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THE IMPORTANCE OF LOCATION ATTRACTIVENESS

In which surrounding young highly skilled international professionals want to work

JUNE 6, 2018

JENS WERNER
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Abstract

Step by step many European economies are feeling the effect of the demographic transition. In other words, the people in labor are getting older and retire without a new generation in the working age is being set to step in and fill up the vacancies. The reason for this phenomenon is a low birthrate that cannot cope with the amount of the retiring personal (Sievert et al, 2017). This in combination with a shortage of people with higher education, the so-called “scarcity of skilled labor”, leads to challenges for the society and even more for companies. The thesis rivets on the challenge of staffing positions where higher skilled people are needed.

Companies experience more and more the shift from where the best minds scramble to get to work for them to a situation where they must compete for the higher-skilled people, the so called “war for talents”. Therefore, the companies must find a way to appear attractive to the potential future employees. The task for these companies is to identify different factors that can increase the attractiveness for young highly skilled international professionals as they can give the companies the edge in a more and more globalized world where international challenges arise regularly. This master thesis takes care of the central challenge to find a location that helps to attract as many individuals as possible from this target group. The importance of the decision for a specific location becomes obvious, as it cannot be changed or reversed easily.

This master thesis combines information on the topic gathered from both theory and practice. The reader is provided with a review on migration and location theories which is complemented with analyzed questionnaires about young highly skilled international professionals’ perceptions of a location’s attractiveness. Therefore, information about different factors companies should consider in the decision-making for a selection of a location, as well as insights in their manifestation owing to the different nationalities, can be found in the thesis. Thus, first bits of information regarding the coherencies of a location, the perception of its attractiveness and the effect a location can have on a company’s situation in attracting young highly skilled international professionals is provided.

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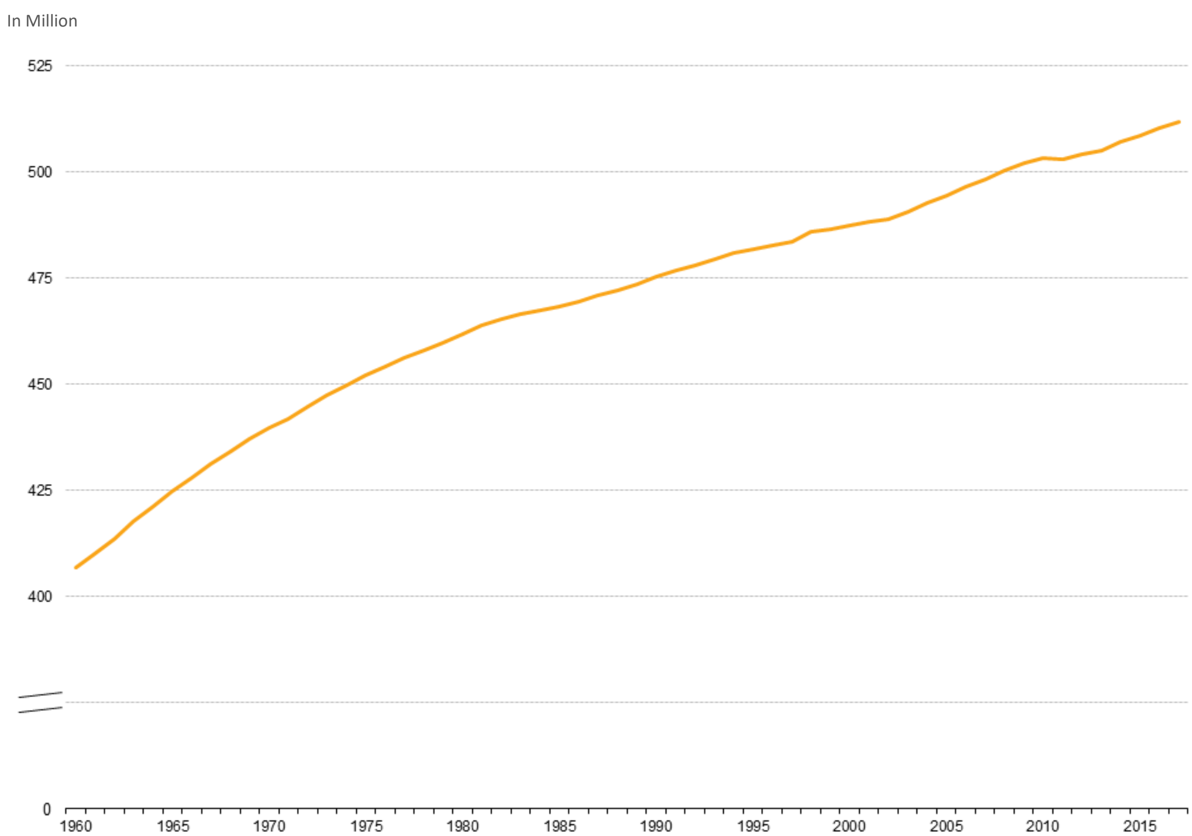
1. Introduction

The ongoing demographic transition challenges the European Union and does not omit the companies. In a worldwide comparison, the Europeans have the lowest fertility rate in combination with the highest life expectancy. The increasing senescence rate leads to a decrease of people in the working age (Sievert et al, 2017). This imbalance between soon to be open job positions and the lower amount of available people for these positions makes the effect of the demographic transition obvious. Where this phenomenon appears in combination with a lack of well-educated people, the term “scarcity of skilled labor” (Anonymous, 1965) can be applied. To further uphold the established working structure by restaffing the open positions, companies have to find ways to attract the scarce resource of skilled labor.

