

KYMENLAAKSON AMMATTIKORKEAKOULU

University of Applied Sciences

Masters in International Business Management

Krishna Kumar Regmi

FUTURES OF FINNISH ENTREPRENEURSHIP: A study seeking possible, preferable and probable futures for Finnish entrepreneurship

Master's Thesis 2014

ABSTRACT

KYMENLAAKSON AMMATTIKORKEAKOULU

University of Applied Sciences

Business Management

REGMI, KRISHNA KUMAR

Futures of Finnish Entrepreneurship: A study seeking possible, preferable and probable futures for Finnish entrepreneurship

Master's Thesis

95 pages + 3pages Appendices

Supervisor

Minna Söderqvist, Principal lecturer

Commissioned by

Krishna Kumar Regmi

May 2014

Keywords

Futures Studies, Entrepreneurship, PESTE (Political, Economic, Social, Technological and Environmental), Innovation

This research attempted to contribute in a small way to the discussion/development of Futures and entrepreneurial studies. The study tries to explore, analyze and understand the current situation of Finnish Entrepreneurship and its importance to the Finnish economy at the macro level.

Qualitative research method was applied to ensure the possibility of scanning large-amount of data by using document analysis and interview as the tools. PESTE analysis was devised using the data collected through interview and document analysis. Constructed PESTE analysis and part of interviews were the sources to foresee the changes and trends of Finnish entrepreneurship projecting possibility, preferability and probability of events in Future.

The study provided an insight of Finnish entrepreneurship to foreigners interested in doing business with or in Finland by describing and discussing the drivers of changes that emerged from the PESTE analysis. Furthermore, it provides several ideas that can be capitalised by entrepreneurs into real businesses.

The research indicates a trend towards strong, stable and progressive Finnish politics, economics, society, technology and an environment leading to support entrepreneurship in futures. Finland is in a stage to innovate diversely, which may result in changing attitude towards entrepreneurship. Globalisation as a powerful force of change may have an effect in the economy of Finland resulting in the growth of diverse human capital capable of handling multi-professions.

TABLE OF CONTENTS

ABSTRACT

ABBREVIATIONS	I
1 INTRODUCTION	2
1.1 Research problem	3
1.2 Research objective and limitations	6
1.3 Research question	7
1.4 Structure of thesis	7
1.5 Research time frame	8
2 RESEARCH BACKGROUND	10
3 ENTREPRENEURSHIP AND FINLAND	13
3.1 Entrepreneur and entrepreneurship	13
3.1.1 Dimension of entrepreneurship	14
3.1.2 The history of Finnish entrepreneurship	15
3.1.3 Entrepreneurship at Macro level in Finland	19
3.1.4 Economical policies	26
3.1.5 Finnish business development and support model in a nutshell	29
4 RESEARCH METHODOLOGY AND DESIGN	32
4.1 Introduction to Futures Studies	32
4.2 Methodologies of Futures' research	33
4.2.1 Forecasting and visualization of futures' trends	34
4.2.2 PESTE as a tool for futures visualization	36
4.3 Research outline	38
4.4 Research methodology	39
4.5 Data collection and analysis	41
4.5.1 Interviews	42
4.5.2 PESTE Analysis	44

4.6	Validity and Reliability	46
5	PESTE ANALYSIS OF FINLAND	48
5.1	Political Analysis	48
5.2	Economic Analysis	49
5.3	Socio-culture Analysis	51
5.4	Technological Analysis	53
5.5	Environmental Analysis	54
6	RESEARCH OUTCOMES	57
6.1	Political factors	59
6.1.1	Futures Possibility	60
6.1.2	Futures Preferability	60
6.1.3	Futures Probability	60
6.2	Economic factors	61
6.2.1	Futures Possibilities	62
6.2.2	Futures Preferability	62
6.2.3	Futures Probability	63
6.3	Social factors	63
6.3.1	Futures Possibilities	65
6.3.2	Futures Preferability	65
6.3.3	Futures Probability	66
6.4	Technological Factors	66
6.4.1	Futures Possibilities	68
6.4.2	Futures Preferabilities	68
6.4.3	Futures Probabilities	69
6.5	Environmental Factors	69
6.5.1	Futures Possibilities	71
6.5.2	Futures preferability	71
6.5.3	Futures probability	72
7	THREE POSSIBLE FUTURES SCENARIOS FOR FINNISH ENTREPRENEURSHIP	73
7.1	Scenario 1: Increasing retirement age	73

7.2 Scenario2: Development of unified government offices online	74
7.3 Scenario3: Younger Millionaires	75
8 CONCLUSIONS	76
8.1 Major results and self evaluations	76
8.2 Managerial implications	77
8.3 Political implication	78
8.4 Idea for futures research and development	79
REFERENCES	81
APPENDICES 1-3	90
APPENDICES	
Appendix 1. Interview questions	
Appendix 2. List of Figures and tables	
Appendix 3. Respondents' Code for interview	

ABBREVIATIONS

OECD	Organisation of Economic Co-operation and Development
PESTE	Political, Economical, Social, Technological, Environmental
ETLA	Elinkeinoelämän tutkimuslaitos (Research Institute of Finnish Economy)
EU	European Union
CIA	Central Intelligence Agency
EK	<i>Elinkeinoelämän keskusliitto (Confederation of Finnish Industries)</i>

1 INTRODUCTION

Entrepreneurship is one of the key jobs in the global economy that generates enterprises of various nature and sizes contributing to the economy. It not only creates self-employment but also employment for a group of people and contributes to the economic development of a local region. The role of entrepreneurship for bringing innovative products/service or techniques to market is of great significance. A large number of multinational companies of the world such as Apple Inc., Microsoft, Ford Motors, Asian Paint, Google, Facebook etc. began as an enterprise of an unnoticeable size in their earlier stage of development with a dream of success and support of friends' families and relatives.

Furthermore, not all enterprises, which come to existence, are always successful in terms of higher revenues and greater employability though they contribute to the economy of the region. A great number of enterprises are born and die every year all over the globe. The initial stage need and demand of enterprises are not understood well in some countries whereas awareness of entrepreneurial education and support policies are not introduced to the people at the entry level in some other countries.

In the context of European Union, a larger budget goes for research & development of policies to be used for entrepreneurship, enterprises and their seed funding (European commission, 2012; Innovation union, 2011). The local governments in many European countries (European commission, 2012; Innovation union, 2011) have established innovation centres and government entrepreneurial agencies which guide and support innovative ideas to develop into real business. Despite of utilising utmost resources and doing greater research in policies and support model, European countries are not able to reach the target goal by producing growth enterprises that can contribute to the economy of country at larger scale by producing jobs for greater number of citizens.

The reasons can be any such entrepreneurial education, support model, motivation, creation of attraction for entrepreneurship, development of creative curriculum focused on entrepreneur etc. It is mandatory to assess the entrepreneurial development, its direction, trends and challenges for the forthcoming period. Therefore, to understand how organisations, policies and people are working with trends and how probability and possibility of developing entrepreneurship is growing or devastating. The

preferability of choices can be assessed today which in turn may support to create better futures for every one of us.

Understanding the past and, reassessing the present can deliver insights for futures (Gibson et al, 1999). Thus, the study of future change and trends is important. Accessing futures signals and scenarios in the interest of entrepreneurship may help in developing new methods and tools with suitable alternatives of futures for entrepreneurship.

Entrepreneurship being a major act in any economy is the most neglected subject. The word Entrepreneurship is a fashion in business studies but not really researched in detail. Therefore, researching the field in collaboration with futures studies is important in order to understand futures and create the choices for forth-coming generations and academia as well. This study is an infinitesimal effort towards putting on the flame of new discussion in the field of business and entrepreneurial studies focusing on possible, preferable and probable futures of Finnish entrepreneurship.

1.1 Research problem

This thesis is the research in the field of business studies focusing on entrepreneurship by applying research methodology from the discipline of futures studies in the context of Finnish entrepreneurship. The study is at the macro level and tries to create an overall view of the futures of entrepreneurship in Finland. The idea of this thesis emanated in 2012 while the second swift of economic recession was hurdling global business regime affecting Finnish entrepreneurship. The interest of the researcher of this thesis in futures studies' methodology, his thirst to explore and learn new field of study and testing of methods with a desire to analyse the combination of two different schools of thoughts business and futures studies to foresee futures of Finnish entrepreneurship are the catalysts to originate this study in this form. Figure1 illustrates the factors helping and supporting in the generation of this thesis.

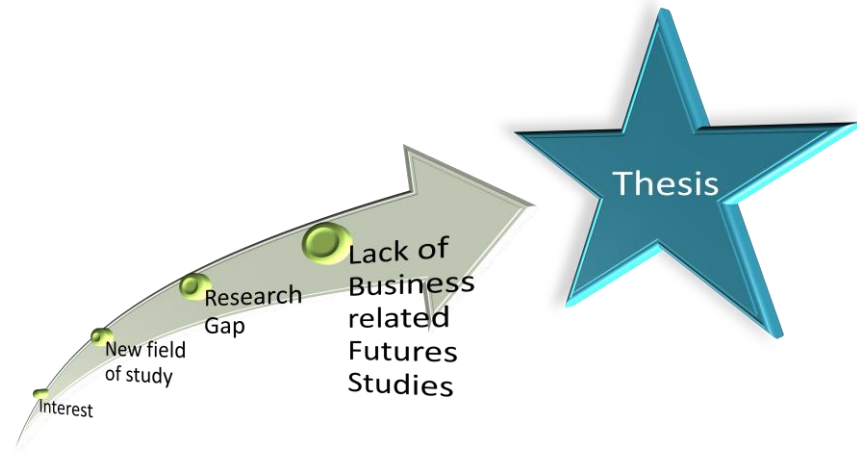


Figure 1: Illustration of the topic choice

The author of this thesis started working on the idea as soon as it was confirmed that this is what he wanted to do and found that there were no such direct research made on the topic. After searching through Google, Universities' theses-databases and the theses database of Finnish Universities of Applied Sciences, the author of this study was able to find some research suggesting possible future challenges and recommendations for Finnish enterprises and they are as follows:

In search of modern times-Finland's digital future, NYKYAIKAA ETSIMÄSSÄ Suomen digitaalinen tulevaisuus (Turkki 2009)

Helsinki-a city of the future (Korpinen, 2007)

Do Incomes Policies in Finland Have a Future? (Korkman, 2007)

Roadmap to Finland's Future Success (Ruokanen, 2004)

How Europe can Stimulate Growth-EK's EU Policy Recommendations up to 2015 (Pukkinen, 2011)

Business in the forefront of the Green Economy (Ruonala, 2010)

Path to Success-Corporate leaders' footsteps to growth (EK, 2010)

Eva's Global Scenarios - Playing fields of the future (EVA and Capful, 2009)

The author of this study found the lack of a complete picture that indicates where and how Finnish entrepreneurship is heading and what the probable, possible and preferable futures are available to Finnish entrepreneurship in the world of academic research. This gap in research was another inspirational factor for the researcher to work on the research topic. Having been focused on this gap of knowledge in the academic field, the researcher tends to supply a new method to fill the research gap in entrepreneurial studies using futures studies' methodology as a research tool in this study.

Being a foreigner living in Finland, the author of this study wanted to learn about the changes that have built Finland a nation to be one of the best places to live in the world. Furthermore, he was interested in finding new ideas to develop his own business and carry out the path of entrepreneurship. Furthermore, the author aimed to produce a piece of study which can help other foreigners like him residing or interested to reside in Finland understand the social, political, economical, technological and environmental factors changing Finland. The study is supposed to provide an additional support for foreigners to understand Finnish entrepreneurship and the factors affecting them.

The topic is very wide, containing a large volume of materials to go through therefore, researcher decided to go through the findings of the organizational research reports in Finnish entrepreneurship and statistics available from governmental sources along with the findings from academic research and literature available in the field of research. The focus of the research is on gaining data for research from the findings of other research that depicts the political, economical, socio-cultural, technological and environmental factors of Finland influencing Finnish entrepreneurship. "Futures researchers make use of research results and findings gained in other fields of science, and make conclusions on what different possible, probable and preferable states of the future there are facing us." (Rubin, 2003).

The study focuses on the entrepreneurship in the context of Finland and tries to deliver probable, possible and preferable futures of Finnish entrepreneurship. The research is conducted in the field of Futures and Entrepreneurship studies and it is an initiation from scratch. It is challenging, risk taking in terms of wider prospects of the field to be studied, and lack of supportive materials and earlier research on the same topic. Be-

sides the challenges there are opportunities that makes the study unique, interesting and contemporary at the realm of global economic down turn providing new insights, perception, anticipation for possibility of overcoming existing problems in Finnish entrepreneurship peeping to futures. Following is the research question of the thesis:

- How do the futures of Finnish Entrepreneurship horizon look like from the perspective of PESTE analysis?

In order to generate ample answers to the research questions some support questions raised in the research background are included in the study. The support questions are as follows:

- Where are Finnish firms heading to?
- What is going wrong except global economy down turn?
- What is lacking in Finnish entrepreneurship sphere?
- How can the visualisation of probability, possibility and preferability for futures of Finnish entrepreneurship be done?
- What are the possible, probable and preferable futures for Finnish entrepreneurship?

1.2 Research objective and limitations

The major objective of this study is to explore, analyze and understand the current situation of Finnish Entrepreneurship and its importance to the Finnish economy by assessing Political, Economical, Social, Technological and Environmental (PESTE) changes and trends in order to visualize the possible, preferable and probable futures of Finnish Entrepreneurship at the macro level. The use of PESTE provides the opportunity to see the research problem from political, economic, social, technological and environmental perspectives. Generation of thoughts for futures needs wider understanding on changes and trends occurring in the PESTE of the research subject. All the factors in PESTE are interconnected in such a way that changes in one-factor affects the other one. Studying PESTE and analysing the changes are a good way to create understanding of the past and present changes that help in suggesting possible futures.

The research seeks for possible, preferable and probable futures of Finnish entrepreneurship. Possible futures means the futures that is possible based on the analysis of the PESTE trends. The futures that people prefer to have for them for their family members and fellow citizens are preferable futures. Probable futures are the events that are more likely to happen based on the PESTE trends rather than possible and preferable. Sometimes, preferability of people is not in the limit of contemporary society and technology and sometimes possibilities have hindrances, which lead to some other possibilities. The occurrence of these series of possibilities gives birth to the probability. In this thesis, futures probability is chosen between futures possibility and futures preferability analysed by the author of the thesis.

This study concentrates on Finnish entrepreneurship concisely and deliberates the use of Futures Studies' method (PESTE) to trace the futures of Finnish entrepreneurship by mainly using document analysis and partially interview as the research tools of qualitative research method (Glenn, 2009). Hence, the study is at the macro level and tries creating an overall view of the futures of entrepreneurship in Finland. Thus, the results of the study are not industry specific but generalized for the bigger economic phenomenon called entrepreneurship.

1.3 Research question

The research question of this thesis is stated in one sentence as follows:

How do the futures of Finnish Entrepreneurship horizon look like from the perspective of PESTE analysis?

1.4 Structure of thesis

Figure2 illustrates the structure of thesis chapter wise starting from introduction as a starting point of the study.

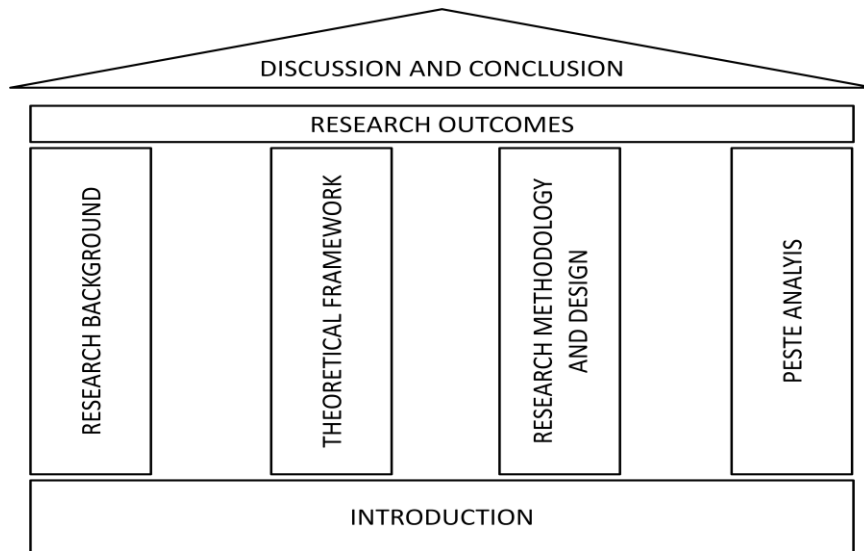


Figure 2: Structure of the thesis

1.5 Research time frame

The research is divided in four sections and they are continuous collection of research material, filtration of materials along with current affairs-news (for PESTE formation) literature review, empirical research and analysis. The researcher of the study started working on the collection of research materials and their filtration from October 2012 continuously until September 2013, literature review started in January 2013, empirical studies were conducted in March, April, May and June 2013 and data analysis of the research was made during same period. Discussion on the research outcomes and writing of conclusions were made in August and October 2013. The final presentation of the thesis was conducted in May 2014. Figure3 represents the illustration of research timeframe with tasks conducted.

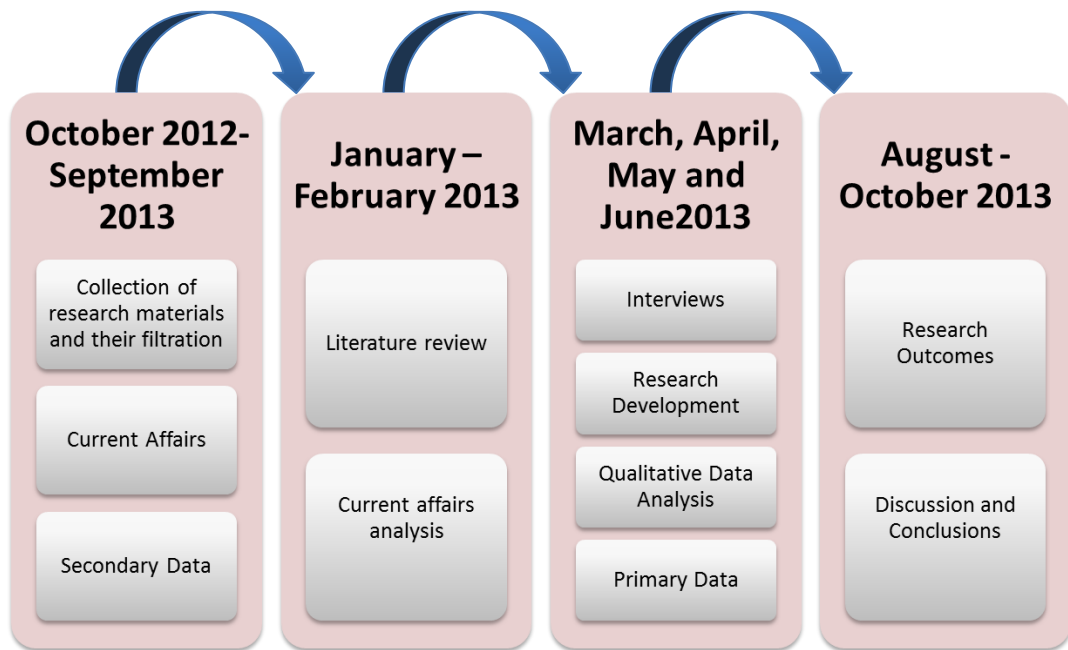


Figure 3: Illustration of research timeframe

2 RESEARCH BACKGROUND

A global economic down turn is the result of such practices that were not anticipated by economics to be harmful to the global economy. Economics were not alone able to forecast the futures of global economy since the leaders of the organizations were guided by the traditional principles of market economics and its development. Anticipation of such a downturn was not expected until the banking crisis of America started to hurdle American economy and slow the global economy in 2008. The leaders of the firms were enjoying prosperity and fortune without having a thought of unexpected scenario of futures of global economy (Garland, 2006).

The practice of anticipation by the leader of firm is rigorous but commonly not applied during the good times, during bad times it is too late to think about it (Godet, 2004). Nokia is a lively example of the lack of anticipation that led it losing its mobile business in the hand of Microsoft Inc. in 2013. During its fortune years Nokia managed well without anticipation and this was the reason that the leaders in Nokia were not able to grab anticipation to peep into futures and apply (Godet, 2004) right strategy to grow the company in right direction of innovation during odd times. Apple and Samsung anticipated the futures demands, trends and change to focus on the product and service development therefore, they led the game of mobile sales leaving Nokia behind.

The above case scenario is a recent history in Finnish entrepreneurship showing that how a lack of anticipation of futures trends and demands can break a business giant into pieces. It is just one of the examples of the devastation of Finnish entrepreneurship during past economic recession. Figure4 indicates some of the events took place in Finnish enterprises.

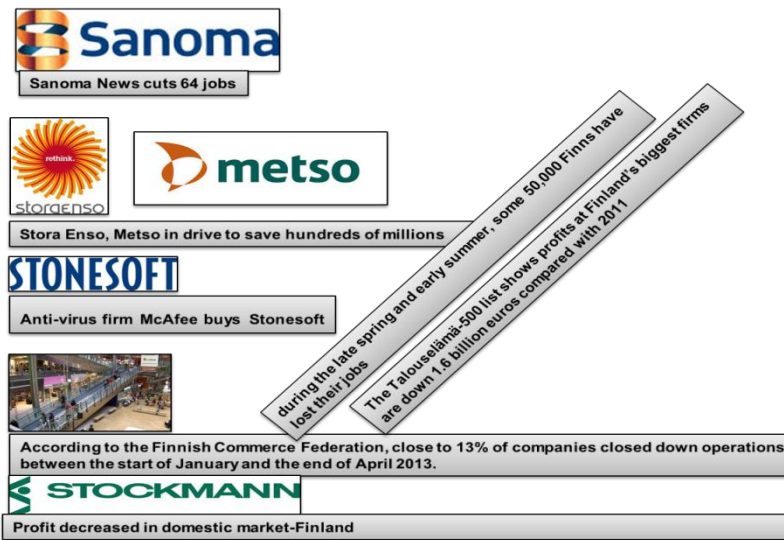


Figure 4: The examples of recent trends in Finnish entrepreneurship in terms of economic activities (source: Yle News)

As mentioned in the Figure4, Finnish firms are on the way to receiving fewer profits in 2012 than in 2011 and redundancies are a developing trend in Finnish entrepreneurship that started after the global crisis of 2008 growing rapidly by 2013. The current financial situation, economic recession, technological development and trend of austerity are the origin of the following unsolved questions:

- Where are Finnish firms heading?

As an answer to this question, this study tries to find the direction Finnish firms are moving. Prosperity, loss, change and emergence of new trends and concepts along with organisational structure can be possible results.

- What is going wrong except global economy down turn? (Social, technological or political cause)

As an answer to this question, this study tries to find if there are some other factors affecting Finnish entrepreneurship except global economic down turn. The other factors can be politics, technology, society and environment.

- What is lacking in Finnish entrepreneurship sphere?

Based on the answers from the above questions the research tries to analyse the lacking factors in Finnish entrepreneurship which can help the entrepreneurship flourish better.

- How can the visualisation of probability, possibility and preferability for futures of Finnish entrepreneurship be done?

This research tries to visualise the probability, possibility and preferability for futures of Finnish entrepreneurship and justifies if it is possible to do.

- What are the possible, probable and preferable futures for Finnish entrepreneurship?

As an answer to this question, the author of this study tries to find possible, probable and preferable futures for Finnish entrepreneurship. It is important to know possibilities in futures. Possibilities suggest what can be done. Preferability suggests what people prefer to be, get and develop into, where-as probability helps in suggesting what is probable between preferability and possibility. In many cases, something is possible but not preferable so preferability prevails and things are to be made based on preferability. One recent example of preferability is that people in Finland prefer to buy cars leaving less carbon footprint since they receive some tax incentive on the purchase of such cars. Based on this preferability, car-manufacturing companies are developing cars that are fuel-efficient and leave lesser carbon footprint.

