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Competitiveness level of higher education system in Finland in comparison to the United States

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Abstract

In the modern era of technological development, knowledge has acquired a crucial role in the global economy. The demand for higher education has increased, and the importance of the industry is growing. Both Finland and the United States are known for their competitive higher education systems. However, their approaches are different, and they have own strong and weak areas.

The objective of the research was to compare higher education in Finland and the United States by the competitiveness factor, identify possible gaps in certain areas and propose suggestions for their improvement.

Based on the methodology of World University Rankings which served as a theoretical framework of the thesis, qualitative study with benchmarking technique was conducted to answer the research question. During the research two semi-structured interviews with the experts in the field of higher education were organized in order to get new insights on the topic. Both primary and secondary data were profoundly analyzed using constant comparative analysis method.

Results of the research have revealed advantages and development opportunities in higher education of both countries. Finland has a well-positioned network of institutions that provides high level education in any part of the country. Its development area is promoting higher education and increasing its reputation on a global market. The United States have prestigious institutions that are known globally, but the quality of education in general varies. The development suggestion was to minimize deviation in quality and to take more responsibility for societal impact by considering human factor over financial interest.

Keywords/tags (subjects)

Competitiveness, Higher Education, Finland, United States

Miscellaneous (Confidential information)

Contents

Figures

Tables

1 Introduction

1.1 Background

At the time of globalization and particularly rapid development of technology, knowledge has acquired a crucial role in the modern world. During the last few decades many leading economies have experienced a shift from resource- and manufacturing-based to the knowledge-based economy. It means that knowledge and high-skilled educated workforce have become their main driving force. Padash (2017), in his work about impact of institutional environment on knowledge-based economy, mentions that political, legal and business institutions have significant impact on the development and maintenance of the knowledge-based economy. In other words, institutions form a solid basement of this type of economy.

Among various institutions, higher education plays an important role in producing high-skilled workforce for raising economy's level of competitiveness and promoting well-round development. The structure of higher education has also changed with the evolving knowledge-based economy. Changes in economy have affected directly the educational field. Leko-Šimić and Štimac (2012) have analyzed those changes and outlined main trends in the higher education from the beginning of 21st century. According to their research, less attention is paid to quality of the service provided by the educational institutions. This phenomenon has occurred because of the two main reasons. On the one hand, there is a dependence on various authorities and stakeholders. On the other hand, institutions have been facing an issue of attracting sufficient mass of students on annual basis. In both cases, high expectations were assigned, and there is less capacity to focus on the quality of teaching service.

Leko-Šimić and Štimac (2012) have outlined an importance of institutions' marketing strategy as another growing trend in higher education. This strategy creates an international image of the institution and works as a tool for attracting students all over the world. Marketing in higher education is not only a tool for creating favorable

appearance, but also a crucial part in reaching higher level of competitiveness than other institutions that offer similar services.

Considering the term of competitiveness in the field, Musselin (2018) has conducted a profound research and described new forms of competition that have been evolving recently. In the last century, competitiveness in the education was mainly perceived as competition of having more students and counting their achievements after graduation. During the last two decades, this term has become more complex and replenished with new forms of competition. Now universities compete in networks, internationalization level, research and professors. Therefore, some institutions focus on one or few criteria to become more competitive in that particular area rather than being average in everything. It gives students more options and, according to their area of interest, they can choose preferred study place. At the same time, competition does not allow institutions to develop comprehensively and succeed in all criteria. This type of multi-level competitiveness brings a complexity to the system, and it can be considered both as a benefit and a disadvantage.

1.2 Motivation for the research

Higher education system was chosen as a research field of the thesis. The topic focuses on comparing Finland and the United States in that field by competitiveness factor. Interest to the conduction of the research in the educational field initially arises from studying competitiveness of different clusters during the course named Economics of Internationalization and Competitiveness at the JAMK University of Applied Sciences. Case studies about various clusters led me to the thoughts that countries can be more or less competitive on the global market because of particular clusters in their economy.

Although there have been numerous research works in the field of higher education, most of them were aiming at analyzing particular country, its competitiveness and development. Few researches were based on the comparison between several

countries and their performance, which are different from this study. Consequently, research that analyzes two different education systems that have not been compared yet, has a potential to bring new insights to the field and be valuable for both nations.

Literature review and analysis of Finnish higher education have led me to the thoughts about the reasons behind that particular situation in the country. Tirronen and Nokkala (2009) state that Finland has implemented a set of education policies that are linked to legislation system and are aiming at reformation and modernization of education system. In general Finland is known for its high technological development and innovative reforms. Country is globally known as a welfare state with the developed society and high level of literacy. However, when comparing higher education system to other countries and analyzing educational pattern in the country, it could be noticed that Finland is lacking competitiveness in that cluster.

The United States was chosen as another country to make the comparison by benchmarking technique. The reason is that country has a broad and strong educational network which is well positioned in the market and functions successfully worldwide. The size of the cluster is huge, it accounts for 6,500 postsecondary institutions which create around 3 percent from country's GDP. In addition to the size, there is a lot of diversity: state and private, old and new, big and small and many other educational institutions. Not surprisingly, country has leading positions in international rankings and scoreboards. (Peter & King 2004.)

The main motivation of the research at this point is a contribution to the competitive development of the country in that particular cluster by proposing improvement suggestions to policymakers in Finland based on completed research. These suggestions and possible future actions can help the country to grow in that field and to make it stronger part of Finland's economy. In addition, society could get an easier access to high-quality education and growth in skilled labor.

Comparing two countries in QS higher education system strength rankings, United States is number one as for 2019 ranking and Finland is not in top 50 countries in the world. Considering global university rankings, top 3 universities in the world are from

the United States. The oldest and the most competitive University of Helsinki from Finland is 96th and all other higher education institutions from Finland are below that position (QS 2019).

Besides motivation in the international development of the cluster, there is also personal motivation for doing research in this field. My original background, different than Finland, cannot provide satisfactory level of education, and I am eager to study and analyse the field of education in order to understand the reasons behind high performance of one country and low of the others. Moreover, as my current study place is Finland, it is important to understand the structure of the Finnish system, its strengths and weaknesses, its position in the European and global market.

1.3 Research question, approach and structure of the thesis

Research question and approach

With the help of theoretical framework, comparison in competitiveness between countries will be made to answer the following research question:

- How does the Finnish higher education compare with the US higher education in competitiveness?

To answer the given research question, I will conduct a qualitative study based on the chosen theoretical framework. It will involve obtaining both primary and secondary data. Semi-structured interviews with the representatives of higher education systems of each country will be organized, and questionnaire for the interview will be written according to the research question and the criteria of theoretical framework. It is important to equally analyze data about each country in order to keep validity and objectivity of the research. The methodology of World University Rankings (2019) was chosen as a theoretical framework to define the criteria and set the basis of the research.

Structure of the thesis

The thesis consists of five chapters, where the whole research process is gradually explained and described. It starts from “Introduction”, where the reader can familiarize himself with the background, motivation and main research question. It is written to prepare the reader for the next stages of the thesis, to give general understanding of the topic. The following chapter is “Literature review”, where numerous sources of literature are collected to give explanation of the fundamental concepts that have been used to conduct this study. Mentioned earlier theoretical framework is also part of this chapter. Succeeding this is third chapter “Methodology”, which describes in a detailed way how the study was implemented: an approach to the data collection process, method of collecting the data, analysis of the received information, and verification of the findings. The next chapter is “Results”. It tells the reader about the findings from the study, everything that was explored and found during the research. It consists of preliminary and in-depth results. The last chapter of the thesis is “Discussion”. It involves opinions about the research and its results, possible limitations of the research and, finally, recommendations for future researchers who might want to continue working on this research question in the same field.

2 Literature review

2.1 Competitiveness

2.1.1 The concept of competitiveness

Competitiveness as a term has a very long history, and it has been changed fundamentally due to the global transformation and development. Originally, the concept represents the position of a firm or country against its competitors.

According to the definition of Business Dictionary (2019), “Competitiveness is an ability of a firm or a nation to offer products and services that meet the quality

standards of the local and world markets at prices that are competitive and provide adequate returns on the resources employed or consumed in producing them".

In other words, competitiveness defines how efficient is a firm, industry or country; how high quality products/services it can offer and at what price. It also compares performance of several and allows to determine locations of investments, business operations etc. Competitiveness creates a picture about the business or nation and their role in some region or even in the world.

At first glance the definition above clearly describes the concept of competitiveness. However, scholars have controversial opinions about this concept and all of them are worth taking into account as each explains this term in a unique way.

A recognized expert in the field of economic competition, Porter (1990, 73-97), describes it as a very complex concept which always evolves, and one nation's performance depends on economy, culture, history and other factors. Considering main determinants of competitiveness, he mentions labor costs, exchange rates, interest rates and economies of scale. To increase national position in terms of a global competitiveness, governments can try to adopt various policies and programs to influence these four determinants. However, it does not always bring nation desired changes. The reason is that government also should consider other aspects of competitiveness concept. To make an analysis and decisions easier, Porter (1990, 73-97) has created already well-known Diamond Model (see Figure 1) which consists of 4 broad areas of nation's characteristics. They are

- factor conditions;
- demand conditions;
- related and supporting industries; and
- firm strategy, structure and rivalry.

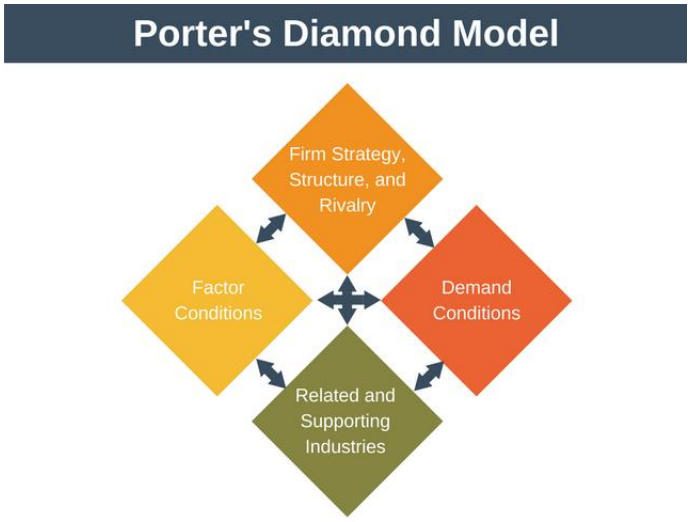

Figure 1. Michael Porter's Diamond Model (Porter 1990, 77)

According to the figure, we can see that areas are linked to each other and all of them are interdependent. In succeeding paragraphs the meaning and importance of each area from the model will be explained.