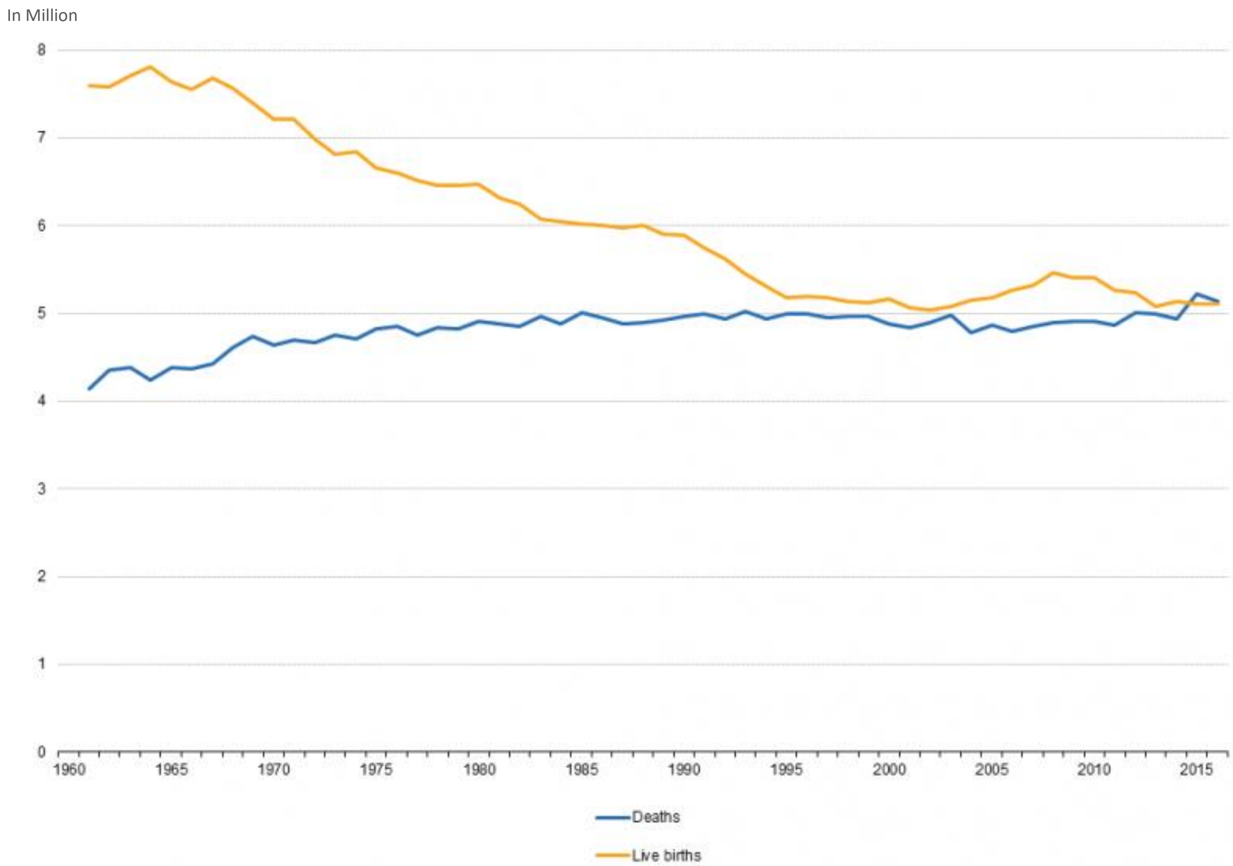
In view of the fact that the population number of the EU-28 is – after a short stagnation around the year 2010 – increasing to a total of 511.8 million inhabitants over the last decades (see figure 1), it might seem confusing that the demographic transition is among the biggest modern time challenges for companies.



Note: Excluding French overseas departments up to and including 1997. Breaks in series: 1991, 2000, 2001, 2008, 2010-12 and 2014-17.
Source: Eurostat (online data code: demo_gind)

Figure 1: Population, EU-28, 1960-2017 (at 1 January)

A second chart (see figure 2), on the other hand, reveals the cause for it. As long as the fertility rate remains at a relatively low level and the number of deaths is increasing, the labor shortage is likely to increase. This assumption is based on the aging baby-boom generation that is reaching retirement age soon and thus will leave more open positions. In this instance, the decline or growth of a country's population "is likely to depend largely on the contribution made by migration" (Eurostat.eu, 2017).



