

FINANCIAL SERVICE CLUSTER ATTRACTIVENESS IN FINLAND

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Bachelor's Thesis
November 2013

Degree Programme in International Business
School of Business and Services Management





Author(s) HOSSAIN, Md. Shahadat MAJAMAA, Riku	Type of publication Bachelor's Thesis	Date 18.11.2013
	Pages 63	Language English
		Permission for web publication (X)
Title FINANCIAL SERVICE CLUSTER ATTRACTIVENESS IN FINLAND		
Degree Degree Programme in International Business		
Tutor(s) AKPINAR, Murat		
Assigned by JAMK Centre for Competitiveness		
<p>Abstract</p> <p>The objective of this research was to find out the financial service cluster attractiveness in Finland.</p> <p>The research method is qualitative and quantitative study. The theoretical part of the research consists of theories on Emerald Model (six attractiveness dimensions) of a cluster. The main theme of the theory covers cluster attractiveness, educational attractiveness, talent attractiveness, R&D and innovation attractiveness, ownership attractiveness and environmental attractiveness of the financial service cluster in Finland. The empirical data was collected through semi-structured interviews over phone for cluster attractiveness but for the remains five dimensions, secondary data has been collected from different sources. Purpose of the interviews was to gather information about the cluster member's experiences and expectation about the future development of this financial service cluster.</p> <p>The results of this research point out that the present situation, challenges and future development of the financial service cluster in Finland. The cluster management is caused by the Finnish business environment of the financial service providers leading to difficulties in collaboration. The interviewees experienced challenges in sharing tacit knowledge in an environment in which forming trust relationships between cluster members is rare</p> <p>The main conclusion is that weaknesses in the knowledge and challenges sharing and the cluster management caused difficulties in clarifying the common practice and the common goal. Insecurity towards the abilities of the authority to guide the cluster members of practice could be fixed by improving the communication within the members.</p>		
Keywords attractiveness, financial service, cluster, Finland, competitiveness		
Miscellaneous		



Tekijä(t) HOSSAIN, Shahadat MAJAMAA, Riku	Julkaisun laji Opinnäytetyö	Päivämäärä 18.11.2013
	Sivumäärä 63	Julkaisun kieli Englanti
		Verkkojulkaisulupa myönnetty (X)
Työn nimi FINANCIAL SERVICE CLUSTER ATTRACTIVENESS IN FINLAND		
Koulutusohjelma Degree Programme in International Business		
Työn ohjaaja(t) AKPINAR, Murat		
Toimeksiantaja(t) JAMK Centre for Competitiveness		
<p>Tiivistelmä</p> <p>Tutkimuksen tavoitteena oli selvittää Suomen rahoitusala klusterin houkuttelevuus.</p> <p>Tutkimusmenetelmänä käytettiin sekä laadullista, että määrällistä tutkimusta. Teoreettinen osa tutkimusta perustuu klusterin "Emerald malliin" (kuusi houkuttelevuuden ulottuvuutta). Teorian pääteemana on Suomen finanssialan klusterin, koulutuksen, taidon, tutkimuksen ja kehityksen, innovaation, omistamisen ja ympäristön houkuttelevuus. Empiirinen aineisto klusterin houkuttelevuudesta kerättiin puhelinhaastatteluilta mutta muiden viiden ulottuvuuden aineistot kerättiin eri lähteistä. Haastattelujen tarkoituksena oli kerätä tietoa klusterin jäsenien kokemuksista ja odotuksista finanssialalla.</p> <p>Tämän tutkimuksen tulokset osoittavat Suomen finanssialan klusterin nykytilanteen, haasteet ja tulevaisuuden kehittämisen. Klusterin johtajien ongelmat aiheuttavat ongelmia yhteistyössä klusterin sisällä. Haastatellut kokivat että heille on vaikeaa jakaa hiljaista tietoa ympäristössä, jossa klusterin jäsenten välinen luottamuksen muodostaminen on harvinaista.</p> <p>Tärkein johtopäätös on, että heikkoukset tietämyksessä ja haasteiden jakamisessa ja klusterin johdon aiheuttamat ongelmat yhteistä käytäntöä ja tavoitetta tavoiteltaessa. Epäusko viranomaisten kykyyn ohjata klusterin jäseniä, voitaisiin korjata parantamalla jäsenten välistä viestintää.</p>		
Avainsanat (asiasanat) houkuttelevuus, finanssiala, klusteri, Suomi, kilpailukyky		
Muut tiedot		

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1 INTRODUCTION

Now Finland is a developed society which was not before. Finland has done lots of social developments with a significant economic progress which could be followed by other nations as a model of prosperity. Hundred years ago, Finland was a developing country. Finland was not a core part of Europe at the consideration of power and economy but it could be described as a small society which was in the trap of poverty.

In 1800, Finland was a Swedish colony which has been considered one of the poorest places in the world. At that time Finland was not an industrialized country. Most of the economic indicators were very low. Productivity in agriculture was low. There was no large scale of industry and big cities. The literacy rate was low along with high fertility and mortality rates. The big part of foods was imported. At that time, the only export goods were timber and tar as raw materials. The economic growth was not mentionable but the population was growing faster. Because of the population explosion, they were suffering from hunger. From 1867 to 1868, 15% of population died of hunger and diseases (Haapala, 2000).

Before 1850s, there was a limited annual growth below 0, 5% in Finland. The agriculture system was non-mechanized, therefore, 80% of population was employed in agriculture and the productivity was very low. At the mid of 19th century, the situation was changing gradually. Finland was experiencing a continuous economic growth because of the industrialization trends. By this time, the demand of timber and tar was increasing which brought money to the farmers. After getting that money, farmers started to invest in farming.

From 1809 to 1917, Finland was one of special economic zone of Russia and it should be mentioned that Russian empire was capitalist. But this territory did not accept ruthless capitalism and they avoid the power of money. In this area, most of the companies changed their attitude to the workers. As a result, they have also concentrated on the workers living standard. They have ensured the workers housing and education. Consequently, they avoided some problems and living standard improved which had been one of the tools of the liberation and civilization.

From 1920 to 1940, the independent Finland was a closed economy. They survived by exporting paper to the west and adopted the western technology. They started to

accept industrialized infrastructure, railroads and power stations, were built by the state. After the Second World War, Finland started to enter the European free market and made some agreements with Great Britain, USA and Soviet Union. Finnish economy started to deregulate at the end of 1980s. Consequently, they experienced banking crisis, bubble economy and economic depression. But in 1990s, they have got another opportunity to overcome the depression because of new information technology which has been demanded globally. This new information technology business opens new economy for Finland and they have taken the full advantage of it.

From the above discussion, the readers have already observed two clusters, Forest industry and ICT cluster. There was another cluster which was growing slowly and silently to support these clusters or independently. There was some group of people working to develop financial service cluster at the same time. The authors are interested in the field of financial service cluster in Finland.

Now the reader will get the birth idea of Finnish financial cluster. Bank is the operator of the financial service industry. According to the history of bank establishment, Finland has the world fourth oldest bank. The bank of Finland has been established while Finland transferred from Swedish rule to Russian. Tsar Alexander established a saving and loan company in Turku in 18011. Later on, the bank has been relocated to the capital city in 1819. After a long time Finland got commercial banks. In 1875, the bank of Finland started to work as central bank to keep the financial institutions stable as well as promoting and ensuring flexible flow of cash. Consequently, the responsibilities were increasing and they had realized skills workers to meet the demands.

Swedish School of Economics and Business Administration (Hanken) was founded in 1909 but it was only for the Swedish speaking people. Helsinki School of Economics and Business Administration was the first business school for the Finnish speaking people, founded in 1911. After forty years, Turku School of Economics and Business Administration was founded in 1950 and the next School of Economics and Business Administration was established in Vaasa (1968). Surprisingly, Finnish stock exchange market has been established in 1912 (Vaihekoski, 2008, 6-7).

The latest financial crisis started in 2008. It struck hardest in North America and Europe driving the both continents in to depression. Examples of the effects are businesses going bankrupt and employees losing their jobs because companies needed to make savings in order to keep going and not go to bankrupt. Countries' exports have decreased as well because of the crisis. For example, in Finland this was seen in a way that the volume of import exceeded that of exported. Lately, the markets have shown signs of recovery. The financial crisis is, in itself, an interesting phenomenon and the authors are interested in its effects on Finland's economy and how companies react to it in a certain industry.

This thesis focuses on the financial service cluster in Finland. Finland has many strong clusters like the forest industry and the IT industry. The financial service cluster is not the biggest in Finland but it is important to Finnish economy like in any country's economy.

The goal of this thesis is to find answers to the following research questions:

- How has the financial crisis affected the financial services cluster in Finland and how has it responded to it?
- What is the future like for this cluster?
- How could the cluster improve its attractiveness?

By finding answers to these questions, we can form an overall picture of what has happened in the financial cluster in Finland during this crisis.

This thesis is also about understanding the attractiveness better in general: What makes a cluster more attractive to the companies and to the public.

This thesis has been assigned by 'JAMK Centre for Competitiveness'. The JAMK Centre for Competitiveness provides platform to enhance the communication, knowledge creation and global competitiveness in Finland. JAMK is a member of the Microeconomics of Competitiveness (MOC) network developed by Professor Michael Porter at Harvard Business School's Institute for Strategy and Competitiveness. This network consists huge number of universities around the world.

2 CONCEPTS

A concept itself is a complete picture of the whole work, research, process and the final outcomes. The overall concepts will be illustrated according to the economic developments and advancement, and the later on, the national financial services industry as a whole will be presented with their contributions and gains in terms of national economic developments. Under these concepts, the attractiveness of the Finnish financial services cluster and the main drivers of this cluster will be described within a theoretical framework.

2.1 Competitiveness

Competitiveness is the most out spoken word or term used in all the subject areas of competitions. Competitiveness does not indicate competition, but the ability to compete with competitors. There are a lot of definitions about competitiveness. The established definition by M. Porter in 1990 has been accepted by most scholars but it is still a debatable issue in the case of the subject area of indicators measuring the effectiveness of competitiveness. Competitiveness has been taken under consideration by the local government, national level, companies, industries and enterprises. The importance of competitiveness has been realized in this free market economy. The free flow of products and goods promoted the competition on the international level. Most nations, companies and industries have to rethink about their present situation and future sustainability which indirectly indicates the competitiveness. Competitiveness is defined by the productivity with which a nation utilizes its human, capital and natural resources. To understand competitiveness, the starting point must be a nation's underlying sources of prosperity.

A country's standard of living is determined by the productivity of its economy, which is measured by the value of goods and services produced per unit of its resources. Productivity depends both on the value of a nation's products and services – measured by the prices they can command in open markets – and by the efficiency with which they can be produced. Michael Porter (2005) states "Productivity is also dependent on the ability of an economy to mobilize its available human resources". At the industry level, competitiveness refers to achieving a sustained success compared to foreign competitors without the protection or subsidies in a particular

industry of a nation (Blunck, 2006). The OECD considers that ‘the competitiveness is the degree to which a country generates, while being and remaining exposed to international competition, relatively high factor income and factor employment levels’ (OECD, 1997). According to the World Economic Forum (WEF), competitiveness describes “the sets of institutions, policies and factors that determine the level of productivity of a country”. Prof. Ronald L. Martin writes about competitiveness as following:

An economy is competitive if its population can enjoy high and rising standard of living and high employment on a sustainable basis. More precisely, the level of economic activity should not cause an unsustainable external balance of the economy nor should it compromise the welfare of the future generations.

2.2 Finnish National Competitiveness

Finland is one of the most competitive among in this world. The economic competitiveness of a nation is determined by national GDP (Gross Domestic Products), Inflation rate, Interest rate and unemployment rate etc. PPP (Purchasing Power Parity) is shown as competitiveness indicators because of the buying ability of others’ services and products. The nations which possess a big figure of GDP have the more buying power. Finnish national PPP stands above compare to the other EU national’s average for the last 6 years.

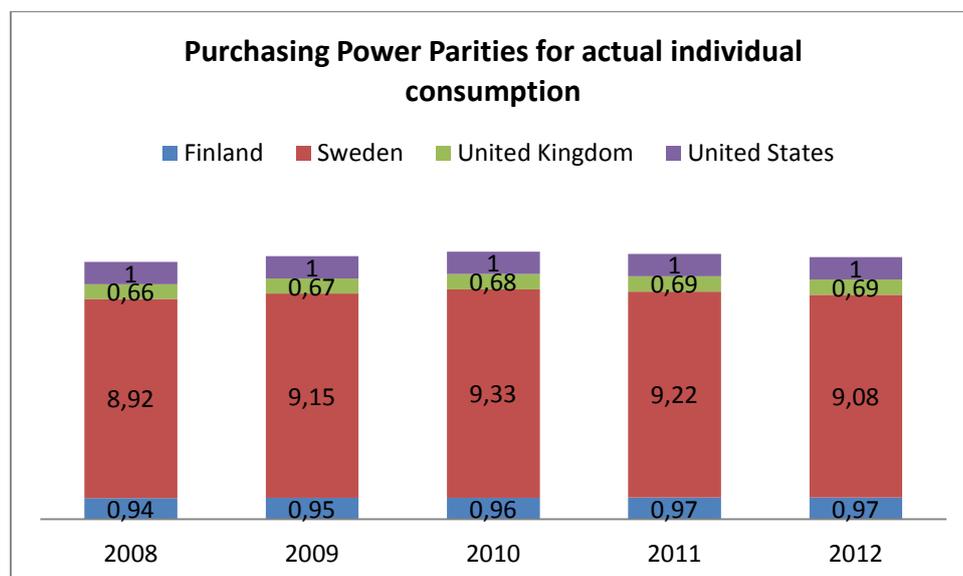


Figure 1 Purchasing Power Parity (Source: OECD 2013)

As only the PPP is higher doesn't mean that the nation is competitive. Inflation rate and interest have also influences in economic competitiveness. If the nations have higher inflation and interest rate, the nations have malfunctioned economic performance. Because, with the higher inflation and interest rate, the nations have to pay more money to buy the same products and services compare to the earlier period of time.