In order to satisfy the above-mentioned questions with possible answers, this piece of research is conducted as an attempt to raise awareness towards futures studies to foresee the possibility of change in Finnish entrepreneurship and implementation of anticipation during good times in order to avoid bad time for the firms. Furthermore, the study tends to see the overall perspective of entrepreneurship in Finland specifically focusing on social, political, economical and technological developments and trends whereas generally focusing on cultural, environment and views of entrepreneurs.

3 ENTREPRENEURSHIP AND FINLAND

The theoretical framework of this study is constructed by combining two different disciplines: Entrepreneurship and Futures Studies. Both of the disciplines are wide and they cover large topic of the subjects to create an understanding on the aspects of the perspective they deal in social sciences. The theoretical framework delivers broad understanding on the subject matter generally and on the context of the study (Finnish Entrepreneurship and Futures Studies' Methodology) specifically. The sub-chapters are dedicated to the formation of deductive theoretical framework explaining and guiding the use of theory in the research to provide logical constrain to the study.

Furthermore, the development of the framework is based on the overall concept of the study that is overviewed in the Figure below.

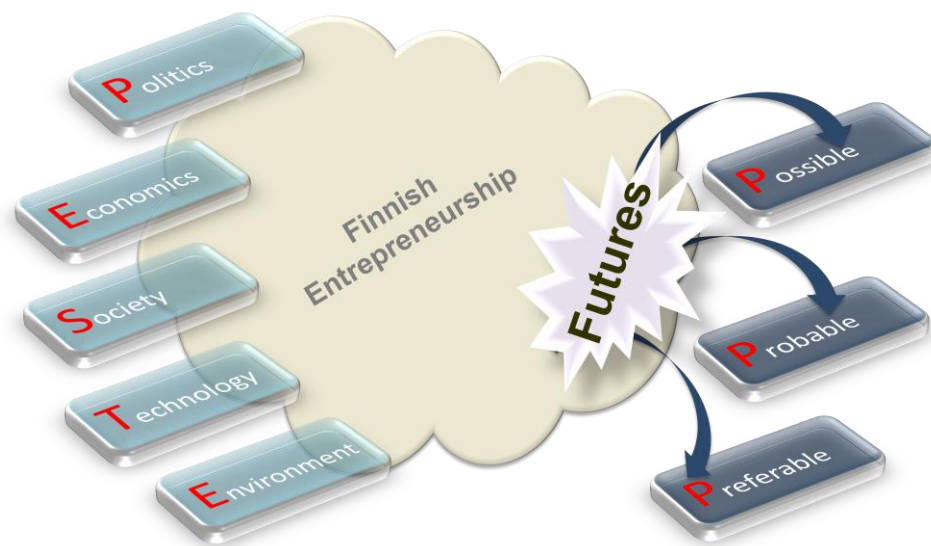


Figure 5: Illustration of the research concept generating theories and outcome

The sub-chapters in this section of the thesis detail and discuss theories on entrepreneurship focusing in Finnish entrepreneurship, Futures Studies and methodologies to be applied in the research.

3.1 Entrepreneur and entrepreneurship

The word entrepreneur is derived from French word '*entrepreneur*' meaning the one who undertakes or manages which originates from the old French '*entreprendre*' meaning "undertake" and used in the meaning of business manager since 1852

(Harper, 2014). The credit of coining the word entrepreneur in the context of entrepreneurship in 1730 goes to Richard Cantillon, the French economist (Ahmad and Seymour, 2006). Entrepreneurs are defined as innovators implementing entrepreneurial change to the market in 5 manifestations: introducing new goods, method of production, opening up new market, utilisation of new channel of supply and improving organisation of business management process into new stage (Schumpeter, 1934). Parston (1998) defines entrepreneurship as managerial behaviour that constantly utilises the opportunities to deliver outcomes beyond one's own capabilities.

In the mid and late ninetieth century, many scholars (Schumpeter, 1934; Parston, 1998 & Thompson, 1999) defined the word entrepreneur and entrepreneurship in the changing business world and dimensions of business along with the role of business leaders. Being a relatively new field of business studies entrepreneurship has been defined in different ways in different context. In this study researcher does not argue on the definition instead supports the development of entrepreneurial literature in order to put forward the matter on the topic for wider discussion.

According to Authers (1998), the new Millennium will see the rise of professionalised entrepreneurs. Authers vision came true in the new Millennium. The need of professional entrepreneurs was felt raising the discussion on the development of professional studies and curriculum in the universities around the world. It was the start of new era of professionals equipped with tools to be entrepreneurs and take entrepreneurship in to a rise in the field of business and social sciences.

Furthermore, Thompson (1999) says that entrepreneurs are the people making difference in their actions, entrepreneurship is all about targeting and utilizing the opportunities, entrepreneurs have skills to add value, entrepreneurs obtain the needed resources to gain from opportunity, they know to whom, how to and where to network, they are capital creator, innovator and creative thinker of their field.

3.1.1 Dimension of entrepreneurship

Entrepreneurs exist everywhere and in every field (Thompson, 1999). The world's most successful entrepreneurs did not originate only from business fields but they originated from their field of profession to start entrepreneurship. Software engineers,

doctors, physiotherapist, sports man, social worker, college dropouts, teachers etc. are some of the examples of professions generating entrepreneurs and entrepreneurship.

Likewise, the roots of entrepreneurship proliferate deeply and invisibly to every sector of human existence that can sprout out with new ideas and creativity if gets suitable environment for it. The entrepreneurship can be seen as a tree in holistic form spreading from the bottom of knowledge to the sky of capitals. Figure6 below shows the holistic view of entrepreneurship with its dimension.

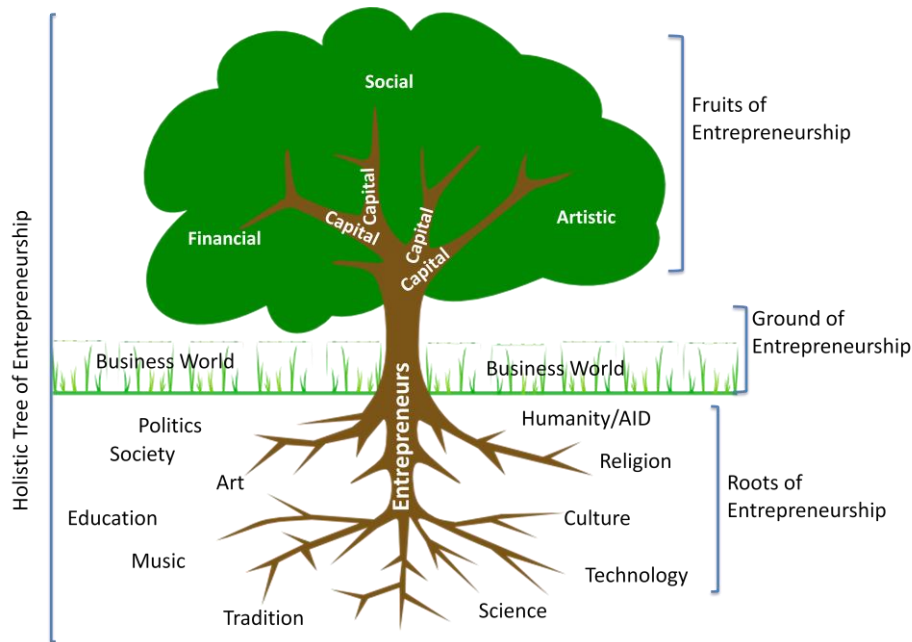


Figure 6: The holistic view of entrepreneurship with its dimensions

Hence, based on a holistic view there are three major dimensions of the entrepreneurship from its origin perspective: disciplines of knowledge (roots), entrepreneurial activities (business world) and results of entrepreneurial activities (financial, social and artistic capitals) (Thompson, 1999).

3.1.2 The history of Finnish entrepreneurship

The history of Finnish entrepreneurship starts with the agricultural era of Finnish economy when fur farming, timers and tar were the major source of income. The later development of entrepreneurial activities is connected to the industrialization in Finland that started when Swedish iron ore were processed in 17th century in South-Western Finland (Hjerppe, 2010). The development of tar burning, sawmill, and fur trading started bringing cash to Finland with abilities for people to buy few imported

items such as salt, coffee, sugar, wines and fine clothes (Hjerppe, 2010). The small towns in the coastal areas were the hub of initial entrepreneurs in Finland who were engaged in shipping of the import and export items. Shipping of tar and timber brought cash in order to invest into new industrial plants in Finland. Thus, the beginning of entrepreneurship in Finland was in the periphery of the industrial raw materials development and processing and their export.

The beginning of the nineteenth century brought industrialization to Finland. The establishment of modern cotton factories was in 1830s, first machine shops, steam machines in cotton factories and rag paper machine were brought in use in the 1840s. The use of first steam sawmill were made in 1860 only. The opening of rail travel in 1862 in Finland supported transportation of goods and traffic during the industrialization. Electricity and telecommunication made its way to the industries in early 1880s but the everyday use of the technology was not made possible yet (Hjerppe, 2010).

The Finnish exports of material (timber and engineering products) were already saw its way to Russia in 1840s and British markets were open to the products of small Finnish saw mills in 1860s. This was the time when entrepreneurship and entrepreneurial activities were the grown without being labelled as they are today. In 1860s/70s, the export industry was one fifth of the total Finnish GDP. The economic development made during 1870s through export established Finland as an open economy. It was 1870s when pulp and paper based wood fibers turned into major export of Finland to Russian market. Finland was able to satisfy one-third Russian paper demand.

According to Hjerppe (2010), investment rate of in Finnish economy was 10 percent of the total GDP with low labour productivities compared to the leading nations from 1860 to 1913. The revolution of 1917 devastated Finnish trade with Russia and Finnish economy was almost at halt since 60 percent of the grains needed in Finland were imported. During the interwar years, Finnish timbers made its way to all over the markets because of post war reconstruction. Land reform of 1918 helped establishing new farms and with the help of tariff protection and other policy the production of domestic grains was raised to 80-90 percent of the consumption by 1939 (Hjerppe, 2010).

The end of World War I brought Finnish industries into function finding pulp and paper their way to old and new markets in the Western hemisphere. During this time other growing industries through entrepreneurs were mining, basic metal industries

and machine production. The operation of these emerging business and industries was in domestic market. The major export of Finnish product was based on the wood and sawmill during this time. (Hjerppe, 2010)

Post-war development

After World War II Finland started its economic recovery with shocking consequences, i.e. full tenth of Finnish territory was annexed to Russia. Finland had to find shelters and supports for 400,000 evacuees from Karelia region. Despite of the harsh time and heavy reparations to the Soviet Union Finnish enterprise turned into industries were hopeful and decided to pull together the nation out of the crisis. The war reparations were easily made because of domestic demand in shipbuilding during interwar and delivery of arms for war. The support of timber export towards West was a big relief for the economy. Modernization of productive capacities and other reforms in the industry helped in booming the Finnish economy gradually (Hjerppe, 2010).

The political visioning and policy development towards trade liberalization helped Finland by joining the World Bank, the International Monetary Fund (IMF) and The Bretton Woods agreement (first international monetary cooperation agreement among the industrial nations in the world) in 1948. The membership of General Agreement on Tariffs and Trade (GATT), Finnefta (The agreement between the European Free Trade Area (EFTA) and Finland) in 1961 were the major development helping industries flourish in Finland. The start of bilateral trade agreements with Soviet Union started in 1947 (Hjerppe 2010).

A wider improvement from policy level was made in international business, education and society attracting foreign entrepreneurs starting business in Finland. The government began to invest actively in industries and development of machinery, ships, elevators, mining, paper products were focus. Agricultural development led to overproduction of food and several product groups the first limitation on agricultural production in the end of 1960s since government subsidized dumping of several agricultural product groups in international markets. Social and health care systems were developed gradually and parallelly with education system by following Nordic welfare model between 1940s-70s (Hjerppe, 2010).

After 1970 to 2013

Slower growth was seen in Finnish economy from 1970s onward because of growing competition in paper industry and development of technologies replacing the use of paper. The development of electronics from Nokia and other manufacturers was new sign of economic progress through research and development in new industries. A study by Toivanen (2009) suggests that Finland grew in research and development leaving a new image of innovator in the world. Innovations of mobile technology, environmental, nuclear and industrial innovations were among the most cashed through export

The significant affect of rising Asian and Latin American countries in paper and textile industry has threatened Finnish paper and textile industry. Cheap labour in international market has decreased the competitiveness of Finnish product in some sector. Finnish woods grow slower in comparison than faster growing woods in other developing nation that creates an impact on the Finnish paper industry's competitiveness. Globalization has changed the scenario of the economies in the world. Participations of foreign investment groups in Finnish companies have grown significantly after 1990s. Eighty percent of the stocks of Finnish public companies are now in foreign hands and the growth of foreign own business is rapid. (Hjerppe, 2010). Growing export towards Russia makes the largest trading partner of Finland followed by Sweden and Germany today.

According to Hjerppe (2010), slowing growth of the Finnish economy is surrounded by the challenges today and the challenges are listed below:

- Low investment rate
- Sluggish European economy
- Costly Nordic welfare system causing the increase in taxation
- Aging population
- Multiculturalism with new players toward the economy
- Leading public sector participation in the economy
- Decreasing number of entrepreneurs and enterprises

3.1.3 Entrepreneurship at Macro level in Finland

There were no recent research found regarding the clarification of Finnish entrepreneurship at macro level in Finland therefore, this study analyzed recent data available on Finnish enterprises from Statistics, Finland published in November 2012 as a reference to create an overview of entrepreneurship at macro level in Finland. The data were available in tabular form with the help of spreadsheet software (MS-Excel). Based on the data available the construction of graphical charts and their thorough analysis are done by the researcher to develop a realistic theory, thereafter, to support the development of this research.

Enterprises in Finland 2011

At the macro level, there were total 322,232 enterprises operating in Finland in 2011 according to the Business Register of Statistics Finland. These enterprises employed 1,486,000 persons as wage or salary earners or entrepreneurs and generated EUR 385.2 billion in turnover. The Figure8 shows the distribution of number of enterprises based on the industry. The Figure8 is formulated based on the information available in the Statistics Finland's Business Registry published in 2012. The data illustrates the macro situation of Finnish firms at the end of 2011. As per the illustration in the Figure7, Agriculture, Forestry and Fishing industry has the highest number of enterprises operating in 2011 and the number was 56170. The second highest number of enterprises were operated in Wholesale and retail

trade, repair of motor vehicles and motorcycles industry representing 45,221 firms. Construction industry had 41,366 firms operating in Finland making it the third largest industry of operating in Finnish economy by size. Likewise, Professional, scientific and technical activities industry with 33,149 operating firms stood fourth rank based on the number of highest operating enterprises. Thereafter, transport and storage industry being fifth largest had 22,400; Manufacturing (sixth largest) with 21,656, Human health and social work activities (seventh largest) with 18,332; Real state

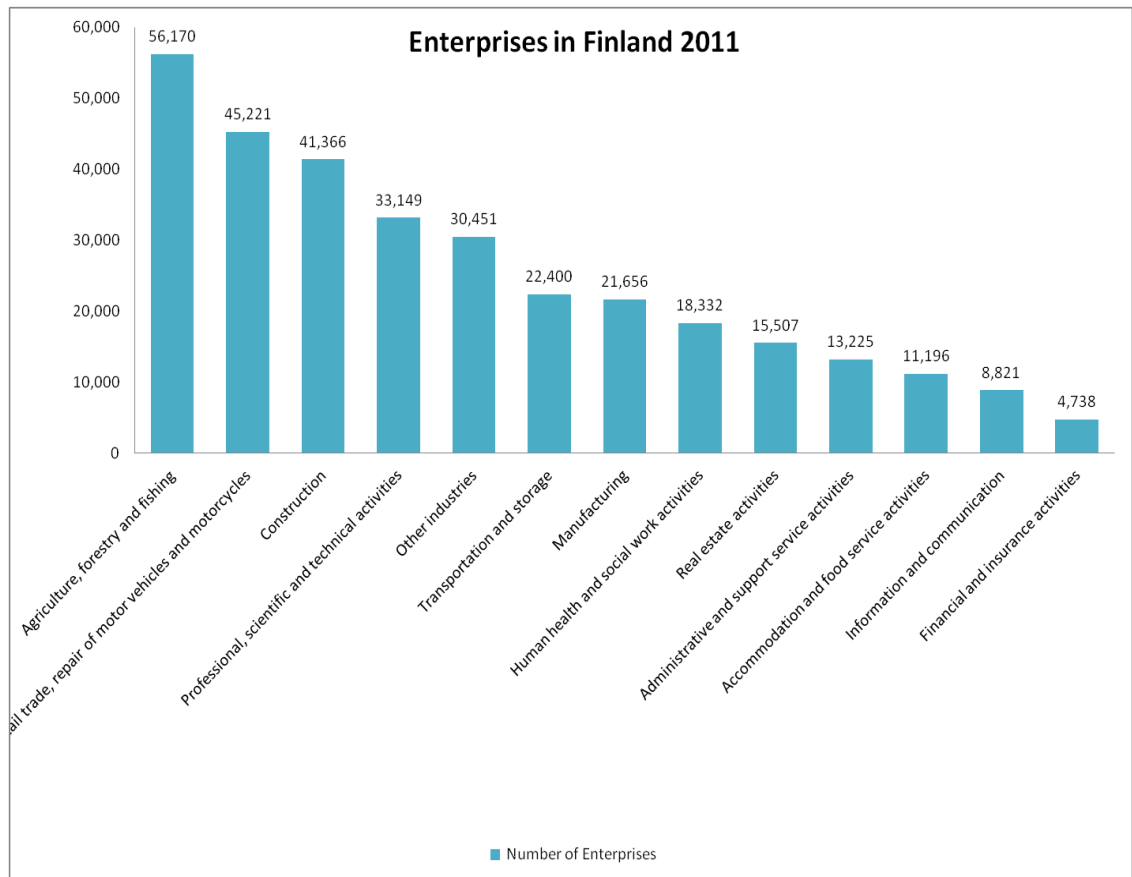


Figure 7: Enterprises in Finland based on type of industries (Data Source: Statistics Finland, 2012)

activities (eight largest) with 15,507; Administrative and support service activities (ninth largest) having 13,225; Accommodation and food service activities with (tenth largest) 11,196; Information and communication having (eleventh largest) 8,821; Financial and insurance activities with (twelfth largest) 4,735 operating firms of Finnish entrepreneurship regime. The other industries means the industries that are operating in relatively small size but combined together make a largest group of firms with outstanding numbers of 30,451 claiming to become the fifth if included in the ranking done by researcher based on Figure 1.

Types of enterprises based on personnels employed 2011

Finnish enterprises are divided into four categories based on the personnels they have. The enterprises are categorised as follows:

- Micro enterprises (0–9 employees)
- Small enterprises (10–49 employees)

- Medium sized enterprises (50–249 employees)
- Large enterprises (250–499)
- Large enterprises (500– 500+ employees)

The Figure8 represents the distribution of types of Finnish enterprises with their num-

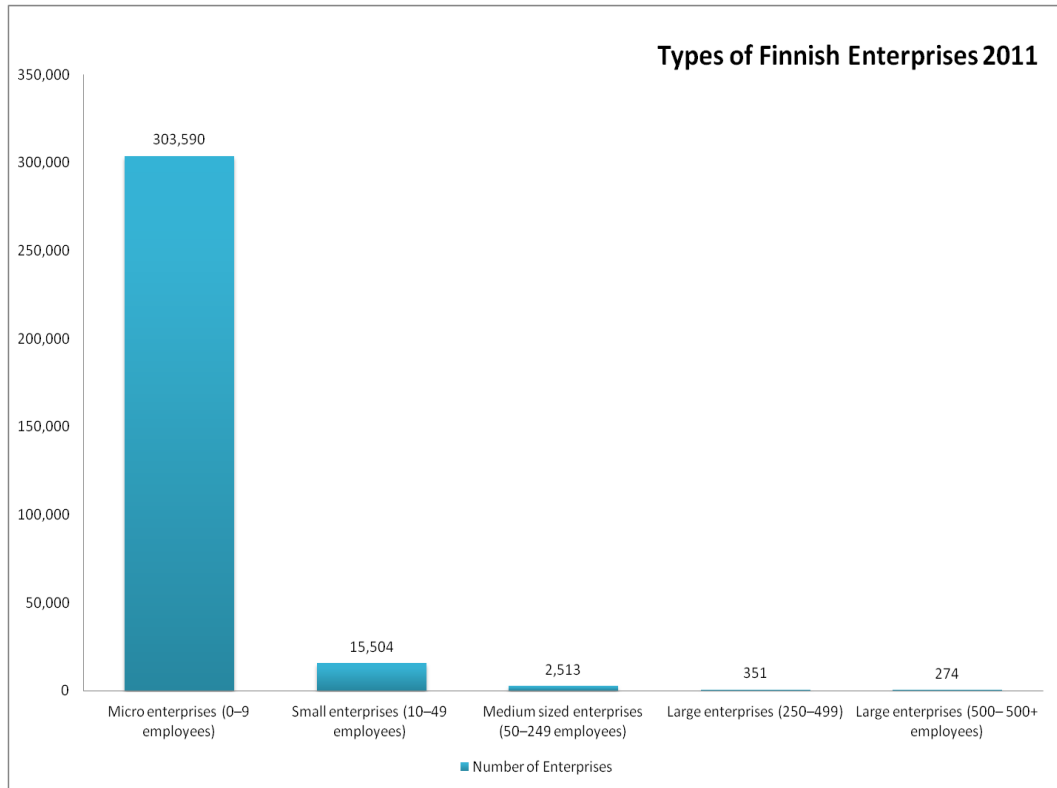


Figure 8:Types of Finnish Enterprise (Data Source: Statistics Finland 2012)

bers in each category. Based on the Figure9 there were 303,590 micro enterprises in Finland employing 0-9 employees in each unit in 2011. The number of small enterprises was 15,504 employing 10-49 employees in each unit, the number of large enterprises employing 250-499 employees was 351 and the number of large enterprises employing 500 and more employees was 274. The statistics shows that Finnish enterprises have the majority of micro enterprises, small enterprises stands for second place in number, the third is obtained by medium sized enterprise and fourth and fifth respectively by large enterprises employing 250-499 and 500-500+ employees.