Note: 1960: not available. Excluding French overseas departments up to and including 1997.
Source: Eurostat (online data code: demo_gind)

Figure 2: Births and deaths, EU-28, 1961-2016

As this ongoing development has been conceivable for companies over the last years, they started to look for skilled labor across borders. As a result of the scarcity of skilled labor the competition for the resource increased. Ed Michaels introduced the term "war for talents" for this situation back in 1998. In the following a discussion about what is needed to attract highly skilled professionals was started and is still going on.

Over time, companies figured out that well-paid positions and other incentives are not having the same effect for all companies. It seemed that companies in some areas had advantages over others, although offering comparable wages and incentives. This is especially well-marked in the US where cities and hub-areas like the Silicon Valley are attracting and convincing more and more companies to relocate and to follow the resource of highly skilled labor (Washington Post, 2017). But how is the picture in the EU? And how is it possible to attract the most valuable kind of highly skilled professionals, the young graduates and professionals who are characterized by a higher willingness to move and in an ideal scenario will stay with the company for a long time. In order to attract the largest number of young highly skilled professionals a company needs to be open for international labor resources as well. The most important point, however, is to know what the perception of location attractiveness is among their target group.

1.1 Problem Formulation and Research Question

As the scarcity of skilled labor does not spare any company in countries that are affected by the phenomenon, the need for understanding all attractiveness determining aspects of one's own company are important. Previous research and studies have investigated numerous of these aspects (Dowling, 2001; Davies, Chun, Chun, & Hughes, 2002). Nevertheless, to the author's knowledge, there is no such publication that combines and investigates the influence location attractiveness has on young highly skilled professionals of different countries. This seems surprising as choosing a location is one of the biggest strategical decisions a company can take. Thus, the decision has to take different factors into account, and one of them should be the seizure of employees to which this research's focus is directed to.

The perception of location attractiveness can be based on various theories, researches and assumptions. Literature and publications on what influences a location's attractiveness or which factors attract certain groups to a location are numerous and have been fundamental in incrementally narrowing down the research problem. Because of the underlying migration of labor, the scarcity of skilled labor and the lack of young professionals, the following research problem is introduced:

"How important is the attractiveness of a company's location regarding the decision of highly skilled international professionals where to work?"

In the course of answering the research question, the thesis provides an overview on the theoretical background location attractiveness could be based on. Additionally, insight into the practical work on the topic are given based on the completed questionnaires from the young highly skilled international professionals. The addressees are companies as well as different actors within these companies who try to find ways to increase the attractiveness as an employer and particularly aim at finding an approach to get hold of the scarcity of skilled labor. Understanding the impact of an attractive location is seen in this thesis as a strategic issue, as committing to the current location or introducing steps for a relocation have an impact on the future development of the company. Thus, the thesis aims at providing insights into both, theory and practice which helps a company in the evaluation of their own situation regarding the relationship between the attraction of young highly skilled international professionals and a location's attractiveness.

Figure 3 provides the reader an overview of the research question and the corresponding sub-questions. The upper mentioned main research question of this thesis can be found in Layer I. Several sub-questions are formulated to specify all the needed information in order to answer the main question. As mentioned further up, the objective is to provide insights into theory and practice. Thus, some of the research questions are going to be answered by a literature review (Layer II) whereas others are going to be answered within the analysis of the questionnaires (Layer III).