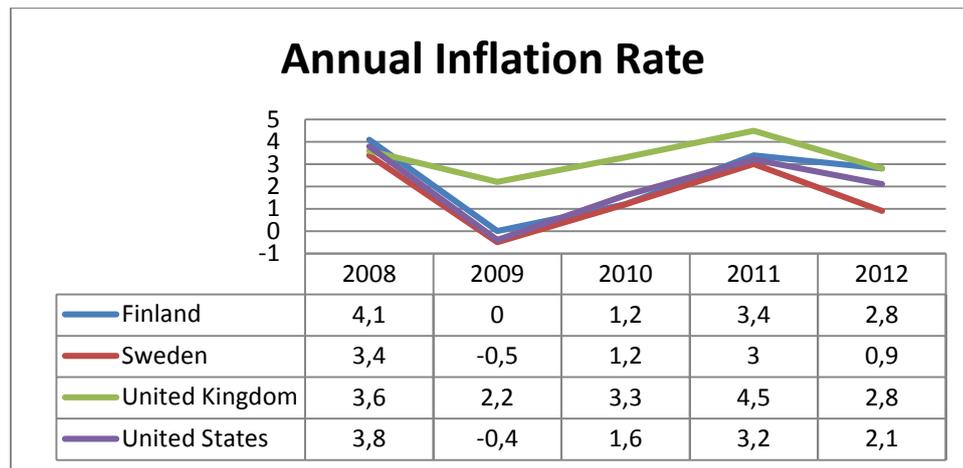


Figure 2 Annual Inflation Rate (OECD 2013)

With the increases of interest rate and inflation rate also affect the wage of the employee, price of the products and exchange rate. If the exchange rate fluctuates more frequently, then the business environment will be affected. It proves that the national economy is not standing with a strong base. At the same time, the FDI will decrease because the currency market is risky. Finnish inflation and interest rate are still adorable and steady compare to other nations for the last few years.

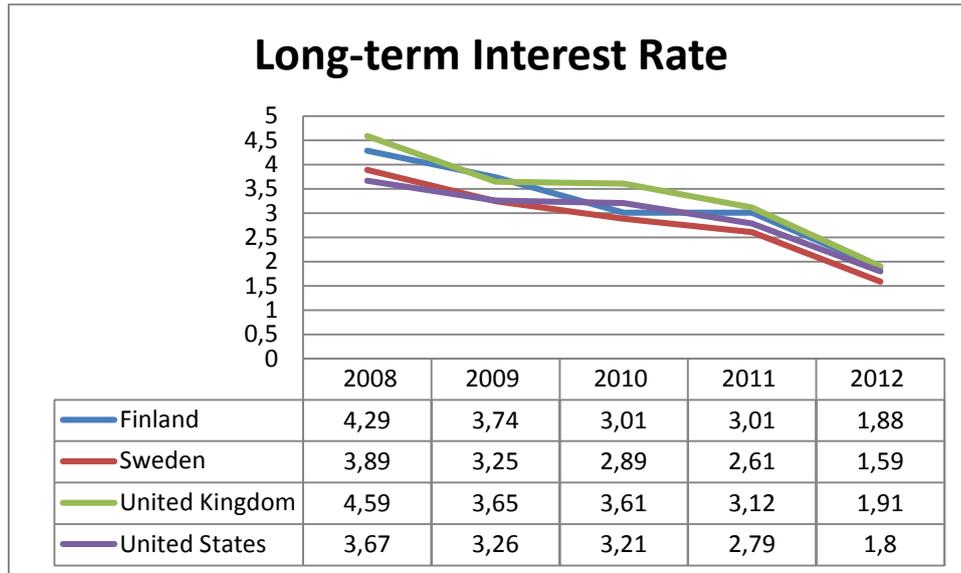


Figure 3 Long-term interest rate (OECD 2013)

Finland has a consistent and moderate unemployment rate over the last six years.

But the unemployment rate has been fluctuated more frequently. From the following figure, it has been noticed that almost in mid of every year, the unemployed rate rose dramatically.

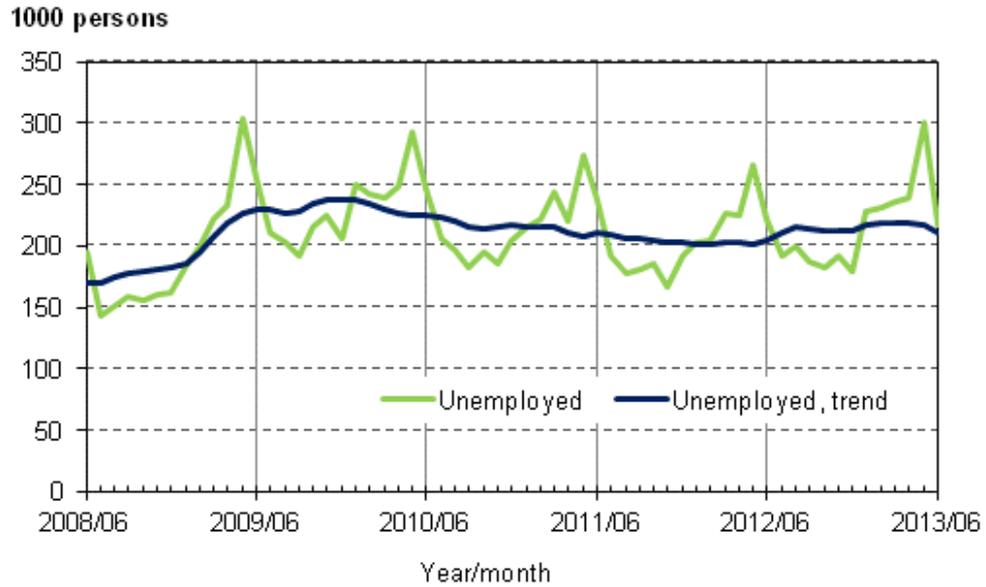


Figure 4 Unemployment Rate of Finland (Source: Tilastokeskus 2013)

The global economic recession has also impact on unemployment rate slowly and silently. Many of the EU countries are fighting with this crisis. By comparing with the following world leading economy countries, Finland is in good position to mention.

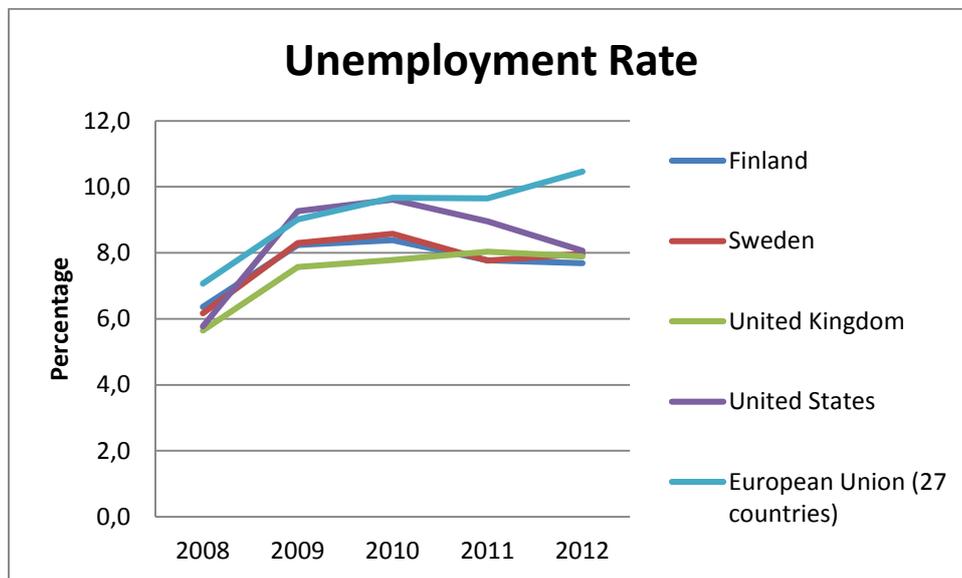


Figure 5 Unemployment rate (Source: OECD 2013)

World Economic Forum publishes national competitiveness rank and score annually. They conduct a complete research on national’s competitiveness. Finland is keeping a good track. The following table is showing the record of past seven years.

Table 1 Global Competitiveness rank of Finland (World Economic Forum Report 2006 to 2013)

Year	Rank
2005-2006	2nd
2007-2009	6th
2010	7th
2011	4th
2012	3rd

2.3 Cluster

A cluster is a nebulous concept. In 1980s M. Porter has been observing geographical concentration, more precisely the cluster for a certain industry in a certain region. In 1986, he started to travel all over the world to familiarize himself with many clusters. He mentions some noticeable clusters in his book 'The Competitive Advantage of Nations'. For example, Michael E. Porter (1998, 4-5) has described the comical and automobile in Germany, Italian footwear and textile, Swiss pharmaceutical clusters etc. Europe has realized the importance of clusters and established the European Cluster Observatory later on. European Commissions is trying to boost the clusters in the different regions within the European Union area. 'No single nation is or can be competitive in all business industries' (CLUSTERS Balancing Evolutionary and Constrictive Forces 2009).

There will be many other supporting industries to reach the excellence of clusters. Cluster does not only produce the best quality of products but also creates an ideal business environment, different from the same industry in other region or part of the world. In the book of Clusters Balancing Evolutionary and Constructive Forces, Professor Örjan Sölvell has shown the birth and death stages of a cluster (Life Cycle). However, a cluster does not ensure the evergreen competitiveness of a certain industry but there are some strategies to gain through a sustainable cluster for a period of time. The agglomeration has been shown as the driving force of a cluster. These four agglomerations are the power tools of a cluster which indicates the economies of scales and scope (Efficiency and flexibility), continuous innovation (Sustainability), technological improvement and the supporting activities (Drivers activities).

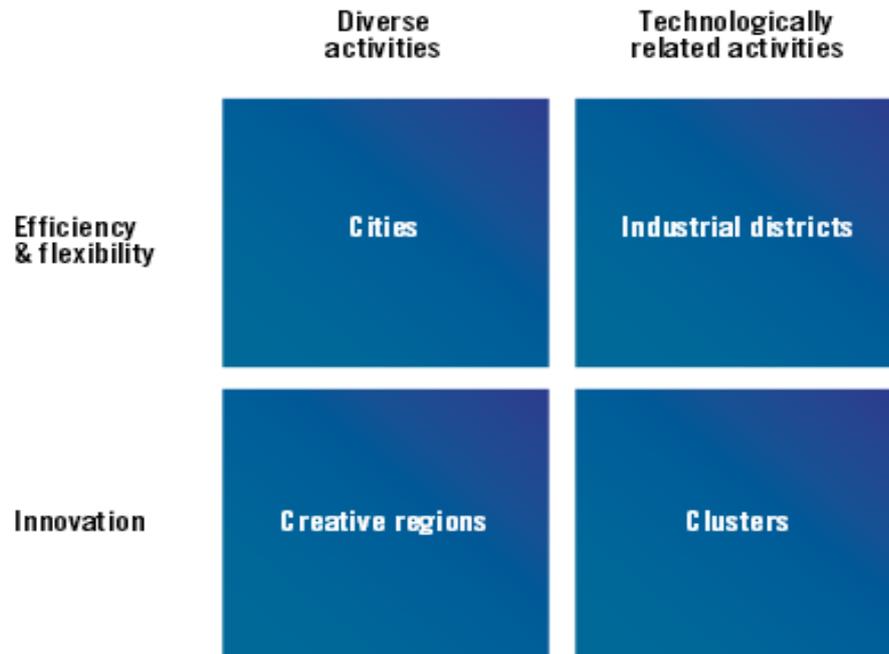


Figure 6 Four types of agglomerations (ÖRJAN SÖLVELL 2009, 14)

Mr. Sölvell, in his book shows that a cluster is nothing more than communication and networking among the players or actors in a cluster. Porter described two types of clusters according to networking, a vertical and a horizontal cluster. Vertical clusters consist of industries or firms linked through buyer or seller relationships. Horizontal clusters share a common factor. This may be market for end products, common technology, skills, or natural resource (Kleinhardt-FGI December, 2002). Networking and communication between the competitors in the same industry will point out the common barriers and threats for the industry and common solutions for all. Furthermore, it also creates a common platform which will facilitate communication or getting attention from the appropriate authorities. By networking with the local universities and research institutes, it will create the knowledge based human capital (creative society) and continuous innovation, R & D (lengthier industry/cluster's life cycle). Consequently, the cluster has different players which are not in the same industry but facilitate the cluster as a supporting industry which could be existed before or after the cluster has been initiated. The following picture shows the different players in a cluster.

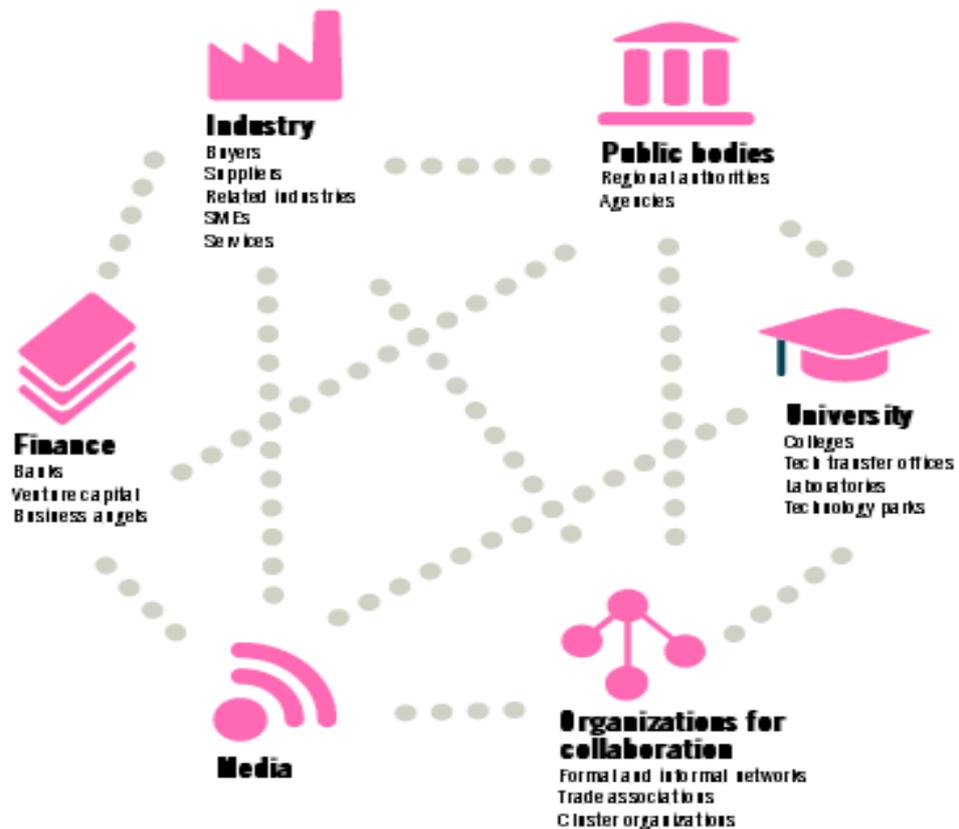


Figure 7 Common actors in a cluster (SÖLVELL 2009, 16)

Mr. Porter in his book “The Competitive advantage of nations” has shown that natural resources or special skills and competencies could be the most influential instruments for a cluster, for example winter car testing in Sweden (Porter 1998, 4-5).