Factor conditions represent factors that can affect the economy's development and competitiveness. They consist of basic and advanced factors. Basic relates to something that is already available or can be obtained without a big effort. They are natural resources and unskilled labor. Advanced factors are modified from basic factors and consist of skilled labor with its knowledge and numerous types of capital. (Porter 1990, 73-97.)

Demand conditions characterize the home market and its demand. It involves different features of the market: size, development, growth. The more demanding and sophisticated is home market of the nation, the higher level of competitiveness it can potentially achieve. The reason behind this statement is that firms will be more motivated to innovate and grow for more demanding market. (ibid.)

Because of the complex business networks and supply chains, it is impossible to measure objectively success and competitiveness of one industry without taking into account other industries that are relate to or support in any way the industry in question.(ibid.) The best example could be global suppliers or B2B customers who create a big share of industry's revenue. There is no doubt that such cooperation contributes to the competitiveness level of the industry.

Structure and strategy of the firm determines its competitiveness on a national and global scale. Another significant factor is rivalry between firms in the same field as it forces innovation process and constant development. (ibid.) Depending on the nation, firms tend to set different goals and values. Also, hierarchy and structure of the company can vary markedly. However, they are still influencing the firm and must be considered while measuring its competitiveness.

Besides previously described areas, there is an extra determinant which can affect some or all previously listed areas. It is government or state authorities. This determinant is positioned as an extra one because it is not linked to just one area but works as a facilitator of the whole nation's economy. The role of the government in the nation's economy is crucial: creating favorable or not policies, investing in infrastructure and businesses, negotiations on the global arena. (ibid.)

Each area gives its own contribution to nation's competitiveness and altogether it forms a competitive position of the country on the bigger international market. (ibid.)

One of the researchers of national competitiveness, Hawkins (2006, 1-8), in his work classifies the general concept by internal market, external price and external costs competitiveness. His main point is that national competitiveness by its nature differs from other. Firms, organizations, clusters want to compete against others in the market and to win this competition. For the nations, it is important both to compete and support other traders in order to keep the balance at the global market. Hawkins (ibid.) sees the key to achieving this balance in controlling internal market: less trade barriers, shift from monopolies to healthy competition; external price: maintaining competitive pricing policies, both making profit and making goods affordable for other nations to promote better trade; external costs: achieving competitive labor costs, the largest business cost globally. These three components form a complex concept of national competitiveness.

Considering other scholars, Ketels (2016) explains the two competing points of view on the concept of competitiveness. Before describing these views, it should be mentioned that concept of competitiveness is used in various ways. Three most known are country's, firm's and cluster's competitiveness. This research is more focused on the location and explanation of how it is able to compete at the market.

Competitiveness is measured here through costs and export to the global market. In this context costs refer to location's unit cost level as this is seen as the significant criteria in measuring competitiveness of location at the global market. This view is based on an idea that to achieve success company needs to keep its international market share by being able to produce and sell goods abroad. It explains the relevance of production costs and market competition. These two factors become most important determinants of global competitiveness.

Second view evaluates competitiveness by productivity. It focuses on performance of some location and what kind of value it creates through production process. It could be also called value- or performance- driven approach. Costs and other factors are more less omitted, or they could still be determinants but have less relevance than productivity. This view is aiming at a long-term competitiveness, prosperity and development growth. This view fits for more detailed and profound analysis of location's or firm's competitiveness and prediction of future trends and development areas. (Ketels 2016.)

To conclude on all points mentioned above, there are several views of the competitiveness concept but each of them differs in its goals, measurement criteria and methods. All of them can be relevant for doing an analysis of a certain nation or firm, but they should be studied thoroughly beforehand and chosen accordingly to the goal of analysis and measurement.

There are many points of view on defining competitiveness, but it is not possible that one of those has the most accurate and transparent definition. Each country has different economic conditions and, thus, needs different approach to define and measure its competitiveness. True definition of competitiveness comes from the traded sector only. It can be measured by how it is able to export goods to the global market and succeed in that. (Atkinson 2013.)

2.1.2 International ranking and measurement of competitiveness

It was mentioned in the competitiveness concept chapter that there are different ways to use it as it analyzes various spheres. One of the smallest scale of analysis is

firms rivalry, with some exceptions of the biggest ones. Next step in the size are locations or clusters which are united in the national competitiveness. The biggest and highest rated is global competitiveness. It means that something is analyzed in a global scale – how it competes against others in the world. This is crucial to reveal the full potential of a firm or country and to show strengths and development areas. However, there are plenty of criteria for such deep analysis and it is a challenging process. Thus, it requires a systematic approach to fairly evaluate global competitiveness and give an appropriate rank.

One of the most famous and useful rankings is made yearly by the World Economic Forum in the form of reports. The Global Competitiveness Report shows the global rank of world economies and their competitiveness. The ranking is made according to an in-depth analysis of all fields. Measures are made through 114 indicators in 2017 (Schwab 2017) and 103 indicators in 2019. They are grouped in 12 themes, also called pillars (see Figure 2). Each indicator gives a country's economy a grade from 0 to 100 based on its performance and on comparison to other economies. On that scale, 100 is an ideal picture of the nation's performance and 0 is no performance or production at all. (Schwab 2019.)

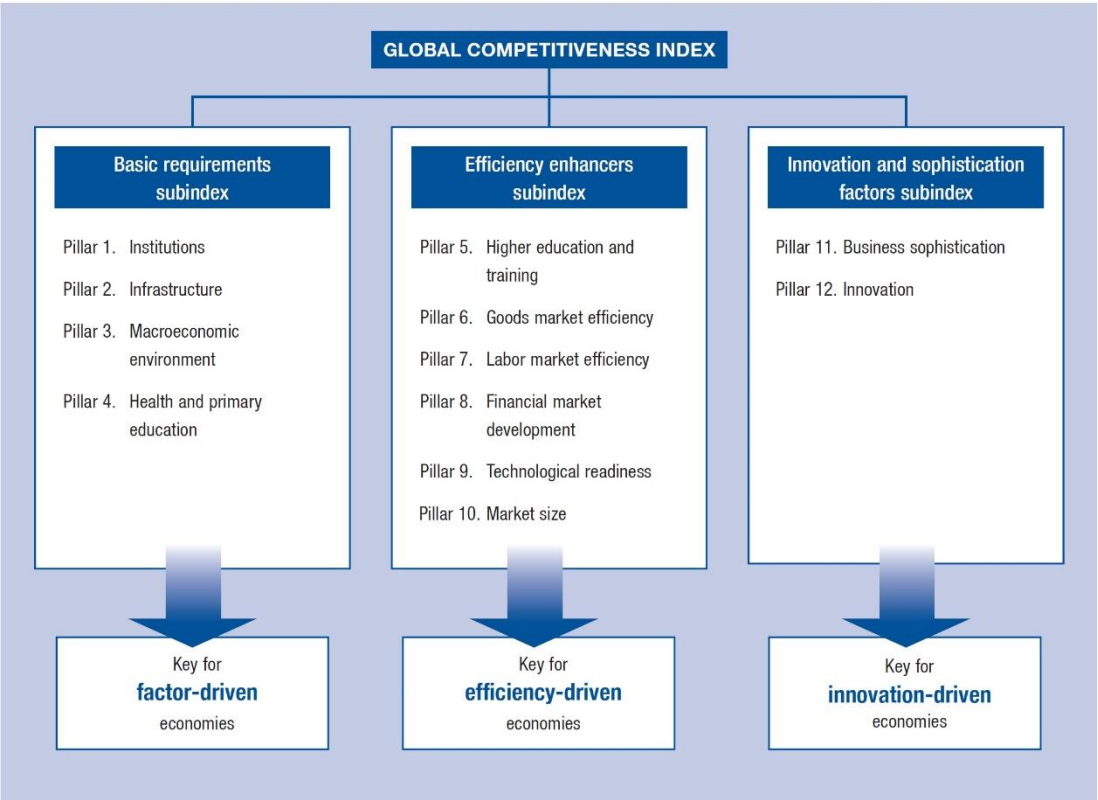

Figure 2. The Global Competitiveness Index framework (Schwab 2017,12)

According to the above figure, pillars are combined into 3 sub-indexes: basic requirements, efficiency enhancers, and innovation and sophistication factors. They show the current stage of the nation's economy. Through measurement of all pillars, country could belong to factor-, efficiency- or innovation-driven economy. In addition, it is worth to mention that not all countries can be clearly attributed to a specific stage of economical development. They are defined to be in a transition from one stage to another. (ibid.)

For better understanding of the pillars, and how they are used to measure competitiveness level of the nation, 12 pillars will be briefly explained below.

1st pillar: Institutions impact economic growth by being presented as an administrative and legal framework within which firms cooperate with government to create shared value and generate wealth. Society in its turn benefit from institutions as they provide essential services for maintaining high life standards. Some important factors that influence the pillar of institutions are their structure, transparency, level of bureaucracy. Negative factors incur higher costs and less efficiency. Consequently, positive factors stimulate economic growth and competitiveness. (Porter 1990.)

2nd pillar: Infrastructure. For the factor-driven economy, and not only, infrastructure in terms of various types of transportation, logistics, and communication plays a crucial role. A developed infrastructure sets a cornerstone for the further development and growth of the economy. (Schwab 2019.)

3rd pillar: Macroeconomic environment defines the context behind country's competitiveness and considers various policies, limitations, supportive institutions as one of the ways to measure competitiveness. World Economic Forum (2020) uses word "productivity" as it is a key to nation's competitiveness and it is directly affected by the macroeconomic environment.

4th pillar: Health and primary education. A workforce that has an affordable access to healthcare services is more secure and can contribute more to the performance and competitiveness of nation's economy. Poor healthcare system brings higher costs for businesses as they have more people on sick leave, and overall efficiency is declining. Besides that, this pillar is also measuring qualitative and quantitative indexes of basic education in the country. (Schwab 2019.)

5th pillar: Higher education and training. Higher education has a crucial role in building competitive economy and developing society. It creates a quality workforce which is demanded, supports the development of businesses and promotes innovation with the development of disruptive technologies. (QS Asia News Network 2018.) The pillar of higher education measures the development of educational network and quality of higher education services. In addition, training plays and important role for already skilled labor as it allows to acquire new skills and promote long-run learning. (Schwab 2019.) Investments in high-skilled labor and knowledge is a key to enhance the productivity of the economy in a modern world (OECD 2019).