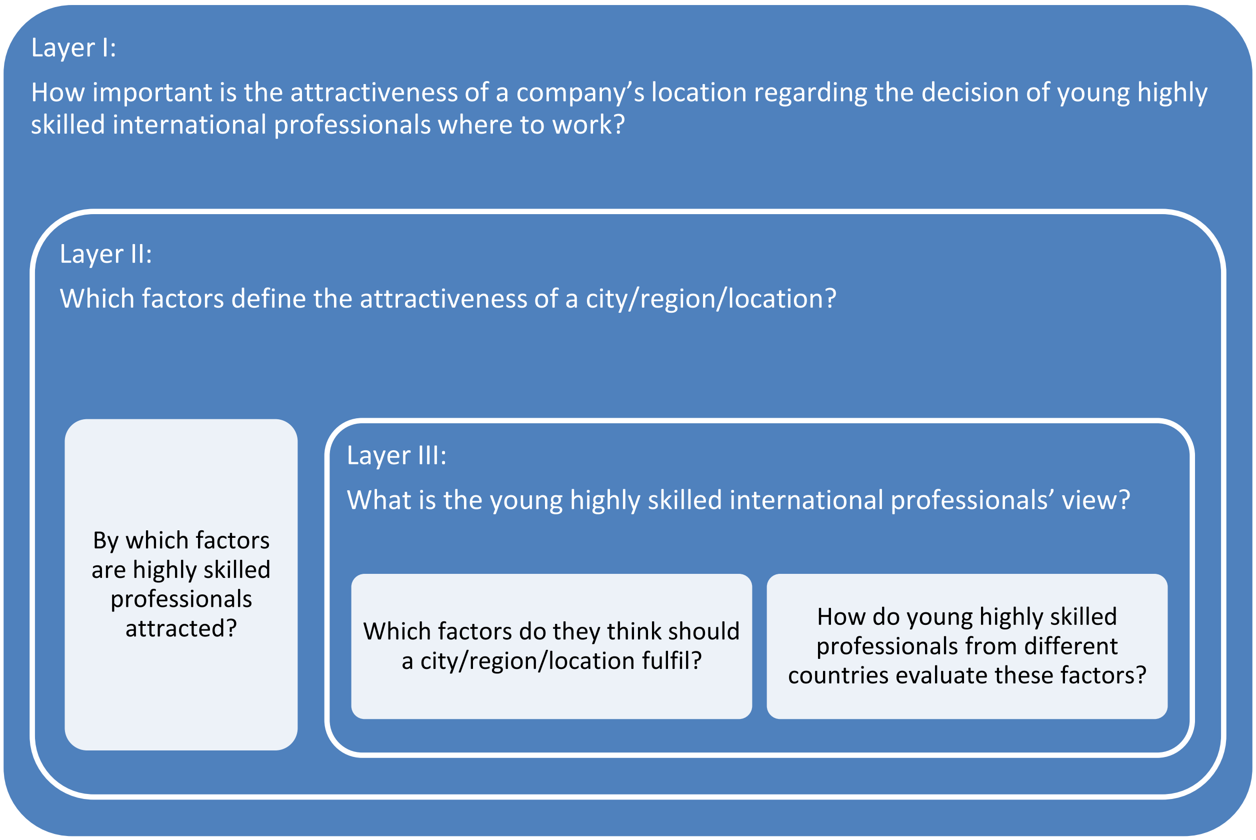


Figure 3: Research Questions

As a first step, factors which influence the attractiveness of a location are determined based on a literature review. The identified factors are of a more generic kind and serve the companies to learn about the relevant reasons for migration and features a location should have to be called attractive. Further on, the focus is on the group of young highly skilled international professionals and factors that are known to attract this group.

Following the first part with theoretical thoughts and approaches on the topic, the next part considers the perspective of young highly skilled international professionals. The analysis of the questionnaires intends to provide information on factors related to a location's attractiveness that are of importance for young highly skilled professionals from different countries. This includes the evaluation of various factors chosen by the young highly skilled international professionals and how the consequent result grants new insights to companies.

1.2 Structure of the Report

The thesis is divided into five parts which define the structure of this report. The setup is shown in figure 4.

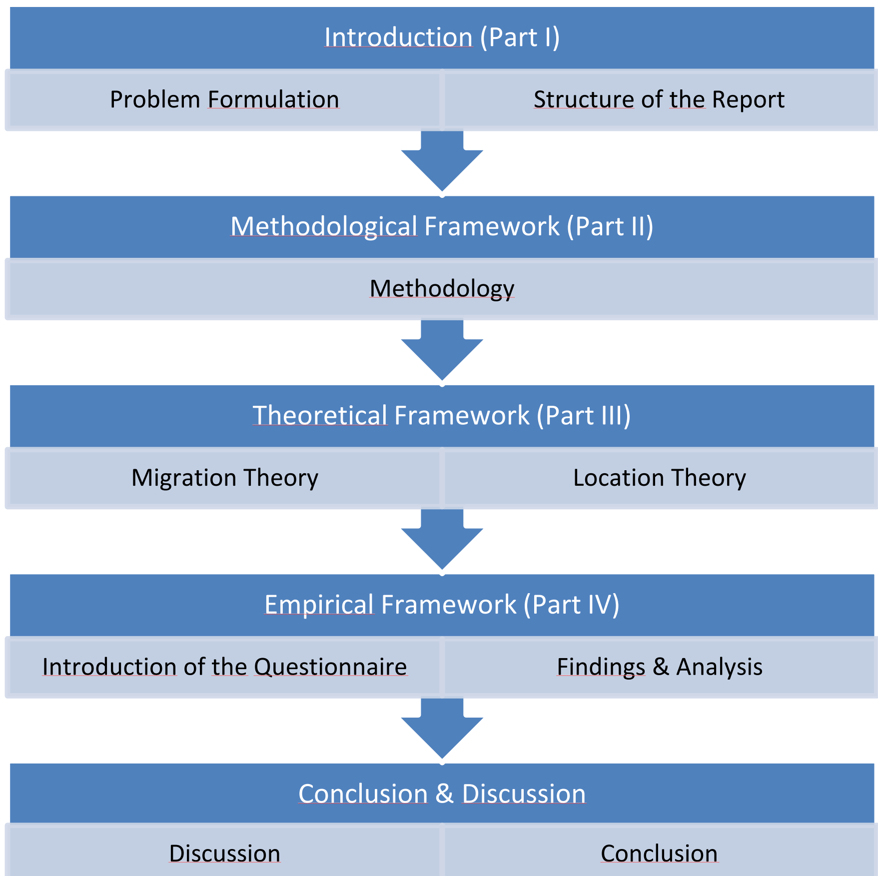


Figure 4: Structure of the Report

Part I provides the reader with an introduction to the topic that features a brief discussion on the context of the overall subject. In addition, this part serves to provide the reader with information regarding the rationales for the selection of the problem formulation and research questions. Furthermore, the reasoning for how the research questions are answered is explained.