Moreover, a cluster is a geographic concentration where all the institutes will come together; share their knowledge and best practices of business by fulfilling their missions and visions.

2.4 Financial Services Cluster Actors

“Financial services” is a complete industry where different actors have various roles. According to the Finance Act 1994 section 65 (10), Financial Services sector has a broad definition, which provides various products and services. In general it consists merchant banks, credit card companies, stock brokerage and securities, insurance companies, finance houses, pension companies and real states etc. They have various kinds for the facilitation of various financial transactions and other related

activities in the world of finance like Investment Banking, Credit Rating, Consumer Finance, Housing Finance, Asset Restructuring, Mutual Fund Management Company, Depository Services and Debit Card etc. On the other hand, it could be explained as **Financial services** refer to services provided by the finance industry.

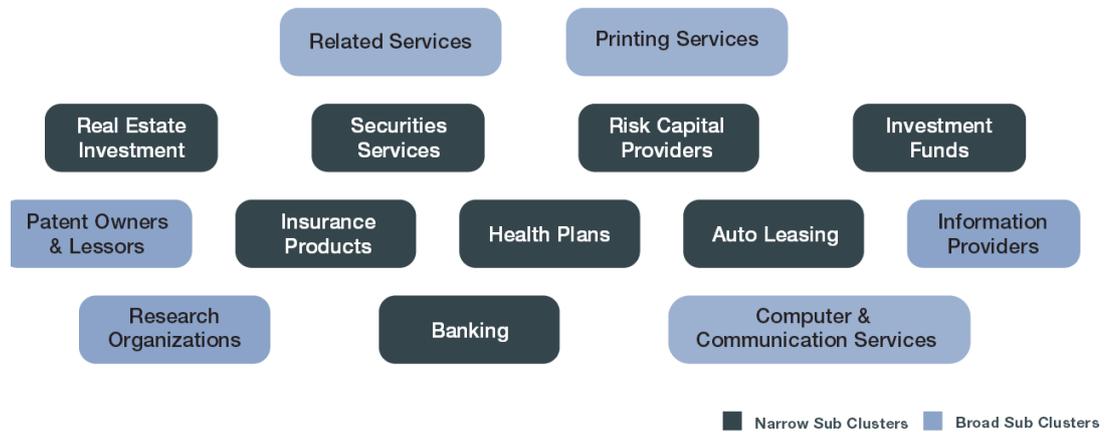


Figure 8 Financial Services Cluster players (James B. Milway, Sana Nasir, Claudelle Poole and Ying Wang 2007, 8)

3 THEORETICAL FRAMEWORK

Whether evaluating a qualitative or a quantitative study, it is wise to look for the theoretical framework, which guides the study. There are different types of established theories available for observing and drawing conclusions from the cluster performance. Many research institutes are conducting researches and many research papers are also available. For examining the Finnish financial services cluster, “The Emerald Model” has been considered. It is one of the most popular cluster models. There are always something missing SWOT analysis (Albert Humphrey in the 1960s-1970s), Balance Score Card (BSC Norton & Kaplan 1990) and Porter’s Diamond Model (in 1990). All these models are well known to find or test the performance based analysis for company, industry or even for the national level. But the most important part that has been entirely missed, and that is now a global concern the environmental problem. In the “Emerald Model” it has been taken into account. Consequently, the “Emerald Model” has been considered a valid theoretical structure suitable for the situation.

The Emerald model is a new theoretical basis established in 2012 by Torger Reve and Amir Sasson. Competitiveness is a complex concept which should be followed by a number of economic, social and institutional variables (Delgado et al, 2012). Torger Reve and Amir Sasson (2012, 8) have tried to illustrate the attractiveness of a business cluster to be located and operated in a certain geographic area with their model of six dimensions.

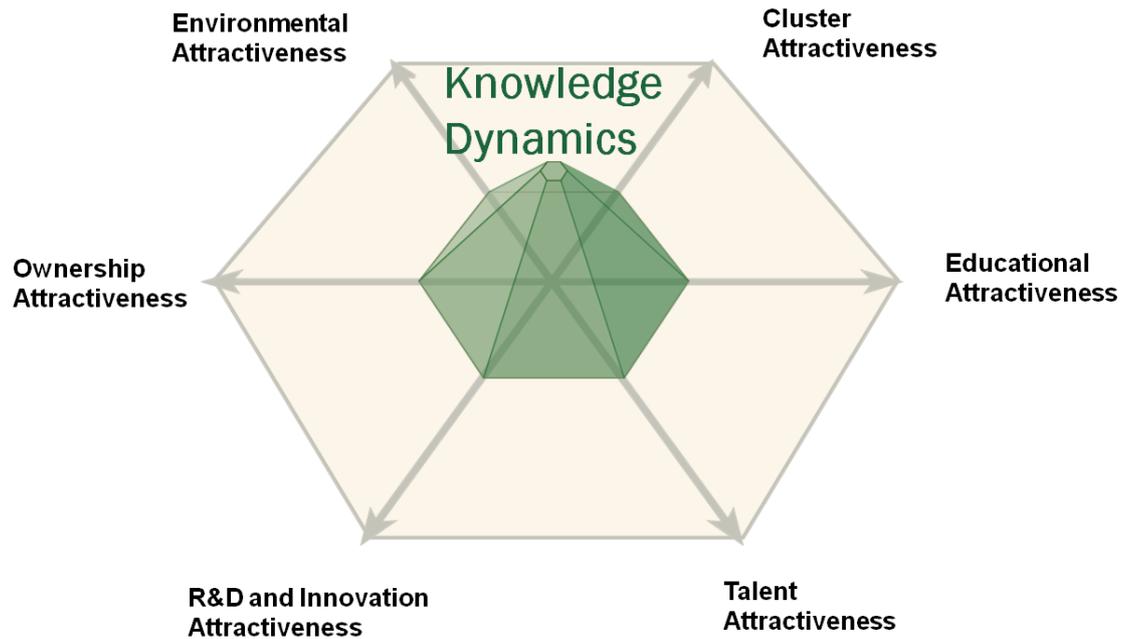


Figure 9 Emerald Model of A Cluster (Torgler Reve and Amir Sasson, 2012, 11)

3.1 Cluster Attractiveness

Cluster attractiveness will describe future attractiveness perspectives of the financial services cluster. The geographic concentration facilitates the operations of the cluster players, more precisely the stakeholders of the cluster (employee, employer, institutions and authorities etc). It will help to establish cluster organizations and make it easier to communicate with the cluster players at the same time. Cluster organizations will arrange some meetings, programs and a common platform to share the knowledge. The Distance between the cluster players is a factor needing consideration. Bringing the cluster players closer to each other will increase the strength of the cluster activities. It will reduce the transportation costs, the costs of a joint infrastructure and communication costs .Cutting the distance will also make it easier to share the tacit knowledge, which is not possible to do with any other form of communication (Sölvell,2009, 37).

Cluster attractiveness will facilitate acquiring skilled workers and will also be a potential future work place for potential employees and also open various business opportunities. According to Michael Porter (1998, 76(6): 77-90),

The proximity of companies and institutions in one location- and the repeated exchanges among them- fosters better coordination and trust. Thus clusters mitigate the problems inherent in arm's-length relationships without imposing

the inflexibilities of vertical integration or the management challenges of creating and maintaining formal linkages such as networks, alliances, and partnerships.

3.2 Educational Attractiveness

A cluster becomes more successful when it has enough skillful and specialist workers. Skills and expertise are acquired through education and experiences. Educational institutes and education itself have a great impact on the potential of a cluster. A cluster requires specialists of various fields of studies. Educated workers have a remarkable influence on productivity compared to uneducated workers. In a free market economy, raw materials and technology are available for all but skillful human capital is not available in everywhere, which can make the actual difference compared to the competitors. Furthermore, the cluster life cycle also depends on education because it will increase innovation and will help to build the supporting industry required for the clusters to be fulfilled.

Education in the field of a business cluster will create more options for the cluster firms in terms of selecting the potential employees. The percentage of present student and the growing number of potential students taking the subject field of the cluster proves the cluster's educational attractiveness. To prove the attractiveness of a cluster, the number of degree programs, students, training courses and graduates in the subject field of the cluster will be presented under this dimension.

3.3 Talent Attractiveness

Talent attractiveness is the third dimension of the "Emerald Model" which will demonstrate the degree of attractiveness for the talented workers. We know that talented people are spread all over the world. Education produce talented workers and cluster creates the environment or scope of presenting talent and ability for the talented workers. Average wage, employment mobility, working environment and facilities will attract the talented employees. If the wage and sustainability of employment are high, then the cluster will be able to attract talented workers.

Cluster size could be also shown as a talent attractiveness tools. European Cluster Observatory (2011) describes that the amount and quality of knowledge circulating and spilling over between firms, located in a cluster, is dependent upon the cluster's size, the degree to which it is specialized and the extent to which the locality (the region) is focused upon production in the relevant industries comprising the cluster. European commission has presented cluster size as 0 to 3 stars according to the employment percentage. If the cluster receives 3 stars as a cluster rating, then it proves that the cluster has a meaningful impact on the European economy.

3.4 R&D and Innovation Attractiveness

Research and development is one of the important tools of sustainability. The sustainability of firms, companies, industries, clusters and nations depends on their ability of continuous innovation. Using entrepreneurship and innovation interchangeably, it defines new combinations as a new good, a new method of production, opening a new market, the conquest of a new source of supply, changing industry structure (Schumpeter, 1934). On the other hand, innovation depends on the capacity of learning new things (Cohen& Levinthal, 1990, 35: 128-152). In this paper, R & D and innovation present according to the investment capacity and patent by the cluster firms followed by last few years' record. Cluster firms that are able to innovate more, are more attractive for new resources, e.g., employees, owners, and firms, to increase investments in the cluster.

3.5 Ownership Attractiveness

Ownership attractiveness depends on the regional policy which can be either investment friendly or not for the investors. This ownership policy could be a barrier for the cluster firms. An industry's ownership attractiveness is defined as the extent to which it manages to attract competent capital, either national or foreign, to finance its activities (Sasson and Blomgren 2011). There could be different types of funding with different terms and conditions for example venture capital, government seed money to encourage the entrepreneurs. There could be some excellent project which could not continue because of fund lacking. In this research, ownership attractiveness will be shown according to amount of FDI in the cluster and "the

amount and growth” of venture capital in the cluster during the last five years. With the amount of FDI will indicates the attractiveness on the international level and similarly, the venture capital will indicates the degree of attractiveness in the national level.

3.6 Environmental Attractiveness

Environmental awareness is one of the most prioritized questions and a hard talk all over the world. The rapid changing of environment is influencing on the business as well. A large number of businesses could be shut down because of these environmental changes and at the same time, there could be some emerging industry. From the investors to the local authority and customers want to see the environmental foresee of the firms. In case of “Financial Services” sector, no concrete data is available which has direct impact on environment. But this sector has a great impact on the environmental issues like financing the less carbon-di-oxide emission business. For the lack of industry related data on this issue, the national level data will be presented to show the environmental attractiveness.

4 RESEARCH METHODS

As our research method we used longitudinal case study. Toon Taris (2000, 7) writes about longitudinal data as following:

The last three decades of the 20th century have witnessed a growing interest in the collection and analysis of longitudinal data – that is, data describing the course of events during a particular time period, rather than at a single moment in time.

Our case was the financial service cluster in Finland and we looked a longer time period up till year 2012. By doing so we could see the difference the financial crisis made in the financial service cluster during that time period.

We had several measurements for the different dimensions of attractiveness (see table 2.). For our six dimensions we had in total 21 different measurements. Out of 21 measurements six are in educational, three in talent, three in R&D, two in ownership, four in environmental and three in cluster attractiveness.

Table 2. Measurements

Educational	Environmenta	Talent	R&D	Cluster	Ownersh
i	i				p
Graduate students	Greenhouse emissions per capita	Educated workers	Scientific availability	National agglomeration	Foreign ownership
Foreign students	% of renewable energy in total energy production	Foreign workers	Innovative output	Value creation	Venture capital
Popularity	Treatment of environmental toxics	Economic incentives	R&D investments by companies	Internationalization	
Licentiate and doctoral graduates	R&D investments in environmental projects				
Craft certificates					

In addition to these measurements we also had one measurement for general info about the cluster and four about the cluster dynamics.

Table 3. Additional measurements

Cluster dynamics	General

Competitive linkages	No. of enterprises, employees and total revenues
Collaborative linkages	
Labor dynamics	
Cluster dynamics	

4.1 Data collection methods

Both qualitative and quantitative data were used in this thesis. Based on the research “onion” (see figure 10.), a survey has been concluded to obtain qualitative data to apply to our theory base. The qualitative data has been collected from various data bases.

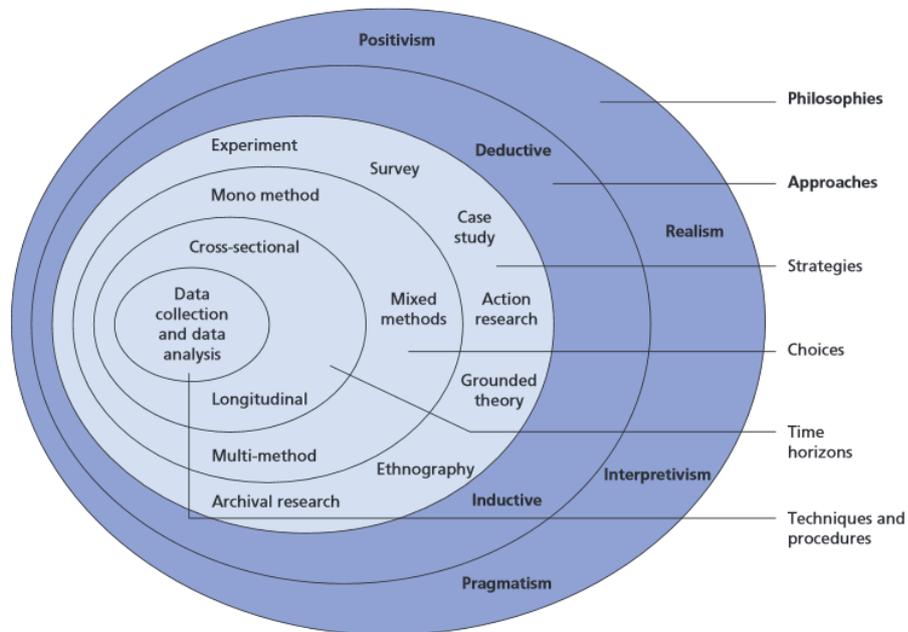


Figure 10. The research "onion" (Saunders, Lewis and Thornhill 2008, 108.)

