technological polices which is easier to adopt with less restrictions.

2. SMEs should not only invest in the workforce or by allowing their employees attend only conferences, short or long term courses but also help motivate their employees to learn new technologies whenever it is introduced and reduce the insistence of continuously using old technologies because most of the employees and managers are not comfortable using the new technologies.

3. For businesses to expand and grow into new markets, businesses need to invest into technologies to enable them reduce costs and increase efficiency which eventually increase sales revenue. Management should also adopt new innovative strategies that will enable the business to grow in a long term. This will allow them to tackle challenges that may occur during external environmental changes.

4. Governments within the European Union should work with regional banks to enable easy access to loans for SMEs. When this is done, companies can be able to invest more in innovative products and processes and also can be able to employ more workers. When this is done will go a long way to help boost the economic recovery.

5. Governments should also work with policy makers to introduce more relax policies of recruiting works for SMEs. Some skills and new ideas can be brought in by workers living outside the European Union to help SMEs grow.

6. SMEs should do more about networking, by doing so, some services can be exchanged for free.

7. Organizational structures should be adjusted to encourage creativity and innovation amongst SMEs.

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9. Appendix:

The table below shows the interviewed data collected from the four companies for this study:

Cross- case analysis themes	Company A	Company B	Company C	Company D
SMEs Firms Characteristics				
Innovativeness	"Innovation is the key to keep competitive advantage and build on our customer base". "Serving the current customers with more innovative products and also working with them to get feedback on their products". "We have an innovative new energy power supply called (Innergie)". This product charges laptops and phone using one charging system".	"Innovation is very important for the survival of our business". "Innovation equates to efficiency in our business. "With the proper technology available, we are able to effectively program our day-to-day activities such as how many goods needed to be shipped to retail shops and to which location around the world".	"Day-to-day activities are all controlled from their head office at Genk". "Our company invests heavily in new technological processes which helps us achieve their day to day operations. This innovative technology helps us to monitor our trucks, the amount of fuel bought a day, week or even in months and if there is a shortage in any of their fuel stations it will indicate immediately and action could be taken to for fuel to be delivered"	"The business purchased a software from a third party which helps us with the calculation of the day to day food stocks available to be used, the number of employees needed for the daily operations and the type of event available for the day". "By using the software, customers can book for an event, they enter all the information into the software which helps them to generate the estimated cost, the amount of employees needed to work on that particular day".

Resources (employees)	"Employees are employed from competitors in the same industry. They arrive at the work environment with their own innovative products in mind. Few of the employees are employed through the university streams or through job vacancies".	"Our employees are hired by the recruitment agency. This means we employ little permanent workers, this is due to the economic crisis, but we are thinking of recruiting more workers when the economic crisis is eventually over".	"As a family owned business. Most of our workers are from the family circle, just a few came as interns and are now fully employed". "Our employees also are involved in our innovative processes and this means sharing innovative ideas with each other make us beat the competition".	"We have 3 permanent workers, which comprise of 2 chefs and 1 head waitress. The rest of their employees come from a recognizable recruitment agency".
Capabilities	"The company's products are developed and manufactured very fast to serve the ever growing demands of customers".	"With the use of the software, employees are assigned to pick the products from different location within the warehouse and put them together with the correct corresponding shipping address to be shipped the same day to the customer (client)".	"In our truck rental business which is one of their newest business adventures, we have installed somehow sophisticated software in our computer systems, which highlights which trucks have been hired and which trucks are free and ready to be hired by customers".	"Because of the huge demand in the catering sector, the business has purchased a software from a third party which helps them with the calculation of the day to day food stocks available to be used, the number of employees needed for the daily operations and the type of event available for the day". "This means that when a customer books for an event, we enter all the information into the software which helps us to generate the estimated cost, the amount of employees needed to work on

				that particular day so that the event can go on successfully".
Environment	"The company is looking for the "Big Cheese", this means looking at mega trends and understand which products are ready for the market so that they can be able to serve their customers better". "Also, acquiring smaller firms to merge up with the company so that we become a big player in the market". We are also focusing on our market share and we will likely grow in the next five years.	"We see a company as the business expanding in the next 5 years and with better software design programs, we as a company will be able to deliver goods faster to our customers". This change will have a massive effect on our employees. "Human resource is a major component of their business, without them the business will not be existing, the business is thinking of investing in highly innovative technologies in the company to help ease the stress some of their workers go through in their day-to-day operations at the workplace".	"Since we are located in the Limburg region, we see our business growing. We see our trucking business moving more into a technological era and we must work hard to gain more customer loyalty for them to hire more trucks".	"We have observed a lot competition from this sector, even though it is seasonal. What we are focusing on is to move our business perspective form a seasonal work to a whole year round work. Secondly, long term objective is to reduce costs and improve quality for our customers".
Strategy	Well positioned of products in the market and become a leader in this sector.	The strategy is set based on performance for a year or two	Achieving top partnerships with clients in the industry	Focus on customer service by delivering high quality, fast delivery time and on budget. Also compete on low price

Internal Process	The internal process is highly influenced by cost control and efficiency and organizational culture.	Continuously scanning the environment and focus on tracking new technology which will help the company deliver goods to clients faster.	Training and collaborating employees to use new technologies to improve on employee's efficiency.	Regular visits to seminars to communicate and introduce the business to more clients.