In part II, the chosen methodological approach as well as the methods conducted in this project are described and justified. Part II is completed with a critical reflection on the chosen methods and the research's approach.

Subsequent the methodological framework, the theoretical framework is presented in part III of this sub-chapter. Within this part, the migration and location theory, as well as the group of young highly skilled international professionals are introduced. To contribute to both theories, recent literature and publications are added to provide a more holistic picture.

Part IV of the thesis features the analysis. In this context, the questionnaire is shortly presented, followed by an evaluation of the collected data. At last, a discussion part on the research topic is featured in part V as well as conclusions are drawn which provide answers to the research questions set up in part I of the thesis. Moreover, the conclusion contains recommendations for companies on finding a location that is conceived as attractive by their targeted group of young highly skilled international professionals.

2. Methodology

In the following, the methodological choices and deliberations made in this research are explicated. The aim of this chapter is that the reader can understand the results of the research and the underlying “how” and “why”. Based on the project a quantitative approach is chosen from the author. As mentioned in the first chapter, the aim of the thesis is to combine theory and practice. Consequently, two kinds of quantitative data collection are conducted to achieve the desired aim. The detailed literature review ensures that data is gathered which will serve as a foundation to fully understand the problem formulation and the addressed research questions. The approach also reveals the author’s epistemological and ontological point of view. The problem in the center of this research is a socially constructed phenomenon influenced and affected by human actors. On behalf of that, it is relevant and reasonable to use a real-world approach to set up a research design and methodology for the examination of the stated problem. The literature review represents the knowledge basis which is a result of the used secondary data. The primary data collected in practice through the conducted questionnaires adds a more recent perspective to the topic. However, these data are not providing reasons for the given answers as the questionnaires are part of the quantitative research approach. Thus, this chapter will end with a reflection on alternative possible approaches and methods that could have also been suitable for this research but might have led to different findings and interpretations.

2.1 Research Design

In this part, the investigated problem in combination with the author’s epistemological and ontological considerations are introduced in a consistent research design. This design defines the utilized methods and procedures for the collection and analysis of the required data and thus can be seen as the structure for the investigation of the research problem. It ensures that both, other researchers and readers understand the conducted research process (Eduardsen, 2017).

It is of high importance that the research design is not mixed with research methods. If designs and methods are dealt with in the same way, the resulting evaluation and subsequent choice will be on the basis of the relative strength and weaknesses of the design instead of being applied to the matter of investigation (Eduardsen, 2017). Thus, the selection of a research design has to keep the problem statement and research questions in mind and should be on the basis of their ability to draw precise conclusions. A main task of the research design is to justify the relevance of the collected data. Additionally, it has to prove the findings, which are based on the chosen methods, to be transferable, objective, trustworthy and verifiable (Eduardsen, 2017).

As stated in the problem formulation, the project is divided into two parts. Therefore, applying two research designs can be substantiated. The theoretical part helps to answer the questions of Layer II (see figure 3) in a descriptive way. By conducting the literature review, the author depicts the current situation of the research problem. Further on, relevant literature is critically assessed, and different ideas are contrasted. Nevertheless, to answer all research questions of the project it is not enough to stay in the descriptive corner. In the literature (cf. Saunders, Lewis, & Thornhill, 2009) descriptive studies are depicted as a pre-stage of an exploratory design. In this case, the practical part of the project challenges the descriptive part and simplifies the understanding of the topic by using real-life examples. Suresh states that in a non-experimental research design, the researcher observes the phenomena as they occur naturally, and no external variables are introduced. Thus, data is collected without making changes or introducing treatments. Within the selected quantitative framework, the researcher’s findings are represented by numbers. These numbers can be analyzed afterwards (Suresh, 2014). This description summarizes the circumstances of the project. In order to test the framework, a fixed, non-experimental research design based on a questionnaire is selected. This way, the received information from the different questionees can be integrated.

As a non-experimental research design can be divided into three categories, relational designs, comparative research and longitudinal design, an approach that suits the project had to be found (Hakim, 2012). In this case a comparative research approach is selected as the intention is to compare several groups on multiple factors. The other two designs have been excluded for the following reasons. What contradicts the relational design is that the identification of co-movements of variables are not in the focus of this research. Further on, the circumstances of the project excluded the longitudinal design as an observation of variables over time is not feasible due to time restrictions. Nevertheless, the intention is to set up a framework that can be applied to other cases. Therefore, it has to be universal.