“Mixed method is the general term for when both quantitative and qualitative data collection techniques and analysis procedures are used in a research design.” (Saunders; Lewis and Thornhill 2007, 145). Mixed methods was used in the thesis because as stated before both quantitative and qualitative analysis procedures were used in this thesis.

By identifying the research questions (see chapter 1) and then applying them to our theory base we found out what kind of data we needed and where we could get it. In

this research, the emerald model by Sasson is going to be used as a base theory (see chapter 5).

4.2 Primary data

Before starting to collect the primary data interview questions were formed based on the emerald model by Sasson (see chapter 5). The interview included eight questions (see appendix 1) where in the first five questions asked the respondents to give a grade from one to five as their answer. By having this kind of questions, ensured that the actual informative data was collected from their answer. The last three questions were open questions because of the nature of the emerald model (Sasson). Having open questions made sure that the respondents could give their thought about this subject. The qualitative and quantitative data were collected from the interview.

Companies operating in the financial service sector are most of the time large companies. We were worried that this fact might drop our responses because we needed to find the right persons from big companies to answer our questions. These managers and public communicators are most of the times really busy. Because of this we decided to do the interviews personally by phone and not by email.

We selected 40 different companies which we contacted to have the interview. The companies were from the following areas of financial service sector:

- Banks
- Insurance companies
- Pension insurance
- Real estate
- Currency exchange

We selected different type of companies so we could have answers from various angles to our questions. We aimed to have at least 10 to 20 responses. The interviews were made in June 2013.

Here should be noted that the amount of responses were as low as 5. Main reasons for us not to get responses were companies' lack of time and interest towards our

research. Also some respondents wanted to answer through email because of their lack of time at that particular moment.

4.3 Secondary data

According to Saunders, Philip and Thornhill (2008, 246) secondary data is data which has already been collected for other purposes and you can analyze it yourself for your needs. Our gathered secondary data is mainly from two different data bases: Finland Statistics data base which consist data about Finland and OECD data base which consist data about OEDC countries. The first one is widely used by researchers who are interested about Finland. The latter one was used to get data to which we can compare our data from Finland.

5 FINANCIAL SERVICES IN FINLAND

In this section we are going to take a look what is the situation in financial service industry in Finland. We included in financial services banks, insurance companies, pension insurance companies, real estate companies, stock market and currency exchange companies.

5.1 Banks

According to federation of Finnish financial services (2013) in 2012 the European financial crisis' indirect effects are still seen in Finnish banking. It is seen as low interest rate and recession. The low interest rate has led to a situation where it started to put pressure on the banks profitability. The recession has increased the unemployment rate and also made companies and households skeptical about loans. Also the national banking tax is putting even more pressure to the profitability of the banks in the future.

Between years 2008 and 2013 has been tough for many industries but Finnish banks were able to make decent results in 2012. Bond and stock profits have increased due the favorable market development. These profits were enough for the banks to make decent results even though the low interest rate have lowered banks' margins.

At the end of 2012 there were 313 credit institutions operating in Finland. It includes companies like banks, financing companies, credit card companies and foreign credit institutions' branches in Finland. Out of 313 credit institutions there are 291 banks and out of that there are 276 Finnish banks. It also includes 15 foreign banks' branches. (Finanssialan keskusliitto 2013.)

Banking in Finland is focused on the two biggest credit institutions: Op-Pohjola group and Nordea Bank Finland Oyj-concern. Over 63% of the loans of Finns are taken from the previous two companies and over 65% of deposits are put to these companies. Behind these two are smaller banks like Danske bank having only around 11% loans and 12% deposits. (Finanssialan keskusliitto 2013.)

5.2 Insurance and pension

The financial crisis has affected the insurance business in Finland as well. The financial crisis has started to revert and the insurance industry has started to show signs of recovery. In 2012 profit of insurance companies' investments was 8.6% which is really good and their domestic premium income increase by 9% to over 20 billion euros (Finanssialan keskusliitto 2013).

The premium income is mainly coming from pension insurances. It's been growing since 2003 and lately the amount of growth has been rapid (see figure 11).

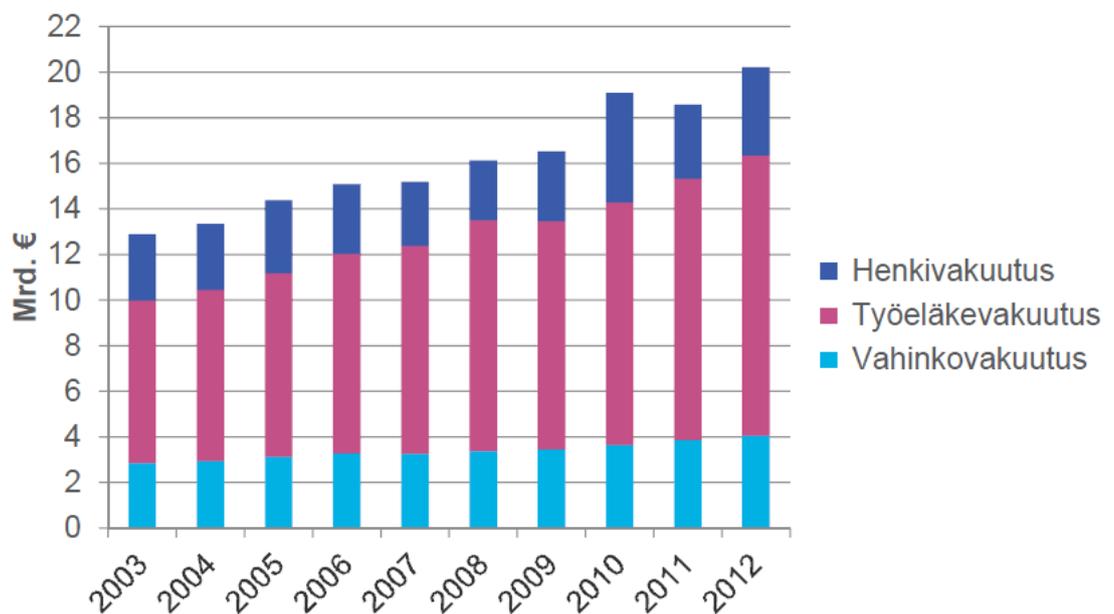


Figure 11 Distribution of premium income from 2003 to 2012. (Finanssialan keskusliitto)

Premium income from life insurance and non-life insurance has been relatively steady over the past ten years. In Finland the pension is really big part of the insurance industry. This being the case, pension insurance companies are paying a lot of pensions to the people (see figure 12).

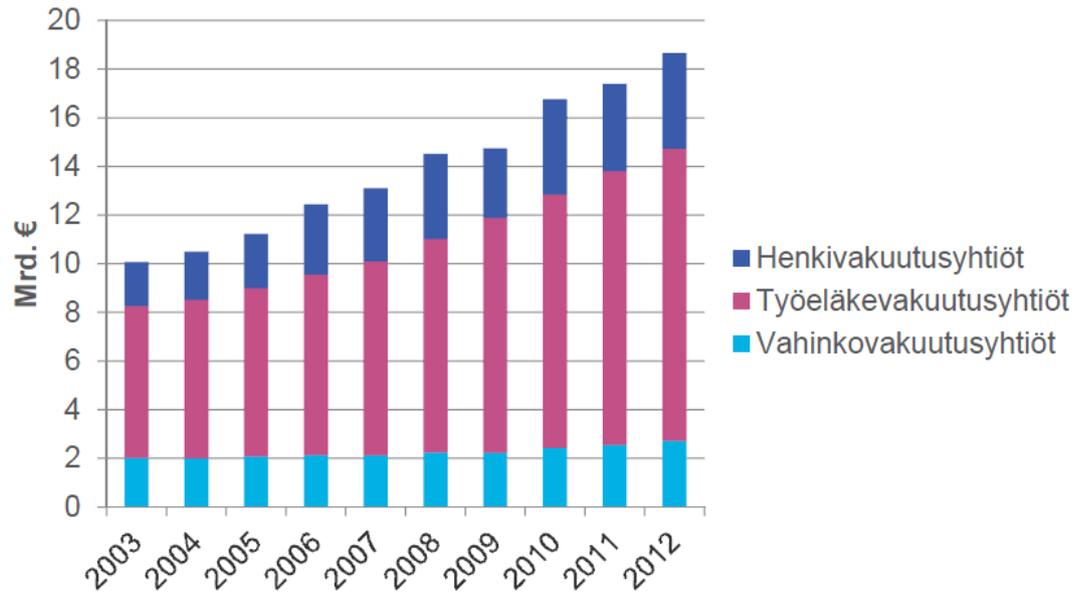


Figure 12 Insurance companies' paid compensation 2003-2012 (Finanssialan keskusliitto)

The pension's compensations have been increasing enormously since 2003. The reason for this is that the big age groups in Finland are starting to retire. This is a big liability for the pension insurance companies and to whole Finland since there are lesser work force and more retired people.

There are two major features in Finnish insurance industry. As we can see from previous figures, the pensions are a big part of the industry. The reason for this is that every employer and employee has to pay pensions because of the law. Also you need to have for example accident insurances and traffic insurance. Over 68% of premium income was from the insurances which are required because of the laws (Finanssialan keskusliitto 2013).

The second feature is focus of the industry. Over 85% of premium income is from the four biggest insurance companies and 91% of the share of pensions insurances have focused to four biggest companies. (Finanssialan keskusliitto 2013.)

5.3 Real estate

There will always be a need for homes. This means that there always will be need for real estate companies and agents. When dealing with used apartments, 75-80% of these have a real estate agent arranging these deals in Finland (KIINKO 2011).

The industry comprises smaller companies, not big ones like in the banking and insurance industries 62% of the companies made max 500 000 € revenues (KIINKO 2011). Mostly the companies are regional and they focus on a big or a small city and the surrounding areas. There were over 1400 real estate companies employing over 4500 persons in Finland in 2010 (KIINKO 2011).

The industry is regulated by the government. Every real estate agent has to complete a LKV-degree. Since Finland started to use this degree, over 9000 (KIINKO 2011) people have completed it.

5.4 Stock exchange

There is one stock exchange market in Finland, the Helsinki stock market or NASDAQ OMX Helsinki which part of NASDAQ OMX Group. It was founded in 1912. The Helsinki stock market is the place for trading Finnish stocks, warrants, options and bonds.

Different stocks are divided in three categories: large, medium and small. According to Kauppalehti, there are 33 large, 44 medium and 56 small stocks available to be traded in Helsingin pörssi.

5.5 Currency exchange

Banks generally offer currency exchange along with their other services. But there are also companies which solely offer currency exchange for example for people who are going abroad for holidays. There are few companies of this kind in Finland. The reason for this might be related to the banks. Banks are really tough competitors because of their size and ability to offer great exchange rates.

The idea behind these companies is that they exchange currency using rates that are profitable. Banks operate in the same way. There are few enterprises in the sector, and the competition is tough.

6 RESEARCH RESULTS

6.1 General about the cluster

Now we take a look how, has the financial crisis affected the financial cluster in Finland on a general level. When talking about Finland we need to keep in mind that Finland's population is quite small compared to most countries.

Table 4 Real estate (Tilastokeskus)

Real estate			
Year	Offices	Employees	Total revenues (1000€)
2007	13 832	17 758	4 729 456
2008	15 684	18 135	5 028 287
2009	16 018	17 707	5 304 162
2010	15 403	18 201	5 557 005
2011	16 121	18 912	5 748 372

The table above shows that the real estate part of the cluster was affected by the financial crisis because the growth of the industry has significantly slowed down significantly and in one point the growth stopped and there was a small decline in the growth. In 2007, there were 13832 offices and 17758 employees and a year after 15684 offices and 18135 employees. But the year 2009 saw a change. The number of employees dropped to under 18707, and the growth of the offices declined with only about 350 new offices being established. This instance might have happened because the companies needed to do some staff reorganization. Year 2010 was different again. The number of the offices started to decrease but the number of the employees to increase reaching the level of 2008. The figures of 2011 indicate that the real estate industry started to recover from the crisis because the number of offices and employees grew.

The Real estate total revenues were growing all the time. From 2007 to 2011, the revenues grew steadily every year. This indicates that the industry was able to hold onto their revenues through difficult times by checking the number of employees needed.

Table 5 Finance and insurance (Tilastokeskus)

Finance and Insurance		
Year	Offices	Employees
2007	6 123	43 583
2008	6 289	44 613
2009	6 506	45 133
2010	6 625	43 989
2011	6 545	44 306

The Finance and insurance industry had it little different from the real estate industry. As the table above shows the number of offices and employees grew through the financial crisis until 2010. That year there was a decrease in the number of employees. It seems that effect of the crisis did not start to show until 2010. The year after, the number of offices also decreased.

Let's compare Finland to Switzerland. Switzerland is, traditionally, a strong country in the financing field. As shown by the figure below, Switzerland almost doubles Finland's enterprises in this sector. The Population might partly explain the greater number of enterprises but not fully because there are only about three million people more in Switzerland than in Finland. The table also indicates that the effect of the financial crisis did not have a notable effect on the number of enterprises in these countries.