Employability by industry in 2011

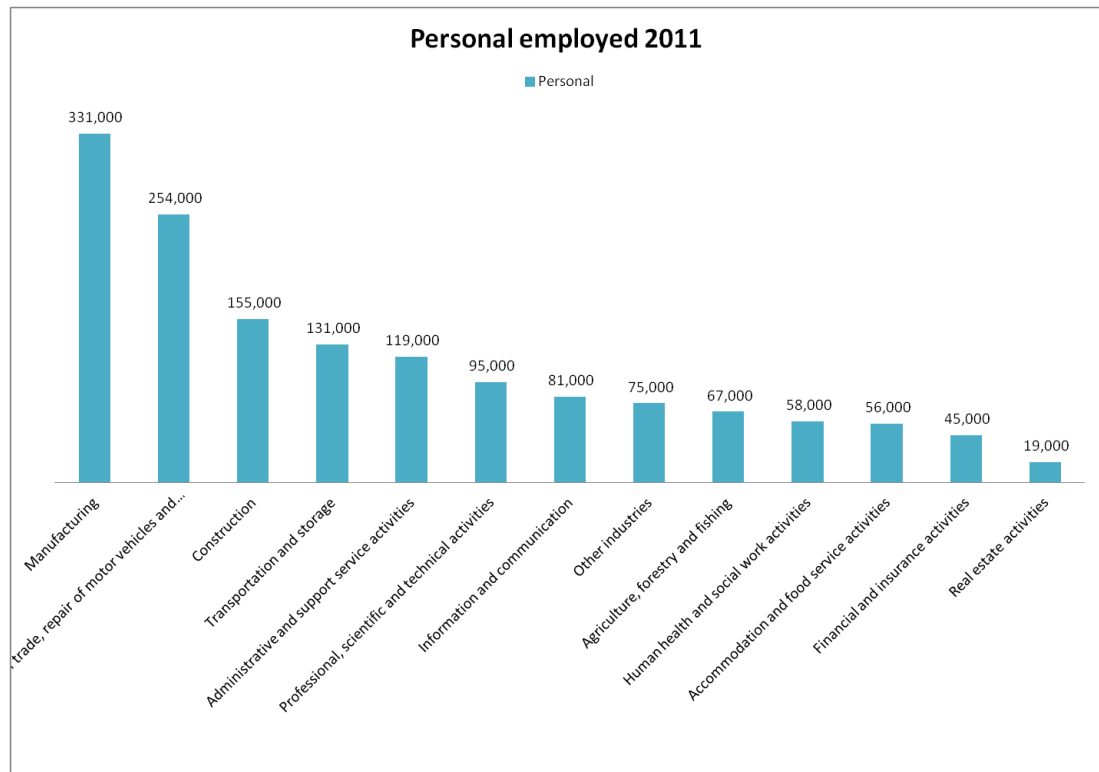


Figure 9: Size of employability in Finnish industries 2011 (Data source: Statistics Finland)

Figure 9 shows the employability in Finnish industries in 2011 by industries based on the data from the Business Register of Statistics Finland. According to Figure 9, Manufacturing industries have the largest employability in 2011 having employed 331,000 personnel. The second largest employability was seen in Wholesale and retail trade, repair of motor vehicles and motorcycles having employed 254,000 personnel. Construction industry was the third largest employer with having 155,000 personnel. Likewise, transport and storage was the fourth largest employer with 131,000 personnel. Administrative and support service activities was the fifth largest employer with 119,000 personnel. Professional Scientific and technical activities was the sixth biggest employer with employing 95,000 personnel and Information and communication industry employed 81,000 employees and ranked as seventh biggest employer.

Agriculture forestry and fishing industry employed 67,000 personnel and ranked 8th in employability provider whereas Human health and Social work activities industry stood ninth biggest employer having employed 58,000 personnel. Accommodation

and food service activities as an industry employed 56,000 people and stood as 10th biggest employer of year 2011. Finance and insurance activities industry employed 45,000 personnel and stood 11th in the employability ranking whereas Real estate activities employed 19,000 personnel being ranked 12th in this study based on the data available from Statistics, Finland, 2011.

Other industries is the combinations of different miscellaneous industries if ranked in the study based on employability stands 8th biggest employer among Finnish industries having employed 75,000 personnel.

Illustration of turnover of Finnish industries in 2011

Based on the data available from Business register, Statistics, Finland in the mid of 2013 the total turnover generated by Finnish industries in the year 2011 was 385.2 billion Euros. The distribution of the turnover generated is illustrated in Figure 10. Based on Figure 10, the largest turnover was made by manufacturing industry having 131,958 € mil. The 2nd in the row was Wholesale and retail trade, repairs of motor vehicles and motorcycle industry having turnover of 124,459 € mil. Construction stood 3rd highest earner having turnover of 26,436 € mil and transport and storage was the 4th highest earner of turnover having 22,586€ mil. Information and communication industry was

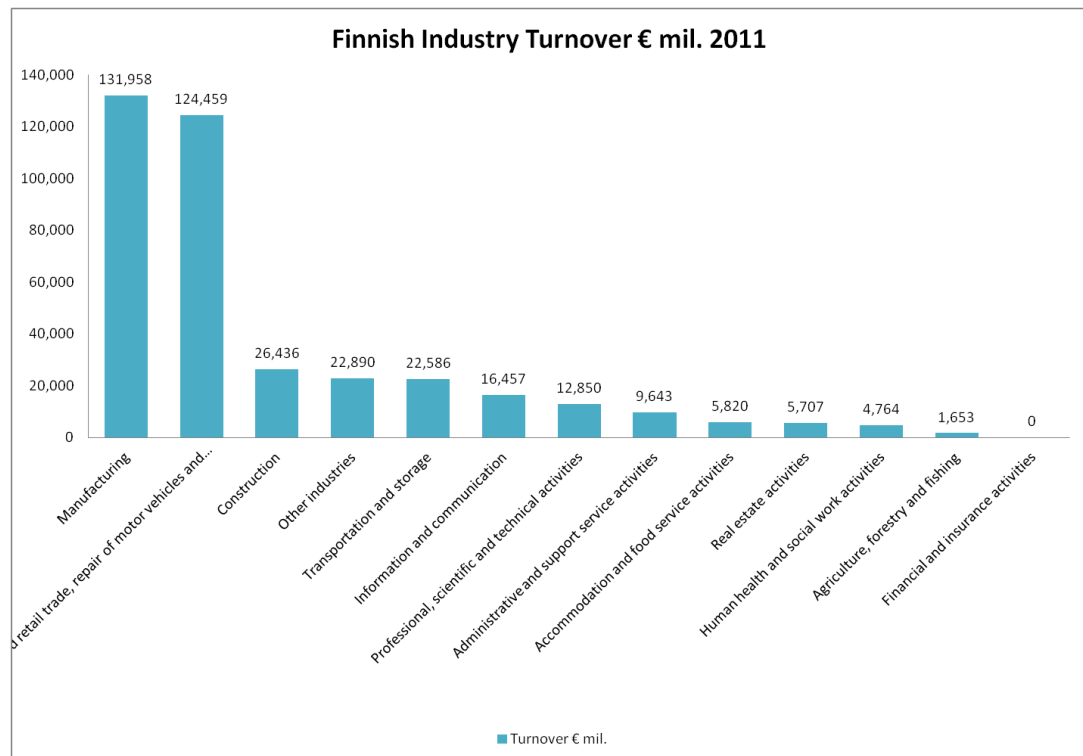


Figure 10: Turnover of Finnish industries in 2011 (Data Source: Statistics Finland, 2012)

the 5th biggest industry based on turnover amounted to 16,457€ mil.

Professional, scientific and technical activities industry was the 6th in ranking having turnover of 12,850€ mil. Administrative and support service activities industry was the 7th highest earner of turnover having 9,643€ mil. Accommodation and food service industry brought 8th highest turnover having 5,820€ mil. Real estate industry had turnover of 5,707€ mil and was the 9th largest industry. Human health and social work activities was in 10th position based on turnover of 4,764 € mil and financial and insurance activities turnover was not disclosed in the data available from Statistics Finland therefore, the turnover of the industry is unknown to this research.

Other industries had turnover of 22, 890€ mil in comparison with other industry it is the third biggest earner of turnover in 2011. This study has not compared other industries with rest of the industry of the study; therefore, it is not included in the ranking of earner in the study.

Comparison between the size of industries and employability 2011

The comparison of number of industries and the employability they offer is illustrated in Figure the11. Based on the illustration having the largest number business entities

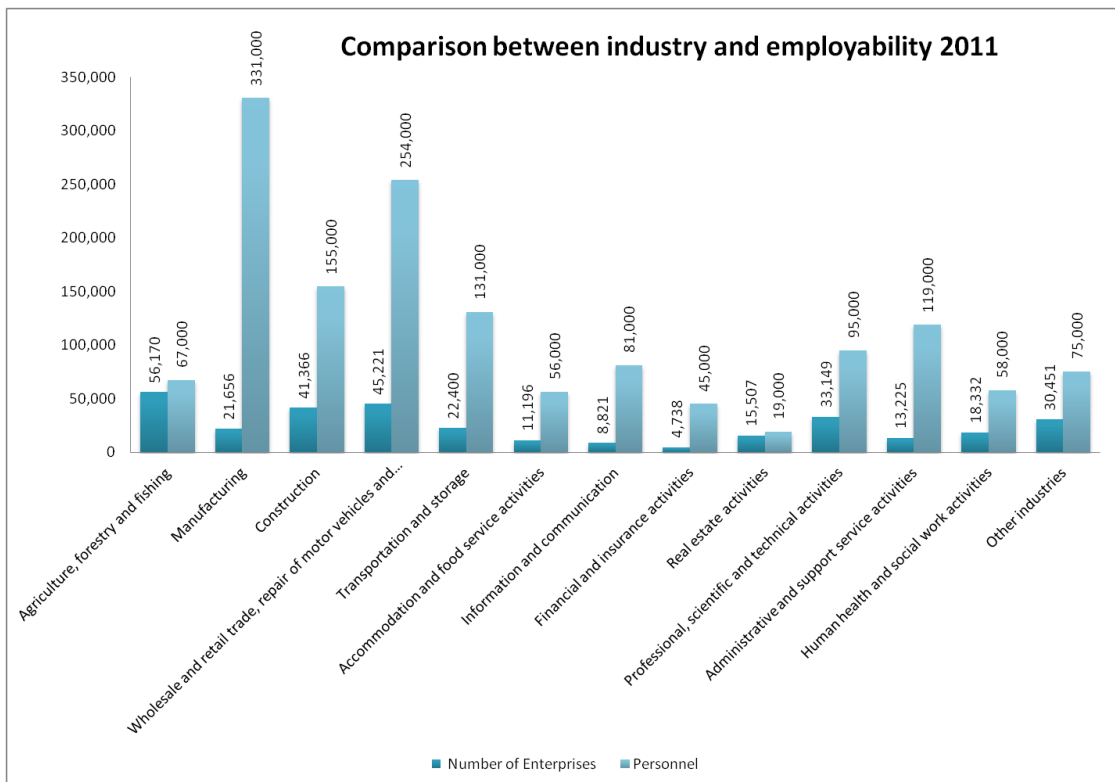


Figure 11: Comparison between industries and their employability 2011 (Data Source: Statistics Finland, 2012)

Agriculture, forestry and fishing industry offered the 3rd least number of jobs in Finland in 2011. The numbers of enterprises were 56,170 and the number of people employed was 67,000. From the ratio of number of enterprises and number of employees it is clear that the industry has higher number of micro enterprises having a significant number of self-employed entrepreneurs and enterprises employing 0-9 employees.

The second highest number of enterprises were operated in Wholesale and retail trade, repair of motor vehicles and motorcycles industry representing 45,221 firms and it was the second highest employment provider in 2011 by employing 254,000 personnel. Construction industry had 41,366 firms operating in Finland making it the third largest industry and the third largest employer with having 155,000 personnel. Professional, scientific and technical activities industry with was 4th on the basis of 33,149 operating firms but it was the sixth biggest employer in terms of employability and employed 95,000 personnel. Transport and storage industry being fifth largest by the numbers of firms (22,400) was the fourth largest employer with 131,000 personnel employed. Manufacturing industry (sixth largest) with 21,656 firms and first biggest employer employing 331,000 personnel.

Human health and social work activities (seventh largest) with 18,332 operating firms and the ninth biggest employer having employed 58,000 personnel; Real state activities (eight largest) with 15,507 operating firms and twelveth largest in terms of employability having employed 19,000 personnel. Administrative and support service activities was the ninth largest industry having 13,225 operating firms and fifth largest employer with 119,000 personnel. Accommodation and food service activities was tenth largest industry having 11,196 operating firms and the tenth biggest employer employing 56,000 people. Information and communication was the eleventh largest industry having 8,821 operating firms and the seventh biggest employer employing 81,000 employees. Financial and insurance activities was the twelveth largest industry with 4,735 operating firms and the eleventh biggest employer employing 45,000 personnel. The 'other industries' mentioned in Figure 5 means the industries that are operating in relatively small size but combined together make a largest group of firms with outstanding numbers of 30,451 firms claiming to become the fifth if included in the ranking done by researcher. The 'other industries' was the 8th biggest employer among Finnish industries having employed 75,000 personnel.

Finland in the facts book of CIA 2012, Finland is ranked the 56th biggest economy in the world with the GDP (Purchasing power parity) \$200.7 billion (2012 est.). The population of Finland is 5,266,114 (July 2013 est.) being ranked the 116th biggest nation based on population in the world.

The distribution of economic sectors in the GDP contribution is stated as follows:

- Contribution of Agriculture in GDP 2.8% (est.)
- Contribution of Industry in GDP 27.1% (est.)
- Contribution of Service in GDP 70.1% (est.)
- Unemployment rate 7.8 (2012 est.)

After analyzing and comparing, the above facts and the statistics it is clear that competitiveness of Finnish economy is highly dependent on service industry. Despite of being relatively small country by population size, Finnish economy is standing 56th biggest economy in the world based on GDP (purchasing power parity) because of the industrialization and policy support for innovation.

3.1.4 Economical policies

The realisation of innovation being the centre of economic growth was the key factor bringing change in economic policy of Finland since 1950 (Toivanen, 2009). The economic policy of Finland along with other Nordic nations has been improving and changing since then. According to Toivanen (2009), innovation generates and rely both on externalities. Generation and dependency of innovation along with market failure are the factors of consideration serving public sector actions for financing innovation (Toivanen, 2009). Toivanen (2009) further mentions that the policies used for supporting and developing innovation-based economy is named as innovation and research policies. According to Mowery (as cited in Toivanen, 2009) the roots of such policies are in the past connected to the policies formulated after World Wars which aspired the significance of existence and led space in EU's Lisbon strategy. Government support and subsidy is one of the significant factors in the development of innovation triggering entrepreneurship (Nevo, 1998).

Innovation and its management was another key issues bothering key policies makers in 1990s. The recession of 1990s was a triggering factor that led the development of SMEs (small and medium sized enterprises) from policy point of view. The committee

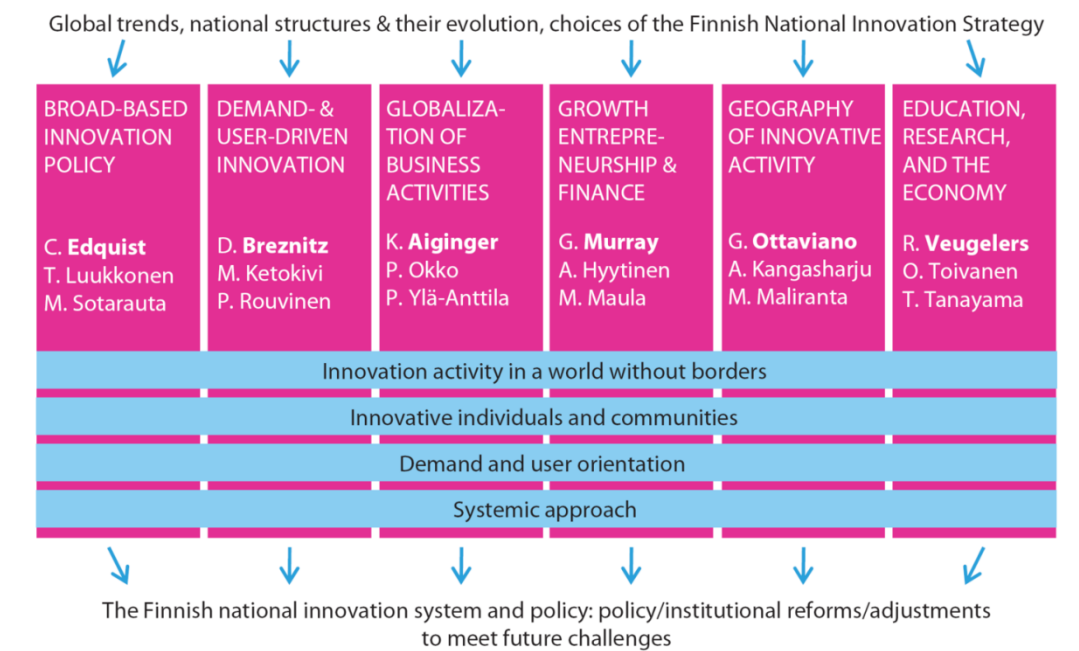
set to advice Ministry of Trade and Industry in 1996 recommended the simplification of administrative procedures, favourable taxation, control on labour costs, governmental and institution funding for starts up and budding firms and services to ensure helping in the development of business of the firms (Arenius, 2009). The idea of the policy was to increase the number of firms and support growing ones with the belief to increase jobs in the country. According to Routamaa (2004, as cited in Arenius, 2009), Finnish policies fostering industries and SMEs were not directed towards entrepreneurship but focused on SMEs. The policies for entrepreneurship are not just directed in creating firms but in fostering the idea of firms' origin, its start up with continue supports and networks for its early support along with post start up supports (Stevenson & Lundström, 2007)

However, it was not easy to foster entrepreneurship during 1990s but the development and overall focus towards SMEs brought the innovation driven country to foster industries with innovation policies resulting further studies in the field. The determination of government towards creating thousands of jobs between 2007-2011 based innovative firms and starts up was another ambitious project directed and financed by contemporary Prime Minister Matti Vanhanen (Arenius, 2009). During his second term, the policy programme was named Work, Entrepreneurship and Work life focusing on the areas directly affecting entrepreneurship (Arenius, 2009). The areas were status of high potential entrepreneurship, growth motivation, administrative obstacles, taxation, entrepreneurial education and trainings (Arenius, 2009).

The studies from Toivanen, (2009); Heinonen & Hytti (2008); Arenius (2009), suggests entrepreneurship is not the first choice of the skilled graduates in Finland, therefore, the awareness of entrepreneurship, government policies, support systems and education regarding attitude towards entrepreneurship is needed to foster entrepreneurship in Finland.

Exploring the present suggests that in few years of time Finland has implemented a number of measures fostering and harnessing the fruits of entrepreneurship utilizing the policies of innovation towards gathering entrepreneurs with ideas to work on for the development of business with some ratio of success. The change on policy and the results of its implementation was studied in a report (Evaluation of Finnish national innovation system, 2009) commissioned by Ministry of Economy and Employment.

According to the study, implementation of innovation system is effective. Despite of having good reputation regarding education in the world Finland is not able to produce a significant number of quality research and researchers to support innovation and innovation driven economy as per the European framework. The suggestions from the studies are seen to be taken into consideration with new policies generating new education funding models and restructuring of University of Applied Sciences in Finland. The overview of the subjective approach of the study and its actors along with researcher included are illustrated in the Figure12.



Source: Veugelers, Aiginger, Breznitz, Edquist, Murray, Ottaviano, Hyytinen, Kangasharju, Ketokivi, Luukkonen, Maliranta, Maula, Okko, Rouvinen, Sotarauta, Tanayama, Toivanen, Ylä-Anttila. 28 Oct. 2009. **Evaluation of the Finnish National Innovation System – Policy Report**. Taloustieto Oy.

Figure 12: Structure and concepts of the Evaluation study on Finnish Innovation System, 2009

After the wave of the global recession of 2008, the growing trends of layoffs, threats of firms' bankruptcies and saturation of innovation of giant firms pressurised the policy makers to think of new ways towards innovation and its supports. The implementation of suggestions and recommendation are on their way to meet new challenges created by the wave of economic wild card (European economic recession blurred by global economic recession). It is in the future to see how futures are made to suit the demand and supply of creation of innovation, commercialisation and support for entrepreneurial development in order to enhance Finnish economic growth.

Based on above information and sources, the economic policy for the development, growth and support of entrepreneurship in Finland is founded on the following key issues (Veugelers et. al., 2009):

- Promoting Innovation driven entrepreneurship
- Broad based Innovation
- Globalisation of Finnish business activities
- Management and Support of entrepreneurship
- Education, Research and Economy supporting innovation
- Distribution of innovation and economic activities
- Constant reform and development of process related entrepreneurship
- Enterprise Financing and growth enterprise financing

Changing paradigm of silos of business and development is being broken down in Finland by a new implemented model of business and development coined as ‘Team Finland’. It promotes Finland and its interests abroad. The interests are Finland’s external economic relations, the internationalization of Finnish enterprises, investments in Finland and the country brand (Team Finland, 2014). Team Finland network consists of three Ministries namely “the Ministry of Employment and the Economy, the Ministry for Foreign Affairs and the Ministry of Education and Culture together with publicly funded bodies and Finnish offices abroad (including Finland’s diplomatic missions, the offices of Finpro and Tekes, and national culture and science institutes), all operating under the ministries’ guidance.” (Team Finland, 2014) It is established, having potential to help developing countries benefit from business and trade by enhancing Finnish economic interests (Vehnämäki, 2013). The development from economical and political paradigm seems promising with pressure to move Finland towards innovation based entrepreneurship.

3.1.5 Finnish business development and support model in a nutshell

The key issues mentioned in the sub-chapter 3.1.4 are the skeleton of Finnish business model, which is originally based on the innovation having a paradigm shift focusing towards “Broad based innovation” (Edquist, Luukkonen and Sotarauta, 2009). Government support for the development of business towards innovation through research and development are seen effective since they promote firms investment and interest in innovative research, product and service development (Veugelers, Toivanen and

Tanayama, 2009). According to Osbourne (2009), the significance of readily available information of support and development procedures and process by government is predominant for firms. Osbourne (2009) further explains that firms that are more successful and business are the factor for leading economy towards new job creation and financial development. Government policy makers and social science researchers have equally accepted the roles of innovation and technology development (Fagerberg & Verspagen, 2009) towards evolution of business models and support systems.

Furthermore, Yrkkö (2005) states that the social benefit and return of R&D are of greater importance than private benefit for return. The interest and involvement of public sector in almost all industrial countries is towards influencing and promoting technological change utilizing different sorts of funding instruments for the firms and business in the form of loans for R&D, subsidies, labs, research cooperation with public entities etc (Yrkkö, 2005). Finnish business development model has made a shift from quantity towards quality. The concept of increasing the number of firms has changed in to the concept of increasing growth firms (Autio et al, 2007).

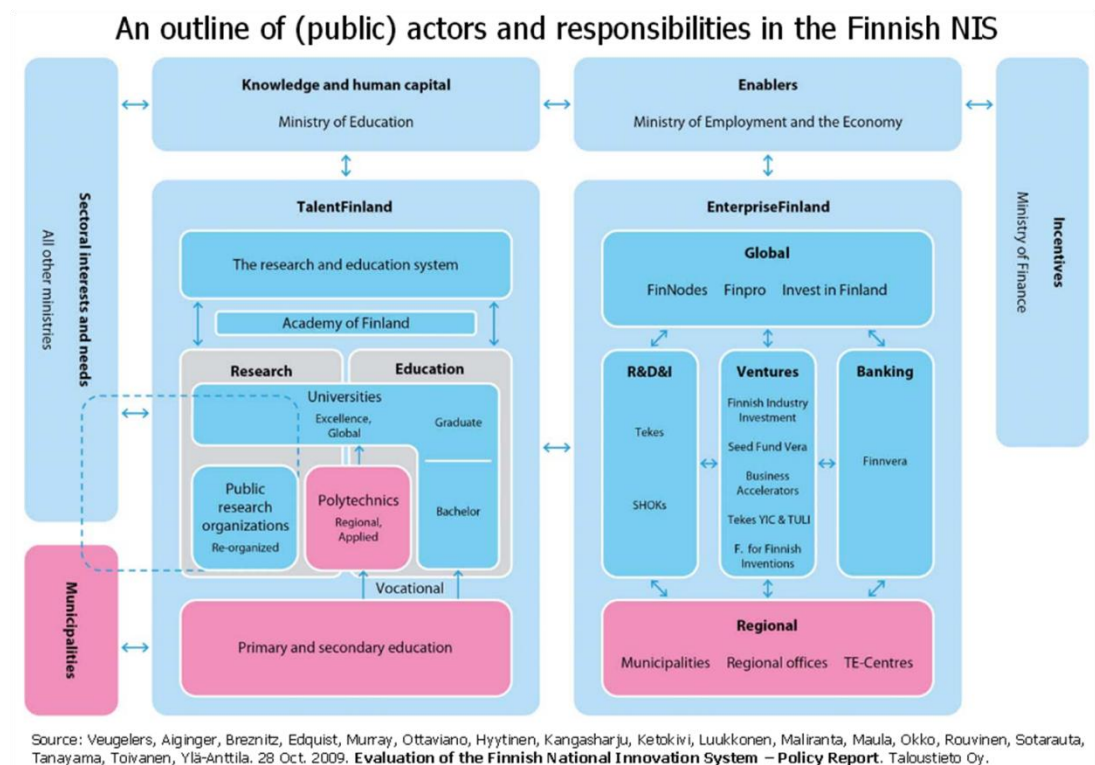


Figure 13: Actors for national innovation system supporting business development and support (Source: Evaluation of the Finnish National Innovation System – Policy Report. Taloustieto Oy, 2009)

The Finnish public support and development for firms' growth and innovativeness is based on growth entrepreneurship. It is participative having many aspects. The firms

are not only supported financial but also with the knowledge and know how needed to grow, therefore, a cluster of academic organisation, cities, public institutions, funding agents, organisation and ministries as directives, influencers, catalysts and observer form an overview of Finnish business development and support model. The overview of the support model for Finnish firms is illustrated in Figure13. As shown in Figure13, the model is widely open and firms have right to request support from any of the organisations in the clusters as per their requirement and innovation demand. An assessment of request is always made before the decision of support and its type is granted to the firms. The model also supports in the development of a vast network between, academia, research & development, firms, responsible governmental organisation nationally and internationally focusing the aspects of internationalization for the firms and their needs for promotion of their business in an open economy.