In a next step, issues resulting from the decision for a non-experimental research design – in more detail a survey conducted with questionnaires – have to be taken into account. Due to the nature of a questionnaire, a researcher does not have the possibility to pursue ideas and clarify questions regarding the handed-out questionnaire. In order to receive reliable and valuable data, the author focuses on setting up a robust design that is easy to understand for the selected target group (Brancato, 2006). Further on, the structure of the method itself brings along another limitation as a (mostly) fixed-choice questionnaire normally assumes knowledge on the investigated topic. The risk is that the personal perception or other exogenous factors (e.g. culture, societal status) lead to a different understanding (Scott, 1955). The reader has to be aware of the fact that the chosen method cannot correct this fact and the outcome might be slightly biased. The last limitation of a questionnaire the author sees worth mentioning in the context of this research is that it provides insights or attitudes but cannot explain underlying reasons for the outcome (Saunders et al., 2009). As this research aims at granting insights into the topic of location attractiveness and based on the limited timeframe of the project, the author selected this approach and tries to address these issues by building a solid, universal and objective basis. In order to find out more about the results and to better explain the results, a multi-method approach can be selected for further research on this topic. A combination out of questionnaires and interviews is the most often used approach in comparative scenarios (Saunders et al., 2009).

2.2 Ontology

Ontology is a term used by philosophy of science scholars to describe the nature of what the researcher seeks to know (Kuada, 2012). In other words, it concerns the perception of reality (Bryman & Bell, 2015). To stick with Bryman and Bell, the term objectivism is linked to an ontological position where researchers are dealing with external facts that are not suggestible. The constructivist approach, on the other hand, criticizes the universal perception of reality. In this scenario, social actors construct their own realities. As a result, the reality is no objective and/or tangible entity (Bryman & Bell, 2015).

Both approaches can be found in this project. Objectivism underlies the researcher's search for facts to generalize information about location and migration theory in the scope of the perception of location attractiveness from young highly skilled international professionals. The constructivist approach is part of the practical research. Regarding this, the researcher acknowledges that there is more than one truth. This is based on the underlying theory of the constructivist approach that there exist as many realities as there are actors. This can be explained by looking at the answers of the respondents which reflect their own subjective perceptions. The aim of the data collection part of the research is to produce trustworthy knowledge (Wenneberg, 2000). As explained, the different realities of the respondents do not allow to conclude a final truth out of the answers.

2.3 Epistemology

Epistemology addresses how an individual knows things he/she assumes to be true (Burrell & Morgan, 1979). As various researchers have different opinions on the same research field, individual preferences, when it comes to the epistemological standpoint, can be found. In general, based on a researcher's belief, a positivistic approach or an anti-positivistic approach is adopted (Burrell & Morgan, 1979). The former approach is characterized by an objective researcher. The researcher abstains from personal values and assumptions. Thereby, the researcher is an external observer who seeks for regularities and casual relationships. The anti-positivistic researcher follows the belief of a socially constructed world. This means, the approach requires the involvement of the investigated actors as they directly affect the social activities (Burrell & Morgan, 1979).

In this research, the epistemology is characterized by the seeking of causal relationships with handed-out questionnaires. This represents the approach of a researcher being an external fact finder (Burrell & Morgan, 1979). Accordingly, the epistemology follows a positivistic approach as knowledge is created in an external and objective way as regularities, causal relationships and generalizable facts are sought during the questionnaire.

2.4 Methodological Decisions

In the buildup of the project, several research questions are defined. The answers to these questions narrow down the topic and will finally answer the research problem. The project can be seen from two angles. There is a relevant need for companies that leads to certain behaviors and challenges for them. Therefore, they have to find methods and processes to satisfy the existing need. On the other hand, individual human behavior and subjective decisions of the young highly skilled international professionals influence the whole by their individual decisions. Based on this, the author decided that an objective, pragmatist view suits the research problem best as "Pragmatism […] claims that the value of knowledge is equal to its practical use" (Arbnor & Bjerke, 2009). In the decision-making process for this approach, the researcher encountered limitations of being constrained to only one philosophy. Thus, the approach is widened as much as possible to allow several methods to co-exist next to each other.

Against the backdrop of the theoretical background and practical side of the project, the author selected an abductive approach. The reason for the decision can be seen in the mixed nature of the project. Thus, to simply focus on a deductive or inductive approach seemed insufficient to the researcher. Deductive reasoning is criticized for the lack of clarity related to the testing of selected theories (Arbnor & Bjerke, 2009). Nevertheless, it has its strengths in the explanation of creating a framework that is based on literature. In comparison, inductive reasoning is criticized for its testing and reflecting of theoretical implications as "no amount of empirical data will necessarily enable theory-building" (Saunders et al., 2009). As the abductive approach can be seen as a middle way that overcomes the mentioned weaknesses through the adoption of a pragmatist perspective, the author considered it as the most suitable approach for the project.

2.5 Methods

The author took care that the applied methods comply with the upper mentioned methodological decisions. Therefore, the first step is to examine existing literature to identify resilient and relevant sources and applicable theories. Analogical to the abductive approach, relevant points are defined with the objective to shape the form of the literature review and to contribute to the framework. The reasoning behind the definition of the investigated topics is that it allows the author to limit the scope of the project to the most important aspects. Additionally, the pragmatist approach justifies this approach. The subjective influence in this proceeding cannot be denied, hence, the author tried to limit it to a minimum level by using a wide basis of literature in combination with critically contrasting and summarizing the provided ideas.