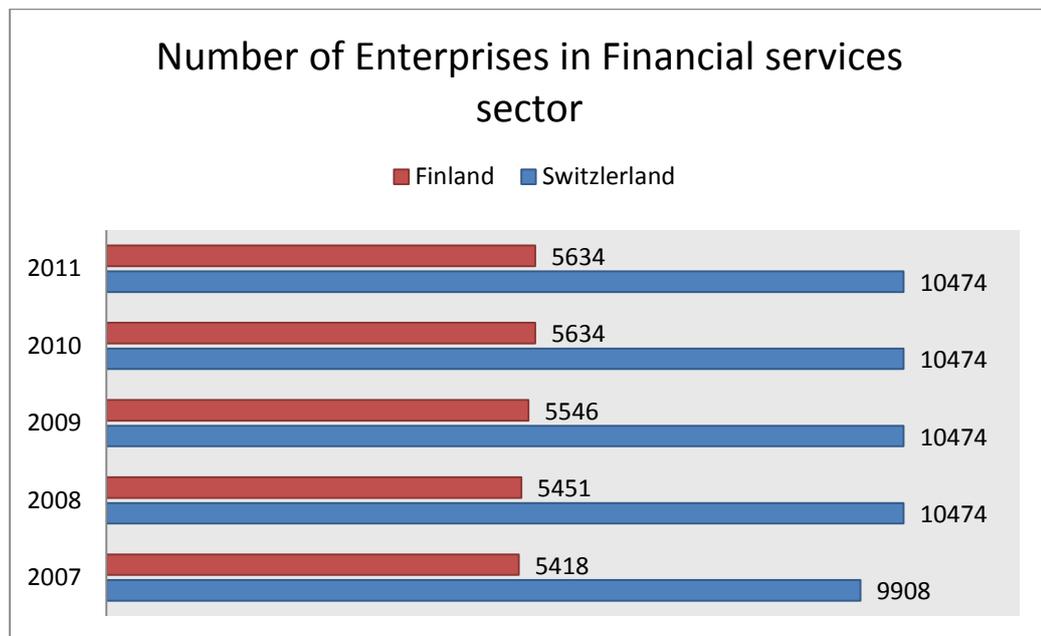


Figure 13 Enterprises in Financial services sector (OECD)

6.2 Educational attractiveness

For cluster to be competitive it needs to have education behind it which is preparing the students for the work. Based on the data from Tilastokeskus, there was 11419 students studying financials and relating subjects in 2011 in Finland. You can study these subjects in three different institutions in Finland: vocational schools, university of applied sciences and universities. The most popular is university of applied sciences with 39% of total students following by vocational school with 32 % and finally universities with 29%.

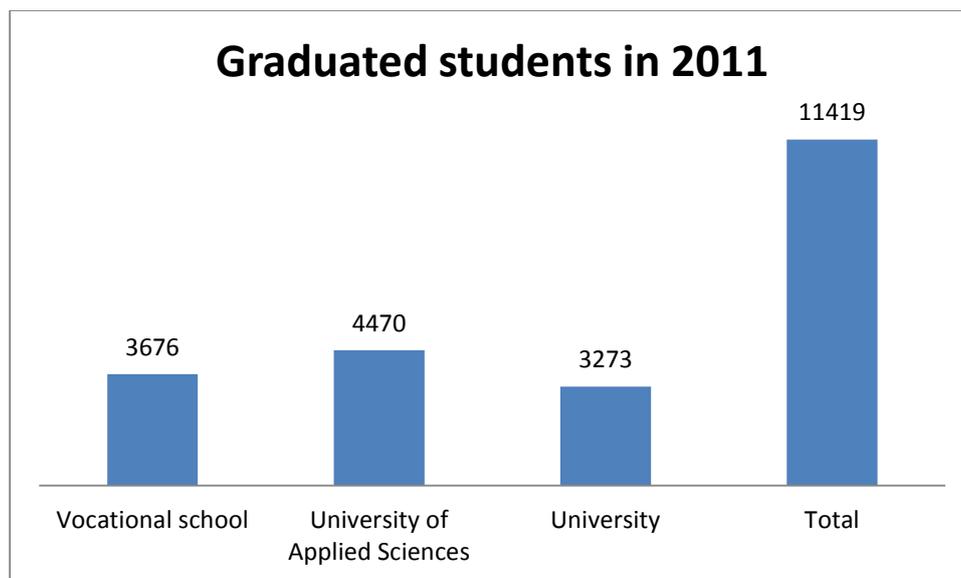


Figure 14 Graduated students in 2011 (Tilastokeskus)

Out of 11419 students, 3676 were studying in vocational school. These students are mainly young people who decided to go to vocational school over upper secondary school. For vocational schools, there are at least 26 schools (ammattikoulut.fi) offering studies in this field.

The same number for university of applied sciences is 23. This means that basically every university of applied sciences is offering degrees in this field which means that the financial field and relative subjects are really popular. Also it seems that there are more study places in university of applied sciences than in vocational school. The students are most of the times young adults but there are exceptions in form of adult education and master's degrees. Out of 4470 students, most of them (3307) are in youth education and 870 are in adult education. The distribution is clear. There was as well 293 graduated students with master's degree.

When both vocational school and university of applied sciences have over 20 different institutions to study financials and relative subjects, universities have only 12 in Finland. This is explained by the time and effort which is needed to complete studies at the university level. Also they have less study places than the other two. Out of 3273 students about half of them are aiming for licentiate and the other half is aiming for doctoral degree.

There are around 60000 graduates (Tilastokeskus) in 2011 in Finland from vocational school, university of applied sciences and universities. Out of that number the percentage of total degrees in business is 14%. By comparing business degrees to engineering (other popular subject to study in Finland) we can make a conclusion that business studies are more popular than engineering. Engineering percentage of total degrees is only 12%. According to Koulutusnetti financial services is not the most popular subject to study in Finland. The top place belongs to social, health and physical field. 34% of the total degrees in youth education are from this field when financial services got only 20% like as well engineering. In adult education the percentages are: financial services 23%, engineering 18% and social, health and physical 38% and in masters degrees the numbers are financial services 25%, engineering 19% and social, health and physical 42%. These numbers are indicating that the people who are studying social, health and physical studies are more willing to study even longer and it is the most popular field of studies.

According to the OECD data base, the amount of foreign students is increasing in Finland. The amount has increased from 2006 to 2010 by 5000 students. The number of foreign students was in 2010 over 14000. Even though Finland has great reputation in education around the world, the amount of foreign students is small when compared to other countries.

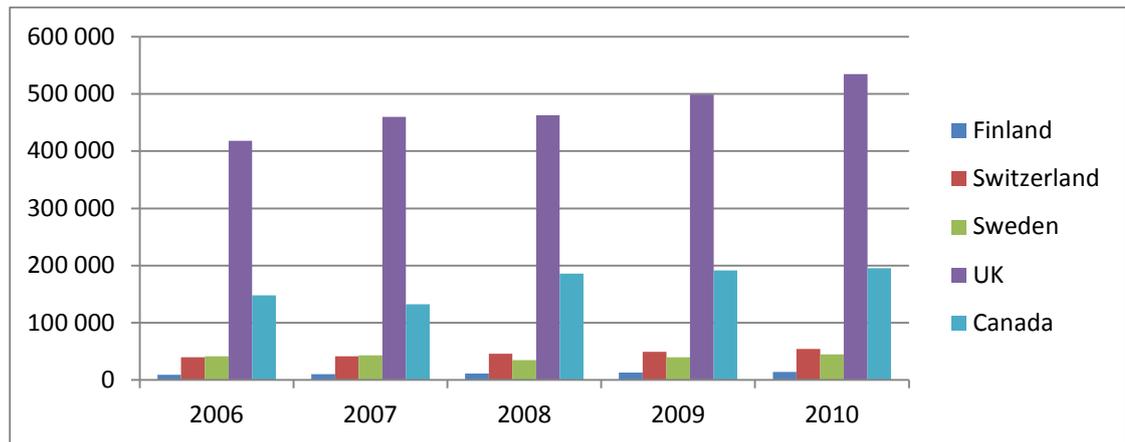


Figure 15 Foreign students (OECD)

The figure above indicates clearly that Finland is behind the other countries in the destination country for studies for foreigners. The big gaps are of course explained with countries population. To even out we took foreigners per thousand inhabitants which are shown in the figure below.

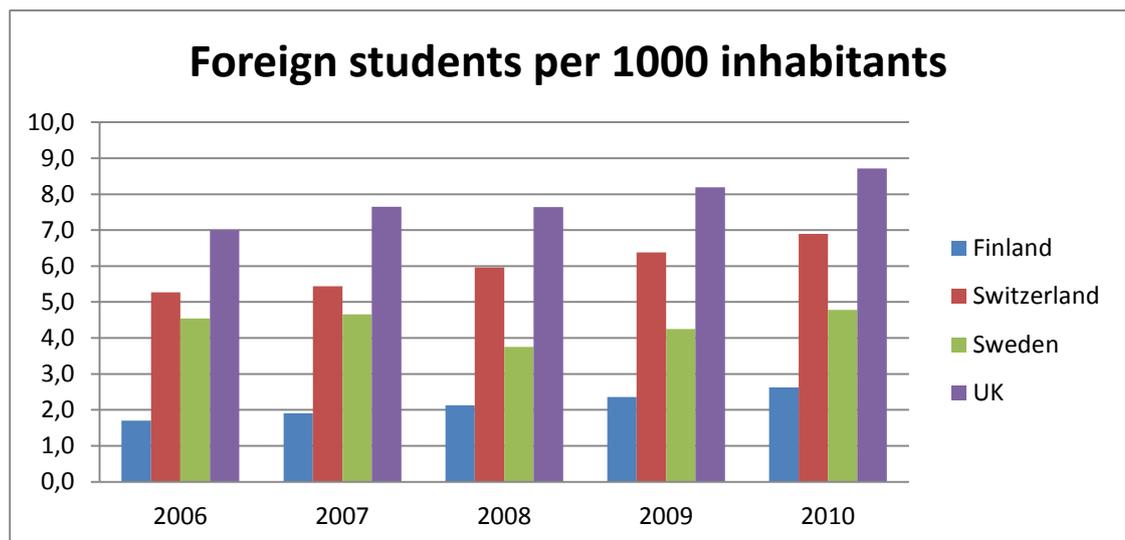


Figure 16 Foreign students per 1000 inhabitants (OECD)

The gaps are now smaller but still Finland is lacking behind. Closest to us by geographically and by other means is Sweden and even they have almost the double foreigners studying there. Finland has lot of work ahead to increase the image of Finnish education around the world.

According to Finnish ministry of education and culture the amount of foreign students studying business and economics in Finland is also increasing. In 2006 around 600 foreign students were studying in that field and it has increased 866 by the year 2009.

6.3 Talent attractiveness

According to Tilastokeskus, there are total 63 000 employees working on financial and real estate field in Finland out of 2,7 million work force. Out of that 63 000, 44 000 are working in financial and insurance industry and the rest are working on real estate. The amount of employees has not changed significantly in the past five years.

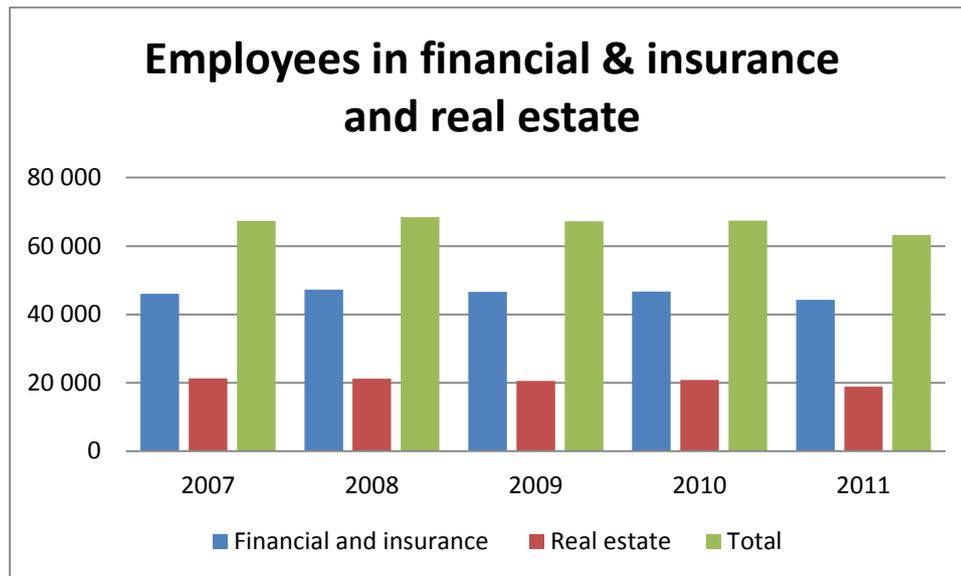


Figure 17 Employees in financial & insurance and real estate (Tilastokeskus)

The education level in this industry seems to be really high. Almost all the employees have at least a vocational school degree (Finanssialan keskusliitto). In financial and insurance industry, over 7000 employees had at least master's degree in 2010.

The chart below shows the amount of foreigners in Finland. The number of foreigners had been increasing steadily since 2007. The same goes for the employed foreigners. That amount has increased from 53 776 to 72 686. The total number of foreigners in Finland has increased the same rate as the employed foreigners.

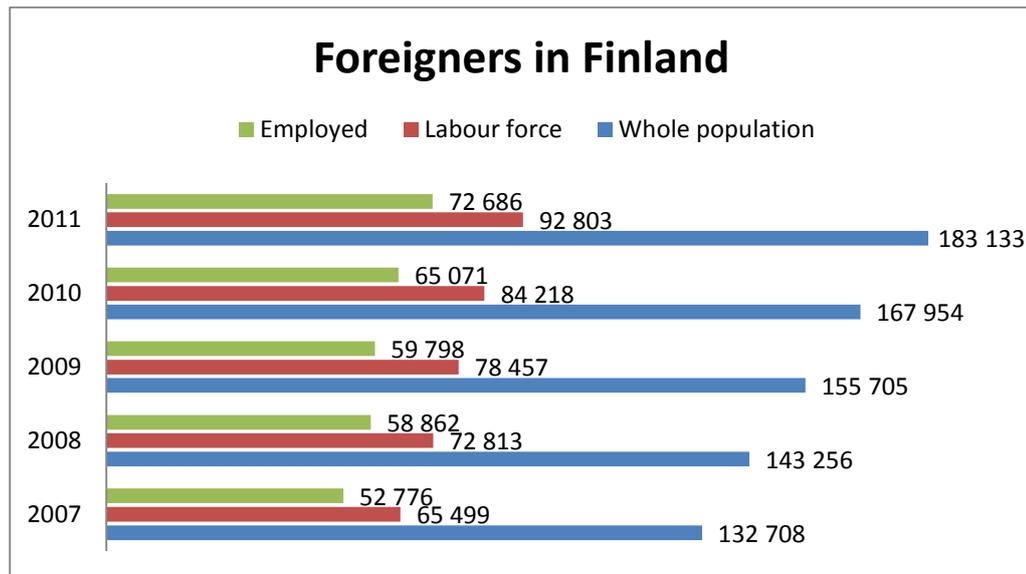


Figure 18 Foreigners in Finland (Tilastokeskus)

In financial and insurance industry the average wage is 3872 euros per month and for real estate industry it is 3295 euros per month. It is clear that the work force in these industries is well educated and appreciated because the average salary is bigger than the average salary in Finland which is 3109 (Tilastokeskus) euros per month.