Concerning the information in Figure13, the Finnish national innovation system is a combination of three ministries (Education, Employment & Economy and Finance) are working together with their subordinate organisations to support, develop and manage innovation and innovative firms for their birth, growth and internationalisation. Major distribution of responsibilities to the subordinate organisations is done on based on knowledge & human (Talent Finland) capital and administration (Enterprise Finland) (Veugelers et. al., 2009). Talent Finland is responsible to innovate knowledge and human capital by the means of research based education. Whereas Enterprises Finland focuses on practicalities of businesses, stakeholders, R&D&I funding, networking, administrating etc in order to support overall demand and need for innovation of firms in different industries.

Hence, innovation driven society and education needs to be future oriented, thus the need of trying to discover the possible, probable and preferable futures for innovation is very important for entrepreneurs and policy makers. The probability of events, possibility of invention and preferability of achievement and development are the strong drivers to innovate in futures i.e. innovating for futures. Is trying to know the possibility of growth with preferability of developing Finnish entrepreneurship possible? If yes, Up to what extent and how? Exploration of these questions is probably available through Futures Studies. Therefore, understanding Futures Studies what it is and what not is very essential.

4 RESEARCH METHODOLOGY AND DESIGN

4.1 Introduction to Futures Studies

Future studies is not about predicting the future, it is all about a simple method of collecting the data & information, further analysing them with the image of future in vision and retelling the analysed vision (Garland, 2006). According to Wendell (1997), Futures Studies is about analysing and accessing alternative futures. Wendell (1997) further states that being plural; future cannot be predicted whereas it can be visioned in ideas, alternatives and possibilities. Futures Studies are the studies of change and opportunities, not a single event but the trends of events and possibilities of their occurrence helping in recognising possible opportunities. The knowledge of futures discipline has possibilities of changing events and probability of influencing the possibilities allowing harnessing the preferability in the realm of future that is unknown, unexpected and unpredictable.

Furthermore, the notion of future and the idea of shaping it with all efforts human beings have evolved the motivation for Futures Studies. Determination of future is out of human reach since “the forces of nature, social and political dynamics, scientific discovery, and technological innovation” determine it (Glenn, 2009, 1). With all evolving human capacities, it is possible to make choices to have probability to shape future based on the preferences of the society (Glenn, 2009). According to Wendell (1997), Futures studies are theories of knowledge suitable for knowing the past and present in order to make warned assertions regarding possible and probable futures events.

The technological advancement and innovations have changed human life and social dimensions from time to time. Rapid growth in technological trends is influencing every aspect of our lives from society, politics, business and education to everything. The world has moved from hard data (paper document) to soft data (digitalization). The change and trends of change are changing the way we have lived and the way we are living. It is sure that we are going to see a lot more changes in the future and the changes are unknown. Futures Studies cannot help society in controlling the future but surely, influencing the course of history and making the effort considering the balance between what society wants, what is possible and worthwhile (Glenn, 2009).

Futures Studies is a discipline developing for a course of time by the contribution of scholars and thinkers of the discipline all over the world. It is not just a single discipline but also a combination of other disciplines (Glenn, 2007). As mentioned earlier studying futures means researching about potential change. It is not “simply economic projections or sociological analysis or technological forecasting, but a multi-disciplinary examination of change in all major areas of life to find the interacting dynamics that are creating the next age” (Glenn, 2007).

4.2 Methodologies of Futures’ research

Being a multi-disciplinary subject, the theories of Futures Studies derives from all the other major school of knowledge (Dator, 2002). The theories and tools of Futures research are collected, tested and analysed for a longer period by different scholars in time and regions. Economics, Social Sciences, Language, History, Geography, Sociology and Anthropology, Information Technology and Communication, Sciences, Biotechnology etc are the sources of knowledge, theories and methods for Futures Studies (Glenn, 2009; Wendell, 1997; Dator, 2002). Thus, the methods of Futures research derive from diverse sources of disciplines contenting the methodology rich since Futures research utilizes information from all the disciplines of knowledge (Glenn, 2009). According to Malaska (1993), the foundation of Futures’ empirical knowledge comes from all the sciences but the base for any other science is the only that domain of the particular science.

Futures research is aimed to “help inform perceptions, alternatives and choices about the future” (Amara, 1996:646). In the West, the discipline of Futures was first used in the development of innovation and understanding social and sociological change to forecast the futures trends in 1930s. After the World Wars, it was used in the development of military industry and warfare during 1950s-60s (Lang, 2011). Today, the use of Futures research has spread out to everyone and almost in every field of development. This diversity of use has helped the discipline in developing a range of methodologies to be utilized for its research and there is “a whole genre of research methodologies which assist us to plan for the future.” today (Lang, 2011)

In the realm of Futures Studies, the researchers differentiate between normative and exploratory forecasting. Normative researches are based on norms and/or values whereas exploratory researches are based on possibilities and looks for the answer of

statements such as what possible is regardless of what preferable is (Glenn, 2009). There are methods that are used for both purposes normative and exploratory forecasting and the tools used in Futures Studies are “often flexible and adaptable to specific purposes” (Glenn, 2009, 9). Therefore, the implementation of Futures methodology can be applied ‘with client’ or ‘for client’. There are not strict rules on this regard; a futurist is independent to decide on the use of methodologies based on the requirement of participation of the client or other stakeholders in the research (Glenn, 2009). Some futurists consider the participation of stakeholders is a significant since the future being researched is directly connected to stakeholders. Hence, stakeholders can influence to understand problem and appropriate solutions better if involved in the research (Glenn, 2009).

4.2.1 Forecasting and visualization of futures’ trends

“Forecast is a probabilistic statement that does not imply that you believe that forecasted event will occur” (Glenn, 2009, 11). Examples of forecast are weather forecast, economic forecast, population forecast, trend forecast etc. Forecast needs to be valid which is based on solid facts and proven analytical techniques. Such a forecast bears credible information and may help decision makers and other associates while making decisions (Vanston, 2003). Forecast is the final facts structuring towards future in a research of futures. It is used as a tool and/or method depending on the researchers’ need, research field and the nature of using forecast.

According to Vanston (2003), forecasting can be categorised based on the way it is used for visualising the future.

- Extrapolation
- Pattern analysis
- Goal analysis
- Counter puncture
- Intuition

Extrapolation generates forecast to visualise future by representing a logical extension of the past events. The process of extrapolation includes exploration and identification of the past trends using different techniques such as trend extrapolation (Vanston, 1998), fisher-pry substitution analysis (Porter et al, 1991) and Gompertz substitution analysis (Porter et al, 1991). Trend extrapolation is used for trend analysis whereas

fisher-pry substitution analysis and Gompertz substitution analysis are used for monitoring and analysing the greater technological changes and trends that have huge impact on the future and help in generating new trends to be followed in future (Vanston, 2003). Extrapolation helps finding that how and in what way the future is being shaped and what the possible challenges and opportunities are to be utilising from the change happening. The analysis of such trends in logical way with appropriate reasoning generates forecast, which may be applied in exploiting the opportunities that are hidden in the lap of future.

Pattern analysis is about analysing past experiences to project future possibilities. It is believed by the pattern analyst that the past replicates in future (Vanston, 2003). The concept of time is cyclic (repetition of events and ages) in pattern analysis. The events and happening in the past are factors that changes over time in colours, size, manners, and nature along with the changing society therefore, tracking past and analysing uniformity in the changes can trigger the clues of future. Scanning, monitoring and tracking, alternate scenarios, cross impact analysis are the techniques and tools used in pattern analysis (Vaston, 2009).

Goal analysis is done based on the beliefs and actions of individuals, organisations and institutions (Vanston, 2003). It is believed that future is formed collectively, and all the forces working to build and manage society have equal impact in forming future. Impact analysis, content analysis, stakeholder analysis and patent analysis are the tools used in goal analysis process to visualise and forecast future (Vanston, 2003). The different tools are capable of filtering data originating from different sources targeting and featuring the possibilities in future.

Counter puncher analysis is based on a series of events and actions, which are considered unpredictable and random. This method observes and explores the reciprocal nature of human society emphasising on the facts that the results of actions, events and derivatives are generally opposite to the expectation and intention. The development of technical and social environment is made in counter puncher analysis with a high degree of resilience to plan any future venture or actions. Counter analysis is very useful for forecasting challenges and opportunities of future in unpredictable environment (Vanston, 2003).

Intuition is the process that generates forecast relating to shape future using a multi-faceted fusion of inevitable dynamic forces, unsystematic events, and decisions and actions of key figures of the society, politics and organisations. The practitioners of intuition believe that there are no reasonable methods and tools, which can exactly and appropriately postulates the future. According to intuition practitioners, the largely collected data processed by the subconscious section of mind can result in providing relevant information to shape future. The studies have shown that the practitioners of this tool have magical forecasting capabilities. Delphi surveys, nominal group analysis, structured and unstructured interview are the techniques and methods used in intuition (Vanston, 2003).

The above-mentioned tools are used in business in order to track consumer, product and market trends therefore, the institutions and business can benefit best to innovate in new product and service development targeting new market and consumer trends. The tools and techniques are used for policymaking, understanding role and impact of socio-economic environment, action and plan in future.

Forecasting is the widely used techniques in determining the probability and possibility of events in future. It can be effective in terms of providing insights in future if used implementing correct methods and tools by the practitioner.

4.2.2 PESTE as a tool for futures visualization

PESTE analysis is known as Environmental Analysis in Futures Studies (Glenn, 2009). It is widely used in understanding the five aspects of society i.e. politics, environment, socio-culture, technology and environment (Auvinen, Tuominen and Ahlqvist, 2012) to determine forces and trends bringing changes (Morrison, 1992). According to Brown and Weiner (1985), environmental scanning (PESTE) is academic radar that scans the world systematically to signal the new, significant, insignificant, possible etc.

PESTE analysis is an analysis of politics, economics, society, technology and environment of a place of organisation and its governance. PESTE has different variations and one of them is PESTEE where additional 'E' stands for ethical issues in the society, business and governance of a place or an organisation (Thompson & Martin, 2010). Ethical issues are scanned when someone wants to analyse ethical issues in the

society for developing a better understanding on the values of the society. The values of society such as ethics, norms, culture etc. are scanned under the society heading in PESTE as well where the scanning of society as whole is done. PESTE is defined according to Coates (1985), it is possible to detect scientific, technical, economic social, political and environmental trends and events significant to the subject of the study using PESTE. Coates further explains that identifying potential threats and opportunities are highly possible with environmental scanning and the use of this tool helps in better understanding the weak and strong signal for future change. PESTE analysis is devised to scan macro environment of the research subject based on five different aspects. Every aspect of PESTE is wide and contains a variety of information. It is advisable that focus on scanning has to be predetermined by the researcher therefore; relevant data for the research can be scanned. Using PESTE and other data collection tools, vision building is conducted which in turn helps in describing and detecting futures being based on the analysis of factors driving changes (Auvinen, Tuominen and Ahlqvist, 2012).

According to Glenn (2009), Futures studies provide freedom for choosing the methods and its combination for the researcher based on demand and requirement of the re-

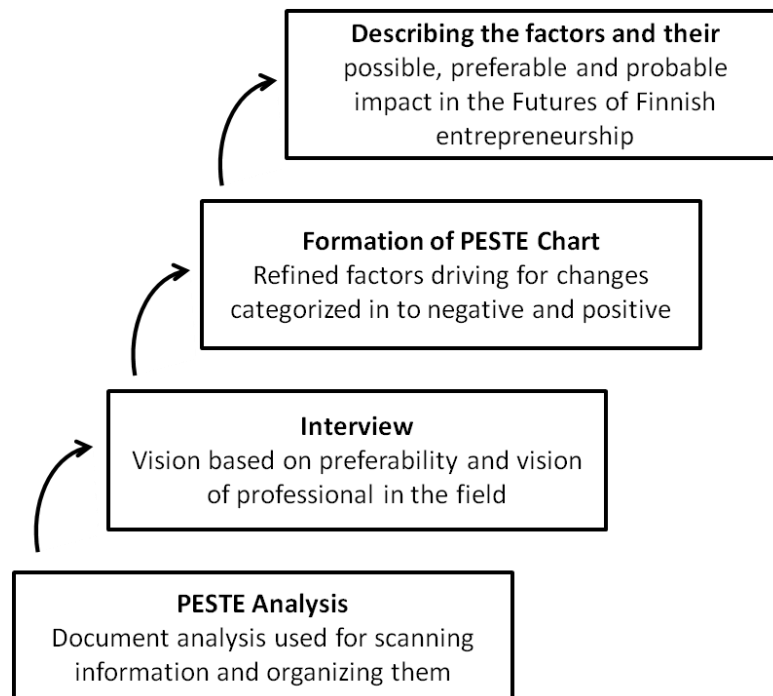


Figure 14: Processes used for visualisation of Futures of Finnish entrepreneurship (Adapted from Auvinen, Tuominen and Ahlqvist, 2012)

search subject and problem. In this research, PESTE analysis is combined with interviews to explore, identify and understand visions for futures. The study tried to visualise possible, preferable and probable futures of Finnish entrepreneurship with the help of refined factors supporting changes in Finnish business and industries. The process of building vision was based on the negative and positive factors of changes. Figure 14 portrays the process of visualisation of futures of Finnish entrepreneurship applied in this research.

4.3 Research outline

Concentration of research outline is on two major factors of the study i.e. literature and qualitative data collection (document analysis of the research in Finnish entrepreneurship, secondary data from other governmental and international organizations statistics, reports, analysis and interviews of 5 Finnish entrepreneurs). Using explorative research approach of futures research methodology PESTE will be applied to cluster the data censored and filtrated after rigorous document analysis. The illustration of research outline is presented in Figure 15.

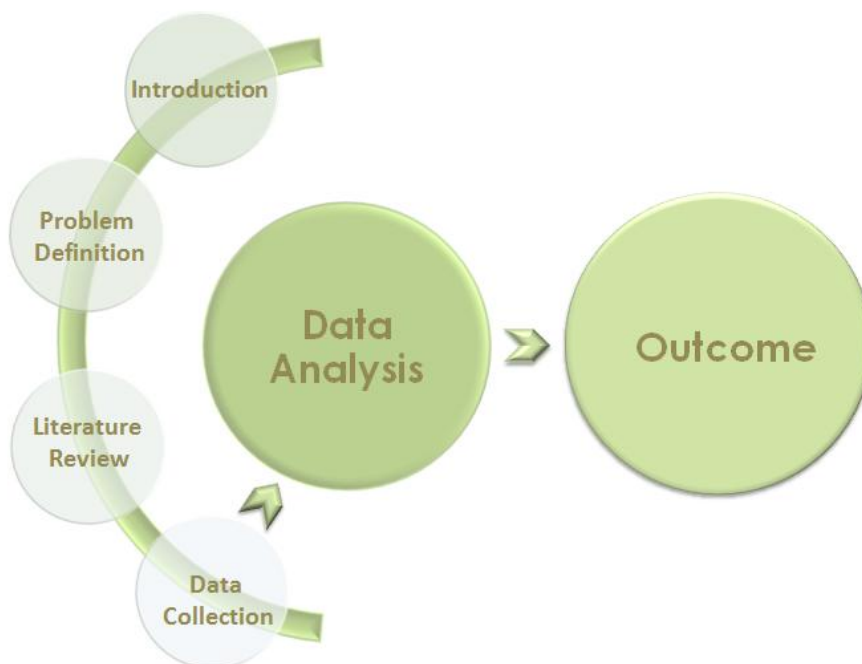


Figure 15: Outline of the thesis

4.4 Research methodology

With regard to the aim of this thesis, the foremost deliberation is concerted on exploring, analyzing and understanding the current situation of Finnish Entrepreneurship and its importance to the Finnish economy by assessing Political, Economics, Social, Technological and Environmental (PESTE) changes and trends in order to visualize the possible, preferable and probable futures of Finnish Entrepreneurship at macro level.

In regard with the research problem of this study, the research question enquires, ‘What does the futures of Finnish Entrepreneurship horizon look like from the perspective of PESTE analysis?’ Having research question as a focal point of this thesis development of interview questions was done in order to visualise the preferability of Finnish entrepreneurs regarding the Futures of Finnish entrepreneurship based on political, socio-cultural, technological and environmental factors.

According to Zina O’ Lary (2004), research is seldom linear; therefore, concentrating on research question during the course of the research provides a pathway for researcher to move forward in the right direction. Having Zina’s critical approach of research questions the researcher focused to devise interview questions being founded on the main research questions that in turn helped the research to be directive and productive. PESTE analysis was wider scanning of the environment of Finnish entrepreneurship that helped understanding changing forces and possible direction of changed in the study field.

The findings of the study are analysed out of the collected data on (PESTE) political, economics, socio-culture and technological factors driving to influence Finnish entrepreneurship. The collection of data for the creation of PESTE analysis was mustered by scanning various secondary sources such as news, articles, analysis and reports, statistics, national and international governmental and non-governmental organisations’ reports and interviews with five Finnish entrepreneurs. Furthermore, each element of PESTE (Political, Economical, Social, Technological and Environmental) are individually analysed based on scanned factors. Futures’ possibilities, preferabilities and probabilities are projected for the individual elements of PESTE analysis.

The subject of the research is connected to two different thoughts of schools i.e. entrepreneurship studies and Futures studies and aims to project the futures of Finnish entrepreneurship. The combination of school of thoughts and the topic of the study make this study unique of its kind. Selecting a method and its tools to be used simultaneously for both of the disciplines (Entrepreneurship and Futures) was not easy task. After reading and analysing different research and approaches used in these two different fields of studies researcher of this study decided to use qualitative research methods with interviews and document analysis as tools for data collection. PESTE analysis a method (qualitative analysis) used in Futures Studies (Glenn, 2009) was implemented to project the futures based on the collected data.

The data collected through interview were also supported the formation of PESTE and contributed directly to qualitative analysis from entrepreneurship perspective, which was later used for projecting the preferable futures of Finnish entrepreneurship in this study. Figure16 illustrates and further explains the research methodology of this thesis.

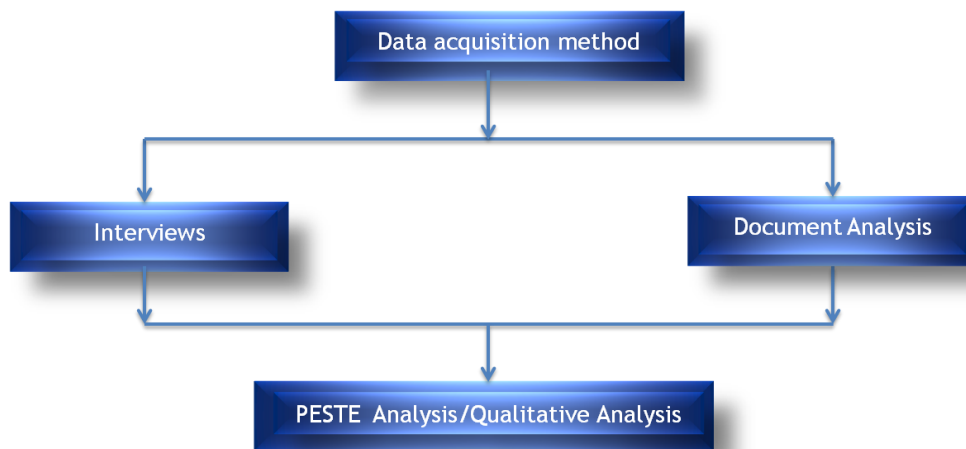


Figure 16: Research Methodology Design (adapted from Zina O' Lary 2004; Glenn 2009)

As depicted in Figure16, qualitative method is the centre research method in this study delivering to qualitative analysis. Interview as a method of data collection for qualitative analysis involves oral-verbal stimuli and response as a reaction for oral-verbal enquires (Kothari, 2004) which was the beneficial attribute of interview as a qualitative data collection method for this study. The use of the method provided study with rich

and content full data in short period of time from experienced professional of entrepreneurship field. Interview was effective to hold the weak signals of intuition (Vas-ton, 1998) of the professional in order to reflect towards the vision of futures' prefer-ability.

Among the variety of interview types such as (phone, email, face to face, group etc.), the researcher of this study choose to conduct face to face interviews since it enables a unique insights to the prejudice (Aktinson and Silverman, 1997) and helps in under-standing the perception of interviewees better (Rapley, 2002). Personal Interviews conducted in a smaller sample size are able to produce more useful information than a huge collection of samples using other methods of data collection (Floyd J. Flower, Jr., 2001). Qualitative data collected from interview is of higher significance in terms of human perception, believe, experience, activities and attributes (Williman, 2004). Hence, interview is one of the best tools to gather data to explore and identify strong image and weak thought of events presume by individual mind.

According to (Jackson, 2013), the use of PESTE results in the dynamism of the re-search providing with rich data related to external environment of the case and/or problem that can guide analysis of the collected data towards the projection of futures. The trends and development of events in political, economical, socio-cultural and technological field of a country drives the states towards futures and the changes. Thus, analysis and scanning of PESTE has possibilities providing insight for probable, possible and preferable futures. The use of PESTE in this study was of great signifi-cant in terms of understanding bigger picture of Finnish PESTE situation and trends emerging in different fields leading to changes. PESTE contributed in collecting, sort-ing and analysing collected data set in this thesis.

4.5 Data collection and analysis

Implementation of Futures' method allows the research to utilize the findings of major researches made in the field of Finnish entrepreneurship by OECD, ETLA European commissions, World Bank, Ministry of Economy and Labour, Finland, Federation of Finnish Enterprises and Journals of academic articles as empirical data for this re-search. Part of empirical data consists of the interviews, which are opinions, experi-ences, knowledge and personal analysis of the respondents in the field of study that can have influence of time and personal experiences of the respondent. Therefore,

gathered data using interviews, if contains false information may affect the quality of data.

Conceptualisation of research problem made it a lot easier for researcher to choose on data collection tools. Interviews were used for the collection of individual expression, experience, knowledge, attitude and intuition of the professional Finnish entrepreneurs in order to compare and contrast the data collection through document analysis. Data collected through these two tools of qualitative methods were integrated to PESTE to see a macro picture of problem and the factors affecting the problem.

4.5.1 Interviews

Researcher of this study completed all the 5 interviews in five days by conducting one interview each day. The interviews were conducted in March, April, May and June 2013. The transcribing of the data tape was made on the day of the interview in order to capture the possible message and intention of the interviewees expressed (facial expression and body language and discussion before and after the interview) during the interviews.

Interview questions were prepared focusing on the research problem of the study and open-ended questions were used to enquire the intuition and desirability of five entrepreneurs in Finland. Interview questions were pilot tested with one of the researchers in business field and a student of business studies. After having comment on broadness on questions, the researcher redesigned the questions for final interview. Pilot test was helpful and provided insights and presumption of answers with helping to know whether the set of design questions were able to draw out the answers expected. The author used additional questions during interviews in order to collect more information regarding the research problem.