6th pillar: Goods market efficiency. Economies that possess efficient goods markets have better position as they produce goods at higher performance rate incurring less costs. Such markets can be achieved by establishing strong and smooth supply-demand network that makes all processes in the economy work as a one mechanism. As a result, it has a contribution to nation's competitiveness. (Schwab 2019.)

7th pillar: Labor market efficiency. The efficiency of the labor market has a significant influence on all operations within the economy. It co-operates with higher education institution and allocates new high-skilled labor in the workplaces with high demand for such workers. The flexibility is essential in order to balance supply and demand of the labor. Also, social disruption should be avoided by fulfilling labor's needs. (ibid.)

8th pillar: Financial market development. An efficient financial market allocate funds to the enterprises and entrepreneurial projects to boost the economical

development of the country. It is essential that this sector of the economy supports the development through the right investments of the capital. In addition, the banking sector of the financial market should be transparent and trustworthy to achieve the growth in competitiveness. (ibid.)

9th pillar: Technological readiness. This pillar measures the agility of the economy to adopt technologies and ability to use them to increase the productivity of the industries. The important aspect of the pillar is collaboration between local research institution with foreign ones in the development of new technologies. (ibid.)

10th pillar: Market size. Analysis of the market size is important as it affects the productivity and competitiveness directly. The economies of scale set the direction of development and policies that firms adopt for their operation. Earlier, firms were limited to the national borders and adjusted according to their country. These days, in an era of globalization, it is possible to enter to a new markets and establish multinational firms. Thus, this pillar becomes even more important in measuring the competitiveness. (ibid.)

11th pillar: Business sophistication. It measures both the level of the business networks in general and individual firm's. The level or quality of operations consist of value chain, supply network, environmental influence. The efficient co-operation and established networks create a solid basis for further development, hence increasing competitiveness. (ibid.)

12th pillar: Innovation. The 12th pillar focuses on the level of innovation in the economy. this indicator is important as previous ones were creating a basis for the development of the innovation process. When the economy has a strong network and smooth processes, there is place for an innovation to increase efficiency to the next level. The innovation is based on the investment in research centers and development of the new products that will contribute to overall nation's competitiveness. (ibid.)

Besides reports about global competitiveness of economies, there are various international rankings that have narrowed evaluation to specific fields or clusters. They can give more precise data about them and are useful for both researchers and consumers. One example is the Global Innovation Index ranking published by WIPO. It analyzes performance of 130 countries regarding their level of innovation and performance in particular field. The analysis is based on more than 80 indicators that allows to create a broad vision and objective conclusions. Some of the indicators are political environment, education possibilities, development of the infrastructure and business sophistication. Each year GII is dedicated to a particular theme, which is being analyzed and described in an annual report. Considering GII 2019, it is focused on medical innovation and how healthcare systems will be transformed globally in the next decade. The results of analysis and ranking are useful to academics, specialists of the field and businesses as they receive valuable statistics and insights about future development worldwide. (Global Innovation Index 2019.)

World University rankings (2019) by Times Higher Education is another example of rankings in the specific field as it measures global educational cluster. It has been taken as a theoretical framework of the thesis, so it will form a basis of the empirical study. Theoretical framework will be described in section 2.3 of the current chapter. The more detailed process of the research approach and implementation will be explained further in “Methodology” chapter.

According to Durand & Giorno (N.d.), who have been working on measuring competitiveness for OECD (Organization for Economic Co-operation and Development), there are 3 general criteria to successfully measure competitiveness. First, all sectors/goods of the market should be counted. Second, everyone who is open for competition should be taken into consideration. And the last criteria, all measurement should be done based on the data that is completely comparable.

To sum up, global competitiveness is a term that covers the whole world in its measurement by providing reliable data about global positions and international rankings. These rankings help to define the position of a certain economy or cluster and also

make a comparison to their competitors. This is called the benchmarking method and it provides numerous new insights about areas of strategic development.

2.2 Higher education

2.2.1 The concept of higher education

Higher education consists of many different forms of education that are offered in postsecondary education. It usually leads to some certificate about higher studies in the end of the educational process. In most cases it is a degree or diploma. Besides universities, higher education is also represented in some colleges, schools, educational centers. The main goal is to make people experts in a certain field of their interests after they have received basic knowledge at school level. Higher education is able to raise career opportunities, potential income and increase proficiency in one's occupation. (Britannica 2020.)

In this century higher education system has experienced numerous changes, and perspective on education has been changed globally. Many researchers have worked on that field and expressed their results and opinions from different points of view.

Van der Zwaan (2017) in his profound study about higher education explains the historical background of this field, its modern role and suggests future trends. Historically, University was the source of knowledge where people of all ages could study and acquire desired proficiency. These days, we can see that perception of University has changed, and it is expected to perform a set of other functions besides teaching. There is different relationships with government and industry, which are more concerned about economic factor than teaching quality. Simultaneously, higher education institutions are perceived like factories of high-skilled labor and outward demand has been growing rapidly. Some changes in modern era that Van der Zwaan (2017) emphasized in his work are shift to private educational institutions, development of IT industry and higher societal demand for education level.

In his work Van der Zwaan (2017) clearly captured modern trends in the field of higher education. The biggest change lays in the fact that other institutions and fields perceive education and universities in a completely different way than in the last

century. It has already lost value of being source of enlightenment and cultural education, in addition to receiving basic knowledge. Modern demand is more on the surface – getting a degree for students and high-skilled labor for government or industries.

It could be noticed from Triple Helix model that is often used for analysis and comparison of regions or nations. As it is stated in the name of the model, it uses three main areas for analysis: Academia, Industry and Government. It analyzes each area to define the situation in the region/country and then makes a proposals about strengths, development areas, future opportunities etc. (Etzkowitz 2015.)

Thus, the role of academia is seen here in connection with industry and government. They are interrelated and contribute to each other. Many times it is mentioned about influence of legal framework on education or innovation in universities on industries. Thus, all 3 areas are nowadays connected and interdependent. Although there are advantages such as support and efficient communication, it brings disadvantages in terms of more demand and responsibilities. Institutions have to focus on the last ones and be distracted from their main functions.

Taking into account everything listed before, it should also be mentioned that each country has different correlation of these areas and, therefore, conditions of higher education and influencing factors from other institutions may vary in different places.

2.2.2 Influencing factors on the field of higher education

The functionality and performance of higher education institutions are influenced by many factors. Some of them are internal that they can plan and control, and some are external that are out of control.

According to Factors Influencing Higher Education (2019), there are 3 main group of influencers on the field of education.

Institutional factors

These factors are all features that certain institution has and can offer to its students. They include studying programs, delivery of studying material, teaching, school

facilities, implementation of studying process etc. They all form an image of the institution, and it is very important to plan them carefully and strategically. This group of factors also involves level of innovation and technology that is being used on campus. First of all, it facilitates learning process. Secondly, creates more attractive picture and better perception of institution.

Socioeconomic factors

This group has always been important in any field. For higher education socioeconomic factors are quality of dormitories, statistics from the institution, amount of people in classes and their diversity etc. International ranking of schools also could be included here. Every young person who is planning to apply to higher education institution, considers this factor group as very important. Especially, it is relevant for students who are moving from other cities and countries.

Political factors

Political factors include all regulations from authorities, legal framework of the country regarding higher education etc. In some countries government can dictate almost every step to educational institutions, up to teaching methods and grading principles. Therefore, this factor group is relevant to students depending on the country where they are planning to study. (Factors Influencing Higher education 2019)

2.3 Theoretical framework

In order to identify stronger and weaker parts, as well as opportunities and development areas, two different objects are analyzed and compared based on some framework which has certain indicators. These indicators represent different functions or performance of the objects. When doing a research in a certain field, the choice of framework is crucial as it sets the context of analysis and affects the final outcomes.

Considering research in the field of higher education, the most appropriate framework is international ranking system. It is based on various performance indicators of educational institutions and suits for analysis with comparison. It is worth to mention that in higher education there are two types of rankings: countries and institutions.

Obviously, analysis and comparison of national educational cluster is much broader and more challenging than comparison on the institutional level. It is reasonable to conduct a research between leading institutions of the field from two countries. It would allow an in-depth analysis based on theoretical framework. However, because of some limitations of the research it is not possible to implement such study. Moreover, institutional level study will be more subjective and will not show a complete picture about the situation in the country. Thus, the research will be done on a national level to measure national competitiveness. More detailed explanation and other occurred limitations will be listed in the discussion chapter of the thesis, subchapter 5.4 “Limitations of the research”.

As a framework for the research, assessment table from Times Higher Education (2020) will be used (see Figure 3). This table represents its methodology in assessing institutions and creating rankings. Thus, secondary and primary data will be collected and analyzed based on the chosen theoretical framework. Results of the analysis will be used to answer the research question of this thesis.

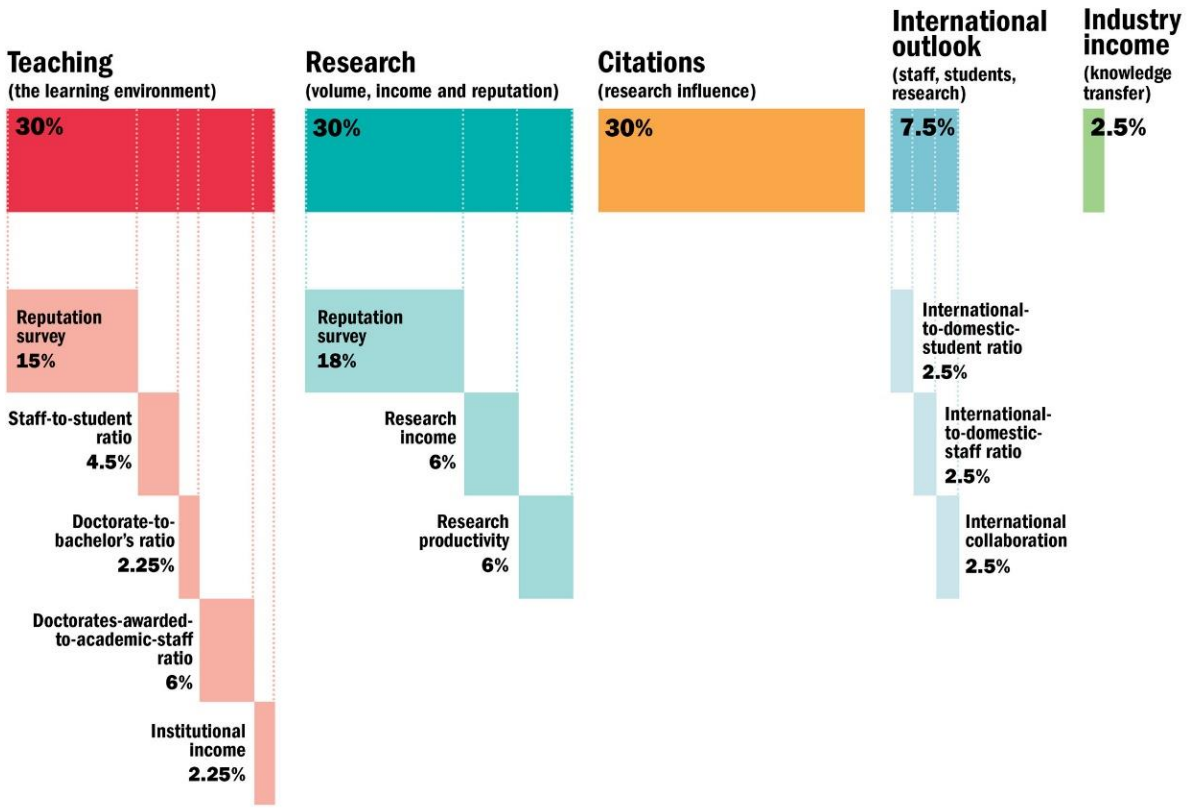

Figure 3. 13 performance indicators to assess institutions (World University rankings 2019)