6.4 R & D attractiveness

“Research and development” is the key operator meeting the emerging demand of the present and future business environments. Total factor productivity is a key driver of growth in Finland. As we know that innovation, entrepreneurship and R&D are crucial factors which affect the TFP growth. It is very difficult to measure the supply of new ideas, entrepreneurship and incentives for innovation. But according to the present demand for the productivity of the labor force and sustainable growth, these should be improved from time to time. Most of the R&D activities are accomplished with the collaboration of universities and institutions. Finland is one of the highest investors in the R&D sector. They have invested 4% of their total GDP in 2010 (OECD 2013).

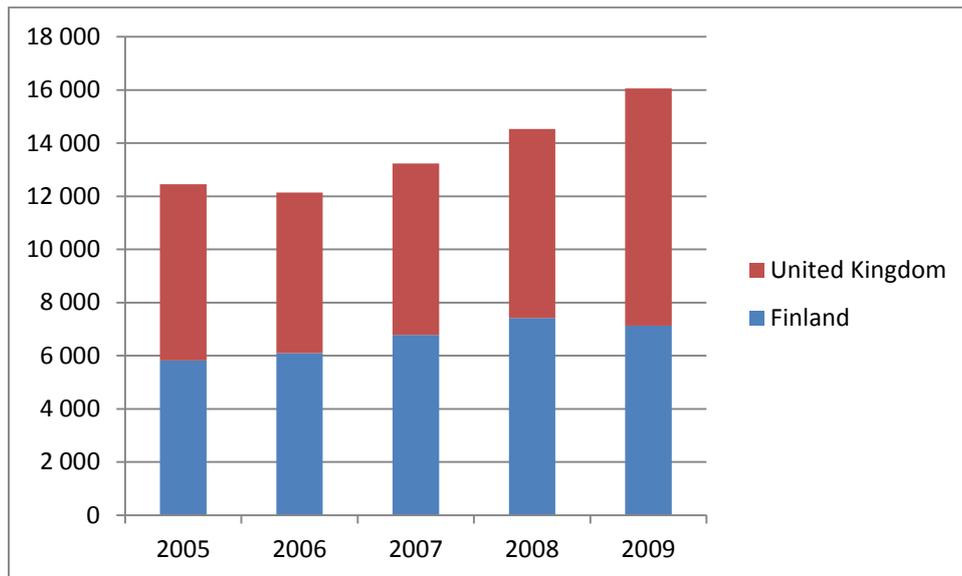


Figure 19 Number and growth of researchers of the subject (Source: OECD 2013)

As shown by figure 19, the supply of researchers is very high compared to one of the best countries (UK) providing financial services. But one cannot ignore that with the highest amount of investment, the output is not impressive and the universities are still good on average, not extraordinarily good, and the output of the firms is not remarkable.

The following figure presents the total number of patents. Total number of patents acquired by Finland has shown because it proves R&D performance. The Finnish economy being R&D and innovation incentive, on the other hand, the total number of patents shows a different picture compared to other countries.

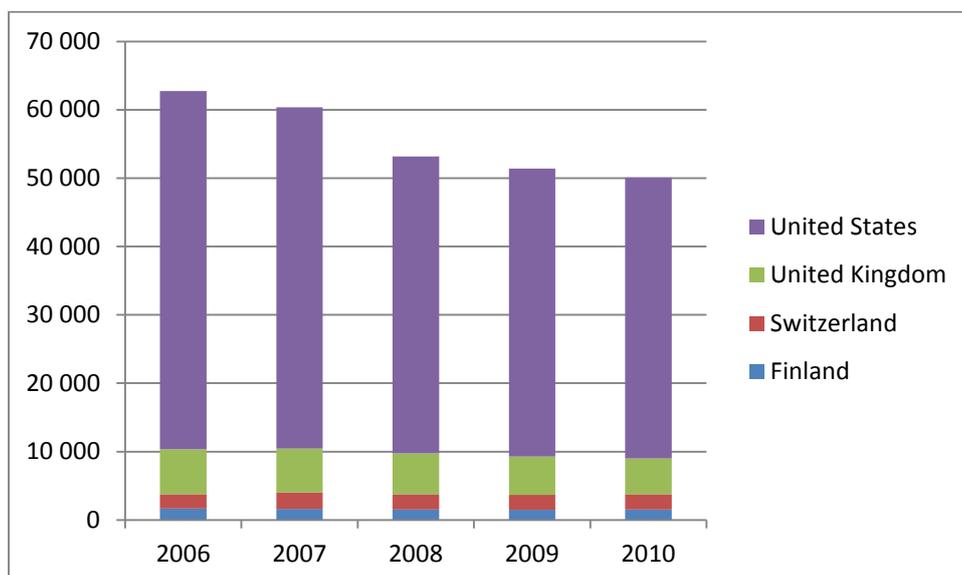


Figure 20 Total Patents (Source: OECD 2013)

Clearly, investments, resources and human resources in particular show how innovation incentive a country is but to get the best output from the total investments the authorities should keep their detective eyes open and have to draw up a strategic investment policy.

6.5 Ownership attractiveness

How appealing is Finland's financial services cluster to foreign investors? We can get a good idea of it by looking the foreign direct investments in Finland to financial service cluster. As the figure below indicates, FDI has been increasing for the financial sector. From 2008 to 2009 there was a decrease of growth, probably because of the financial crisis. But overall the FDI have increase from around 1300 million to 3100 million in 6 years. After 2009 the growth seemed too increased. This indicates that the effect of financial crisis has been small in FDI in financial industry. Real estate industry is a bit different story. The effect of financial crisis can be seen here as well as in financial industry. From 2006 to 2011 the amount of FDI has dropped a bit (see figure 21.) the biggest spike being in 2008.

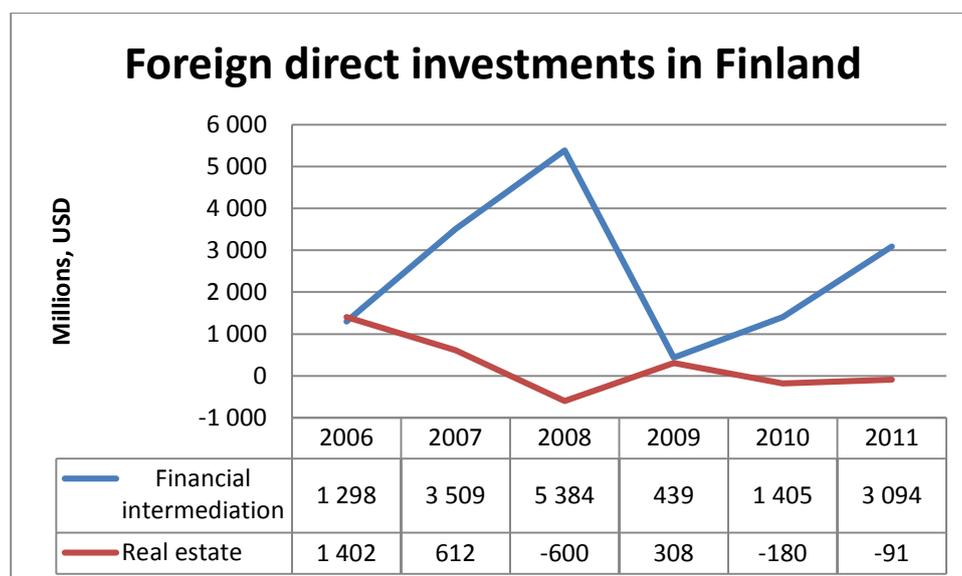


Figure 21 Foreign direct investments in Finland (OECD)

But is this good or bad? Has the effect been big or small? Let's compare Finland to Sweden. Sweden is pretty similar to Finland as a country which makes it a good

comparison. The amount of FDI in Sweden was much bigger than in Finland (see figure 22.). One of the biggest differences between financial industry FDI in Sweden and in Finland was in 2007. While in Finland the FDI increased in 2007, in Sweden it dropped significantly. In 2008 both countries had a big spike in their figure. The FDI increased in both countries that year. The same trend continued and both countries' FDI dropped in 2009. But after this when Finland's FDI started to raise again, Sweden's FDI stayed about the same for the next year and after that it decreased significantly. The real estate industry was the same story. By looking the numbers we can make one conclusion instantly. The financial crisis did not strike to Finland's financial service cluster appeal in the eyes of foreign investors as hard as it did to Sweden's. Sweden's FDI was over 5790 million USD on negative in financial industry and 776 million USD on minus in real estate industry.

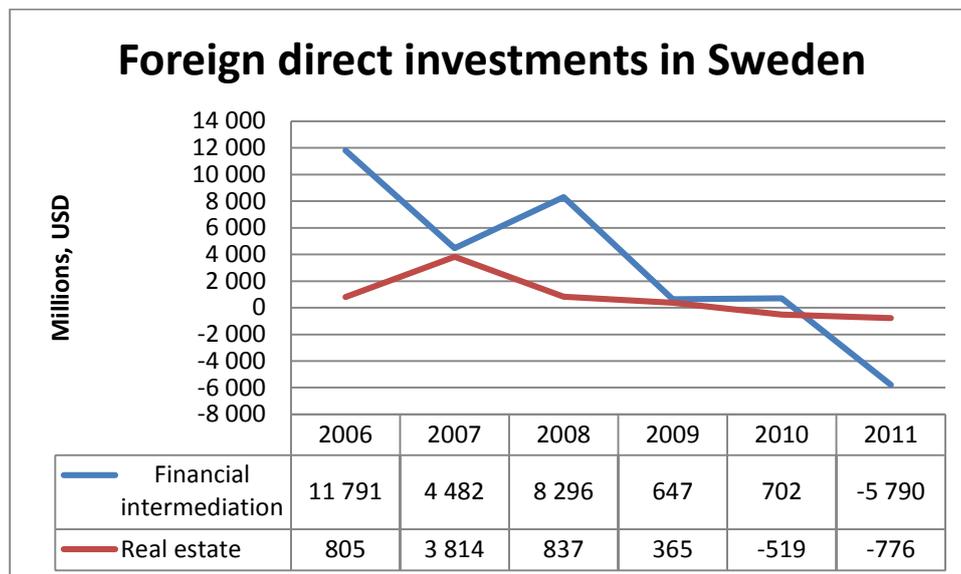


Figure 22 Foreign direct investments in Sweden (OECD)

The Finnish private equity firms were able to raise even more funds in 2012 than in 2011 the amount being 442 million euros in 2012 and 419 in 2011 (Finnish venture capital association, 2012). According to Finnish venture capital association the venture capital is minimal in financial service cluster. This means that the industry does not need venture capital or it does not appeal to the investors. The biggest industries are consumer goods and retail, business and industrial products and business and industrial services by venture capital. Also a report made by Finnish venture capital association states that "Varainkeruu korkeimmalla tasolla sitten finassikriisin." which means that the fundraising was in 2012 on the highest level

since the financial crisis. This indicates that the Finland is recovering from the financial crisis.

6.6 Environmental attractiveness

Environmental attractiveness does not indicate only the awareness about the global climate change for a company, industry and cluster. Environmental attractiveness refers the understanding, strategies and action plans concerning global climate changes of the institutes and organization which is showing the future vision and sustainability. There are some possibilities of disappearing of some industry in business concern, for example cocoa industry in the West African nations (Ivory Coast and Ghana are the 50% supplying nations) (George Fominyen, 2011). Because of the climate changes the direct impact on the financial services sector is the insurance sector. We have observed that the numbers of natural calamities such as typhoon, hurricane, bush fire and flood are increasing year by year which are the main causes for risk. So the insurance companies are experiencing more challenges. All the business predictions and estimations are not working properly. So it is not only changing the natural environment but also the business environment. The amount of uncertainty is increasing which is indirectly affecting on the investment and investment strategies and as a result the attractiveness of this industry is affected in the terms of environmental attractiveness to the potential investors.

It is known that Finland is a political and environmental stable country compared to many other nations which could be concern as a competitiveness tools. Policy makers have greater influence on the environmental issues. It is better to mention beforehand that it is difficult to track the emissions of Green House Gas (GHG- CO₂), waste and recycling issues by financial services sector. For this reason, we will present the national level data to show the environmental attractiveness of Finland compare to other countries. Greenhouse emissions per capita, renewable energy in total energy production, Treatment of environmental toxics and R&D investments in environmental projects

However banks could play influential role to reduce GHG emissions. They have scopes to protect environment through their activities. Despite of bank reputation and financial risk, the world's largest banks have yet to measure GHG emissions

induced by their investing and financial relationship. There is one term called Finance Emission which refers to the climate impacts of bank's loan, investment and financial services (Rainforest action network, 2012). This financial emission is indirect emission which has the biggest part of emissions. According to Kyoto protocol introduced by United Nations, there are three scopes of GHG emissions. Scope-1 is referring to direct emission and scope-2 & 3 is indicating to the indirect emissions.

Now we are going to dig out the Finnish national's environmental attractiveness. CO₂ emission is quite stable in Finland compare to other countries like UK, US, Switzerland which are considering as biggest financial services clusters. Finland is improving year after year. While in 2006 CO₂ emission was 15160 kg per person and in 2010 it reduced to 13901 kg per capita which is good sign for Finland. Following graph is showing the comparison.

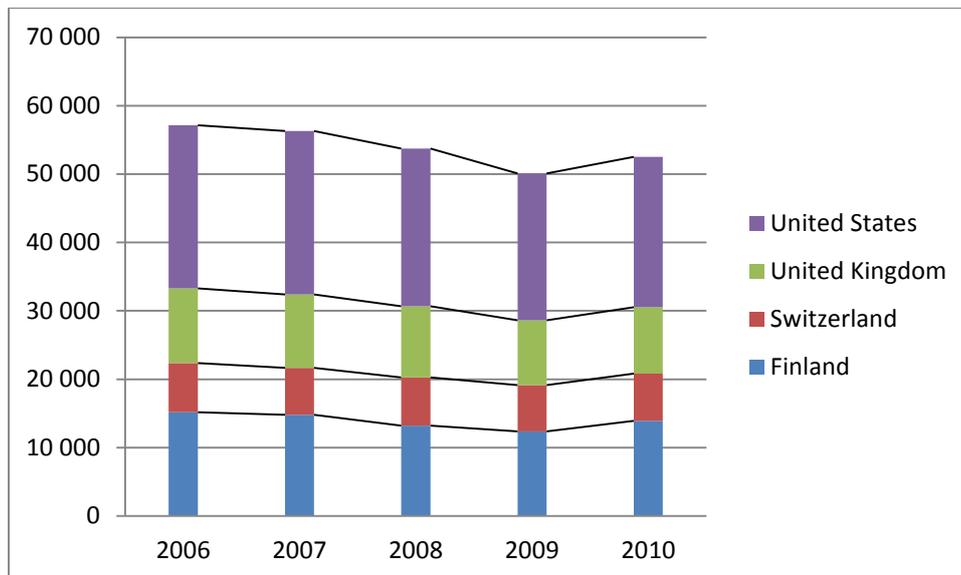


Figure 23 CO₂ Emission in Kg by per Capita or person (Source: OECD 2013)

Renewable energy transformation is also telling us the success story of environmental attractiveness. Renewable energy sources cover solar thermal and photovoltaic energy, hydro (including tide, wave and ocean energy), wind, geothermal energy and biomass (including biological waste and liquid bio-fuels) (Renewable Energy, 2013). The contribution of renewable energy percentage to gross energy supply is increasing in Finland which is demonstrating improvement of eco-friendliness. The renewable energy supply was 23% in 2006 of total energy supplies which is increased by 2% in 2010 in Finland. The other giant economic countries are slower than Finland for example; UK and USA are less attractive.