SME definitions

	VARIOUS COUNTRIES					BRICS					
	EU	USA	Asia (Malaysia)	Egypt	Ghana	Brazil (industrial)	Brazil (commercial)	Russia	India	China	South Africa
Name											
	Small and Medium Enterprise	Small and Medium Business	Small and Medium Enterprise	Micro, Small and Medium Enterprise	Micro, Small and Medium Enterprise	Small and Medium Enterprise	Small and Medium Enterprise	Small and Medium Enterprise	Micro, Small and Medium Enterprise	Small and Medium Enterprise	Micro, Very Small, Small and Medium Enterprise
Number of employees											
Micro	<10	–	<5	1–4	1–5	1–19	1–9	–	0	–	<5
Small	<50	<100	5–50	5–14	6–29	20–99	10–49	15–100	0	<300	20–49
Medium	<250	<500	51–150	15–49	30–39	100–499	50–99	101–250	0	300–2000	50–200
Annual turnover											
Micro	<€2	0	RM250.000	0	$10k	0	0	–	<Rs50m	–	<R200k
Small	<€10	0	RM250.000–<RM10m	0	$100k	0	0	400m RUB max	Rs50–60m	<Y30m	R3m–R32m
Medium	<€50	0	RM10m–RM25m	0	$1m	0	0	1bn RUB max	Rs60–99m	Y30–Y300m	R5m–R64m

SME contribution to Employment Shares by Region – Median

Median across regions	SME100	SME150	SME200	SME250	SME300	SME500
Africa	54.77	63.79	68.15	76.85	80.56	85.11
East Asia and Pacific	56.79	61.58	67.42	65.70	71.34	71.34
Europe and Central Asia	44.71	53.08	59.46	66.32	67.48	75.47
Latin America	53.72	56.71	64.36	67.77	70.99	78.26
Middle East and North Africa	31.20	48.10	36.63	57.31	58.56	62.30
North America	41.73	39.34	41.99		59.27	56.58
South Asian Region	56.68	65.29	73.63	78.00	80.26	88.55

Source: Ayyagari et al. 2011

SME contribution to Employment Shares by Region – Median

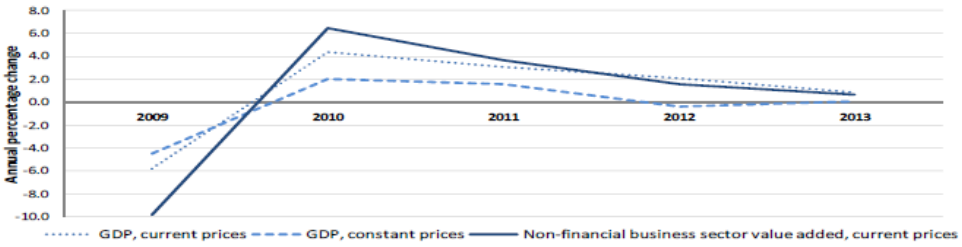
Median across regions	SME100	SME150	SME200	SME250	SME300	SME500
Africa	54.77	63.79	68.15	76.85	80.56	85.11
East Asia and Pacific	56.79	61.58	67.42	65.70	71.34	71.34
Europe and Central Asia	44.71	53.08	59.46	66.32	67.48	75.47
Latin America	53.72	56.71	64.36	67.77	70.99	78.26
Middle East and North Africa	31.20	48.10	36.63	57.31	58.56	62.30
North America	41.73	39.34	41.99		59.27	56.58
South Asian Region	56.68	65.29	73.63	78.00	80.26	88.55