Times Higher Education(2020) uses 13 performance indicators that represent all main aspects of higher education field. They were chosen to provide accurate and most comprehensive data about the performance of a particular institution. The results of the table are further used for creating rankings, and target group includes teachers, researchers and students. “The performance indicators are grouped into five areas: Teaching (the learning environment); Research (volume, income and reputation); Citations (research influence); International outlook (staff, students and research); and Industry income (knowledge transfer).” Some of those five areas are further divided into sub-indicators.

Times Higher Education(2020) does not provide a weighting system for aforementioned 13 indicators. It is worth pointing, that this research can bring valid and reliable results if more important indicators are considered over others. Consequently,

importance of each indicator will be analyzed to understand its weight for particularly this research work.

1. Teaching - Reputation survey (15%)

This indicator is based on the experience and opinion of the numerous scholars. The reputation survey gathers data about the top universities in a specific discipline and in level of their teaching services in general. Participants of the survey are academics with many years of experience in the field. They list both own experience and general opinion about institutions. The survey is in 14 languages, carried out in partnership with Elsevier(2020) and gathers about 10,000 responses annually (Times Higher Education 2020).

I would pay higher attention to this indicator as it defines the quality of teaching which is crucial in terms of competitiveness and is main focus of education industry.

2. Teaching – Student-to-teaching staff ratio (4.5%)

Student-to-staff ratio represents the ratio of teachers to students in a college, university or other educational institution. The importance of this indicator is in defining the learning environment of the institution. This ratio can explain how much interaction there is between lecturer and student. When institution has enough teachers and well-planned policy for student admission, students get enough feedback and guidance during their studying process. According to National Center for education Statistics (2019), the ideal ratio of the faculty members to students is 18:1

In my opinion, this ratio is important but it does not contribute to the competitiveness of the institution the same way as others. Therefore, it will be counted as a supportive indicator.

3. Teaching – Doctorate's to bachelor's ratio (2.25%)

This ratio represents the number of postgraduate researchers and bachelor students. Basically, it defines how productive is the institution and its learning environment. Also, it reflects the level of teaching. Community of postgraduates creates research led environment which is attractive for new bachelor students as they see future opportunities in their studies. (Times Higher education 2020.)

Considering influence on the competitiveness, it increases ability of an institution to compete with others in the industry by attracting more undergraduate students. I would classify this indicator the same way as the previous one – to the moderately important ones.

4. Teaching - Doctorate's awarded to academic staff ratio (6%)

This indicator represents the ratio of awarded doctorate degrees to the amount of staff that is employed by an institution. Comparing to 2nd indicator which mentioned teaching staff, besides teachers, academic staff includes all employees of the institution. In this case, doctorate degrees reflect on the performance of the institution in an academic perspective and amount of academic staff shows the institution's size and the scale of operations. (ibid.)

5. Teaching – Institutional income (2.25%)

Income of the institution shows the development level of facilities and infrastructure. Also, it represents the general status of the institution. It is calculated by scale of income against the amount of academic staff. Times Higher education (2020) explains the institutional income as following: "Institutional income is scaled against academic staff numbers and normalized for purchasing-power parity (PPP). It indicates an institution's general status and gives a broad sense of the infrastructure and facilities available to students and staff." In my opinion, this is important indicator as it influences the competitiveness directly.

6. Research – Reputation survey (18%)

This indicator is measured similarly as reputation survey in teaching category. The only difference is that academics give their opinion about the level of research in the institution. In the most cases, it is value of research studies for the academic world and community. Another measure is the amount of published research papers annually. The research reputation survey is implemented in the same way as teaching. It is in 14 languages, carried out in partnership with Elsevier (2020) and gathers about 10,000 responses annually (Times Higher Education 2020).

7. Research – Research income (6%)

The category of research also considers its income. Research income defines the future development and investments into research. Definitely, to achieve a global acknowledgment from a leading research institutions, there should be a sufficient income to support and improve the research in various disciplines. This indicator can contribute to the status of the institution but not crucially to its competitiveness. Therefore, it will be considered as less important than others. (ibid.)

8. Research – Research productivity (6%)

Research productivity is measured by the amount of academic publications. Times Higher education (2020) collects this data from Elsevier's Scopus (2020). In addition, it takes into account publications per scholar, size of the institution and subjects of the publications.

9. Citations (30%)

This indicator measures how ideas and knowledge produced by a certain institution or education industry within a nation are used in other schools. This is a broad and vague index to measure. However, the measurement is done through an analysis of the average number times that published research works of the institution were cited by other scholars. (Times Higher Education 2020.)

"Data collector Elsevier(2020) examined 77.4 million citations to 12.8 million journal articles, article reviews, conference proceedings, books and book chapters published over five years. The data include more than 23,400 academic journals indexed by Elsevier's Scopus database and all indexed publications between 2014 and 2018. Citations to these publications made in the six years from 2014 to 2019 are also collected." - Times Higher Education (2020)

International outlook defines the level of internationalization, the ability to build international network and community, the ability to prepare students to a multicultural environment in their future workplaces (ibid). Glasgow University(2020) acknowledges the statement above by describing international outlook as building

multicultural community and preparing it for global environment with international education and business.

10. International outlook – International to domestic student ratio (2.5%)

This indicator represents the number of international students against local students. It describes the diversity in a community on campus and also the ability to attract students worldwide to move to a certain country for the purpose of studying in its institution. In my opinion, the value of numbers of international students is bigger than locals as they made much more effort to start their studies. Therefore, it shows the competitiveness of an institution and industry in general. (Times Higher Education 2020.)

11. International outlook – International to domestic staff ratio (2.5%)

Higher education industry in the country and institutions do not only strive to attract students from other countries, but also compete for a foreign high-skilled professionals in an academic field. The indicator shows the ratio of international staff members to domestic. It gives a certain picture about the institution's environment but does not contribute to competitiveness as much as other factors.

12. International outlook – International collaboration (2.5%)

The meaning by international collaboration is originally in a joint research papers with at least one international co-author. The measures are made for the time period of five years. (ibid.) However, I would like to note the importance of other types of collaboration as exchange networks, joint degree programs, internationally-oriented summer schools. They all form a strong bonds between universities which are beneficial to all parties.

13. Industry income (2.5%)

The last 13th indicator represents a separate category of industry income. It considers income of higher education industry on a national scale and also contribution to that income from various institutions. Contributions can be through research and innovation projects in collaboration with businesses. Such collaboration gives practical skills to the students and develops the industry.

A goal of an empirical study based on the theoretical framework

A planned outcome of an analysis with the ranking table is a well-structured and reasonable comparison of competitiveness between two countries. Given analysis and comparison could be used for defining a possible gap in competitiveness and making suggestions about the development areas for adopting long-term strategic policies and increasing global competitiveness index with international rankings in the future.

3 Methodology

3.1 Research approach

A choice of the research approach is a key decision to set the direction of the research and aim to answer the research question with the most useful outcome. Initially, there are two types of research: qualitative and quantitative. They contrast each other, but are equal in an ability to answer the research question. The choice of research approach should be done according to the nature of the research, main questions and final goal. Researcher Sukamolson (2007,2) states that quantitative research numerically represents the observations to describe and explain some phenomena. It involves collection of numerical data and analysis with mathematical-based methods or statistics. Quantitative research approach is the most suitable choice for researches with the goal to find numerical answer, for testing hypotheses and for audience segmentation.

According to Hox & Boeije (2005, 595), qualitative research is an approach which aims at studying particular events or phenomena and explaining it. It is flexible to research context and cannot always be strictly controlled. Researchers usually plan in advance qualitative studies and take notes during the process to their diary. The most commonly used qualitative methods are interviews, focus groups and participant observation.

After I have studied different research approaches, I decided to use qualitative approach to conduct my research and aim to answer the research question. The reason behind that decision is that qualitative approach allows to make an in-depth analysis and get “under the skin” of the particular phenomenon. Quantitative research, in its turn, can help to conduct bigger scale study but not likely to go deeper in a particular field and answer a specific question. Although, field of education and theoretical framework’s rankings involve numerical indicators, qualitative performance of educational institutions with opinions of interviewees are the basis of this research work and provide essential data to make conclusions about the results of the study and answer the research question.

Based on the question of my research, I need to measure the gap in competitiveness between two nations in particular field. It can be implemented through an in-depth interviews with professionals in the field and further analysis of the collected data. Qualitative research approach can form the basis of the exploratory study which will provide valuable insights and practical suggestions to the stakeholders in educational industry and common consumers in the field.

Creswell & Hanson (2007) in their book about qualitative research describe the process of selection and implementation of the qualitative research. There are five approaches that could be selected for the research strategy: narrative research, case study, grounded theory, phenomenology and action research. It is not possible to compare them in terms of efficiency or validity of the results as each research is a unique in nature. Therefore, previously mentioned approaches should be selected according to the field, purpose and question of the research.

After searching for various research strategies, I have found a benchmarking technique. This approach is based on the comparison of the test object to the best practices in the same field. It is important to ensure that there is a line of similarity between both objects because benchmarking can only be done when objects are similar and comparable with each other.