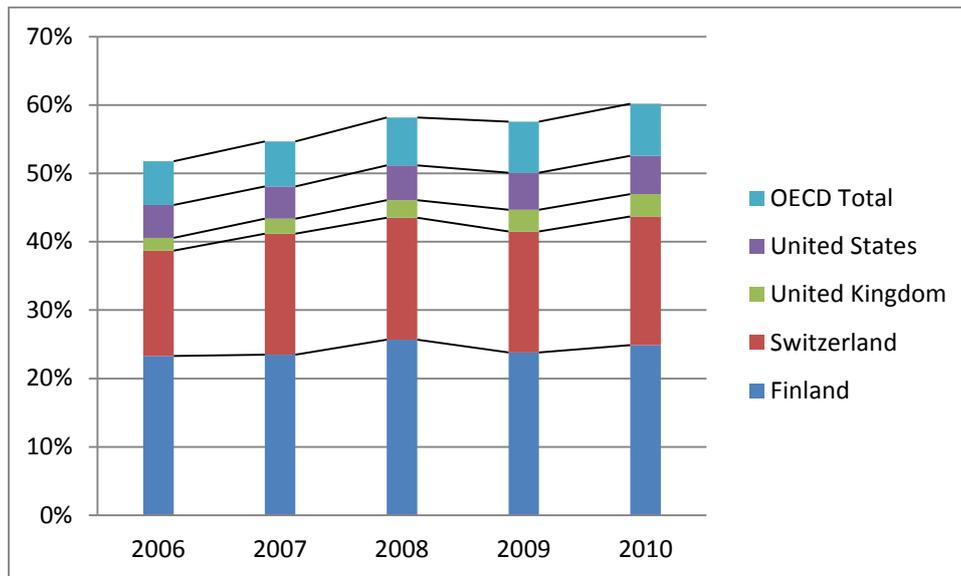


Figure 24 Contribution of renewable % to energy supply (Source: OECD 2013)

Human activity is increasing the concentration in the atmosphere of greenhouse gases. This is expected to result in a significant warming of the earth's surface and other associated changes in climate within the next few decades. The greenhouse gases that are making the largest contribution to global warming are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). All three are produced during the management and disposal of wastes. It should be noted that there is considerable uncertainty surrounding these emission estimates (Waste management options, 2001). Waste treatment and disposal system is another instrument of environmental attractiveness. We have tried to compare other countries like UK, USA and Switzerland with Finland which are playing important role in financial services sector. The following graph is presented to show comparison. Finland is doing better in this sector as well.

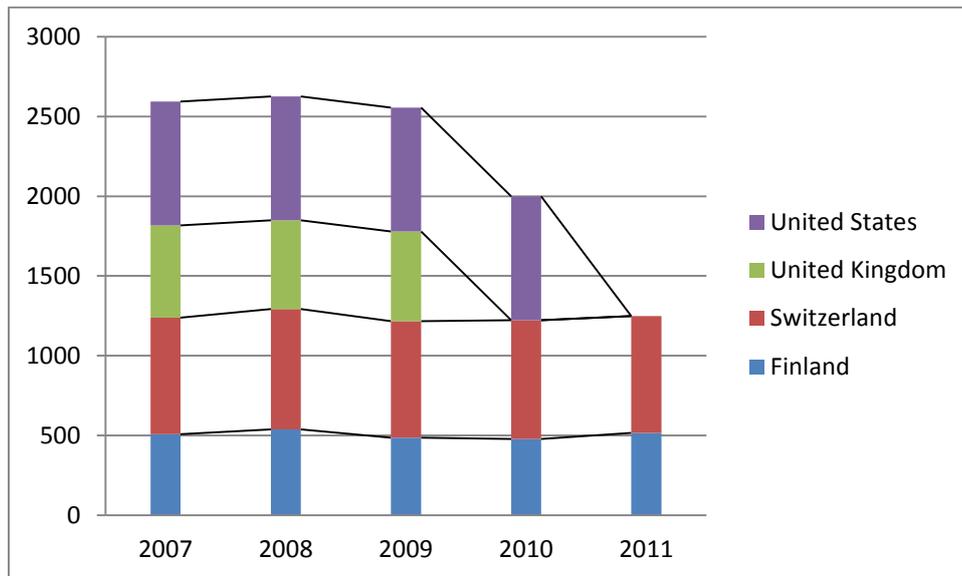


Figure 25 Waste treatment per Capita or person in Kg (Source: OECD 2013)

However the government or the local authorities have the impact on the environmental protection. They are the distributor of public fund which has influence on this matter. Figure 25 is showing that Finland has a steady fund and spending on environmental related R & D of public fund from 2006 to 2010 where as USA has a very little in comparison. Finnish Financial Services sector has also concern about the environmental issues. They are trying to improve their services which will reduce the environmental hazards. In 2011, they have issued the electric invoice system which will allow business to be green and service oriented. An electric invoice is four times more environmental friendly than a paper invoice. It will reduce the work time, emissions and also improve overall productivity (Federation of Finnish Financial Services, 2010)

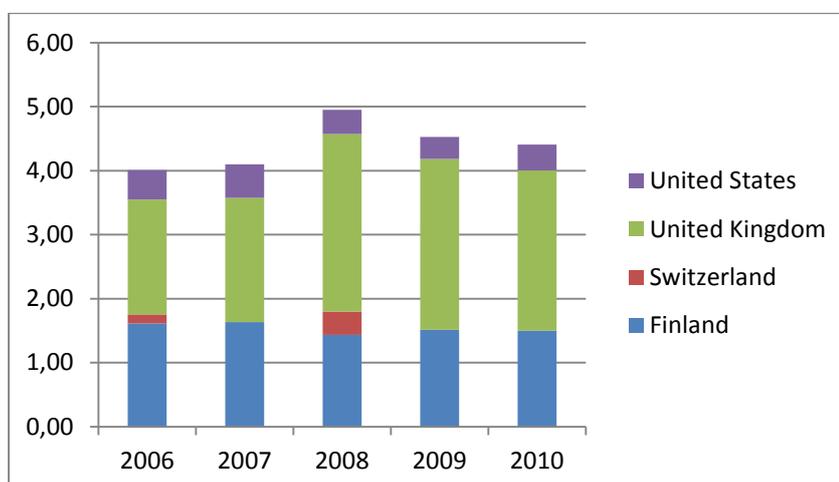


Figure 26 Public spending in environment-related RD, % totals public spending
(Source: OECD 2013)

From the above discussion, it is clear that Finland is a very competitive country in terms of environmental attractiveness. Although they are struggling with the EU environmental regulations, they are having a good track of improvement on the environmental issues.

6.7 Cluster attractiveness

Cluster attractiveness is a complex part to discuss. All other dimensions are interlinked with this dimension of attractiveness. Cluster attractiveness represents the attractiveness of the present cluster situation, which will be followed by the future attractiveness picture for the potential stakeholders. From the present situation of Finland and comparison with other countries, it could be concluded that the Finnish Financial Services industry is not a big cluster in terms of number of employees.

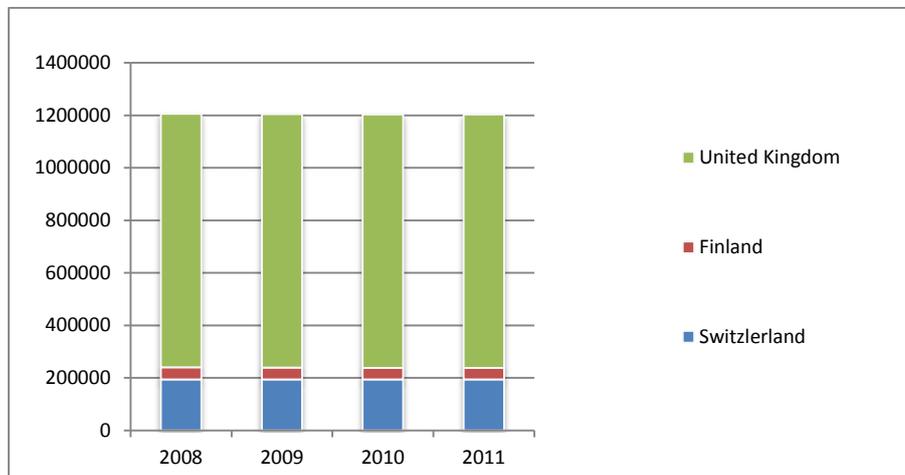


Figure 27 Total number of employees in Financial services (European Cluster Observatory 2013)

In terms of employees, the highest percentage of Swiss people is working in the banking service sector. Compared to this, the national agglomeration is not big in the Financial Services sector in Finland.

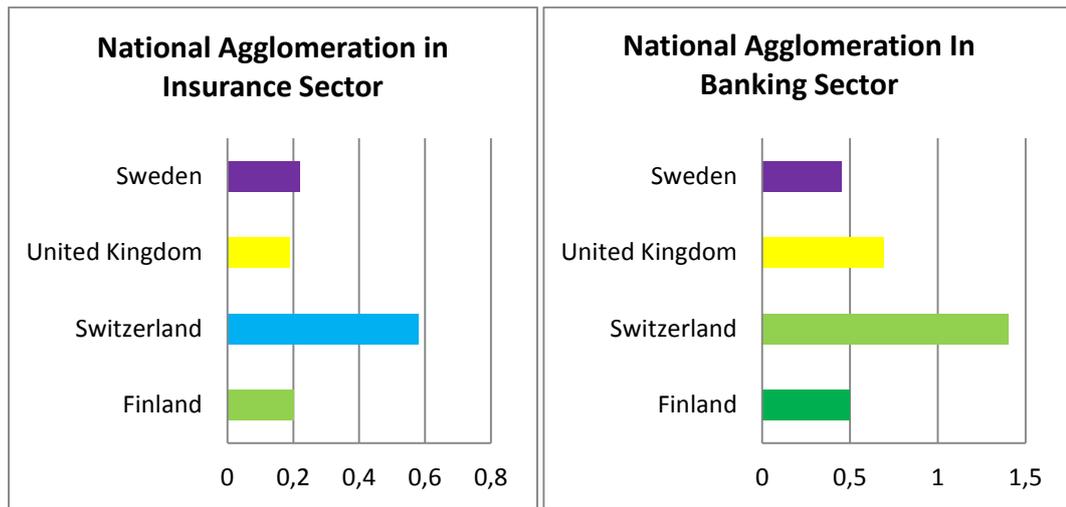


Figure 28 Proportion of employees in Population Source EBF

The Banking sector is the greatest employer in the financial service sector. As for employment distribution in the general financial service sector, 61% of the jobs have been occupied by the banking sector after which come the insurance sector with 30% of jobs. The remaining 9% has been shared by Securities, Financial Houses, Information Technology and other FFI members.

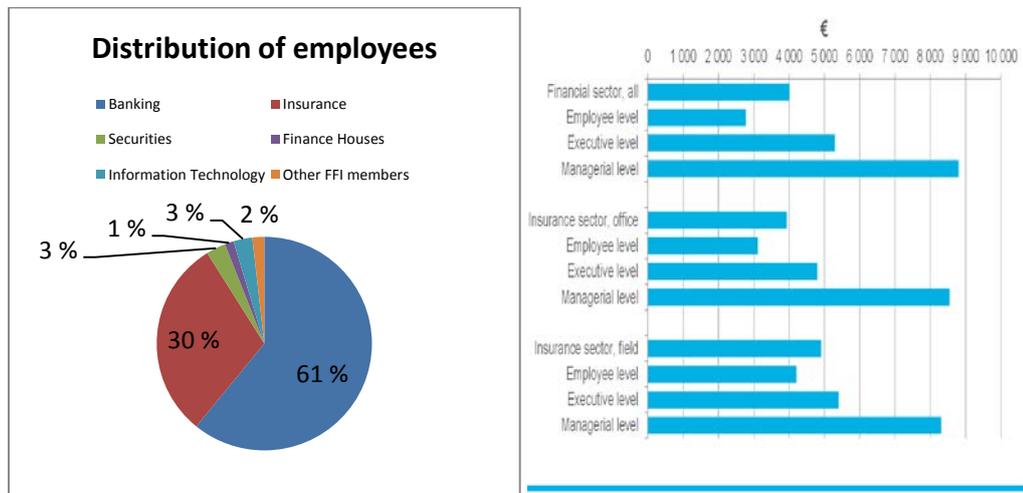


Figure 29 General employee distributions and salary structures (Source: FFI Fedaration of Finnish Financial Services)

The general salary structure shows that managerial level employees are better paid compared to other levels of workers in both the sectors (Financial and Insurance). But the average salary in the insurance sector is higher than in the financial sector. In order to give a wider perspective, the salary structure will be presented with the comparison of other fields of employment to show the attractiveness of the financial service industry in Finland (Figure 30). In the figure below, the insurance sector is the

highest earner and the financial sector holds the fourth position in the comparison of the salary structure.