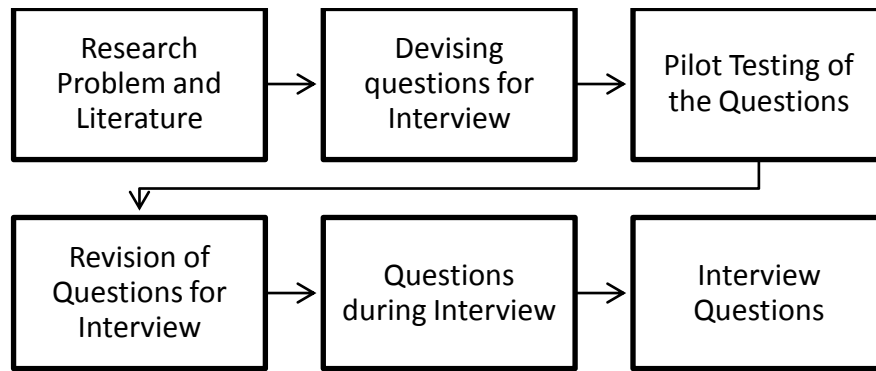


Figure 17: Illustration of the process involved in the development of interview questions

Table 1 shows the details of interview scheduled for the research. All the respondents were informed regarding the subject matter of the interview, cause of conducting it and schedules of the interviews over the phone communication.

Table 1: Description of respondents with schedule and duration of the interview

Code [R]	Respondents Domain	Brief Description	Date of the interviews	Duration of the interviews
R1	Entrepreneur	Operating export business	30.03.2013	40 minutes
R2	Entrepreneur	Service Industry	27.04.2013	42 minutes
R3	Entrepreneur	Food and Service Industry	14.05.2013	35 minutes
R4	Entrepreneur	Retail Industry	25.05.2013	50 minutes
R5	Entrepreneur	IT Consultancy	01.06.2013	30minutes
[R]=Respondent				

recorded interviews were transcribed and further analysed using word processing software (Microsoft Word) in computer. The researcher focused to gather insight and intuition of the entrepreneurs regarding the change and trends of futures thorough out the analysis. Analysis of interview was done focusing on research problem to extract

the useful data by embedding the filtered data in a tabular form. The ultimate analysis of interviews was used in the study to explore futures of Finnish entrepreneurship. Figure 18 shows one piece of data analysed by researcher of this study from the transcript of interviews.

	Remarks
1. How long have you been in business and how long would you like to work?	
R1: 10 years (...) still enjoying business perhaps I will work as longer as I can manage to work	Attitude towards work
<i>What do you think about working longer even in old age?</i>	
In my opinion, it is nice to work longer if some likes to work and able of working in old age instead of being home alone.	Preferability
R2: I have been in business for 17 years now and I think I will work as much as I can in future too.	Attitude towards work
<i>What do you think about working longer even in old age?</i>	
Ah! Old age, ha ha ha, I would suggest working for someone who likes it and working keeps you busy, you do not feel alone.	Preferability
R3: Almost 12 years, isn't it long time doing business? (Laughs). I will still work I have not achieved what I dream for.	Attitude towards work
<i>What do you think about working longer even in old age?</i>	
Maybe I will work longer if I can let see	Preferability
R4: Approximately 20 years, I will work up to retirement age and then I would like to do something different not business.	Attitude towards work
<i>What do you think about working longer even in old age?</i>	
I would like to enjoy the retire life at least after the age of 65	Preferability
R5: I have been a businessman for 17 year now. I will work until my business is successful.	Attitude towards work
<i>What do you think about working longer even in old age?</i>	
No, I do not prefer to work in even old age would like to enjoy the retire life at least after the age of 65	Preferability
2. How did you start and when?	
R1: I started business in 2003. I got the idea of business during my travel to Africa. I worked on the idea and discussed with my family. I got support to start it and worked on it with small amount of investment.	Internationalization

Figure 18: Example of transcript analysis and filtration of data for research

4.5.2 PESTE Analysis

The data collection for designing PESTE was done using document analysis as a tool of data collection. The analysed data were collected and gathered from different set of online and offline documents. The collected data was classified into five different categories based on their nature and attribute i.e. Political, Economical, Socio-cultural, Technological and Environmental. Hence, relevant information to understand macro level situation of Finnish entrepreneurship were mustered. The author used a template

for PESTE analysis listed with all the essential factors to be considered in PESTE analysis based on the template the data for PESTE was collected and analysed. Figure 19 introduces the template used for the collection of PESTE data along with all the factors considered for data collection.

Politics	Economic	Social	Technology	Environment
<ul style="list-style-type: none"> ▪ Government stability and likely changes ▪ Bureaucracy ▪ Corruption level ▪ Tax policy (rates and incentives) ▪ Freedom of press ▪ Regulation/de-regulation ▪ Trade control ▪ Import restrictions (quality and quantity) ▪ Tariffs ▪ Competition regulation ▪ Government involvement in trade unions and agreements ▪ Environmental Law ▪ Education Law ▪ Anti-trust law ▪ Discrimination law ▪ Copyright, patents / Intellectual property law ▪ Consumer protection and e-commerce ▪ Employment law ▪ Health and safety law ▪ Data protection law ▪ Laws regulating environment pollution 	<ul style="list-style-type: none"> ▪ Growth rates ▪ Inflation rate ▪ Interest rates ▪ Exchange rates ▪ Unemployment trends ▪ Labor costs ▪ Stage of business cycle ▪ Credit availability ▪ Trade flows and patterns ▪ Level of consumers' disposable income ▪ Monetary policies ▪ Fiscal policies ▪ Price fluctuations ▪ Stock market trends ▪ Weather ▪ Climate change 	<ul style="list-style-type: none"> ▪ Health consciousness ▪ Education level ▪ Attitudes toward imported goods and services ▪ Attitudes toward work, leisure, career and retirement ▪ Attitudes toward product quality and customer service ▪ Attitudes toward saving and investing ▪ Emphasis on safety ▪ Lifestyles ▪ Buying habits ▪ Religion and beliefs ▪ Attitudes toward "green" or ecological products ▪ Attitudes toward and support for renewable energy ▪ Population growth rate ▪ Immigration and emigration rates ▪ Age distribution and life expectancy rates ▪ Sex distribution ▪ Average disposable income level ▪ Social classes ▪ Family size and structure ▪ Minorities 	<ul style="list-style-type: none"> ▪ Basic infrastructure level ▪ Rate of technological change ▪ Spending on research & development ▪ Technology incentives ▪ Legislation regarding technology ▪ Technology level in your industry ▪ Communication infrastructure ▪ Access to newest technology ▪ Internet infrastructure and penetration 	<ul style="list-style-type: none"> ▪ Weather ▪ Climate change ▪ Laws regulating environment pollution ▪ Air and water pollution ▪ Recycling ▪ Waste management ▪ Attitudes toward "green" or ecological products ▪ Endangered species ▪ Attitudes toward and support for renewable energy

Figure 19: Illustration of the template with the factors considered for the collection of data for PESTE analysis (Adapted from Ovidijus, 2012)

Further analysis of the information was conducted by devising a PESTE chart, which was able to illustrate the trends and events in PESTE situation of Finland, clearly and simply. Figure 20 shows a sample of data analysis done for the creation of PESTE chart. Based on this final chart and interviews, the projection of possible, preferable and probable futures of Finnish entrepreneurship is made in this study. Author of the study went through all the collected information based on the keywords given in the template from different sources (OECD reports, World Bank database, National news agencies, governmental and non-governmental organisations' websites, statistics Finland, Bank of Finland etc.) and collected data on Finnish politics, economics, society, technology and environment. Some part of the data collected through interview is also used in PESTE analysis. Major part of the interview analysis was used in accessing the preferability of the respondents and established the preferability section of the findings under each heading (Political, Economics, Society, Technology and Envi-

ronment). The data collected under each heading was analysed by researcher based on its possible impacts on Finnish entrepreneurship by dividing them further into subsection named positive and negative factors. These factors were the basis of thinking to generate findings. Positive factors were considered as positive driving forces for change and negative factors were considered resistance for change or place for improvement in order to flourish entrepreneurship and enterprises in Finland.

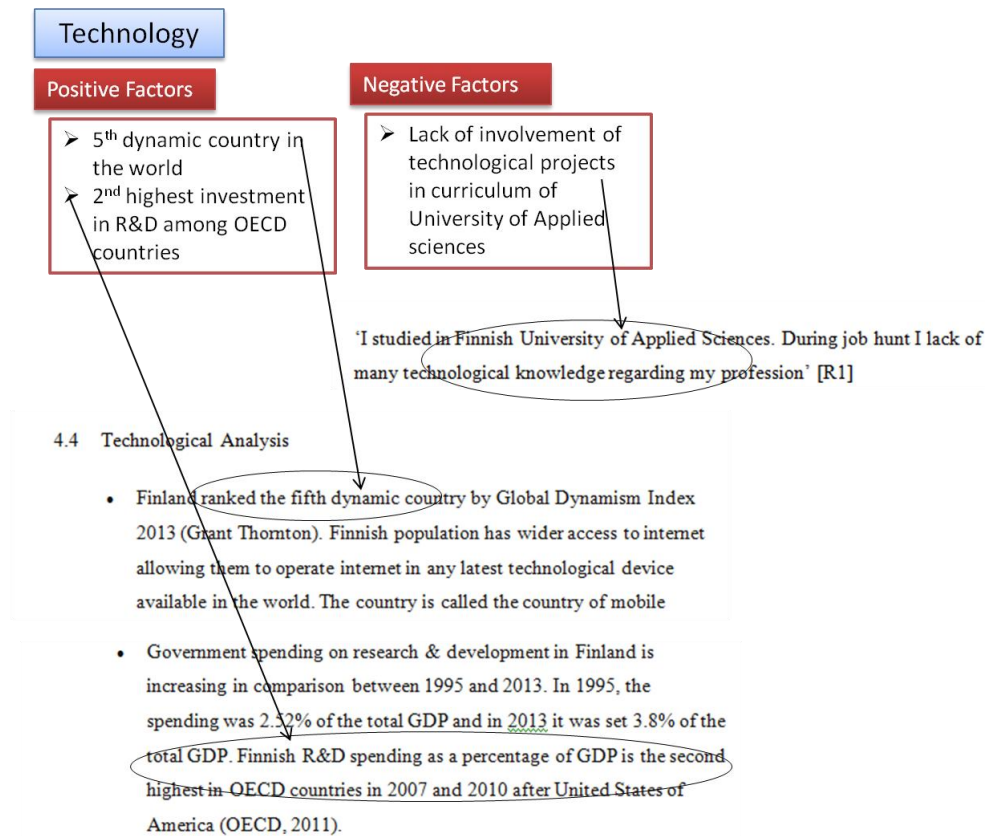


Figure 20: An example of data analysis showing the formation of Technological part of PESTE chart

4.6 Validity and Reliability

Validation of research design and data makes research outcome stronger and reliable (Jha, 2008). Validity and reliability of this research are based on the research design and data collected using primary source (interview) and secondary sources (different set of online and offline documents). Data generated from document analysis of secondary sources and analysis of interviews was the prime origin of information in this study that were qualitatively collected and analysed to visualise the answer for the research questions. The research has used most recent data from sources such as OECD reports, World Bank database, National news agencies, governmental and non-

governmental organisations' websites, statistics Finland, Bank of Finland etc. with efficiently documented reference (the information were retrieved from the sources which have clear source of information and origin). Reliability of sources and documented references legitimate the validity of the data used in this research.

According to Denzin (as cited in Jha, 2008), validity is the essence of truth and truth is the validity, therefore, without validating the data, the result of the research becomes dull and the dull results do not appeal to the readers of the research. The outcomes of this research bear the pure reflection of the data utilised in the research analysis. The research deliberates on the theoretical base of the study and methods applied with providing an understanding that how data was collected and analysed for the study.

Nonetheless, it is noteworthy to establish the linking between research question, method and data (Jha, 2008) providing sequential connection throughout the research portraying the thinking of the researcher. This thesis rigorously establishes the connection between major elements of the research being focused on the research problem. Moreover, the collection of data is made around the research problem that authenticates the actual visualisation of research problem and possible answers to it.

In spite of having less number of interviews in comparison with scope of the research's subject, the data collected in interview represents the Finnish entrepreneurs and their preferability. Small sample of interviews can generate huge amount of information with greater depth (Kothari, 2004). The choice of interview was made in this study to collect the preferability of the entrepreneurs. Human preferability can be gathered by asking, enquiring and discussing therefore, the interview was effective tool to find the preferences entrepreneurs are making for the futures. The author of the study chose entrepreneurs from different professional fields in order to gather a wider view of preferences made in different business industry by the entrepreneurs.

5 PESTE ANALYSIS OF FINLAND

5.1 Political Analysis

In this section of analysis, most of the parameters suggested by Ovidijus (2012) are included and the parameters are listed in Figure 19. The parameters are researched from different sources and the analysis of based on the parameters are enlisted below.

- Finland has an established and stable political environment (Sustainable governance, 2013) though Finnish membership in European Union is somehow criticized by anti-European ideologies [R3]
- Bureaucracy in governmental organisations is at high level but still depends on the nature of cases. [R4]
- Finland has one of the lowest corrupt public sectors in the world. (Ranked 1st by transparency international, 2012)
- Limited company, corporation, cooperatives have 24.5% income tax whereas, for self-employed and general or limited partnership companies capital income is assessed at the 30-percent rate (> 50 000 €/32%). Corporate taxes will be lowered to 20% from January 2014 as proposed in Finland. (pwd, 2013).
- The most freedom of press in the planet is in Finland (Press Freedom Index, 2013)
- Transparent and efficient regulatory framework that encourages entrepreneurship (Heritage, 2013)
- European trade policy with the common EU weighted average tariff rate standing at 1.6 percent which makes European union benefit over cross border trade and Finland enjoys this benefit being a European country (Heritage, 2013).
- Finland is open to international trade and investment, and investment regulations are transparent and efficient, which makes investor comfortable to invest and without any hassle. (Worldbank, 2013)
- Import restrictions is based on quality , European trade regulation for imports are implied to the import business which promotes local production and the manufactures quality of product remain at a competitive standards. Hence, companies in Finland have advantage over the company in other part of world.
- Highly governed competition regulation (Finnish competition and consumer authority, 2013) that ensures the fair competition in Finland among the business and maintains the balance of the market therefore, win-win situation can be developed among business and

customers. This benefits companies and builds their confidence on getting justice on any infringement of law.

- Government is the facilitator in trade unions and agreements based on cooperation and goodwill that guarantees that any conflicts between industry and union shall not reach level of uncertainty creating chaos among the stakeholders. Companies are benefitted by the law and support of government during the conflicts time.
- Highly effective and Environmental administration and legislation (European Environment Agency, 2013)
- Free quality education based on research and development (OECD, 2013)
- Effective Anti-trust law monitored by government (Finnish competition and consumer authority, 2013)
- Discrimination laws are implemented effectively and regulated well therefore, the equality in Finland ranks 4th in the world (World justice projects, 2013)
- Consumer protection and e-commerce is supervised and actively implemented, monitored and supervised and protected by consumer legislation (Finlex, 2013)
- Under labour legislation every citizen is protected by employment law to ensure the equality in deliverance and facilities (Finnish labour legislation and industrial relation, 2013)
- Highly protected and monitored health and safety laws are legislated and implement by the authorities [R5]
- Every citizen's private life and honour and the sanctity of the home is guranteed in Finnish constitution which is legislated, monitored and controlled by different data protection laws within the authority (Finlex, 2013)

5.2 Economic Analysis

- The average economic growth (GDP) is contracted by 2.1 percent year on year from 1991 to 2013 (Trading economics, 2013).
- Inflation rate has been fluctuating from 1961-2013 and the average inflation growth has been 5.16 percent. The current inflation rate was 1.20 percent in August 2013. The trend of inflation shows a gradual growth between 2006 and 2013 (Trading economics, 2013).
- The benchmark interest rate of Finland is set by the European Central Bank. The last recorded benchmark interest rate was 0.50 percentage. Finland's average interest rate is 2.6 from 1998 until 2013 (Bank of Finland, 2013).

- Exchange rates in comparison with US dollar is changed +0.1907 (+16.3%) from 3rd October 2003 until 4th October 2013. The average exchange rate during the period was 1.3268 (Bank of Finland, 2013).
- Unemployment rate increased to 7.10 percentages in August of 2013 in comparison with 6.60 in July of 2013. The average unemployment rate is 6.2 percentages from 1956-2013. Employment rate has fallen because more people have given up the search for work than have lost their jobs (Trading economics, 2013).
- Labour costs in Finland are highly unionized therefore, national wages are not determined whereas wages are set based on collective bargaining (Trading economics). The wages in Finland are gradually increasing and the new comprehensive collective bargaining agreement nationwide will bring modest pay rise for employees in all the industry (Yle news, 2013).
- Finland is out of recession because of increased government spending output up 0.2%. The economy is still fragile with the slow recovery in 2013. Finland has crossed such difficulties in history many times. The concept of pulling economy together persists in Finnish industrial culture (economy.com, 2013)
- Credit availability is ranked 40th in the world by the World bank's Doing Business Project. Credits are available for innovative business and needs sound knowledge and plan on doing paper work. Government and private funding is available for business up to some extent to start and sustain the business along with development support (World bank, 2013).
- 55% of total trade is done within European Union. The largest trade flows are done with Germany, Russia, Sweden, Netherlands, China and US. There was a recorded trade deficit of 360.50 Euro Million in July of 2013 in Finland. (OECD, 2013)
- Level of consumers' average disposable income 25, 739USD is higher than OECD average of 23,047 USD. The average household net financial wealth is estimated at 22,335 USD (OECD, 2012)
- Being a part of euro area, Finland has the implementation of single monetary system and policy by Eurosystem. Main monetary instruments are the key interest rates set and govern by European Central Bank and Bank of Finland as the member of Eurosystem (European Central Bank, 2013).
- Fiscal policies are sustainable and strengthen the economy's growth potential, increase in employment rate, boosting household spending power, and enhancement in international competitiveness, strengthen the financial base for welfare society, reduction of government debt-to-GDP (European Central Bank, 2013)

5.3 Socio-culture Analysis

- Health- Contrary to the increase in life expectancy the rate of obesity is also increased in Finland. 19% of men and 18% of women aged 25-64 had a Body Mass Index of 30kg/m² in 2011. The number of obese people was just doubled at the end of 2000s that of the beginning of the. Smoking is highly decreasing from 35% in 1980s to 23% in 2011 among male population aged 25-64. Female population has also seen the decrease in smoking from 20% in 1980s to 15% in 2011 aged 25-64. Physical exercise during leisure time has a decreasing trend. 32% man and 26% of women were engaged in activities involving little physical exercise (findikaattori, 2013). The data indicates that the health consciousness in Finnish population is in good shape but the increase rate of obesity is a sign of danger in the health of working people.
- According to a recent (2012) study by THL (National Institutes for Health and Welfare), Finland may have a trend towards a leaner population. The study shows that share of overweighted people has come to a stop indicating towards a break down to obesity in Finland. The reason of this change is increase in less smoking and healthier food habits (Yle, 2013)
- Education level, Finland enjoys one of the highest levels of educational attainment among the OECD. 84% of Finnish population aged 25-64 have at least completed upper secondary education (OECD, 2013)
- Attitudes toward imported goods and services- imported goods and services are valued in every income level based on brand, quality and country of origin. Finns usually prefer to go with goods and services originated from Finland since they know the policies of the manufacturer and quality of the good is perceived high. The level of income, internationalisation, education and requirement of the goods and services are the other factors affecting the utilisation of imported goods. Finns often believe on country's quality monitoring system and process therefore, feel safe with some margin of doubt in utilising imported goods.
- Attitudes toward work, leisure, career and retirement- work is highly appreciated in the society, every kind of professions are valued and considered important, working culture is based on equality and diligence, handwork, punctuality, independency and individuality (Vassa, 2013), the importance of working time and leisure are significantly differentiated. Working time is set for tasks to be done and are utilised almost preciously and diligently for work performance where as leisure is enjoyed as much as possible without having any work related issues in mind and practice. Culture is significantly able to keep

working and personal life separate. Finns are career oriented and flexible to swift the career based on labour market necessity market. Long life learning approach have made an impact on working life and developed the perspective learning new things which is inevitable because of rapid changing technology. Finns are tech savvy and operate well with information communication channels. Retirement is considered a relaxation time and Finns are supposed to work longer years because of probable scarcity of labour forces in the country due to retiring baby boomers.

- Attitudes toward product quality and customer service- product quality and customer service are perceived highly in Finnish business context. Still the selection of product and services are based on the income level of the resident. There are variety of products are service providers in the market which are bound by the regulation to provide equal services to the customers. Service in need not available is considered weak point of business. [R4]
- Attitudes toward saving and investing- most of the Finns save money without a particular plan of investment. The ultimate goal of saving is to have financial independence. Mostly, the investment of household saving is done on housing and other house related expenses along with holidays and trips abroad. According to Nordea bank (2013), the regular saver of money is between age 26-39 and the average saving is amounted to euro170. According to Statistics Finland, (2013) Finnish household's saving rate is below 4% and OECD (2011) states that rate of saving of Finnish household is increased from 2009 from -0.9 to 4.3 by the end of 2010. Investment rate is decreasing in Finnish households (OECD, 2011) the reason can be insecurity in global market and European recession.
- Emphasis on safety is highly concerned in Finnish society and work life and daily life. Quality training, occupational well-being, labour protection, work atmosphere training and occupational safety and courses relating to specific occupations or occupational fields, hygiene training etc (Statistics Finland, 2005) are the major trainings provided to developed working life skills that help in supporting the safety in Finnish working sector.
- Buying habits of Finns is changing with the aid of technology the retail sales are made in internet and the use of e-commerce is significant. The technologically advance country and tech savvy people are utilising time, cost and effort by shopping online today.
- Finnish lifestyle is very relaxed and easy going, nature and peace are the part of life. Finns lives in nuclear families having family members generally 2-4. Sauna and drinking are the part of social culture. Finnish life revolves round the home and family. Finnish and Swedish are the main language of communication. Saami and Romani are the ethnic

languages spoken in Finland. Russian, Estonian and English are widely spoken foreign languages in Finland. Finns are labelled as shy people but Finnish young generation is very outgoing and the shyness is changing with multicultural interactions (Tietotori, 2013). The trend of enjoying Holidays (Loma) in warmer countries are increasing and supporting in the enhancement of internationalisation.

- Religion and beliefs are based on Christianity. Lutheran is the largely followed belief of Christianity in Finland entrusted by around 82% Finns. Smaller number of population follows Orthodox belief of Christianity. Apart from Christianity Islam, Jewish and other religions are followed among residents of Finland. Most of the Finnish population holds secular views towards religion (Everyculture, Spainexchange, 2013). Although a larger number of Finnish populations do not actively, practice religion Finnish socio-cultural roots are firmly developed from the philosophies of Lutheran and Orthodox philosophies of Christianity.
- Population growth rate of Finland has been reported steadily growing in average the rate of annual growth varies. The annual growth of population was reported 0.24% in 2003; it was 0.48% in 2009 and 0.44% in 2011 according to the World Bank indicator (Trading economics, 2013).
- The youth population aged less than 15 is decreasing in comparison with the elderly population aged 65 and over. The percentage of aging is higher than that of new born in Finland in last decade (OECD, 2013). The life expectancy at birth is growing 77.41 years in 2000 to 79.41 years in 2012 (index mundi, 2013).

5.4 Technological Analysis

- Finland ranked the fifth dynamic country by Global Dynamism Index 2013 (Grant Thornton). Finnish population has wider access to internet allowing them to operate internet in any latest technological device available in the world. The country is called the country of mobile phones where the use of traditional phone is almost absolute. The cost of phoning is relatively cheaper than in other OECD countries. Every active citizen of the country is computer literate and there are learning programme set and design for senior citizens to learn new technologies and interact with internet (World Economic Forum, OECD). The basic technological infrastructure is world class offering latest software and hardware applicable to operate the system. Finns are considered the hi-tech individuals with availability of high-end technologies in their hand with a purchasing power to own them. 90% of population from age 17-74 is using internet in Finland in 2013 (Statistics Finland, 2013).