Gunasekaran(2001, 1-3), in his work about benchmarking tools and practices, describes this method as analyzing two or more objects, identifying difference between them and understanding improvements that could be done. The main advantage of benchmarking method over comparison analysis is that it involves continuous progress and improvements. The reason is that it identifies the difference from a role model with the best practices in the field which sets an example for strategic development.

Zairi (1994, 11-13) states that benchmarking is a powerful tool for organizations that helps to maximize utilization of resources and optimize delivery of the product/service with the most competitive approach, highest quality and lowest possible price. As was mentioned by Gunasekaran (2001), all this development is possible because of the comparison to a role model in the field and promotion of healthy competition where each party strives to grow constantly and work on the development areas.

This thesis will be implemented through the aforementioned benchmarking technique. It will involve interview-based and secondary data from Finland and the United States. It will measure competitiveness level of the industry on a national scale and compare two countries.

3.2 Research context

3.2.1 Higher education in Finland

According to data from Fulbright Finland (2019), higher education in Finland is represented by two different institutes: universities and universities of applied sciences (UAS). First ones are oriented on scientific research and same type of teaching. On the contrary, UAS offer practical approach to learning process that prepares students for their working lives and gives more practical knowledge. Higher education system in the country consists of 13 university-level and 23 UAS institutions.

Some researchers of educational fields narrowed their field to Finnish education system, how it efficiently operates as one whole mechanism, some of them focused only on higher education in Universities and Universities of Applied Sciences. For

measuring competitiveness level of Finland in higher education sector, some previous researches were studied and analyzed.

Finland has implemented a set of educational policies that are linked to legislation system and are aiming at reformation and modernization of education system. Starting from 21st century Finland has entered a path of internationalization and development in all spheres. The main change in the structure is better cooperation with local and foreign institutions: shared researches and projects, exchange programs. (Tirronen and Nokkala 2009.)

It has been mentioned numerous times by various journals measuring educational environment, that Finnish education system is one of the best in the world. However, what is the main basis for such a strong statement? Wood (2018) in her article about the advantages of Finnish education culture explains some facts that lead to such conclusions. She has listed few statements that support the concept of being the leading country by education factor worldwide. First of all, it is about facilities and opportunities. In Finland, each person has a free access to the library and to all its sources. Also, in educational institutions everything is provided for convenient learning process. This factor creates a strong base that leads to an emergence of a craving for knowledge. Considering higher education, any person has the right to receive a study place in University or University of Applied Sciences without any chance of discrimination by any factor. Moreover, all Finnish and EU/EEA citizens have the right to be exempted from paying tuition fees. It is not common in other countries, so it definitely brings more value to higher education in the country.

Cultural impact

From the words of American researcher Nauman (2018), Finnish culture has a great influence on education system. She defines Finnish culture as peaceful, relaxed and hard-working. In other words, Finns create most convenient and friendly environment to unleash their potential and gain international competitive advantage. This advantage is one of the reasons of such success of the system. Although it does not influence learning process directly, it creates favorable atmosphere that promotes productive studying.

3.2.2 Higher education in the United States

The United States have a well established higher education cluster. Its size is huge, it accounts for 6,500 postsecondary institutions which create around 3 percent from the country's GDP (EducationUSA 2019). In addition to the size, there is a lot of diversity: state and private, old and new, big and small educational institutions. Some other interesting and distinctive features of the educational framework are mentioned by Peter & King (2004) in their overview of higher education system in U.S. As it was mentioned before, there is an enormous network of institutions, so the whole system is very decentralized. Also, there is less relationship and connection to the government. It creates less influence from legal framework and control from the side of the government. Thus, there is more freedom in administrative departments of institutions. The advantage is in less pressure and more opportunities, negative side is even worse decentralization and impossibility to establish similar approach to education across the country.

From the overview it is noticeable that country gives much freedom to all institutions and does not put strict control on them. These are the reasons for diversity, decentralization and less dependency on the government. Schools can make their own choices, and mostly they adopt profit-oriented strategy with good marketing, high reputation and expensive education. Considering teaching, American schools are more likely to follow knowledge- and theory- based concept, but there are exceptions due to high diversity of the cluster.

Feigenbaum(1994) was claiming that United states need to change their approach to education because it was founded on other values than will be needed in the future. He believed that society should concentrate on innovation and the only way to be highly educated, to show high performance and make any kind of business country has to constantly work on developing better quality. Regarding education, he meant to change from knowledge-based teaching to quality-oriented approach. It is based on educating and raising individuals with ability to think analytically and approach problems with practical solutions. Nowadays, we can see the truth in theory of that researcher who could forecast future trends in education and global economics. In the modern fast-changing world only such skills as analytical thinking with solution-

and quality-oriented attitude can ensure gaining long-term competitiveness and constantly keeping pace with the changing market.

Mitic (2015), who conducted research in Illinois University, studied the political economy of the country, its influence on the system and leadership type. He states that American system applies hegemonic leadership style which acquires global power and competitiveness, but loses in trust and reputation. Regarding higher education, it reflects in profit-oriented strategy and remaining competitive by expanding educational network internationally and attracting more exchange students. Despite high tuition fees and hegemonic approach, American institutions maintain good reputation by offering several advantages. The biggest are English as studying language, prestigious diploma with further opportunities, broad and strong educational network. For students who are not able to come to USA, partly because they cannot afford it, there are many affiliated campuses almost on all continents, in many countries. In that way, American Universities stay well-known all around the world and mostly are choice number one for postsecondary education.

Among weaknesses mentioned by researcher are unstable economy during past decades which had a negative effect on the educational field. It includes a Cold War with Soviet Union and economical crisis of 2008 which later emerged to global stagnation. (Mitic 2015.) During that time Universities experienced decline in incoming students, issues with grants and scholarships, reduction of research projects etc.

Based on description of higher education system and analysis of researchers' works, it could be said that United States have very broad and strong educational network which is well positioned in the market and functions successfully worldwide. However, there are still some issues and most probably country should already make right development decisions in order to maintain its competitiveness in a long-term.

3.3 Data collection

This chapter is focused on the description of the sources that have been used in the data collection process. In addition, data collection approaches and techniques will be mentioned and the reasons behind their choice.

Primary data is collected by the researcher specifically for his study. It means that this data is initially intended for a specific research, collected from the first-hand sources and has not been published yet. Consequently, researcher has no doubt about its quality, reliability and objectivity. Examples of primary data sources are interview, experiment and survey. (Saunders et al. 2009.) Disadvantages of using primary data are issues with the data collection process, ethical considerations (consents, permissions) and costs of collecting the data (Kabir 2016, 205).

Secondary data is a data source that have already been published in any form. It is used for both qualitative and quantitative type of research as it serves numerous purposes. In other words, there is a chance to use some set of secondary data set even if it was not written for the same field of study or research question. Usually, secondary data is collected first, to get understanding of the study and plan the primary data collection. (Saunders et al. 2009.) According to Kabir (2016, 206), the advantages of secondary data are easier access and less responsibility for the quality of the data. On another hand, there are disadvantages, such as reliability of the data from the third party, data obsolescence and possible issues with copyright.

Taking into account aforementioned advantages and disadvantages of using primary and secondary data, both types of the data were collected and analyzed to complement each other. The main goal of collecting data is to conduct the research and answer the research question. Secondary data was retrieved from statistical databases and annual international rankings. They provide valuable insights about competitiveness and explain the situation in education in both nations. In addition, one of the rankings also serves as a theoretical framework of the thesis. Besides that, official websites of such organizations and institutions as Glasgow Caledonian University(2020), National Center for Education Statistics(2019), OECD(2019) and World Economic Forum(2020) were accessed for studying and retrieving the required secondary data. Primary data was collected through the interviews with representatives of both nations who are experts in an

academic field. Interview questions are based on the theoretical framework and form a basis of the research. Each question corresponds to an indicator in the theoretical framework, and the full list of interview questions will be in Appendices (see Appendix 1).

There are different types of interviews which have different features. Based on the nature and goal of the research, one type of the interview has to be chosen and planned accordingly. According to Figure 4, there are 3 most common types of interviews, and each of them will be further described. Unstructured interviews have no defined structure and normally questions are not planned in advance. It has a free form and interviewee expresses his opinion about the topic. Semi-structured interviews have planned questions in advance, but interviewer does not have to follow them strictly. Thus, some deviations from the questions are allowed during the interview. Structured interviews have a planned list of questions, and interviewer strictly follows the questions in their order and expects the interviewee to give straightforward answers to his questions (Kabir 2016, 211-213).

Table 1. Three types of the interview (Kabir 2016, 211).

Structured	Semi-structured	Unstructured
Interviewer asks all respondents the same series of questions	There is an interview guide	No interview guide, questions not planned in advance
Questions are prepared in advance	Interviewer may stray from the guide if needed	Open-ended questions
Little room for variation in responses, less open-ended questions	Interviewer and respondents engage in a formal interview	Interviewer knows the focus and goal of the interview, it helps to guide interview

For this thesis, I have decided to use a semi-structured interview type for the collection of primary data. The reason behind that choice is that it has both structure and flexibility. The structure will help me to plan interviews in advance and make a list of relevant questions for the study. Flexibility will give freedom to the

interviewee as he/she can express opinions without a pressure from the interviewer. The expected outcomes of these interviews are valuable data sets that contain both knowledge and opinions of the interviewees.

In total, 2 people were interviewed for this thesis. One person is from the United States, who had several years of teaching experience in Finland. Another person is from Finland. At the moment of the study, there was a pandemic situation in the world, so both interviews had to be organized through a videoconference platform. The disadvantage of this approach is in the absence of the personal interaction in the same way as when meeting face-to-face. However, a well-planned video-call interview can also go smoothly and create a similar environment as meeting in person. Although Internet based communication platforms have certain limitations and cannot replace personal interaction, they provide advantage of reaching people worldwide efficiently and serve as an alternative data collection tool for qualitative researchers. (Lo Iacono, Symonds & Brown 2016.)

First interview was with Interviewee 1(the dean of the international business program at Finlandia University in Michigan) and was 26 minutes and 5 seconds long. He has lived and taught both in Finland and the United States. This gives a great advantage as he knows both nations and their higher education systems. Second interview was with Interviewee 2 (lecturer at the University of Jyväskylä) and was 30 minutes and 56 seconds long. Interviewee 2 has many years of working experience in Finnish education system and could help with questions about Finland. All interviews were organized through a video conference call and recorded with the help of Zoom platform. Recordings were used for the further transcription and analysis of the interviews. Jamshed (2014,87-88) states in his article about qualitative research methods that recording of the interview is easier and more efficient than hand written notes. It allows interviewer to focus on the interview and maintain nonverbal contact with the person. Moreover, transcript of the interview helps researcher to capture data more efficiently and make an in-depth analysis.