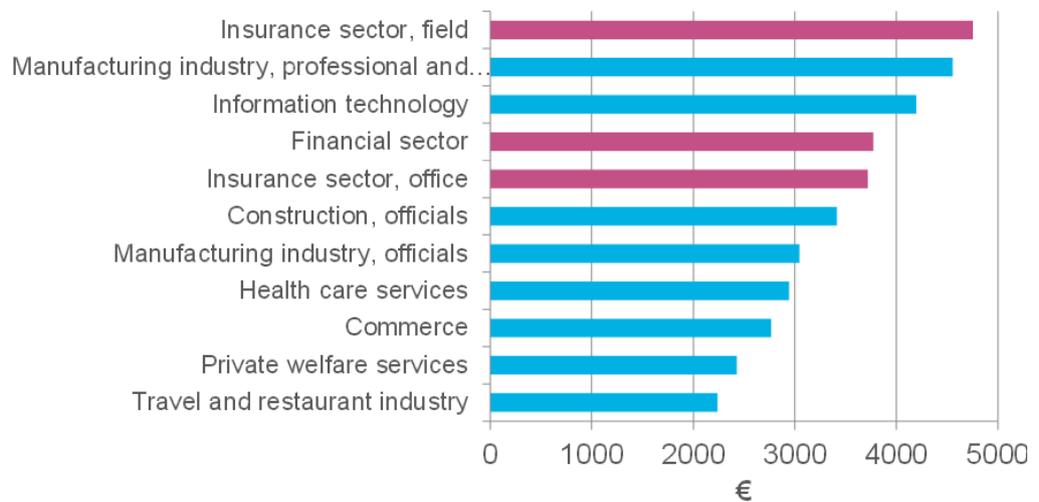


Figure 30 Average income by line of business (Source: EK wage statistics 2013)

FDI is the only evidence of internationalization of a cluster or industry.

Internationalization is shows the competitiveness and the attractiveness of the cluster. From the concept of internationalization and the terms of FDI inwards prove that the growth of domestic market of the cluster and the competition within the cluster. From the figure 31, it could be summarize that the competition in the UK Financial market is not tough and at the same time, they have incentives to encourage the foreign investor to invest. In 2007 and 2008, we noticed that FDI inwards was growing in Finland and in 2009 which was facing decline. But in 2010 and 2011, Finland has experienced slight growth.

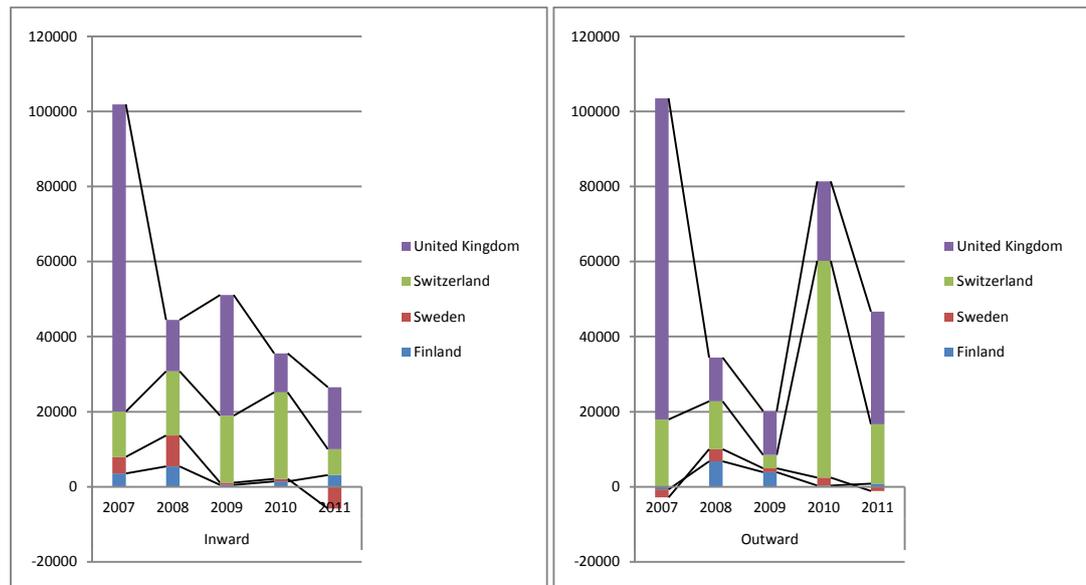


Figure 31 Exports of the cluster and outward FDI (Source: OECD 2013)

On the other hand, the outward shows the competitiveness in the global market. The UK held the 1st position in 2007, which shows in the huge FDI investment in the international market. But they had also experienced a big decline from 2008 to 2011. In the meantime, we can see that Switzerland has invested in the outward FDI in 2010. In Finland, the outward FDI was negative in 2007, but in 2008 and 2009 the amount of investment increased. Again, in 2010 and 2011, there was a decline

6.8 Cluster dynamics

The information about the cluster dynamics are very hard to interpret. For the result of this part, we have conducted a survey within the financial services industry in Finland. We have taken as a sample from the every sector of Finnish financial services industry. The results will be presented under sub-group of financial services according to their activities. There are also missing some sub-groups because of data limitation for example, securities and finance houses. For measuring the degree of the competitiveness, it has been graded from 1 to 5, 1 is not competitive at all, 5 is extremely competitive.

6.8.1 Bank

Banks are vital segment of this industry as a whole. The survey was showing that most of the banks are competing with each other. The competition among them is fully tough at the level of 5. So it is an extreme competitive business sector. The average negotiation with the suppliers is very important for them, so they are spending more time for the supplier negotiation. But they have replied also that they are also having collaboration with research institutions, government agencies and customers at the level of 4. But most of the companies have told that they do not have collaboration with their competitors at all. They do not have also too much collaboration with other industry at the remarkable level.

Labor dynamism is more frequent in banking sector compare to insurance sector. It could be changed inter-industry workplace. It is very rare to change industry intra-industry workplace.

Because of the world economic recession, banks are facing some problems. It is getting worse every day. They are expecting government intervention to improve this business sector. Most of the banks are thinking that EU regulation creating challenge for them. For the developments of this business sector, most of the banks are suggesting to improve the research and development in this sector.

6.8.2 Insurance Company

Insurance companies have a big market in Finland. There are 65 insurance companies in Finland. Most of them are non-life insurance companies (44). Number of authorized pension insurance companies and life insurance companies are 7 and 14 respectively. Most of them are competing with each other according to their product and services. There are some companies are overtaking by the other companies because of their other products and services in the market which is making the competition more tough. The competition among the insurance companies is very high at the level of 4.5 in average.

The linkage with the customers and suppliers are very high at the level of 4 in average. But the collaboration with Research institutions, government agencies and competitors are not remarkable at the level of 3.

In case of labor dynamics, the employees are not changing their workplaces more frequently but rarely because of the good compensation structures, benefits and bonus. Some of them are changing their workplaces within the industry, completely to other industries are rare.

This industry is facing the challenge to reach the idea of insurance to the customers and understanding the contracts between customers. Development is going through a good direction. They are trying to understand customers and following the time. They are also preparing for the risks and recognizing them.

6.8.3 Pension Insurance

There are 5 companies in Finland that provide statutory pension insurances which are competing head to head. They are the following: Varma, Ilmarinen, Etera, Elo (a new company, consisting of two previous pension insurance companies, Eläke Fennia and Tapiola) and Alandia (only active in the Åland Islands). The statutory pension insurance business is strictly regulated in Finland. Pension insurance is mandatory for all private sector employees and entrepreneurs (Employees Pensions Act = TyEL, law on pension for entrepreneurs = YEL). The pension premiums are the same, regardless of pension insurance company. In other words, the companies have limited possibility to compete with price. Instead, the companies compete mainly with customer service and other additional services. The competition is tough, at a level of 3.

Due to the statutory nature of the business, there is quite a strong collaboration with the industry (including competitors), with customers and with the government at the level 4. They have also strong collaboration with other companies from different industries for example IT, bank and law and enforcement agencies. They have to collaborate with other industries at the same level 4. At Pension Insurance, the employees have worked at the company in average 9 years (statistics from 2012), which is quite a long time compared to many other industries/companies.

The decisions made by the Finnish government which affects business, for example because the Ministry of Social Affairs and Health enforces TyEL insurance payment percentages annually. Because the pension insurance system is statutory, there is a

high regulation and also a high support from the government. It would be graded to 4.

In case of Responsible law-making and regulations, the authority should ensure and enable sufficient funds for the pension insurance system, also for future generations.

In reply to the current challenges most of the pension insurance companies respond that the increased expectation of life means that in the future, there will be more people receiving pension benefits. It is important that the pension insurance industry is prepared for this - It is important to keep the income-cost ratio at a healthy level, and to ensure that the pension protection will be sufficient also for the future generations when they once retire.

For the future development, most of the companies suggested that the statutory pension insurance is a vital part of the Finnish social welfare system, and no voluntary pension insurance can wholly replace it. It is therefore likely that the industry will maintain its position on the market.

6.8.4 Real Estate

The competition among the real estate company is very high. There are two kinds of real estate companies. Some of them are selling properties and others are renting properties. Some of them are doing both of these. Since they have nationwide chain, the companies which have both services, they were saying that all real estate companies are their competitors. But the answers were varied according to their services. The collaboration with competitors, research institute and government agencies are not remarkable which has been graded as 2. But Most of the companies are saying that they have a strong collaboration with suppliers and customers, at the level 4.5 in average. Most of the companies replied that they have strong collaboration with other companies in other industries, for example IT infrastructure and newspapers and media.

The labor dynamics is very high in real estate business. The employees change their work place very frequently at the level of 3. Most of the time, they like to change within the industry rarely, but they like to change their workplaces to other industries because of salary structure and for other benefits.

There is not enough contribution from the government agencies, so the collaboration with them at the level of 2 in average. But there are some supports from the government through customer who are not able to pay the rent. Then the social welfare agency like Kela is paying the rent on behalf of them.

The biggest challenge is faced by most of the companies because of the poor economic performance of the Europe in the recent year. So there are not enough customers who are able to buy a new house. In case of the development of this industry, most of the companies have replied that they have enough physical infrastructures, but there are still lacking of trained employee supplies. For the renting houses, there are some rules and regulations to be learnt which are not academically taught in the business schools, since we are recruiting the recent graduate from the schools. The real estate business depends on the customer's saving and liquid money. They have also suggested that if the tax could be lower, this industry would get more customers.

7 DISCUSSION

7.1 Conclusions and suggestions

The purpose of this thesis was to find answer to following research questions:

- How the financial crisis has affected to financial services cluster in Finland and how it responded to it?
- What is the future like for this cluster?
- How could the cluster improve the attractiveness?

Finland's financial service cluster did suffer from the crisis. The main problem Finland's financial service cluster faced was the ability to stay profitable. Real estate companies and banks had problems with that.

The companies tackled this problem by letting some of their employees go. This phenomena happened in other industries as well so it's very common way to increase the profitably during hard times.

According to the research results, Finland's financial service cluster is showing signs of recovery from the financial crisis. The Real estate sector is increasing the numbers

of jobs and offices in Finland and their revenues have been increasing even during the time of crisis. Lately, even the banks have been making decent results despite the low interest rates.

In the field of education the cluster is doing well. The increase of the study places in this industry means that there is a demand for work force in the financial service industry. The level of education is already high and the industry still needs well-educated employees to fulfill their needs. Finland is attracting more and more foreign students. The whole cluster benefits from the image of Finland as a great place to study attracting more and more foreign talent.

Finland also attracts more and more foreign work force. At least some of the foreigners are working in this industry. And to attract talented and well educated employees, the financial industries including the real estate industry are offering a good salary compared to the average salary in Finland.

The industry is enjoying an increased FDI. Even though we are not at the level of 2008, the trend is showing a great recovery. Finland seems to be doing much better than Sweden in this respect even though both countries are very similar to each other.

But there is still work to do to improve the attractiveness of the cluster and they are trying to improve it. Even though the financial services industry is not creating a lot of CO2 emissions they should try to cut it down even more. This is very current topic everywhere and Finland is trying to cut off the CO2 emissions every year and to promote the use of renewable energy, recycling systems and waste management. To make the cluster even more attractive the offices should try to cut down for example the usage of paper at the offices.

Because of the financial crisis, there was a cut of jobs in the cluster. They should create more jobs in the cluster because there are lots of students graduating from Universities who want to work in this industry. There's a big change that they will not seek to work in financial industry if they won't get a job.

The cluster needs more collaboration inside the cluster to improve their services. They should have a specific vision, roadmap, planning and implementation. The research results suggest that they are not working collectively yet. Some sub-sectors totally lack of collaboration.

The universities and universities of applied sciences are providing the education on business and economics. But they should have more collaboration with the local companies and organizations in order to create more research projects.

7.2 Reliability and validity

As for the reliability of this thesis, there are three main concerns: using secondary data, missing data and the number of responses interviews. All are good reasons to be doubtful about the reliability and validity of this thesis.

The main source of data was other data bases. The authors do not know much about the collection method or the reliability of the data expect for what the data collector have stated. Part of the data may be unreliable and cannot be used. Any data the authors were suspicious of was left out.

Secondly, if there was data missing in the two main data bases, notes of this were included in the section in question to explain the missing data.

Thirdly, the number of responses given in the interviews was not sufficient enough for the results to be generalized to cover the whole financial cluster in Finland. The interviewees were busy people in big companies which limited our change to get responses from them. However, the information provided by the responses gives an overview of the opinions of the interviewees representing the sectors. This is why it was included it in this thesis.

A minor concern is the language because this thesis was written in English and most of the sources of information were in Finnish. This might have led to some translation errors or minor mistakes in the English writing.

7.3 Future studies

To get more accurate picture of the whole financial service cluster and how they handled the financial crises, more time is needed than just a thesis. Even though the topic had been narrowed down to include only financial services, it's still a wide topic. The future studies should concentrate to more narrow topics to include for example only banks.

After few years there's a good time to make another research to see what have happened in the cluster. Have it returned to pre-crisis level or is it still struggling to keep employees or their profits.

The financial service cluster is not the only interesting cluster there is. For example there could be similar research to be done in the field of metal, wood or electronic industries which all are very important to Finland's economy.

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APPENDICES

Appendix 1: Interview questions

- 1) a) How many key competitors do you have in Finland?
b) How tough is competition among you? Could you grade it from 1 to 5 where 1 is not competitive at all and 5 is extremely competitive?
- 2) How would you grade the strength of your collaboration with suppliers, customers, research institutes, competitors and governmental organizations from 1 to 5 where 1 is no collaboration at all and 5 is very high level of collaboration?
- 3) a) Do you collaborate with companies from other industries?
b) Which industries?
c) How would you grade the strength of your collaboration with them from 1 to 5 where 1 is no collaboration at all, and 5 is very high level of collaboration?
- 4) How often do employees change jobs in your industry? Can you grade from 1 to 5 where 1 means very rare and 5 means very often?
- 5) How do you grade the support of the Finnish government to this industry from 1 to 5 where 1 means no support at all and 5 means very high support?
- 6) What kind of support do you want from the government?
- 7) What are current challengers facing your business?
- 8) How do you see the development of your industry in Finland?