- Government spending on research & development in Finland is increasing in comparison between 1995 and 2013. In 1995, the spending was 2.52% of the total GDP and in 2013 it was set 3.8% of the total GDP. Finnish R&D spending as a percentage of GDP is the second highest in OECD countries in 2007 and 2010 after United States of America (OECD, 2011).
- As a technology incentives government has reduced corporate tax on licensing revenue from patents, trademarks, software, utility models and design protection in 2012 to 12.5 percentage (Technology Industry, 2013). Finland grants a number of incentives for foreign company investing in Finland. The incentives are Business aid from ELY centres, subsidies for start-up companies for 24 month, Transport aid for deliveries to sparsely populated areas in the country, Business development aid, R&D and innovation incentives by Tekes, R&D tax break for companies, loans and guarantees by Finnvera, EU-Funded support and Capital investment from Finnish Industry Investment (Invest in Finland, 2013). The above-mentioned incentives are available for local companies and firms also. Innovation and technological developments are highly appreciated provided with a number is incentives possible to be applied in Finland.
- Communication infrastructure in Finland is wide spread and well designed. The policy of government (2007) to make every house equipped with phone and other digital media devices had played vital role in the development of the sophisticated Finnish digital communication system (Pursiainen, 2007). The plan aimed that by 2010 every Finnish house hold will have mobile phones, more than 90% will has microcomputers, more than 80% will have internet connections and more than 20% households has landline telephone (Pursiainen, 2007). The action plan was executed and as a result, today shows that 90% of population aged 16 to 74 used computers in Finland for different purposes. One-half of the Finnish population follows some type of social network sites on the internet. Finland is among the top European country in the usability of internet. Using internet in mobile and laptop in a place other than home is being more common in Finland. (Statistics Finland, 2012) The availability of latest technology and fastest internet speed to resident is made possible by the government.

5.5 Environmental Analysis

- Weather in Finland has four seasons viz: winter, summer, spring and autumn. Winter is the longest season and springs the shortest. According to the classification of Köppen's climate Finland has cold –wet winters and warm summers. The mean temperature of the

warmest month can be no lower than 10⁰C whereas the mean temperature of the coldest month can be no higher than -3⁰C. Rainfall is expected in all the seasons. The harshest temperature during winter, in Finland, can be -45⁰C to -51⁰C depending on the location. The summer can be moderate and sometimes unexpectedly warmer going beyond 30⁰C (Finnish Meteorological Institute, 2013).

- Finland has seen the effect of global phenomenon called climate change. The average temperature of Finland has risen at a rate of about 1⁰ in 100 years. Warmer spring causing snow melting earlier than before, thinner snow cover, shorter period of snow covered lakes and more atmospheric humidity are the symptom of climate change in Finland (Helsingin Sanomat, 2012).
- Laws regulating environment pollution- According to Lyytimäki (2007), Finland is one of the world's leading nations, which is frequently rated in many international comparisons of Environmental protection standards. Finland has very effective and well administrative regulation and legislation to protect environmental risks. Apart from this, being a part of European Union Finland follows European Environment legislations. The successful environmental protection legislation and environment monitoring system have helped in clearing up many polluted lakes and rivers in Finland minimizing industrial pollution. The growth rate of forest is higher than the rate of harvest today (Lyytimäki, 2007).
- Finnish Air quality is usually good except in the periods when atmospheric conditions prevailed during winter and spring. Such atmospheric conditions increase the concentration of pollutant in the air in Finnish cities. Though it is rare, ozone concentration is another problem in Finnish air during spring and summer, which needs an alarm from monitoring agencies to citizens (European Environment Agency). Finland is rich in land water resource having a total of 187,888 lakes and ponds larger than 5000m² and rivers of total 25000 kilometres. The contamination of pollutants of Finnish costal and in land water has decreased significantly during the past decades because of the monitoring that consists of administrative monitoring and compulsory scrutiny by business operators and industries. Most of the Finnish classified water bodies are in good ecological state (European Environment Agency, 2013).
- Waste management at municipal level is regulated by Finnish law in order to protect environment and public health. Finland has Refuse Act, which suggest that production of waste should be prevented. Waste separation is done at households and in company's premises, which later is delivered to the particular pick up point in its respective bin. Most of the wastes are recycled in Finland such as bottles, glass, metals, plastics etc. The

hazardous wastes are burnt in an extremely high temperature and the combustion produced is used for the production of energy (Enokoski, 2012). According to new Waste Act forced on 1 May 2012 the promotion of responsible waste management in Finland is significant. Fifty percentage of all municipal waste must be recycled for material recovery. In case of construction and demolition waste, 70% needs to be recycled or reused as material by 2020 (EKOKEM, 2012)

- Attitudes toward and support for renewable energy is growing. Wood and wind energies are the most preferable among the citizens. (Koseniuos and Ollikainen, 2010).
- Electricity generation is growing in Finland gradually from 10,000 GWh in 1964 to 70.4 TWh in 2011. The consumption of electricity is growing in a higher rate than of production. Finland used 84.2 TWh in 2011. The deficit amount of electricity is imported from other Nordic nations, Russia and Estonia. Thirty-three percentage of the total production of Finnish electricity was done using renewable resources. Thirty-two percentage of electricity was produced by nuclear generators, 27% was produced with fossil fuels and 7% with peat. (Findicator, 2012)

6 RESEARCH OUTCOMES

Exploration and analysis of Finnish PESTE and interview of five entrepreneurs is analysed further to pin point the drivers of change for Finnish entrepreneurship and combined together in the form of the PESTE chart presented in Figure 21.

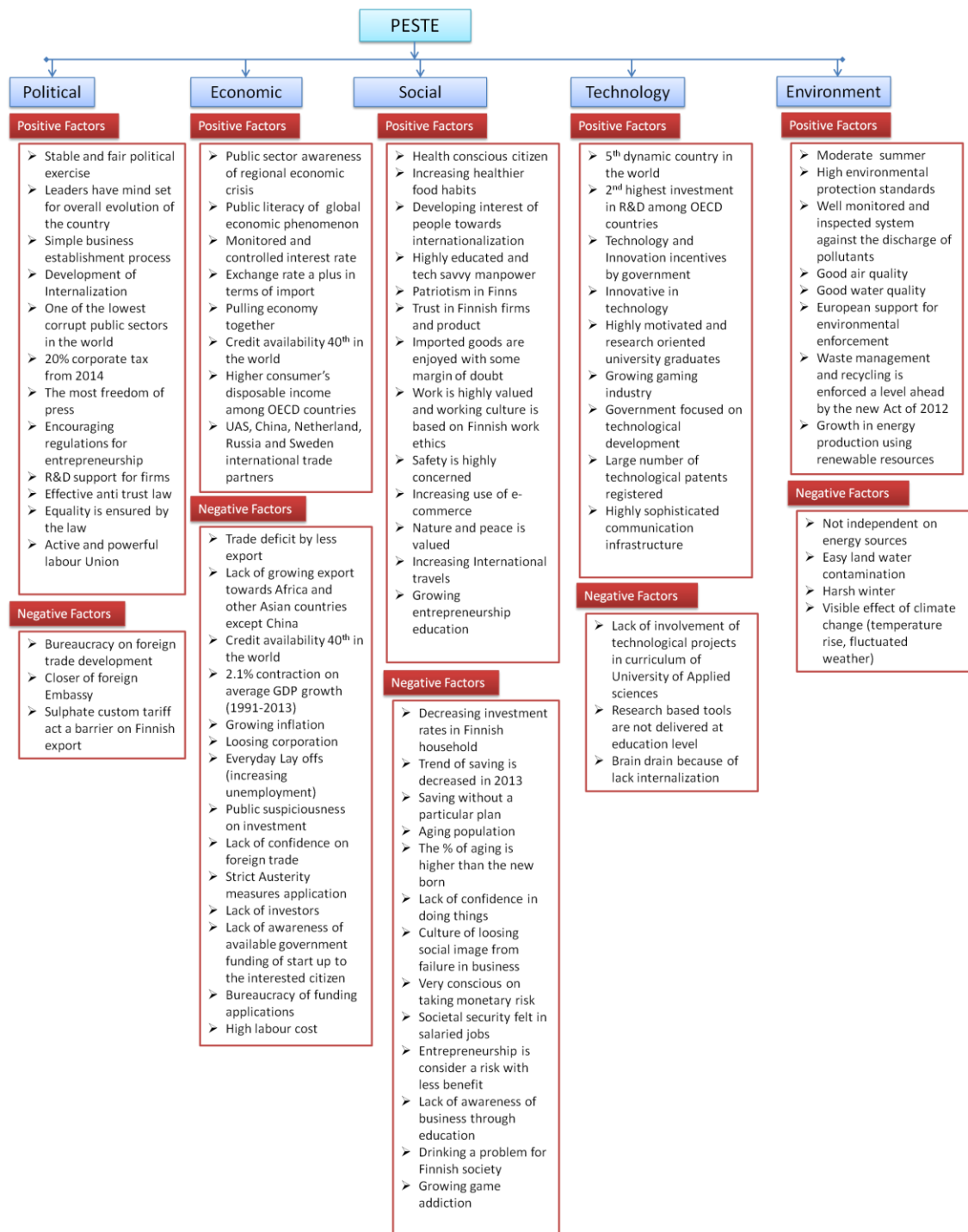


Figure 21: PESTE chart with negative and positive driving factors

All the actions mentioned in the Figure21 are the factors that are affecting different development points of Finland. Political, economical, social, technological and environmental actions are bringing changes in their respective development point (politics, economics, society, technology and environment). This is why author of this study calls these actions the drivers of changes. These drivers of the changes are divided into negative and positive categories based on their impacts to the respective development points of Finland. Figure21 illustrates the core of PESTE analysis with negative and positive driving factors originated out of this research's effort.

The findings of the research are projected based on the above-illustrated PESTE analysis and theoretical background of the research. The findings are detailed in five categories named Political, Economical, Social, Technological and Environmental. Comparison of the positive and the negative factors are done for each category, which helps in describing the impact of the factors on Finnish entrepreneurship and how they influence the futures of Finnish entrepreneurship in a long run.

The negative and positive drivers of the changes listed in Figure21 are discussed, compared and analysed in chapter 6.1 onwards. This analysis produces futures possibilities projecting the analysis towards futures. The analysis accesses the actions and events that are possible to happen for the development of Finnish entrepreneurship in the future.

Futures preferability mentioned in chapter 6.1 onwards are the results of the interview during which author has accessed the preferability of five Finnish entrepreneurs. The preferability is the wishes, imagination, intuition and preference of the Finnish entrepreneurs in Finland.

Futures probability is accessed by comparing the outcomes from futures possibility and futures preferability based on the driver of changes. By analysing the drivers of change in this study the author has produced the most probably happening events in futures probability section of this study.

6.1 Political factors

The influence of political factors analysed in the study are accessed in this section of the study. Figure22 shows the political factors with negative and positive drivers of change.

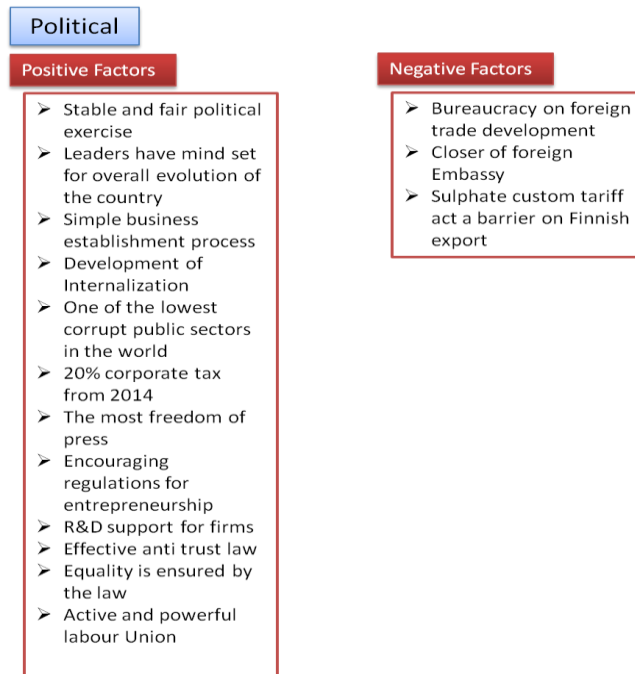


Figure 22: Political driving factors influencing futures of entrepreneurship

For the development of entrepreneurship and prosperity of society, stable political system is the first and foremost factor in a country. Figure22 shows that Finland has stable political system with almost fair political exercise. Business laws are standardised and simplified. Corporate taxes are planned to be competitive, R&D supports from government are available for innovation and business development. Labour union and union of industries are strong in influencing the policies in the country.

The above-mentioned statements indicate that leaders of political parties in Finland are focused on the overall evolution of the country. The overall political scenario of Finland seems motivated towards the development of entrepreneurship. On the other hand, the negative driving factors are the demanding laws for environmental protections, bureaucracy and closer of Finnish embassies in some developing economies, which are making an impact on the Finnish export, and internationalisation of Finnish firms.

6.1.1 Futures Possibility

Determined leaders and political policies for the development of entrepreneurship bring the possibilities of the flourishing entrepreneurs and enterprises in Finland and the futures of Finnish entrepreneurship has strong political support for its existence, growth and expansion.

R&D is major focus on the government policy for education. Innovation is based on the R&D. European union directives, Finnish government's supports for innovation and international recognition for Finnish educational institutions will be triggering development of new business hubs, forums and business development labs in Universities, Universities of Applied Sciences and vocational colleges.

6.1.2 Futures Preferability

Respondents of the interview preferred the development of online systems that reduce the lengthy paperwork to be made at different offices for business operation [R1, R2, and R3]. The process of obtaining permission is a problem for many foreign entrepreneurs [R4]. Development of support network for the entrepreneurs in world's growing economy is essential that can help networking Finnish entrepreneurs for internationalisation [R5]. "Stakeholders can better innovate if combine together their knowledge and resources for achieving the development of new market, product and service." [R1]

The responses of the respondent project towards the futures of regulatory bodies functioning completely online from a single platform by providing all the legal and administrative services required for business operation in Finland. Stakeholder's innovation is another preferable future for Finnish entrepreneurship.

6.1.3 Futures Probability

Based on the above analysis and description the probability of occurrence of growth of Finnish entrepreneurship is high with new service innovation from Finnish government. Innovative firms are probably in rise since the political effort is projected towards the development of supportive environment for enterprises. The investment of time, money and effort is increasing from political side towards the development of Finnish entrepreneurship, which increases the probability of prosperous futures of Finnish entrepreneurship.

6.2 Economic factors

The influence of economic factors analysed in the study are accessed in this section of the study. Figure 23 shows the economic factors with negative and positive drivers of change.



Figure 23: Economic factors influencing futures of entrepreneurship

Economy of a country and the factors influencing it are significant for the study of entrepreneurship when the futures are to be traced and projected. Monetary support and availability of credits and awareness of public sector towards the development of economic environment of the country influence the development of the firms and their functionality. Finnish public sector is highly aware of the regional economic crisis at its peak in Europe. Strong and stable currency is providing purchasing power in terms of import. Finnish households have higher disposable income. Finland is rated the best 40th country in the world for credit availability. Economic situation sounds good for entrepreneurs to burgeon in such an economic stability by looking at the positive driving factors.

Whereas, development of entrepreneurship is not pacing the way it should and number of lays offs were being made in the name of economic crisis and austerity measures. Structural reforms are on its way from policy level to private organisations and firms.

On the one hand, being 40th in the world in terms of credit availability is good news but on the other hand, it leaves room to improve and climb towards the number one. The average growth of GDP is contracted 2.1% in the period of 1991-2013. Growing labour cost are other factors driving more risks for Finnish entrepreneurs in devising and developing the business. The Growing inflation rate, increasing personal taxes are other worrying factors in Finnish economy. Rapidly changing events in international sphere have make investors sceptical on investing and international trade in being more of mystery. Exports are not growing towards other growing economies such as Africa and other Asia nations except China. Despite being in a good shape, Finnish economy is in a fragile condition and needs a constant growth to overcome the fragility.

6.2.1 Futures Possibilities

Simplified in terms of functionality and sophisticated from technological perspective types of model offices are to be designed which can be offered to the industries and enterprises in terms of saving operating cost. Virtual office, chambered office, self-sustainable and manageable types of offices is the possible futures for Finnish entrepreneurship operations. New technologies and processing methods are required in the industry to reduce labour cost in order to be profitable for running a business in Finland. A sophisticated use of 3D printing may reduce cost of retail business and production facilities in futures. Though expensive, the first hand robotic installation will be reducing labour costs in long run for manufacturing industry in Finland adding price competitiveness to the firms and resulting in more layoffs. New bigger trading partner are on the way to increase for Finland from Africa, Asia and Latin America. The change in social security system of Finland is possible in order to reduce economic burden from the shoulder of government, which may see reduction of personal tax rates.

6.2.2 Futures Preferability

The emphasis of respondents was on the issue of getting an easy procedure for economic support from government for start-ups and business development should be made [R3, R2, R4, and R5]. “It is difficult to get the appointment to discuss your business idea for funding.” [R3] “I do not want to share business idea in emails.”[R5, R1] “I would prefer training on internationalisation of business supports” [R2]. “Very

complex database for different types of supports you need to look for a lot of information from different governmental offices” [R3].

Based on the responses from the respondents regarding the economic support from government, unification of information system regarding government grants and facilities available for entrepreneurship will be seen in futures. Government needs a change in approach of finding innovation and innovative ideas. Trust between facilitator and facility seeker is necessary. Since nothing comes free, government is not able to haunt for innovation and innovative ideas because of the expense it caused to the government. The notion of innovation seeks its way out may be right and the way has to be easy to pass through and accessible. Development of innovation hub at teaching facilities will be preferable for people seeking help in developing business idea into business.

6.2.3 Futures Probability

Higher number of employees will be laid off, unemployment rate may increase and longer unemployment situations may lead to change in profession, therefore, learning new professions, mastering multi-profession, studying while at job are the forthcoming phenomenon in Finnish society influenced by Finnish entrepreneurship. There is higher probability of new entrepreneurs emerging from the group of unemployed individuals. Government spending may increase in technical and technological education and promoting entrepreneurship. Probably, government develops a unified business information system in the benefit of enterprises and entrepreneurs.

6.3 Social factors

In this section of the study, the projection towards Finnish entrepreneurship is made based on social factors collected during this study. Figure 24 illustrates the positive and negative social factors in Finnish society affecting futures of Finnish entrepreneurship.



Figure 24: Social driving factors influencing futures of entrepreneurship

Based on the positive driving factors, Finland is the country of highly educated and tech savvy citizens. The health consciousness is growing among the active citizens of the nation with healthier food habits. Finns are turning towards internalisation by understanding and exploring international trends, technologies, cultures, education and entertainment. The society values work and working people with the ideology of pulling economy and society together. Consumers have higher trust on domestic products and services whereas imported products and services are enjoyed with caution.

Safety is greatly concerned in daily life. E-commerce is rapidly increasing with growing online selling and purchasing behaviour. Most of the public and private services are available online with a number of different platforms. Education regarding entre-

preneurship is spreading and faculties of entrepreneurship are established in reputed universities in Finland.

In contrary to the education for entrepreneurship, investment rates of Finnish household are decreasing. Citizens of the country are saving without a proper plan of investment and the trend of saving is decreased in 2013 comparing with previous year. Growing aging population is a problem when the rate of aging is higher than the rate of newborn young ones in the country. People have lack of confidence for doing and daring to do new things especially in business field since the failure in business is a taboo in the society. Society is very conscious in taking monetary risks in business and investment. The attitude of seeing entrepreneurship as a risk with less benefit and salaried jobs as societal security prevails in society. Drinking is a silent problem in Finnish society leading to addiction. On the one hand, gaming addiction is a growing problems for people of all ages on the other hand gaming is a globally growing Finnish industry that is highly profitable with handsome salaried jobs availability. Becoming an employee and entrepreneur in the gaming industry needs experience of playing digital games.

6.3.1 Futures Possibilities

Growing healthy life style has an effect on life expectancy and possibly leads towards increasing the age of retirement in Finnish labour market when senior are healthy with working capabilities. There is a possibility of implementing entrepreneurship education in high school and vocational schools with aim to increase the number of young entrepreneurs in Finnish entrepreneurship regime. Young entrepreneurs have less risk and responsibilities in life with time to experience and learn from the mistake. Finnish entrepreneurship will see rise of aging entrepreneurs with experience helping in innovation and development of economy since long life learning strategy in Finnish education sector helps people learning new skills and changing professions.

6.3.2 Futures Preferability

Finns should learn to be bold for doing business and taking risks. [R1, R2, R3] A culture of learning from failure while doing business and try one more time mind is required in the society [R1, R2, R4 and R5]. “I am lucky that I am successful in my first attempt of the business but I would have taken another chance of doing it if I were failed in first attempt.” [R3] It is nice to work longer if someone likes to work and

able of working in old age instead of being home alone. [R1, R2] “Maybe, I will work longer if I can.” [R3] “I would like to enjoy the retire life at least after the age of 65” [R4, R5]

From the above responses, a weak signal of change in the future of socio-culture attitude towards business and entrepreneurship can be seen that indicates that society is willing to learn from failure in business and willing to work longer if capable of working. This preferability shows that Finnish entrepreneurship will see the brave and enthusiastic entrepreneurship in Future who tend to win the gamble and game of business despite they need to make countless efforts.

6.3.3 Futures Probability

Entrepreneurship will be valued and taken more seriously than ever in the society. Every citizen may try being entrepreneur once in his or her life. Growing number of self-employed and small firms are in the probability for the futures of Finnish entrepreneurship. The probability of emerging new entrepreneurs from gaming industry is high in futures scenario if the addiction of games can be turned into passion for it with a little know how on how to develop and design games.

6.4 Technological Factors

Technological factors are one of the major factors influencing and contributing in the change of business model, structures and way of conducting business. The nature of entrepreneurship and its scope has been changed in the span of time because of the development of highly volatile information and communication technology, which are rapidly changing and developing into new scale. This section tries to trace the impact of technology factors in the futures of Finnish entrepreneurship. The overview of the positive and negative factors of technology is depicted in Figure25.

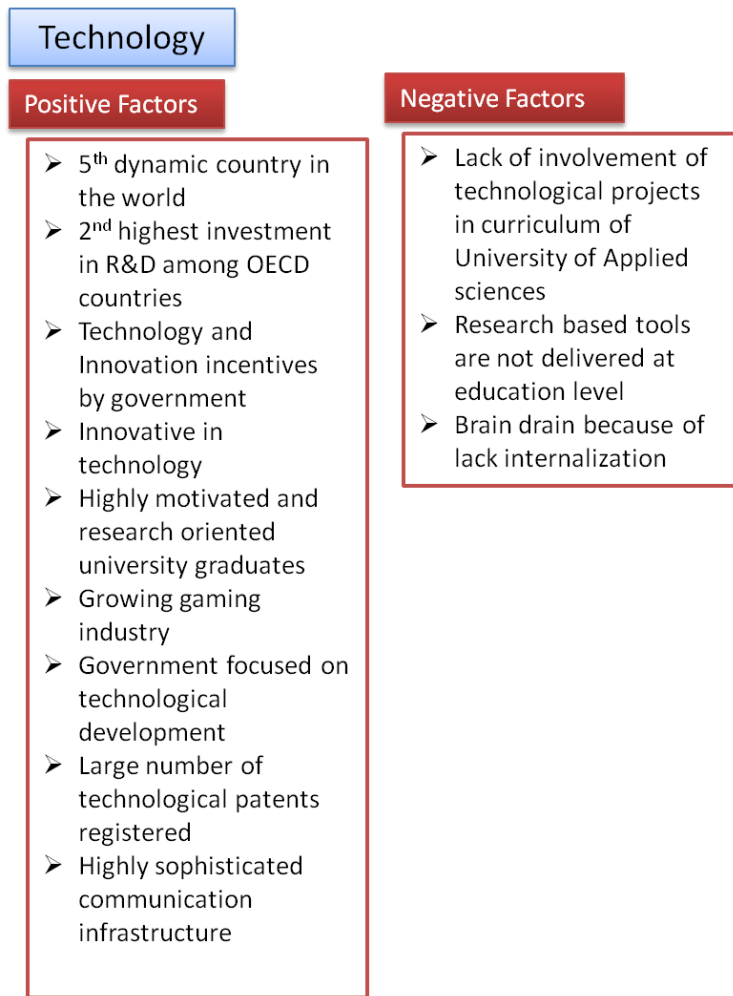


Figure 25: Technological factors influencing futures of entrepreneurship

Finland is technologically advance country with the citizens interested in technological advancement. The country is ranked fifth dynamic in the world and has the second highest investment in R&D among OECD countries. Government policies have provided incentives for companies being innovative and inventive. The rate of technological advancement is rapid in the nation. The country has experts in the field of biotechnology, game technology, mining, security, paper technology, bio-fuel etc.