It should be mentioned that all individuals who were interviewed and involved in this research, were informed about the purpose of the interview and subsequent use of collected data. They preferred to stay anonymous, but gave consent for the use of their job titles in the thesis.

3.4 Data analysis

The process of data analysis consists of several stages which start from organizing raw datasets and ends with the interpretation of the data in order to find the results of the study. LeCompte & Schensul (1999) define the analysis of the data as the process of data reduction with the aim of further interpretation.

From various data analysis techniques, I have chosen constant comparative analysis, suggested by Glaser (1965, 436-445). This technique is a data coding process used to divide datasets into categories and compare them for analysis purposes. Researcher describes it as a combination of explicit coding, data comparison and systematic theory development. In other words, data is being coded, categorized, compared and used for generation of theories.

First stage of data analysis was gathering secondary data from various sources, studying and organizing it by relevance to the thesis. To ensure relevance and validity of the secondary data, several sources were compared to each other. A more detailed process of verification will be described in succeeding chapter 3.5 “Verification of findings”. Secondary data sources were either downloaded to the computer or saved in the bookmarks of the Internet browser. Each source of the secondary data was thoroughly studied and relevant information was highlighted. Further refined data was allocated to corresponding codes and analyzed together with the primary data.

Considering the analysis of the primary data, it was first transcribed from the interviews into two MS Word files, which were marked according to the interviewee’s name, to avoid confusion with the data. Transcripts were thoroughly studied and relevant data was highlighted. Relevance of the data was defined with the help of the

codes (see Table 2) that represent each indicator of the theoretical framework in the same way as interview questions. Coding process is done to refine a big set of data and group it by relevance. Basit (2003,144) states that coding is a significant step in data analysis. Codes are tags or labels that help to allocate words, phrases or whole paragraphs to a specific category. Data analysis using codes helps researcher to define differences, similarities and patterns.

Data that is connected to the codes is categorized and analyzed using constant comparative analysis technique. Thus, data from two interviews was allocated to certain categories and compared to each other in order to define similarities in interview answers. Outcomes of the data analysis were structured and explained in the corresponding subchapters of the 4th "Results" chapter. Mainly data analysis is done in the MS Excel which helps to group and filter the data. It will leave the most important information and facilitate the process of identifying the results of the study.

Table 2. List of codes for data analysis.

Code №	**The explanation from theoretical framework**
T1	Teaching, reputation survey
T2	Teaching, staff-to-student ratio
T3	Teaching, doctorate-to-bachelor's ratio
T4	Teaching, doctorates awarded-to-academic staff ratio
T5	Teaching, institutional income
R1	Research, reputation survey
R2	Research income
R3	Research productivity
C1	Citations
IO1	International-to-domestic student ratio
IO2	International-to-domestic staff ratio
IO3	International collaboration
I1	Industry income

A final stage of the data analysis involves the interpretation of the grouped data to attempt answering a research question. This stage involves analytical thinking and the right combination of the collected earlier secondary data with the insights from the interviewees as a primary data. This interpretation aims at explaining the difference in the competitiveness of two nations and the reasons behind this. Therefore, telling the reader how Finland can compare to the United States in terms of competitiveness in higher education.

3.5 Verification of results

"*Unless you can show your audience that the procedures you used to ensure that your methods were reliable and your conclusions valid, there is little point in aiming to conclude a research dissertation.*" - David Silverman (2013, 301)

Therefore, the goal of this part of the methodology is to show and explain the reader the verification of the results in terms of the reliability, internal and external validity of the data, and researcher's objectivity.

Reliability

The research that aims to provide practical implications, needs to show the reader that all sources which were used for data collection, are reliable and trustworthy. In order to check the reliability level of the sources, Dochartaigh (2002) suggests to develop certain academic research skills, which help to filter the most reliable data out of the information overload in the Internet. In order to gather reliable data, it is useful to search it in trustworthy databases and check the amount of citations of the certain publication. Official websites of statistical databases, institutions and organizations were used for this research to provide reliable qualitative data and numbers in terms of statistics for the thesis.

Zohrabi (2013) states that for the qualitative research it is important to ensure that the findings are dependable and consistent. It means that research has been done in

a systematic way based on the studies of other researchers, and its findings are reliable. Consequently, if findings are reliable, other researchers who would attempt to answer similar research question, will achieve similar results. One of the techniques to ensure consistency and dependability is data triangulation.

“Triangulation refers to the use of multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena”(Patton 1999). In other words, findings of the research should be based on various sources. As for this thesis, numerous sources of data were used. Moreover, before writing any statement to the results, I have reviewed and cross-checked its sources to prevent any errors and ensure they all lead to the similar conclusions.

As for the reliability of the primary data, there is a risk of misunderstanding and further errors in interpreting the data. In addition, there could be lack of trust from the interviewee. In that case, answers will not be transparent and reliable. To minimize this risk, the interactive environment was created during the interview where the person was free to express himself without pressure. The interviews were organized according to the recommendations of Saunders, Lewis & Thornhill (2009). In his book about research methods he states that interviewer should wisely prepare the list of questions according to his research field and theoretical framework. Questions should be asked in a clear and calm form, eliminating the chances to influence the person’s answers. Recording of the interviews plays an important role in ensuring reliability. As it was mentioned earlier in chapter 3.3 “Data collection”, Jamshed (2014,87-88) notes the importance of recording as it allows to focus on the interview and make and in-depth analysis later. Data transcripts also can affect reliability as well and worth attention. During the stages of the transcription and interpretation, data should be carefully analyzed to avoid data loss and ensure reliability of the final outcomes.

Validity

There are several techniques that could be used to check the validity of the research. Most common are data triangulation, checking participants of the research, the level

of biases and subjectivity. They should be analyzed while conducting the research to ensure the credibility and validity of the results. (Creswell 2014.)

As it is suggested by Creswell (2014) regarding the research participants, the interviewees for the primary data collection were carefully selected according to their background and occupation. There were 6 suitable candidates, who were invited for the interview. However, in the end only 2 interviews were organized. Other candidates either haven't responded or admitted that they are not able to help in that particular research and directed to more suitable person. Regarding two interviewees, they are experts in an academic field, and one of them has the understanding of both nations that are compared in this study. Consequently, participants give the credibility to research.

Regarding internal validity, questions for primary data collection were based on the theoretical framework, and data analysis codes corresponded to the indicators from the theoretical framework as well. Moreover, all chapters of the thesis and the research process were built based on the research question with the goal to give an answer to it in the results of the thesis.

Considering external validity, it reflects how research can be adapted by other researchers and used in their studies (Saunders et al. 2009,158). This thesis aims to answer research question that is narrowed to specific countries. Therefore, findings of the research cannot be easily adapted for other researches in the same field. However, methodology of the research and general concepts about competitiveness in higher education can be useful for doing research in higher education field. Moreover, researchers who would like to continue studying the same research question, can find this study useful to get familiar with the research field.

Researcher's objectivity

A biases and subjectivity from the researcher can happen during the research process in the case when several people are conducting research and many approaches to the data interpretation are used (Saunders et al. 2009). I agree with the

statement, but at the same time when several people are involved in the research, they can be more objective after discussing the analyzed data. Considering this thesis, there is only one author, hence I have to ensure that it is as objective as possible. In qualitative research it is crucial for the researcher to recognize personal values and perceptions that he might bring to his research (Ratner 2002). This self-evaluation helps to minimize subjectivity and improve the quality of the study. Regarding subjectivity in this research, there is possibility of subjective interpretation of the data and personal perceptions about the studied countries that have been formed before this research. In order to eliminate these risks, I have relied on the facts from the primary and secondary data sources and tried to avoid other opinions or personal points of view. Instead, only interpreting the data in the light of this study and citing the sources with the acknowledgement of the authors.

4 Results

This chapter presents the results of the research which are formed based on the outcomes of the analyzed data. It is structured according to the theoretical framework and shows the comparison between two countries by the competitiveness factor. It should be mentioned that there are 13 performance indicators in the theoretical framework in total. However, based on their weighting analysis in the chapter 2.3 and opinion of the interviewees, not all of them affect the competitiveness of the institutions and higher education system in the same way. Consequently, some indicators were grouped into one category and others are mentioned slightly. Only relevant indicators were used to form the results of the research, and they will be described in the succeeding subchapters. This chapter is written based on the interviews with the dean of the international business program in Finlandia University of Michigan, United States(Interviewee 1) and university teacher in the faculty of education and psychology in Jyvaskyla, Finland (Interviewee 2) unless the information is based on the secondary sources.

4.1 Teaching, learning environment

Teaching quality

In the opinion of both interviewees, Finland has quite high level of teaching. Interviewee 1 noted that it has improved over the last decades, there are more requirements to become a teacher, such as working experience in the field. Especially, it could be noticed in the universities of applied sciences. Earlier teachers were not coming from the industry of working life, but in the recent years teachers have both academic and working experience. The numbers of degree students in universities of applied sciences are increasing, in 2019 around 129,000 students attended education leading to a degree, which is nearly 11% more than in the previous year (Statistics Finland 2019). Given the fact that there are twice as many of universities of applied sciences than traditional universities in Finland, increased interest in studying there will have a significant influence on the field of higher education in the country. It should be mentioned that Finnish higher education institutions do not vary much in the quality, so you can count on receiving a high level education in any part of the country. It could be explained with the smaller size of the country, hence more united network of institutions.

On the contrary, United States have a lot of deviation in teaching quality. Interviewee 1 notes that bigger size of the country is one of the reasons of deviation. There are several American institutions that are listed in the top global rankings, and they meet expectations regarding quality of the teaching. However, in some institutions, professors do not prioritize teaching in their work. The criteria of their recruitment was rather research level than teaching, therefore they focus on writing articles and publications for the institution. To conclude, if teaching is not a priority, there will be a noticeable loss in the quality.

Student-to-teaching staff ratio

Considering student-to-teaching staff ratio, both interviewees agreed that there is a space for improving both in Finland and United States. Finnish institutions in most

cases wish to have more teaching staff, but nevertheless numbers in terms of the ratio are quite reasonable. The ratio affects the interaction between teacher and students, individual study plan discussions and structure of the courses. Despite this fact, in the opinion of the Interviewee 2, pedagogical solutions are even more important and valuable than the ratio of students to teaching staff. Teacher with the right approach can organize his course and deliver knowledge if there are, for example, 100 students in the class. On the other hand, teacher who has a wrong pedagogical approach, can fail to deliver any valuable knowledge even to the class of 20 students.