Consequently, the resulting structure helps to start the development of the conceptual framework. In this stage of the project, hypotheses which are based on the literature review and therefore represent an objective, theory-based view are presented.

Finally, the hypotheses will be revisited for the questionnaire and tested. The collection of primary data will take place in this context. The questionees are young highly skilled professionals from different countries which were asked to complete the questionnaire in April/May 2018. Their answers provided useful input and gave the research the path taken. To avoid creating a biased questionnaire the author tried to stick to the upper mentioned framework. Thus, the provided information is critically assessed and evaluated.

2.6 Research Quality

The quality of research designs can normally be assessed by measuring their objectivity, reliability and validity. The criterion of objectivity indicates the extent to which the result of a test depends on the person who carried out the investigation. The rational, logical core of the classical criterion of reliability is the demand for reproducibility of results. If it is a context that has not changed fundamentally over time (e.g. a key personality trait), and is reasonably stable over time, the same result should be obtained in a second quantitative examination. The validity measures the accuracy with which the data collected can lead to the characteristic that is to be detected. A distinction is made between internal and external validity. Internal validity exists if a change of the dependent variable can be clearly affiliated to the variation of the independent variable. Therefore, internal validity just occurs when the result of an investigation is clearly interpretable. External validity relates to the correlation with an external criterion. In other words, external validity exists if the result of *"phenomenon A"* that has been found in a study also allows statements about the investigated *"object/person A"* beyond the examination situation (Flick, 2004). The previous sub-chapters show the undertaken efforts to maintain a high research quality.

To ensure objectivity, the research is based on a broad literature review that leads to the questionnaire design. Collecting data with the questionnaire helps the researcher to remain objective during the conduction of the data collection. The structure of the questionnaire with its mostly predefined answering options facilitates an objective evaluation. Nevertheless, the interpretation of the obtained data might vary at time. Thus, the author will provide justification for his conclusions.

Reliability of the results is expected due to the reproduceable nature of the questionnaire. Nevertheless, intraindividual reliability can have an impact as participants might select or evaluate some factors differently on another day.

The design of the research has no or just limited external validity as no generalization based on the results is possible. On the other hand, the conclusions drawn from the collected data accurately reflect the matter of the study. Thus, internal validity is given. A wider range of participants with a higher sample size would provide the researcher with the possibility to set up a study with external validity that leads to generalization of the results.

2.7 Limitations

The broad topics on location attractiveness, migration, and scarcity of skilled labor provides a big amount of literature. A reason might be that all three phenomena are big enough topics themselves. The interesting point of this research is the combination of these topics. A resulting challenge was to include the most relevant literature in order to provide a solid background to the research. The author is aware that he cannot claim that his work provides answers to all related questions. Nevertheless, it is tried to tackle as many challenges as possible by choosing relevant research questions. They offer new perspectives and are applicable to various contrasting sources.

Throughout the project, the researcher tries to stay as objective as possible. This way, a good theoretical understanding of the topic is achieved. Thus, the aim is to avoid any influence on the topic. However, the practical implementation of the survey results increased the importance of the researcher as the findings from theoretical foundation and the collected data from the practical part had to be combined. Therefore, the researchers task is to observe, analyze and filter the reality to finally evaluate the findings within the scope of the theoretical basis. This shows that the analytical part contains the authors subjective interpretations and might look differently if another researcher would have written it. A reason that also contributed to this is the researcher’s origin. Although questionees from various countries are asked, the project is written by one researcher who analyzed the available data. It might be that researchers with another cultural background analyze and understand the received data slightly different or put another emphasis on some aspects.

Finally, the work is influenced by time constraints and the response rate of the questionees. Due to this, certain aspect could not be covered entirely. However, the intention of the project is to cover the most relevant points to contribute to the research on this topic. Within this scope, the author essayed to present a holistic picture of the problem. Aspects which have not been in the focus of the research or have been less emphasized are object for future research.

3. Theoretical Framework

In this chapter of the project, an overview of the theoretical framework for the research is provided to the reader. Therefore, the context for location attractiveness is defined. In a first step, it is required to understand what induces people to move to a certain location. This study divides the underlying motives into two parts. On one hand, there is the motive whose origins can be found in the migration theory and on the other hand the motive that bases on economical geography, or in other words location theory. This approach leads to a review and discussion of literature stemming from both field. To include the group the research is focusing on – the young highly skilled international professionals – their current situation on the labor market is presented. The compound of these three parts allows to examine factors that are at the bottom of the choice of location. In the end of the chapter, conclusions on the findings of the theoretical discussion are drawn and lead to working hypotheses. These hypotheses are addressed once again in the conclusion chapter of the thesis.

The framework of the research starts with the presentation and discussion of theories on migration. Thereby, Larry A. Sjaastad's ideas are taken up first before the more in-depth theories of Ernst Georg Ravenstein and Everett S. Lee are investigated. Their concepts see in each individual a person for which migration could be a possibility under certain circumstances.