The focus of innovation policies of the government is on technological development and in the generation of high growth enterprises. Finland has one of the best communication systems in the world with highly sophisticated communication infrastructure. A large number of technological patents are registered by Finland in international scale. Having such effective foundation of technology Finland is of the leading research oriented country in the world.

Despite of having such brilliant resources the country is not able to deliver technological expertise needed for real life technological projects to the students learning non-technological studies in the schools. The teaching of technological influence and use of subject from different aspect of the entrepreneurship is needed in curriculum. Knowledge on research based technological tools and their utilization are of significance in working life. Because of budding internationalization and integration problem of immigrants, many international experts are compelled to move out of the country in quest of opportunity or compelled to work in the industry where their expertise are of no use.

6.4.1 Futures Possibilities

The communication structures will turn to be more sophisticated. It is possible that Finland soon has complete wireless internet connection all over the country and wired internet may turn to be absolute. It is possible to see the growth in the research and developments related to new technology in schools and universities with emerging innovation looking for commercialization. The phenomenon will possibly give a rise of young millionaires in the country. It is possible that future technological issues, tools, their development and use will be a subject of learning in schools and university.

Finnish teaching knowhow and Finnish experts will be demanded in global industries. Technological patents will be growing in numbers faster than they had grown in past. Contribution of expert immigrants in the technological innovation will be realized and recognize in forthcoming days. Gaming industry possibly becomes the next bigger technological industry of Finland with global name and fame. Development of energies from renewable resources will be another fruitful technological advancement in Finland to be global.

6.4.2 Futures Preferabilities

The questions related to technological advancement got answers from two respondents and rest replied, “never know what new comes” [R1], “Technology changing in high speed, can say anything.” [R3], “Um...communication in the air, I mean communication without physical devices” [R4], “I am not a tech guy, don’t know much about it but perhaps every article available around us will have digital screen to work as smart device.” [R2], “I don’t know much in this field.” [R5]

It seems that many people do not know about their willing and technologies coming in change or they do not want to talk about it since they are not sure. On the other hand, some have sense of feeling futures and speak boldly about it. The communication without the use of physical devices and working of almost every article around us as a digital device for us to communicate are the preferabilities. Both contradict each other and the second one seems more realistic since the innovators have already started the digitalization of accessories for human being i.e. smart watch.

6.4.3 Futures Probabilities

The probability of increase in technological teaching is higher. It will rise gradually in every discipline since the technology is embracing every field of studies and it is deeply incorporated with our lives. The growth of innovative firms and entrepreneurs in younger age is greatly probable because the high-end technologies are in the young hands from early age of their lives. Development of digital accessories is not a dream today and probability of having more digitalize articles and accessories will see the rise and give birth to new entrepreneurship.

The rise in technologies and their use probably open a new field of entrepreneurship studies called 'Digital Entrepreneurship'. The field may deal with buying and selling of digital material and data in different forms and what, how, when, with and where types of queries related to digitalization of entrepreneurship will be dealt in the studies. European commission has designed strategy to develop awareness regarding Digital entrepreneurship by 2020 (Digital Entrepreneurship)

6.5 Environmental Factors

The section briefly, explores environmental factors related to the atmosphere, lithosphere and hydrosphere of Finland. The possible effect of changes of different spheres is discussed based on positive and negative factors collected in the study using PESTE tool. Figure26 depicts the positive and negative driving factors influencing Finnish Environment development.

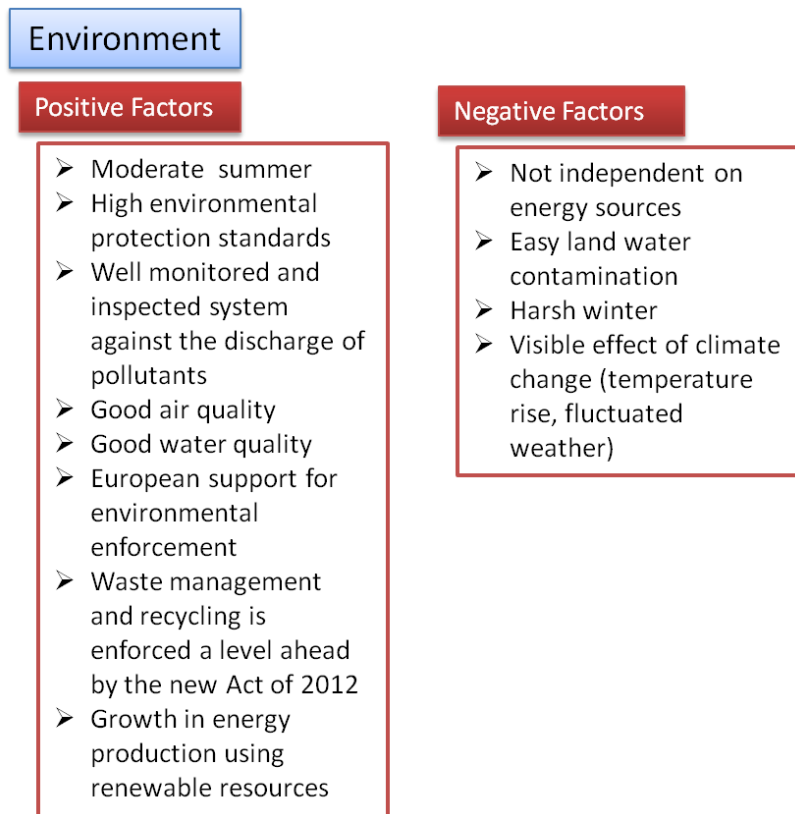


Figure 26: Environmental factors influencing futures of entrepreneurship

Finland enjoys one of the modest summer and harshest winter in the world. This contradiction in the weather has developed a certain mind set in Finnish culture, which can be described as the hope for light during darkness. Environmental protection laws and regulation are generated at European Union level and the country following all major international environmental protection conventions. The country has well monitored and inspected system against the discharge of industrial and non- industrial pollutants. The awareness regarding pollution and every ones responsibility on its reduction is highly conducted from grass root level in the country.

Air and water quality is good in Finland. According to new waste management act 2012, 50% of all municipal waste must be recycled for material recovery and 70% of construction waste is to be recycled or reused by 2020. Energy production from renewable resource is growing in Finland. Investment in solar energy, wind energy, hydro-energy and bio-fuel are the example of the development, which are making Finland competitive in energy production.

Although Finland has invested greatly on renewable and non-renewable energy sources, local production is not able to satisfy Finnish consumption of energy and Finland buys energy from foreign sellers. The effects of climate changes are visible in Finland and carbon footprint of Finnish citizens is remarkably huge in international carbon footprint contribution (European Environment Agency). Therefore, any new industry and enterprises in the area connected to environment needs to face strict regulation with having all the environmental clearance and licences.

6.5.1 Futures Possibilities

Futures' possibilities on developing new renewable energy technologies to be utilised in the global energy markets can trigger entrepreneurship. Efficient solar batteries charging faster and working for longer hours is one of the innovation possibilities. Unique and handy designs of solar equipments can be introduced as a new field of entrepreneurship.

Development of hi-tech hydro-energy technology helping in generating energy from moving body of water and stagnant body of water may be possible as an innovation for developing electricity or direct energy. There are the possibilities of development of new recycling and waste management technology in industrial scales and in small scales, which can be utilised at global market provided by innovative equipment and technology.

6.5.2 Futures preferability

Every respondent was able to put forward their viewpoint on the changing environmental issues. One of the respondents visualized that climate change will have opposite effect in economy due course of time Finland can be one of the famous tourist destination for visitors from southern region of the world [R2]. Finnish untouched and unspoiled nature will be a boon for Finnish economy and innovation will be generated from it [R3]. "I think Finland is filled with secret natural resources and one day will be discovered." [R5]. "Energy wasted in the environment can be collected one day." [R1] "I wish if I could charge my mobile from water at home." [R4]

The responses seemed very futuristic and not possible in near future but preferability of citizens of nation has strength to change the nation and its futures. There can be preferably a new technology emerging, which can support charging of electronic de-

vices in the presence of natural forces such as water, sun, air etc. Finland can become a destination of summer and winter seasons if southern regions become hotter than they are and if Finnish winter are lesser harsh than they are.

6.5.3 Futures probability

Development of new charging technology for electronic devices is in higher probability from Finland. New technologies relating to alternative renewable energy are a probability that can gain industrial market and produce higher economic benefit. Micro level energy production technologies are the new trends that can be developed and commercialize in Future. Environmental know-how and protection is an asset and can probably take the form of enterprises in future.

7 THREE POSSIBLE FUTURES SCENARIOS FOR FINNISH ENTREPRENEURSHIP

Based on the results (futures possibilities, preferability and probability in chapter 6) of the study, author of this study has produced possible three futures scenarios of Finnish entrepreneurship by 2020. The scenarios are as follows:

Scenario 1: Increasing retirement age in Finland

Scenario 2: Development of unified government offices online

Scenario 3: Younger Millionaires

7.1 Scenario 1: Increasing retirement age

Driving Factors

Age of retirement in Finland will be increasing because of the following factors of change.

- Healthy citizens (Less smoking, decreasing obesity, lesser consumption of alcohol, active life, healthy food habits)
- Economic need for social security system and pension support
- Healthy natural environment (Pure air and water, tougher environmental regulation, sophisticated waste management system)
- Increase in life span (Healthy habits and environment supports increasing life span)

In 2020, Finland is a nation politically stable and economically sustainable. The citizens of the nations are health conscious with adequate food habits, healthy diets and well educated. Natural environment consists of pure air and water for all citizens with increasing numbers of properly managed trees, herbs and shrubs around. The development in health consciousness and healthy environment has increased the life span of Finnish citizens. Finnish labour market is still struggling for new workforce since the number of people retiring is higher than the number of people entering job market. This is all because of slower growth in population in last few decades. Finnish social security system and pension system needs more working people paying taxes to support social security system and pension payments for the retired citizens.

Keeping the need for economic support for Finnish social security system and pension payments, the nation increases the retirement age of the citizens since Finland has growing healthy citizens with longer life span. The increment of the retirement age is decided to be done in several periods of extensions. The age of retirement will be increasing based on the average life span of the citizens.

7.2 Scenario2: Development of unified government offices online

Driving Factors

- Stable political system
- Educated and tech savvy citizens
- Availability of technology and devices (Internet and computer with accessories)
- Government plans on savings the administrative cost
- Effective and fast services for all citizens
- Fast and effective services for entrepreneurs and enterprises (Accessible 24/7, any part of the world)

By 2020, all the institutions and governmental offices providing services to the entrepreneurs and entrepreneurship are unified together in single web page. The web page is providing all the services and information needed for entrepreneurs and enterprises. The web page is the combination of Enterprises Finland, Tax office, Patent and registry office, Pension offices, accounting system management, funding organization such as (Tekes, TE, Sitra etc.)

A customer can visit all the offices and organizations virtually using webcam and microphone to communicate online with the officials available with the help of a virtual queue. Most of the services are detailed with the help of interactive user interface on the web page that visitors of the webpage seldom need to contact officials online with online queue. The use of virtual forms, necessary virtual attachment will be enough to verify the entire necessary requirement for the services to be obtained. Meeting and discussion regarding funding, taxation, patent registration, company registration can be made online. This unified system on one hand saves cost of administrative operation for government on the other hand saves time, energy and money of customers (entrepreneurs). Apart from this, the system will be able to serve customers who does not need to contact or meet officials 24/7 as per the convenience of the customers.

7.3 Scenario3: Younger Millionaires

Driving Factors

- Change in education policies to develop innovation hubs in educational academies
- Implementation of education related to technology and entrepreneurship
- Entrepreneurial support by government
- Ease of Finance
- Development of failure to success cultures

School, university and vocational level studies are focusing in the development of entrepreneurial skills and innovation driven enterprises in Finland in 2020. The government has opened an easy to access support for every citizen to try on entrepreneurial activities by testing the business idea at any level of studies after the age of 16. Credits cards have provided easy access to finance for people in young age after 18 and the cost of running a business online is cheaper than in past. This phenomenon is helping people to try on new business ideas. Development of online business incubators and business angles has provided easy access to finance for the people with convincing ideas to innovate.

Increasing popularity of gaming industry and involvement of young generation in exploring and understanding the games are other trends persuading young people to develop their own games and sell them online. The use of 3D printing system has affected retail and manufacturing business of many kinds. Mobile accessories, computer accessories and medical models (tooth, skulls, skeleton system etc.) are being printed in desired colour and design using sophisticated 3D printing machines in retailing and manufacturing industry. Many young people have their own 3D manufacturing units with innovative 3D products. Trying business and learning from failure is another trend in Finnish society in 2020, which has leaded many of the young entrepreneurs towards success and increased the number of young millionaires in Finnish society.

8 CONCLUSIONS

8.1 Major results and self evaluations

Table2 presents a summary of the major results of this study. The findings are mentioned in brief.

Table 2: Major research results

	Political	Economical	Social	Technological	Environmental
Futures Possibilities	<ul style="list-style-type: none"> ➤ flourishing entrepreneurs and enterprises ➤ strong political support ➤ business development labs in education units 	<ul style="list-style-type: none"> ➤ Virtual office, chambered office, self-sustainable and manageable types of offices ➤ Reduction in labour cost ➤ 3D manufacturing and retailing ➤ Robotic manufacturing ➤ Africa, Asia and Latin America larger trading partners ➤ Cost saving changes in social security system 	<ul style="list-style-type: none"> ➤ Growing healthy life ➤ Increasing age of retirement ➤ Increasing young entrepreneurs ➤ Aging population inclined towards entrepreneurship ➤ Wider use of life long learning 	<ul style="list-style-type: none"> ➤ Completely wireless IT infrastructure ➤ Technological innovation in education units ➤ rise of young millionaires ➤ technological issues, tools, their development-new learning subjects in schools ➤ Demand of Finnish knowhow and experts globally ➤ Growing numbers of patents ➤ Immigrants' innovation ➤ Renewable energy innovation 	<ul style="list-style-type: none"> ➤ Energy entrepreneurship ➤ Unique and handy solar equipments ➤ Hi-tech hydro power ➤ Super batteries ➤ Solar energy efficiencies
Futures Preferabilities	<ul style="list-style-type: none"> ➤ Regulatory bodies fully online in a single platform ➤ Stakeholders' innovation 	<ul style="list-style-type: none"> ➤ Economic support from government ➤ Unification of grant agencies and instruments ➤ Innovation hubs in educational units ➤ New ways to seek innovation and innovative ideas from states 	<ul style="list-style-type: none"> ➤ Positive attitude towards business & entrepreneurship ➤ Learning from failure culture ➤ Brave and enthusiastic entrepreneurship 	<ul style="list-style-type: none"> ➤ Virtual communication with virtual devices ➤ Everything digitalized 	<ul style="list-style-type: none"> ➤ Self charging electronic devices ➤ Finland a tourist destination for all year round
Futures Probabilities	<ul style="list-style-type: none"> ➤ New service innovation from government ➤ High growth of Finnish entrepreneurship ➤ Rise of innovative firms ➤ Increasing Investment from state to firms 	<ul style="list-style-type: none"> ➤ Employees lay offs ➤ Learning new professions, mastering multi-profession, studying while at job ➤ Unemployed=New entrepreneurs ➤ State investment in technical and technological studies ➤ Unified business information system for firms 	<ul style="list-style-type: none"> ➤ Entrepreneurship more valued as career ➤ Millions of entrepreneurs ➤ Growing number of self-employed ➤ Rise of gaming industry 	<ul style="list-style-type: none"> ➤ Increase in technological teaching ➤ Digital entrepreneurs ➤ Digital entrepreneurship a new field of study 	<ul style="list-style-type: none"> ➤ New electronic charging technology ➤ Alternative renewable energy ➤ Micro level energy production

The study shows that emergence of new networks and innovation on every sector of development will be rapidly increasing in Finland, if a careful vision and right implementation of resources can be managed in time. Technology and globalisation have made the world a global market and open trade agreements are growing the possibilities of trade from one corner of the world to another. Finland, being a technologically advanced country should focus on how to cash its technological structure in to a business model by implementing new technologies in existing and developing industries.

Finnish entrepreneurship has good possibilities of support, technological preferabilities and higher probabilities of innovation in different field of business starting from the sustainable utilisation of natural resources to the development of hydro technol-

ogy, mobile technology, internet technology etc. The integration of knowhow of the stakeholders is essential. Therefore, finding common cause to work together is to be identified therefore a functioning model of innovation through stakeholders' integration needs to be finalised that is suitable for Finnish entrepreneurship.

Being a student of International Business Management during this thesis, I came to learn that entrepreneurship based on innovation has greater impact on the economy of a country. Slowing down the pace of innovation and interest towards innovation is dangerous for the life of firms consequently, utilisation of noble ideas as soon as they come into existence is crucial for enterprises. Exploring, understanding and analysing the environment of an organisation, country and people is recommended for firms since they are the source of ideas, trends, needs and demands of people in certain geographical region. Firms able to focus on research and development eventually turn into high growth enterprises. During this study, I have come to see new ideas to operate and organise my own business. I have planned that using some of the ideas of futures possibilities and preferabilities I shall start my own business. The study has inspired me towards being an entrepreneur.

At the end of this work, I realised that this work is of a great volume. The study was broad in terms of the subject choice. I tried to narrow it down at some level but still feel that it was bigger and very ambitious project. As an author and researcher of this study, I am satisfied with the work I have done and the results of the study. The study is able to show a bigger picture of Finnish entrepreneurship and its futures.

8.2 Managerial implications

The results of the study describe futures of Finnish entrepreneurship and the possible actions to be taken to shape the futures of Finnish firms. This study can help managers to understand the social, political, economical, technological and environmental trends of Finland. The study shows how these trends change our actions, and in what way the managers can make impact on the changes having understood the preferability of the society. Furthermore, the study generates a variety of ideas that can be used for the development of new businesses and firms in Finland.

The structure of the study and use of research tools in this study provide an insight for the managers on how to utilise the research tools to peep into futures in order to drive

organisation towards shaping and developing farsighted plans and goals for the firms. It also tells that the stability in business can be for shorter time if innovation and farsightedness in terms of understanding events and actions to determine futures changes are not made in time and constantly within the organisation by the managers. Managers are facing challenges of changes because of faster changing society, demographics, technology and their impact in environment. Thinking, discussing and analysing actions and events at PESTE level can help managers to develop broader understanding of the problems that are not visible but be in near futures. Therefore, keeping track on drivers of changes and understanding them is necessary for the managers today.

8.3 Political implication

Futures of entrepreneurship of a nation are largely based on the political, educational and economical policies developed and implemented by the nation. Results of this research indicate that political and economical policies are on the right direction to support the growth of entrepreneurship in Finland. Whereas, educational policies need some reform by adding more technological studies integrated in the curriculum related to the disciplines and professions.

Individual analysis of the elements of PESTE provided a larger view of the situation of Finnish entrepreneurship. Looking at this bigger picture, the increase in unemployment will shortly make society suffer from economical hindrances but bring new trends and prepare people for diversity in the development of one's career. Hugely implemented information technology and advancement of robotic technology is a boon for Finland and a curse as well because this trend will increase productivity of firms and industries and may put a larger number of human capitals out of work.

Accordingly, guiding to innovate and enterprise is vital in Finnish education system. Instruction and curriculum regarding enterprises and entrepreneurship is important to include in the curriculum of education at every level of the studies of the pupils. Teaching to produce a cook is not enough today therefore, teaching on how to become a restaurant entrepreneur after being a cook is essential. Producing managers should not be the goal of education but producing innovator and entrepreneurs should be the prime focus of education policies of Finland. A manager can help in managing a firm but an innovator can produce many firms for many other managers to be managed.

The study directs towards PESTE and the changes occurring in them. The possible solutions to the problems are available in the futures and one need to tend to look for them, dare to discuss about them and try to implement the possible solutions. From the point of political implication, the study is able to raise problems and proposes the possible scenario of the changes, which can be used in policy making in order to meet with the change and demand of futures. Development of entrepreneurship is extremely important for nations. However, understanding on appropriate way to encourage this importance is essential and needs to be initiated at political and policy level. In addition to this, the study has discussed the role of government and contribution of Finnish government on the development innovative industries. The study sees possibilities of mobilizing scholars and educational institution together with firms to innovate in political support and governance.

8.4 Idea for futures research and development

Every research is time specific, wild cards have turned down many hypotheses proven ideologies and facts in the past. Hence, the findings of the other researchers used in the empirical part of this thesis may be obsolete in time and days to come. In case of contemporary scenario of business world, this research has tried obtaining the results of the available research sources to be utilized as the data of empirical research in this study.

Below are three ideas for the development of new researches on the topics that are not covered in this study.

- This research has focused on the macro level of entrepreneurship with generalisation on the events as well having little number of interviews. The more rigorous research on the subject need to be conducted at micro and macro level therefore, possibility of better futures can be enhanced.
- A thorough study regarding social trends and changes can be made in order to see the futures of Finnish entrepreneurship only from the social perspective.
- Development of industry specific research can be conducted to visualise concrete scenarios of futures for Finnish entrepreneurship in a particular industry.

Ultimately, it is not to be confined that the future is shaped by the foundation of past and the decisions of presents. Based on the outcomes of this study, it is possible for Finnish entrepreneurship to utilise the strong foundations of Finnish politics, economy, technology, society and environment to enhance prosperity of social, human and knowledge capitals by foreseeing the trends and changes forwarded by the driving factors scanned and detailed in this study.

REFERENCES

Ahmad, N. & Hoffman, A. A Framework for addressing and measuring Entrepreneurship [Online] 2007. Available from: <http://www.oecd.org/industry/business-stats/39629644.pdf> [Accessed 10 May 2013].

Kosenius, A.K. & Ollikainen, M. Valuation of environmental and societal trade-offs of renewable energy sources University of Helsinki Department of Economics and Management Discussion Papers n:o 59 Helsinki [Online] 2012. Available from: <http://www.helsinki.fi/taloustiede/Abs/DP59.pdf> [Accessed 16 May 2013].

Atkinson, P. & Silverman, D. 1997. Kundera's Immortality : the interview society and the invention of the self. *Qualitative Inquiry*

Auvinen, H. Tuominen, A. & Ahlqvist, T.2012. Towards long-term foresight for transport: envisioning the Finnish transport system in 2100. *Foresight*. VOL. 14 NO. 3 2012. pp. 191-206. Emerald Group Publishing Limited

Brown, A. & Weiner, E. 1985. *Supermanaging: How to harness change for personal and personal and organizational success*. New York: Mentor.

Coates, J.F., Inc. 1985. *Issues identification and management: The state of the art of methods and techniques (Research Project 2345-28)*. Electric Power Research Institute, 3412 Hillview Ave., Palo Alto, CA 94304

Transparency international. Corruption by country. Finland [Online] 2014. Available from: <http://www.transparency.org/country#FIN> [Accessed 15 March 2014].