According to the experience of the Interviewee 1, he has worked in both countries and experienced large class sizes. In the United States there is also a significant deviation in the ratio numbers. In some institutions there are classes with more than 100 students. In this case, most assignments and tests are based on the multiple choice questions, which do not involve any interaction with the teacher and cannot provide well-round education. In other institutions there are around 25 students in the class, and teaching is more efficient. As an example from the interviewee, in Finlandia University located in Michigan student-to-teaching staff ratio is about 12:1.

Institutional income

Income of the institution can definitely affect its competitiveness as it gives more resources and possibilities to allocate them in a way that contributes to the competitiveness. Interviewee 2 from Finland agrees that it is an important indicator and notes that higher institutional income can be advantage over other institutions as it allows to offer more to students and faculty staff. One example of influence on the competitiveness could be hiring researchers, whose publications will contribute to the competitiveness of the institution. Consequently, higher income allows to invest more in the research.

In the United States universities are well-known worldwide for their high tuition fees, hence more institutional income. Despite the high income, Interviewee 1 states that it does not guarantee competitiveness, just gives more resources and possibilities to

achieve it. Besides influence through the research that was mentioned earlier, he noted the importance of offering better facilities and paying higher salaries as factors that could affect the competitiveness.

To conclude, institutional income plays an important role in both countries and can affect competitiveness. However, it is not guaranteed unless institutions invest their financial resources in the sectors that can influence it.

Other factors

Besides the indicators described above, there were two more that are related to doctorate researchers, doctorate's-to-bachelor's ratio and doctorates awarded-to-academic staff. Based on the analysis of the collected data, they are not as significant as others. Interviewee 1 notes that these indicators can be important for the research institutions as they will highlight doctorates that they produce. Otherwise, it is not an attractive factor for the students.

4.2 Research

This subchapter is formed based on grouping three indicators related to the research: research level, income and productivity. Therefore, it summarizes the importance of these indicators and how they can affect competitiveness.

Considering Finland, Interviewee 2 thinks that these indicators are important for the competitiveness as high research level and publications give more funding, which can contribute to the competitiveness. However, she notes that for Finnish institutions competitiveness is not a priority, they focus more on providing equal opportunities, delivering certain value, being useful for society. Of course, it is an achievement to be listed in the rankings and have good reputation, but institutions do not allocate all their resources to achieve this. When analyzing research factor in Finnish higher education institutions, it is also important to distinguish universities and universities of applied sciences(UAS). According to Finnish education statistics database Vipunen

(2020), there are 13 universities and 23 UAS in Finland. UAS have more practical approach, and degrees are planned to prepare students for working life, hence research naturally is not the main focus. There are around 4500 researchers in all UAS and 6200 in universities. Regarding research funding, UAS receive in total from all sources around 250 million euros and universities around 1.4 billion euros.

Considering the United States, research factors are also playing an important role in forming competitiveness. Interviewee 1 notes that research builds the image of the school, and it is very important for American institutions. They are investing into research, in order to achieve more publications of academic books and research papers from their faculties. Thus, the main focus is on funding to boost research productivity and competitiveness in a long term.

4.3 Citations

When thinking about citations and their influence on the competitiveness, Interviewee 2 says that it is one of the several important factors in Finland, and universities consider the amount of citations in their publications. They try to collaborate with other universities and researchers locally and internationally that are known in the academic field for their research and have significant amount of citations of their research papers. These collaborations can take institution to the next level and increase competitiveness. In addition, network of such institutions that are known for citations of their research, can also improve the competitiveness on a national scale. To conclude, citations affect competitiveness, but is not one of the most crucial factors. It has certain influence, but only when complementing other indicators, such as research and international collaboration.

Regarding the role of citations in the United States, Interviewee 1 notes that many institutions pride themselves at that. They are trying to improve their level of research and publications to increase the amount of citations. It is one of the metrics that is used to determine quality, hence institutions emphasize this indicator.

Otherwise, universities and faculties which are not publishing regularly and have less citations, cannot be considered a role model and will lose in competitiveness.

When making a comparison between countries, both acknowledge the importance of citations and their influence on competitiveness. However, in the education system of the United States citations are considered to be more crucial factor than in Finland as they are being used to measure the education and research quality of the institution. Consequently, American institutions are focusing more on growth and development in this direction.

4.4 International outlook

In the recent times of changing global environment and globalization of economies, nations are striving to enter new markets and have international partners. The field of higher education is not an exception, both on a national scale and locally in the institutions, policy-makers are creating strategies of developing international networks.

Finnish Ministry of education and culture (2016) has prepared a strategy for 2017-2025 to make higher education and research in the country more international. The target has been set high, Finland is aiming to achieve a position of globally acknowledged frontrunner in the field. Ministry expressed the readiness to efficiently use knowledge and resources in order to achieve the target. From current strengths of the Finnish system, high quality education and globally inspiring research environments have been noted.

Education USA (2019) states that United States have been promoted as the most popular destination for higher education globally. And its main priority is to maintain this position. It emphasized the value of international students who are coming to study in the States. They contribute to universities with their unique mindsets and experiences. Moreover, international students add value to higher education on a national scale and boost its competitiveness in the global economy. Besides field of

education, international students are useful for the society as young talents and professionals who contribute to the economy and culture of the country.

Considering export of American higher education to other countries and international collaborations, there is a huge international network of advising educational centers and branch campuses of universities worldwide, thus American higher education network reaches millions of students. According to U.S. Department of Commerce, in 2019 export of education export was ranked 6th among service exports in the economy (International Trade Administration 2020).

Succeeding subchapters will present the findings from analyzed data regarding certain indicators of internationalization and their influence on the competitiveness in Finland and United States.

International-to-domestic students ratio

In the opinion of Interviewee 2, the ratio of international to domestic students in Finland affects competitiveness in some way, when thinking about the reputation of certain institution or higher education in general. Also, international students who continue to doctorate studies, definitely bring value by contributing to the research and attracting external funding.

American institutions, in the opinion of Interviewee 1, are putting more effort to attract international students, thus to increase the ratio. They see international students as a source of revenue and also one of the ways to remain competitive. Some institutions have highly developed international networks, for example in China and India. They even have agents who recruit new students in these countries. All of the above facts lead to the conclusion that having more international students is important for American institutions, and they are willing to invest resources to attract new students from other countries.

When making a comparison, it is noticeable that numbers of international students play important role in both countries. In Finland contribution to competitiveness

comes more from the value that students bring. The United States focus more on building strong name of the institution and increasing the revenue through attracting students internationally. Despite this, American institutions still value students' contributions to the institution and higher education field.

International-to-domestic staff ratio

Considering the ratio of international to domestic staff in Finland, Interviewee 2 thinks that currently it is quite low, and there are more Finnish teachers. Recruiting internationals is still a challenge, and it is not yet as developed as student perspective. However, it is an important influencing factor and can positively affect the reputation and visibility of institutions.

In the United States, there are many international teachers, but numbers depend on the particular institution and its policies. In the opinion of the Interviewee 1, the ratio could be an influencing factor, but it is very relative and should be taken on case-by-case basis. The main questions to define it, are international teachers really bringing expertise, knowledge and going to help university? Or there is no suitable candidate domestically and possible other reasons?

International collaboration

Interviewee 2 notes that international collaboration is important for the higher education system and institutions in Finland. From its numerous benefits, she highlights sharing knowledge and supporting the research. Moreover, collaborations widen the education perspective as there are different environments and practices in other institutions. They increase the quality of teaching and research, boost the image of the institutions, and make a significant contribution to the competitiveness. In Finland, authorities issue policies and create favorable conditions to promote international collaborations. Finnish institutions have huge exchange networks and partnerships with numerous other institutions worldwide. Such organizations as Finnips (2020), represent networks of Finnish higher education institutions and take responsibility for the global development of higher education. Finnips (2020) is a network of 10

universities of applied sciences which provides opportunities for students worldwide to study in Finnish institutions.

Interviewee 1 notes that there is significant deviation in the United States regarding internationalization. Some institutions are known globally, others are not international. In any case, international collaboration is a positive influencing factor. American institutions which emphasize that, open branch campuses in other countries to boost their image. Also Interviewee commented on the same factor in Finland. When comparing to the United States, Finnish institutions are well-positioned internationally with networks of partners. The main reason behind such fact is the country size. When the population of the country is around 5 million people, institutions will seek for collaborations abroad. The difference with the United States is in the market, some American institutions are not interested in international network because they have sufficient domestic market.

4.5 Industry income

In the opinion of Interviewee 2, industry income is an important indicator as higher income on the industry level allows institutions to invest more in the development of education. They can identify development areas and focus of them, it can be research, teaching or infrastructure. When used appropriately, these funds can support the growth of competitiveness locally and on a national scale. However, Interviewee 2 notes that Finnish higher education is not much oriented on being competitive and positioning itself against others on a global market. The mindset is profoundly different, the main slogan is “concentrating on what we do instead of comparing to what others do”. Therefore, policy-makers in Finnish higher education are trying to improve the system based on its performance, comparing to previous years and looking for future growth opportunities.

Interviewee 1 notes that there are numerous types of income in higher education in the United States. Two main sources are tuition fees and state funding. However, private institutions do not receive funding from the state and rely solely on tuition fees.

Recently institutions started to seek other income sources, some of them are partnerships with local businesses, various grants, alumni donations. Athletics is also an important income source for American higher education. Interviewee 1 mentioned it as a crucial factor that has an impact on competitiveness. It is a moneymaker for the industry, as an example, football budget of Michigan university is bigger than budgets of many universities. Comparing Finland to the United States, Interviewee 1 notes that Finnish higher education is known as solely state-funded. However, both universities and universities of applied sciences are looking for a new areas where they can get revenue. For example, there are many partnerships with companies or other institutions which are based on research, study projects or internships. They serve as potential income sources for the institutions.

5 Discussion

This thesis was aiming to compare higher education system in Finland and the United States by the competitiveness factor. Both countries can be considered competitive in certain areas of higher education and have a good reputation in the field. However, there is a noticeable difference between their approaches to building higher education network locally and internationally, hence they are competitive in a different way. In order to define the strengths and weaknesses of the countries in higher education and make a comparison of their competitiveness, the following research question was formulated:

- How does the Finnish higher education compare with the US higher education in competitiveness?

To answer this research question, I have conducted qualitative research by benchmarking technique. The methodology of World University Rankings(2019) was used as a theoretical framework for the study. Primary and secondary data about higher education and competitiveness of the countries were collected and analyzed using indicators from theoretical framework. Succeeding chapters will present the summary of main findings, practical implications as suggestions to stakeholders,

assessment of the results in the light of literature, limitations of the research and recommendations for future research.