Source: Ayyagari et al. 2011

KEY FINDINGS

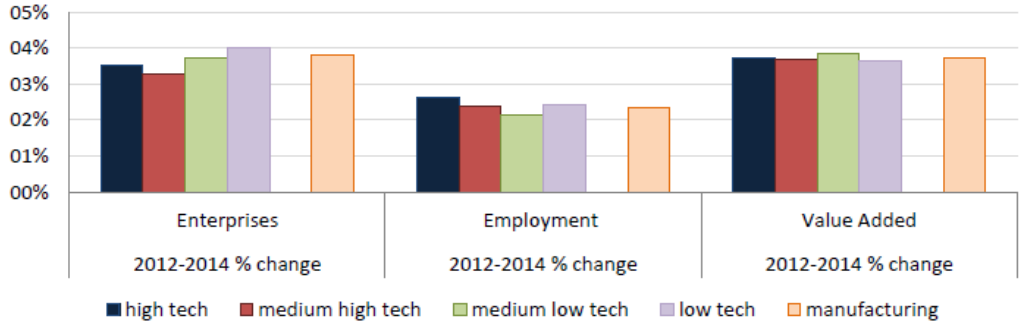
- SMEs are integral to job growth, employing 88.8 million people in 2013 in the EU28
- €3,666 trillion in valued added generated by SMEs in 2013 in the EU28 (28% of EU28 GDP)
- Non-financial business sector dominated by SMEs in terms of number of enterprises
- Difficult economic conditions for SMEs overall:
    - SME value added in 2013 was just 1% above 2008 levels in the EU28
    - Employment in 2013 still 2.6% below levels registered in 2008 in the EU28
- The performance of SMEs varies considerably among size classes, sectors and Member States
    - Micro SMEs suffered biggest decline in total number and number of employees between 2008 and 2013 in the EU28
    - Construction and manufacturing value added in 2013 still below 2008 levels (-21.7%, -2.9%) in the EU28
    - SMEs sectors in only a limited number of Member States have exceeded in 2013 their 2008 pre-crisis performance

Evolution of EU28 GDP and EU28 value added of non-financial business sector (annual percentage change)

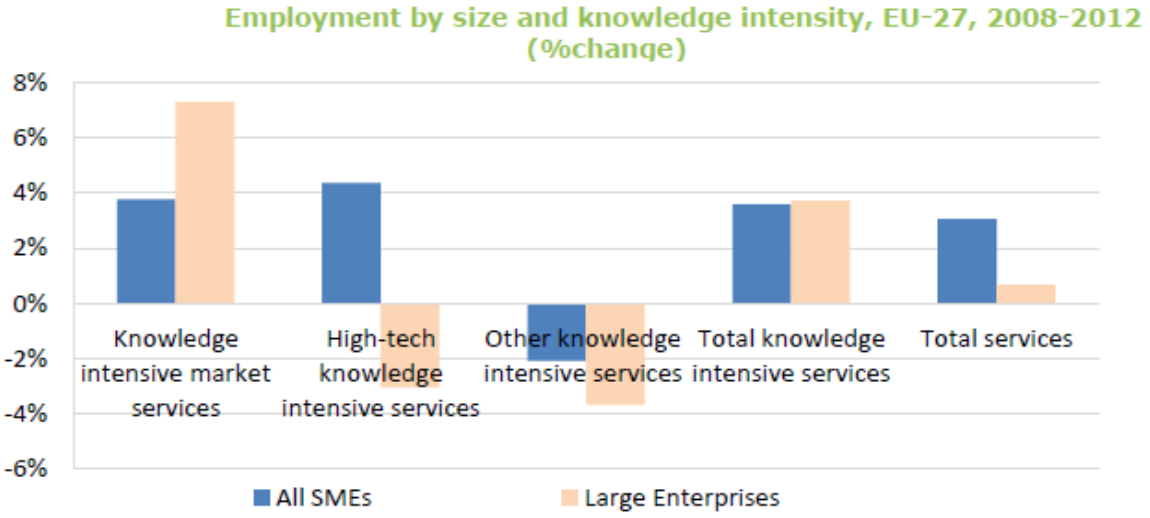


Note: Slovakia is not included in the value added aggregate due to a break in the series.
Source: Eurostat, National Statistical Offices, DIW Econ

SME enterprises, employment and value added in Manufacturing by technology intensity, percentage change 2012 - 2014, EU-27



Source: Eurostat, National Statistical Offices, DIW, DIW econ, London Economics



Trend in number of Enterprises Employment and Value added in Knowledge intensive Services by and size class, percentage change 2012 - 214, EU-27

	Enterprises 2012-2014 % change		Employment 2012-2014 % change		Value Added 2012-2014 % change	
	SME	Large	SME	Large	SME	Large
High-tech services	5.0%	3.1%	4.1%	3.3%	3.5%	3.4%
Market services	5.3%	2.8%	3.1%	-5.1%	3.9%	2.2%
Other services	5.0%	4.6%	4.5%	4.0%	4.0%	3.1%
Total KIS services	5.2%	3.0%	3.4%	-2.4%	3.8%	2.9%
Less KIS services	4.9%	4.9%	4.5%	4.7%	4.2%	4.8%
Total services	5.0%	4.3%	4.2%	2.5%	4.1%	4.0%

Source: Eurostat, National Statistical Offices, DIW, DIW econ, London Economics

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