Countries and their Cultures-Finland. Finnish Family Trees [Online]. Available from: <http://www.everyculture.com/Cr-Ga/Finland.html> [Accessed 5 June 2013]

Dator, J. A.2002 .*Advancing futures : futures studies in higher education / edited by James A. Dator*. Westport, CT : Praeger

Defining entrepreneurial Activity, Definitions Supporting Frameworks for Data Collection [Online]. Available from: <http://www.oecd.org/industry/business-stats/39651330.pdf> [Accessed 16 May 2013]

Does Government Support for Private Innovation Matter? Firm-Level Evidence from Turkey and Poland. *CASE Network Studies & Analyses* [serial online]. May 2013;(458):1-75. Available from: Business Source Elite, Ipswich, MA. [Accessed September 21. 2013]

Economic growth (GDP), Changes in Volume of gross domestic product by quarter [Online] 1991-2013. Available from: <http://findikaattori.fi/en/3> [Accessed 10 May 2013]

Edquist, C. Luukkonen, T. and Sotarauta, M. 2009. Broad-Based Innovation Policy. Evaluation of the Finnish National Innovation System – Full Report. Taloustieto Oy. Helsinki Printing Press

EK. Path to Success-Corporate leaders' footsteps to growth [Online] 2010. Available from :
http://pda.ek.fi/www/fi/tutkimukset_julkaisut/2010/11_marras/Path_to_success.pdf
 [Accessed 10 May 2013].

EKOKEM. Waste Management In Finland [Online]. Available at:
<http://www.ekokem.fi/en/ekokem/waste-management-finland/waste-legislation-finland> [Accessed 13 August 2013].

Energy, Electricity Supply and Consumption [Online]. Available from:
<http://findikaattori.fi/en/21> [Accessed 16 August 2013].

Enonkoski. Waste Management In Finland [Online]. Available from:
<http://www.enonkoski.fi/uploads/liitetiedostot/palvelut/tekninen%20toimi/Englanninkielinen%20j%C3%A4teopas.pdf> [Accessed 13 August 2013].

Enterprises. Statistics Finland. Business register [Online] 2011. Available from
http://www.stat.fi/tup/suoluk/suoluk_yritykset_en.html [Accessed 16 August 2013].

Erkko Autio – Mathias Kronlund – Anne Kovalainen (2007) High-Growth SME Support Initiatives in Nine Countries: Analysis, Categorization, and Recommendations. Edita Publishing Ltd. MIT publication, Finland

Euro exchange rate in comparison with US dollar, European central bank, Eurosystem [Online]. Available from:
<http://www.ecb.europa.eu/stats/exchange/eurofxref/html/eurofxref-graph-usd.en.html>
 [Accessed on 16 June 2013].

European Commission. Enterprise and Industry. Digital Industry [Online]. Available from: http://ec.europa.eu/enterprise/sectors/ict/digital-entrepreneurship/index_en.htm
 [Accessed 19 October 2013].

European Environment Agency. Air Pollution (Finland) [Online]. Available from:
http://www.eea.europa.eu/soer/countries/fi/soertopic_view?topic=air%20pollution
 [Accessed 13 August 2013].

European Environment Agency. Fresh Water (Finland) [Online]. Available from:
http://www.eea.europa.eu/soer/countries/fi/soertopic_view?topic=freshwater [Accessed 13 August 2013].

European Union Support Programmes for SMEs An overview of the main funding opportunities available to European SMEs January [Online] 2012. Available from:
http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item_type=251&lang=en&item_id=5735 [Accessed 5 May 2013].

Eva's Global Scenarios - Playing fields of the future. Eva and Capful [Online]. Available from: http://www.eva.fi/wp-content/uploads/files/2443_EVA_SCENARIOS_playing_fields_of_the_future.pdf [Accessed 10 May 2013].

Fagerberg, J., Verspagen, B. 2009. Innovation studies: The emerging structure of a new scientific field. In *Research Policy* 38 (2), pp. 218–233.

Findicator. The society at large [Online]. Available from: <http://findikaattori.fi/en> [Accessed 10 June 2013].

Finfacts. Facts about Finland [Online]. Available from: <http://www.finnfacts.fi/eng/facts-about-finland/did-you-know-that/> [Accessed 09 July 2013].

Finland 1917-2007, Statistics Finland [Online]. Available from: http://www.stat.fi/tup/suomi90/elokuu_en.html [Accessed 10 May 2013].

Finland economic freedom score (Heritage) [Online]. Available from: <http://www.heritage.org/index/pdf/2014/countries/finland.pdf> [Accessed on 15 March 2014].

Finlex. Laki tietoyhteiskunnan palvelujen tarjoamisesta [Online]. Available from: <http://www.finlex.fi/fi/laki/ajantasa/2002/20020458#P26> [Accessed 15 May 2010].

Finnish competition and consumer authority. Antitrust [Online]. Available from: <http://www.kilpailuvirasto.fi/cgi-bin/english.cgi?luku=antitrust&sivu=antitrust> [Accessed 10 May 2013].

Finnish competition and consumer authority. Competition Act [Online]. Available from: <http://www.kilpailuvirasto.fi/cgi-bin/english.cgi?luku=antitrust&sivu=antitrust> [Accessed 10 May 2013.]

Finnish labour legislation and industrial relation. Ministry of Employment and Economics, Finland [Online]. Available from: https://www.tem.fi/files/31813/Finnish_Labour_Legislation.pdf [Accessed 2 May 2013].

Finnish Meteorological Institution. Climate in Finland [Online]. Available from: <http://en.ilmatieteenlaitos.fi/climate> [Accessed 16 August 2013].

Finnish Meteorological Institution. Seasons in Finland [Online]. Available at: <http://en.ilmatieteenlaitos.fi/seasons-in-finland> [Accessed 16 August 2013].

Flower, Floyd Jr. 2001. *Survey Research Methods*. London: Sega

Garland, E., 2006. *Future, Inc: How Businesses Can Anticipate and Profit from What's Next*. Business forecasting. Industrial management. Saranac Lake, NY, USA. PB - AMACOM Books

Gibson, J.W., et al. (1999). "The role of management history in the management curriculum:1997." *Journal of Management History*, 5 (5), 277-285

Glenn, J.C. Introduction to The Futures Research Methods Series. Millennium Project [Online] 2009. Available from: www.cgee.org.br/atividades/redirKori/3298 [Accessed 12 December 2012].

Global business cycle status [Online]. Available from: <http://www.economy.com/dismal/map/> [Accessed 22 May 2013]

Gordon, A., 2008. *Future Savvy : Identifying Trends to Make Better Decisions, Manage Uncertainty, and Profit from Change*. AMACOM Books. Saranac Lake, NY, USA

Harper, D. Online etymology dictionary [Online] 2014. Available from : http://www.etymonline.com/index.php?allowed_in_frame=0&search=entrepreneur&searchmode=none [Accessed 15 March 2014].

Helsingin Sanomat. Climate change already effecting Finland [Online]. Available from: <http://www.hs.fi/english/article/Climate+change+already+affecting+Finland/1329104943141> [Accessed 13 August 2013].

Heritage. Economic freedom index. Finland [Online]. Available at: <http://www.heritage.org/index/ranking> [Accessed 7 June 2013].

Hjerppe, Riitta. "An Economic History of Finland". *EH.Net Encyclopedia*, edited by Robert Whaples [Online] 2008. Available from: URL <http://eh.net/encyclopedia/an-economic-history-of-finland/> [Accessed 14.04.2013].

How Europe can Stimulate Growth-EK's EU Policy Recommendations up to 2015 [Online]. Available from: http://pda.ek.fi/www/en/publications/How_Europe_can_Stimulate_Growth_final.pdf [Accessed 17.05.2013]

Ruonala, T.K. Business in the forefront of the Green Economy [Online] 2010. Available from: <http://pda.ek.fi/www/en/publications/GreenEconomy.pdf> [Accessed 16 September 2013].

Impact of Public R&D Financing on Private R&D Does Financial Constraint Matter? ENEPRI Working Paper No. 30/February [Online] 2005. Available from: <http://aei.pitt.edu/6736/> [Accessed 12 August 2013].

In search of modern times-Finland's digital future, NYKYAIKAA ETSIMÄSSÄ Suomen digitaalinen tulevaisuus [Online] (Turkki 2009). Available from: http://www.eva.fi/wp-content/uploads/files/2573_nykyaikaa_etsimassa.pdf [Accessed 15 March 2014].

Inflation, Annual Changes of consumer price index [Online] 1980-2013. Available from: <http://findikaattori.fi/en/1> [Accessed 10 June 2013].

Toivanen, O. Innovation Policy, Entrepreneurship, and Development: A Finnish View [Online] 2009. Available from: http://www.wider.unu.edu/publications/working-papers/research-papers/2009/en_GB/rp2009-48/ [Accessed 17 September 2013].

Invest in Finland. Incentives to Foreign Companies Investing in Finland [Online]. Available from: http://www.investinfinland.fi/uploaded/files/IIF_Fact_Sheet_-_Investment_Incentives.pdf [Accessed 12 July 2013].

Invest in Finland. Why Finland [Online]. Available from: <http://www.investinfinland.fi/why-finland/5> [Accessed 9 July 2013].

Jackson, M. Practical Foresight Guide [Online] 2013. Available from: <http://www.shapingtomorrow.com/media-centre/pf-complete.pdf> [Accessed 2 September 2013].

Jha, N.K. 2008. Research Methodology .Chandigarh, IND: Global Media

Jyrki, A. Y.2004. Impact of Public R&D Financing on Private R&D - Does Financial Constraint Matter?. Helsinki: The Research Institute of the Finnish Economy (ETLA)

Korkman, S. Do Incomes Policies in Finland Have a Future? [Online] 2007. Available at: http://www.eva.fi/wp-content/uploads/files/1830_TUPO_English_summary_29-3-2007.pdf [Accessed 02 September 2013]

Korpinen, P. Helsinki –A city of future [Online] 2007. Available at: http://www.eva.fi/wp-content/uploads/files/1857_EVA%20raportti%2024.4_english.pdf [Accessed 02 September 2013]

Kothari, C. R. 2004 Research Methodology: Methods and Techniques. Social sciences -- Research. Daryaganj, Delhi, IND: New Age International

Lang, T.2011.An Overview of Four Futures Methodologies (Delphi, Environmental Scanning, Issues Management and Emerging Issue Analysis) available at: <http://www.futures.hawaii.edu/publications/half-fried-ideas/J7/LANG.pdf>

Life expectancy at birth (years) [Online]. available at: <http://www.indexmundi.com/g/g.aspx?c=fi&v=30> [Accessed 15 July2013].

Pentti, M.1993. The Futures Field of Research, Turku School of Economics and BusinessAdministration. Series C-1

Morrison, J. L.1992. Environmental scanning. In M. A. Whitely, J. D. Porter, and R. H. Fenske (Eds.). A primer for new institutional researchers (pp. 86-99). Tallahassee, Florida: The Association for Institutional Research.

Nevo, R. 1998. Trends and Patterns of Public Support to Industry in the OECD Area.STI Review, 21: 12–4.

Kettunen, N. Work ethics and the Finnish grindstone Does the Finnish Lutheran work ethic stand up to international comparison? [Online] 2012. Available from: <http://www.hs.fi/english/article/Work+ethics+and+the+Finnish+grindstone/1329103821571> [Accessed 08 August 2014]

O'Leary, Z. 2004. *The Essential Guide to Doing Research*. London: Sage

OECD (2011), *OECD Science, Technology and Industry Scoreboard 2011*, OECD Publishing.

OECD.Finland [Online] 2013. Available from: http://www.oecd.org/edu/Finland_EAG2013%20Country%20Note.pdf [Accessed 6 May 2013].

Official Statistics of Finland (OSF): Finnish enterprises [e-publication].2011. Helsinki: Statistics Finland [referred: 17.9.2013].Access method: http://www.stat.fi/til/syr/2011/syr_2011_2012-11-26_tie_001_en.html.

Official Statistics of Finland (OSF): Use of information and communications technology by individuals [e-publication].ISSN=2323-2854. 2012. Helsinki: Statistics Finland [referred: 19.10.2013].Access method: http://www.stat.fi/til/sutivi/2012/sutivi_2012_2012-11-07_tie_001_en.html.

One third of Finns are online shopper. Accessed on 10.05.2013. Available at: Official Statistics of Finland (OSF): Use of information and communications technology by individuals [e-publication]. ISSN=2323-2854. 2012. Helsinki: Statistics Finland [referred: 19.10.2013]. Access method: http://tilastokeskus.fi/til/sutivi/2012/sutivi_2012_2012-11-07_tie_001_en.html.

Osbourne, W. *Small business success: The roles planning, location, and government play in the entrepreneurship development*. (Order No. 1466965, State University of New York Empire State College). ProQuest Dissertations and Theses [Online] 2009. Available from: <http://search.proquest.com/docview/305171755?accountid=11365> [Accessed on 12 August 2013].

Ovidijus, J. PEST and PESTEL Analysis.Strategic Management Insight [Online] 2012. Available from: <http://www.strategicmanagementinsight.com/tools/pest-pestel-analysis.html#gathering> [Accessed 5 April 2013]

Population growth(annual %) in Finland [Online].Available from: <http://www.tradingeconomics.com/finland/population-growth-annual-percent-wb-data.html> [Accessed on 15 October 2013].

Public Policies for Fostering Entrepreneurship: A European Perspective edited by Joa~o Leita~o, Rui Baptista, *Entrepreneurship policy in Finland: Quest for New jobs*, Pia Arenius, 2009

Pursiainen, H. *A phone for everyone – from fixed to mobile services*. Publication of Ministry of Transport And Communication, Finland [Online] 2007. Available from:

<http://www.lvm.fi/filesserver/a%20phone%20for%20everyone%20%E2%80%93%20from%20fixed%20to%20mobile%20services.pdf> [Accessed 17 May 2013].

pwc. Tax Accounting Implications – tax rate change in Finland [Online] 2013. Available from: <http://www.pwc.fi/en/services/tax-rate-change-in-finland.jhtml> [Accessed 16 June 2013].

Research and Innovation Policy Guidelines for 2011–2015 [Online] 2010. Available from: http://www.minedu.fi/export/sites/default/OPM/Tiede/tutkimus-_ja_innovaationeuvosto/julkaisut/liitteet/Review2011-2015.pdf [Accessed 5 June 2013].

Ruokanen, T. Roadmap to Finland's Future Success [Online] 2004. Available at: http://www.eva.fi/wp-content/uploads/files/909_SummaryRoadmap.pdf [Accessed 5 June 2013]

School Directory. Religious beliefs in Finland [Online]. Available from: <http://www.spainexchange.com/guide/FI-religion.htm> [Accessed 10 October 2013].

Schumpeter, J. A. 1934. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and Business Cycle*. Transaction Publishers, New Brunswick, New Jersey

Seale, C., Gobo, G., Gubrium, J.F., Silverman, D., (eds.). 2002. *Qualitative Research Practice*. London: Sage. Rapley, T., 2002. *Qualitative Research Practice. Interviews*. London: Sage

Sitra. Tax incentives [Online]. Available from: <http://www.sitra.fi/en/artikkelit/funding/pekka-yla-anttila-do-innovation-policies-call-tax-incentives> [Accessed 07 June 2013].

Slaughter, R. A., 2002. From forecasting and scenarios to social construction: changing methodological paradigms in futures studies. *Foresight*, Vol. 4 Iss: 3, 26 – 31

Spinks, N. Talking about my generation. *Canadian Healthcare Manager*. Vol. 12, Iss.7, p. 11 [referenced 10 July 2008] [Online] 2005.. Available in ABI Inform Proquest Direct -database: <http://proquest.umi.com/pqdweb?did=931949501&sid=2&Fmt=3&clientId=52833&RQT=309&VName=PQD> [Accessed 07 May 2013]

State of the innovation union. European Commission [Online] 2011. Available on http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2011/state_of_the_innovation_union_2011_brochure_en.pdf#view=fit&pagemode=none [Accessed 05 May 2013].

Stevenson, L. & Lundström, A. 2007. Dressing the emperor: the fabric of entrepreneurship policy. In D.B. Andretsch, I.Grillo & A.R. Phurik (Eds.), Handbook of Research and entrepreneurship. Cheltenham:Edward Elgar

Suomen Pankki, Bank of Finland, Chart gallery [Online]. Available from: <http://www.suomenpankki.fi/en/tilastot/kuviopankki/Pages/default.aspx> [Accessed 22 May 2013].

Sustainable governance. Finland. Policy.Democracy.Governance [Online] 2013. Available from: <http://www.sgi-network.org/2013/Finland> [Accessed on 15 March 2014].

Team Finland. What is team Finland? [Online] 2014. Available from: <http://team.finland.fi/public/default.aspx?nodeid=46788&contentlan=2&culture=en-US>[Accessed 13 May 2014].

The Federation of Finnish Technology Industry .Innovation incentives will boost Finland's growth Strategy [Online] 2012. Available from: <http://www.teknologiateollisuus.fi/en/news/announcements/2012-12> [Accessed 11 July 2013].

The Global Competitiveness Report. World Economic Forum [Online] 2011-2012. Available from: http://www3.weforum.org/docs/WEF_GCR_CountryProfilHighlights_2011-12.pdf [Accessed on 15 July 2013].

The world Fact Book.Finland [Online]. Available from: <https://www.cia.gov/library/publications/the-world-factbook/geos/fi.html> [Accessed on 17 September 2013].

The world justice project. Finland [Online]. Available from: <http://worldjusticeproject.org/country/finland> [Accessed 20 June 2013].

ThisisFinland.Environmental Protection in Finland [Online]. Available from: <http://finland.fi/Public/default.aspx?contentid=160041&nodeid=41799&culture=en-US> [Accessed 13 August 2013].

THL study National Weight Gain Stop. Yle News [Online] 2013 Available from: http://yle.fi/uutiset/thl_study_national_weight_gains_stop_fewer_smoking_diets_more_healthy/6883732 [Accessed 16 October 2013]

Thompson, J. and Martin, F. 2010. Strategic Management: Awareness & Change. 6th ed. Cengage Learning EMEA

Thompson, J.L. 1999.The world of the entrepreneur-a new prespective.Journal of Workplace Learning: Employee Counselling Today Volume 11. Number6.pp. 209-244

Tietotori. The Finnish life style [Online]. Available from:
<http://www.tietotori.fi/jocke/kolding/lifestyle.html> [Accessed 21 June 2013].

Trading Economics, Finland inflation rate [Online]. Available at:
<http://www.tradingeconomics.com/finland/inflation-cpi> [Accessed 15 July 2013].

Vanston, J. H. Better forecasts, better plans, better results. *Research Technology Management* [Online] 2003. 46(1), 47-58. Available from:
<http://search.proquest.com/docview/213805557?accountid=11365> [Accessed 05 June 2013].

Vanston, J. H., 2003. Better forecasts, better plans, better results. *Research Technology Management* 46 (1), 47-58

Vehnämäki, M. Finland is teaming up for supporting business and development. *GREAT Insights*, Volume 2, Issue 5. July-August [Online] 2013. Available at:
http://www.ecdpm.org/Web_ECDPM/Web/Content/Content.nsf/0/B19E08EDAFF5AAACC1257B9700366D26?OpenDocument#sthash.hXuY7bxs.dpuf [Accessed 16 August 2013].

Veugelers, R. et. al. 2009. Evaluation of the Finnish National Innovation System – Full Report. Taloustieto Oy. Helsinki Printing Press

Veugelers, R., Toivanen, O., and Tanayama, T. 2009. Education, Research and the Economy. Evaluation of the Finnish National Innovation System – Full Report. Taloustieto Oy. Helsinki Printing Press

Walliman, N.S.R. 2004. Your Undergraduate Dissertation. Washington Dc: Sega Publication Ltd

Wendell, B., 1997. *Foundations of futures studies: human science for a new era*. Vol. 2, Values, objectivity, and the good society / Wendell Bell. New Brunswick : Transaction Publishers, cop

World bank group corporate flagship. Doing business. Profile, Finland [Online] 2014. Available from:
http://www.doingbusiness.org/data/exploreeconomies/finland/~/_media/giawb/doing%20business/documents/profiles/country/FIN.pdf?ver=2 [Accessed 15 May 2014].

World justice projects. Finland [Online]. Available at:
<http://worldjusticeproject.org/country/finland> [Accessed 10 April 2013].

World Press Freedom Index. Finland [Online] 2013. Available from:
http://fr.rsf.org/IMG/pdf/classement_2013_gb-bd.pdf [Accessed 6 June 2013].

Yrkkö, J.A. European network of economic policy research Institutes *working paper* no. 39 [Online] 2005. Available from: <http://aei.pitt.edu/11648/1/1257.pdf> [Accessed on 10 June 2013].

Interview Questions

1. How long have you been in business and how long would you like to work?
2. How did you start and when?
3. What are the numbers of employees in your organisation?
4. Did you have any support from Finnish governmental agencies or funding as an initial seed for your business?
5. How do you see the current situation of Finnish entrepreneurship?
6. Is your business/business field facing any problem regarding development of business/business field?
7. What are the problems that Finnish entrepreneurship is facing today?
Political, Social, Technological, Economical and Environmental
8. What can be possible solutions to the problems?
9. What is innovation in your opinion and how important is it for Business development?
10. What is the best source of innovation in your view?
11. What is the future of your business in coming 10 years?
12. What can be major source of innovation in Future and what new things are you expecting to come up from Finnish industries from following perspective?
Political, Economical, Technological, Social and Environmental
13. Do you know support policy of Finnish government regarding innovative starts up and businesses? What do you know?
14. What may be the new trend of entrepreneurship or new big business for Finland?

List of Figures and tables

Figure 1: Illustration of the topic choice	4
Figure 2: Structure of the thesis	8
Figure 3: Illustration of research timeframe	9
Figure 4: The examples of recent trends in Finnish entrepreneurship in terms of economic activities (source: Yle News).....	11
Figure 5: Illustration of the research concept generating theories and outcome	13
Figure 6: The holistic view of entrepreneurship with its dimensions.....	15
Figure 7: Enterprises in Finland based on type of industries (Data Source: Statistics Finland, 2012)	20
Figure 8: Types of Finnish Enterprise (Data Source: Statistics Finland 2012)	21
Figure 9: Size of employability in Finnish industries 2011(Data source: Statistics Finland).....	22
Figure 10: Turnover of Finnish industries in 2011(Data Source: Statistics Finland, 2012)	23
Figure 11: Comparison between industries and their employability 2011 (Data Source: Statistics Finland, 2012)	24
Figure 12: Structure and concepts of the Evaluation study on Finnish Innovation System, 2009	28
Figure 13: Actors for national innovation system supporting business development and support (Source: Evaluation of the Finnish National Innovation System – Policy Report. Taloustieto Oy, 2009)	30
Figure 14: Processes used for visualisation of Futures of Finnish entrepreneurship (Adapted from Auvinen, Tuominen and Ahlqvist, 2012).....	37
Figure 15: Outline of the thesis.....	38
Figure 16: Research Methodology Design (adapted from Zina O' Lary 2004, Glenn 2009).....	40
Figure 17: Illustration of the process involved in the development of interview questions	43
Figure 18: example of transcript analysis and filtration of data for research	44
Figure 19: Illustration of the template with the factors considered for the collection of data for PESTE analysis (Adapted from Ovidijus, 2012)	45
Figure 20: A sample of data analysis showing the formation of Technological part of PESTE chart	46
Figure 21: PESTE chart with negative and positive driving factors.....	57

Figure 22: Political driving factors influencing futures of entrepreneurship.....	59
Figure 23: Economic factors influencing futures of entrepreneurship	61
Figure 24: Social driving factors influencing futures of entrepreneurship	64
Figure 25: Technological factors influencing futures of entrepreneurship.....	67
Figure 26: Environmental factors influencing futures of entrepreneurship.....	70
Table 1: Description of respondents with schedule and duration of the interview.....	43
Table 2: Major research results.....	76

APPENDIX 3

Respondents' Code for interview

Code [R]	Respondents Domain	Brief Description
R1	Entrepreneur	Operating export business
R2	Entrepreneur	Service Industry
R3	Entrepreneur	Food and Service Industry
R4	Entrepreneur	Retail Industry
R5	Entrepreneur	IT Consultancy
[R]=Respondent		