5.1 Main findings of the research

Based on the results of the study, there are many differences between Finland and the United States in terms of competitiveness in higher education. Countries have set their own goals and development directions in higher education. Despite all the differences and existence of areas that need improvement, both countries are competitive and developing higher education in their own way.

It is challenging to equally compare countries in higher education because Finland has population of around 5 million people and 36 higher education institutions, and the United States has population of around 330 million and 5,300 universities and colleges. This difference gives rise to deviation in education quality in the United States and more stable higher education system in Finland. Deviation can be noticed between the best American universities, so called “Ivy League”(initially a group of 8 highly competitive and prestigious universities) and hundreds of universities across the country which are struggling to get funding and not likely to offer high quality education. On the other hand, Finland does not have the most prestigious universities in the world, and education system is stable and balanced throughout the country. Regarding this aspect, I see the clear advantage of Finnish higher education system. This advantage could be expressed in high teaching quality and favorable learning environment in each institution.

Regarding findings based on other indicators from theoretical framework, American higher education surpass Finnish in the research, citations, both institutional and industry income. This is due to the size of the industry and huge influence of leading institutions. However, it is important to mention, that Finland does not give priority in being globally competitive in these indicators. Finnish policy-holders are setting feasible goals that will improve higher education in the country, and they are

comparing mostly with past performance of Finnish higher education, not with other countries.

Considering international outlook and collaboration, both countries have their own strategies, and they are gradually implementing them. Based on the findings of the research, in the United States there is a lot of deviation in this indicator too, not all institutions have policies to become international. However, generally it is a positive influencing factor, and institutions are using internationalization to boost their image. When looking at international outlook and collaboration in Finland, it is more important for Finnish higher education because it has small domestic market. Finland has a huge international network of partner universities. It is an influencing factor as it attracts new students and offers them higher value. To conclude about internationalization, both countries use it as an influencing factor on their competitiveness by following their own strategies.

When analyzing the importance of the indicators described above, I could note that some indicators have a priority in importance. They are reputation, income and internationalization, and everything that can affect them. These indicators form the basis of the competitive higher education because they can influence and improve other indicators such as teaching, learning environment and research.

The results of the thesis have also revealed other factors that can influence competitiveness in higher education. In the United States, it is athletics. It is a huge money-maker in the industry that can affect the reputation and, definitely, the income of the institutions. Another factor is applicable to both countries, it is pedagogical solutions. These solutions can be from policy-holders, institutions and teachers. They imply a teaching approach, taking care of students and creating favorable conditions during studying.

To summarize the main findings of the thesis, both countries succeed in being competitive and delivering good quality education through their own approach. Finland is well positioned and has a stable system. The United States have the best universities in the world with high level of reputation. At the same time, both have their own

development areas and have chance to learn from each other. Finland can aim at increasing international reputation and awareness of Finnish institutions. The United States can improve in taking the responsibility for the development of society and promotion of certain values. Higher education institutions can bring more value by participating in various development projects for society. More practical implications of these development ideas will be described in the following subchapter.

5.2 Practical implications

Originally, this thesis intends to make a comparative analysis of competitiveness in higher education between Finland and the United States. It defines the position of the country in the field and reflects its strengths and weaknesses. Consequently, based on the weaknesses, it is possible to propose certain suggestions for future development. These suggestions can be useful for Finnish and American policy makers to enhance higher education system and increase its competitiveness.

Based on the findings of the thesis, one of the improvement areas for Finland is increasing global awareness and attention to higher education in the country. One of the possible practical implications is creating policies that promote growth of reputation and boost image of Finnish higher education. Finland is already offering high quality education with modern facilities, but people in some countries do not know about that. If names of the Finnish institutions would be more sound globally, the reputation of the whole higher education in the country will grow rapidly. The examples of promoting higher education in the country are sending representatives abroad, sharing stories from international students, offering demanded degrees, creating attractive study conditions.

Regarding the improvement area of the United States, American higher education can put more effort in conducting development projects for society and promoting shared values among population. In this way, higher education system can demonstrate its responsibility for the development of society and increase their value. Some values to be promoted are equality, importance of human rights and accessibility of

public services. They can be promoted and implemented through educational policies, open university courses for public, regular activities and events to raise awareness. It would show that the state is looking at the competitiveness not only in terms of financial advantage, but also in humanitarian perspective, through building capacity of people.

5.3 Assessment of the results in the light of literature

This research is a pioneer in making a comparison in the competitiveness of higher education between Finland and the United States. Although there are no researches that are similar to the topic of the thesis, there have been numerous research works about the competitiveness of nations and the development of higher education in the recent times. Consequently, this thesis does not contribute to the previous researches, but consistent with the validated theories in competitiveness and higher education.

The results of the study approve works of the recognized expert in the field of economic competition, Porter(1990, 73-97) who states that the role of government is crucial in the national competitiveness. It works as a facilitator and affects economic development through creating policies and making necessary investments. Regarding the findings of this research, it could be applied to the policies that authorities create in the field of higher education and their influence on the competitiveness of higher education system in the country.

Another researcher of competitiveness, Ketels(2016), states that export of goods is one of the ways to measure competitiveness. The findings of this research partly approve his work as they reflect the importance of internationalization and global reputation in building competitiveness of the nation. It is consistent with the work of Ketels(2016) as internationalization also involves export of goods and is considered as one of the influencing factors in this study.

Regarding the previous research in higher education, Van der Zwaan (2017) has done a profound research in the field of higher education and noted modern trends in the field. According to his work, the role of higher education has shifted, and its relationship with the government is more complex as it involves more economic factors, and less attention is paid to the quality of education. In addition, he mentions the need of societal impact of higher education and its historical importance. The findings of this thesis approve the researcher's theory and show the importance of looking at the competitiveness not only from financial point of view, but also from humanitarian perspective. Some practical implications for the United States are the involvement in the development projects for society and promotion of shared values. In this way, there will be a societal impact of higher education.

This thesis was conducted based on the methodology of World University Rankings(2019) as its theoretical framework. It was developed by Times Higher Education, one of the most influential university ranking in the world with almost five decades of experience in providing insights in the field of higher education. It consists of 13 selected performance indicators that enable to make a comprehensive comparison and analysis. Universities across the world are using its data and benchmarking tools to measure their performance and achieve strategic goals. (World University Rankings 2020.) Consequently, the above described methodology was suitable for this research and showed the importance of performance indicators as influencing factors on the competitiveness.

5.4 Limitations of the research

This research is based on both primary and secondary data. Primary data is collected through two interviews with the experts in the field of higher education. As of Cresswell's (2014) suggestion, interviewees were carefully selected based on their background and occupation. However, originally there were 6 potential interviewees, but in the end only 2 interviews were organized. It was one of the limitations of the research as other interviewees could bring new insights to the findings of the research. Regarding secondary data, it was collected from the official websites of organizations

and statistical databases to ensure its reliability. As of reliability of data in general, it was carefully collected and analyzed using triangulation method (Zohrabi 2013; Patton 1999.) Considering the accessibility of the data, in general it was not a big limitation as I have used various sources. However, there was a challenge to access data about certain performance indicators from theoretical framework, especially ratios and data about doctorates.

To ensure internal validity of the research, the research question, reviewed literature and methodology were carefully selected to correspond to the thesis topic. I have tried to strictly follow the methodology during the implementation period to avoid any biased results. During the data analysis process, primary and secondary data were analyzed at the same time using constant comparative analysis to ensure the findings are valid.

As the thesis makes a comparison between two countries, there is a question about external validity of the results. The findings of the research provide data about particular field in two countries and moreover, compare them. The topic of the thesis is quite narrow, hence the results cannot be generalized to other countries.

Regarding objectivity of the research, I have tried to be as objective as possible during the whole research, especially during finalizing the results of the study. However, during the research, I have gained more knowledge about the topic than I had in the beginning and may have unintentionally influenced the results with certain degree of subjectivity.

5.5 Recommendations for the future research

This final part gives several recommendations for the future research on the topic of competitiveness in higher education and comparison of this competitiveness between countries.

Firstly, it should be mentioned that this study has prioritized some performance indicators over others as they were more suitable for answering the research question. However, in the future research with possible other research questions it is possible to analyze all indicators from the framework and make an in-depth analysis as a case study of particular institution or qualitative research of the field.

Secondly, the future research could concentrate on selected performance indicators that could be more relevant for the competitiveness of higher education in the future and conduct a research to answer certain narrow question.

Thirdly, the United States was initially selected to be compared to Finland as a benchmark in the field. However, it would be useful to research other countries that are more similar to Finland, possibly from Nordic area. It could bring valuable insights for both compared countries.

Finally, the findings of this research could be studied more, especially practical implications for Finnish and American policy holders, their analysis and possible implementation in the future.

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Appendices

Appendix 1. Prepared list of the interview questions

1. What can you say about the quality of teaching in general and in certain disciplines in universities of the United States/Finland?

2. What do you think about student-to-teaching staff ratio in universities of the United States/Finland? What is the importance of the ratio and how it affects the institution itself and its competitiveness?

3. What is the importance of the institutional income in measuring the competitiveness of the higher education institution? How does this indicator affect the field of higher education in the United States/Finland?

4. Do research level and income influence the competitiveness of an institution? (The research level is represented in the number of publications. Research income is formed by the budget from the institution itself and external funding). What can you say about these factors in the United States/Finland?

5. How the number of citations of the research papers influences competitiveness in the field of higher education? The number of citations of one institution's research papers used by other authors is represented in this indicator.

What do you think about the level of citations per capita in the U.S./Finnish higher education institutions?

6. In your opinion, does the ratio of international to domestic students affect the competitiveness of the institution?

7. In your opinion, does the ratio of international to domestic academic staff affect the competitiveness of the institution?

8. What is your opinion about the influence of international exposure and collaboration on the competitiveness of the institution and higher educational field on a national scale? International collaboration is, for example, joint research papers and exchange programs both for students and teachers. In your opinion, what is the level of international collaboration in the United States/Finland?

9. How does higher education industry income in the country affect competitiveness of the higher education in the United States/Finland? Industry income is the amount of revenue and funding of the higher education industry in the country.

10. Do you think that some of the indicators mentioned above are more important than others, which of them? Why?

11. Do you think there are other important factors for the competitiveness of higher education institutions (besides those that were mentioned before)?

12. Could you compare the competitiveness of the institutions in Finland and the United States based on the factors you have suggested?