The next pillar of the framework deals with the phenomenon "war for talents". The term is broken down to the reasoning behind it. What lead to the phenomena and why is it of importance for the economy? These questions are answered based on various publications on the topic.

During the reviewing stage of studies on location theory it became obvious that most of them are dedicated to the location of industries. Thereby, a relation between the choice of location of industries and people appeared as a recurring pattern. In this thesis, the individual as available labor is in the spotlight. Thus, the young highly skilled international professionals are the ones to be attracted to an area. Consequently, the research objective is to determine factors – apart from the economic development of a city or region – that might be of importance and might influence the in-migration of the talents.

Further on, in comparison to the sub-chapter about migration theory, the literature on the "war for talents" and location theory is more recent. Although the time when the investigated publications were published differs and most of them have a different origin, they come to similar conclusion and fit into the theoretical framework of the thesis.

Literature Review

Within the following chapter, relevant literature for migration and location theory is collected and investigated. Additionally, the group of young highly skilled international professionals which is part of the "war for talents" phenomenon is presented. Subsequent the collection and investigation of the literature, it is composed and discussed in the theory chapter. The underlying theoretical ideas are brought together with later research in order to supplement the theoretical view. Moreover, this approach allows to give the topic a more recent perspective.

The literature review follows the systematic review type. Thereby, the literature is treated as data population. In a first step, available literature to the defined three research areas – migration theory, young highly skilled international professionals and location theory – is searched on the university's online library and Google Books. The first selection of the literature is based on key words in the publications titles. To narrow it down, the abstracts of the selected literature is read which helps to see how closely it is related to the research problem. In the next step, the remaining literature is read before the relevant information is extracted. Thus, the approach contained the 'sampling' from the data population stage as well as 'analysing' the sample by using 'appropriate methods' as the basis of synthesis (CRD, 2009). Through this procedure, the author obtains the certainty that his research problem has not been investigated yet.

3.1 Migration Theory

In this sub-chapter literature in the field of migration theory is reviewed with the aim to provide an overview to the reader. In order to keep the review structured, migration theory is looked at from a macro scale first. In a second step theory on the micro scale is discussed for which a closer look on the approaches of Everett S. Lee and Ernst Georg Ravenstein is taken. Both theorists identified factors that are responsible for attracting people to an area. Thus, their findings are brought together in the end of this sub-chapter. As their theories have been developed in another time – Everett S. Lee theory was developed in the 1960s and Ernst Georg Ravenstein "The laws of Migration" was published first in 1885 – not all their findings are still relevant. Nevertheless, the review shows that some parts are still current nowadays.

First of all, migration is a broad term and knows several definitions. Thus, it depends on the geographical context and the context of the research. As the research is dealing with the migration of highly skilled internationals professionals and university graduates, factors that allow to draw conclusion for this group will receive the most attention. Moreover, the main focus will be on internal migration within the EU as most participants of the survey are European citizens.

3.1.1 Macro-Scale

A common understanding among researchers in the field of migration theory is that macro- and micro scale approaches have to be seen separately. For the theory on macro scale, the distance between the area of origin and the area of destination is determining for the migration. This model of gravity assumes that the bigger the distance between the starting point and the destination, the lower the number of migrants between both places (Kröhnert, 2007).

This approach still forms the base of many theories. Nevertheless, further development and update on the theory was required due to the changing circumstances of our societies. For example, wage differentials in different countries. Thus, the regional average wage as a factor found its way into the equation in the 1960s and 1970s. This ensured that the phenomenon of migration could be explained by understanding and considering the cause (Ibid.). In 1966, Lowry added factors of comparison to the theory. Thereby, the approach made it possible to compare key factors of two areas. Examples are the unemployment rate, or the amount of people working in a specific sector. Due to the timeframe of Lowry's publications, he used the agricultural sector as a basis, as he calculated the number of people not working in the agricultural sector. This shows that Lowry's factor loses a bit of importance in many regions of the western world. Nevertheless, the theory could be adjusted to today's circumstances, e.g. by making the service industry to the new basis of the employment calculation.

To sum it up, the distance of two locations determines the volume of migration between these places. This correlation characterizes the macro scale approach. Another finding is that some factors can be taken as indicators for the likelihood of emigration and immigration. The most frequently mentioned factors are a high unemployment rate for the former and higher average wages for the latter. As this does not provide a complete picture on the reasoning of individuals with a migration will, a look into the micro scale is required (Kröhnert, 2007).

3.1.2 Micro-Scale

When talking about migration theory on the micro scale, the names of the three theorists Ernst Georg Ravenstein, Everett S. Lee and Larry A. Sjaastad have to be mentioned. Ravenstein and

Lee looked at the topic from a more social angle and approached the topic of migration by explaining regularities. Sjaastad, however, build his arguments based on an economic position. As both approaches are considered valuable for the research, Sjaastad's main idea, as well as the most notable thoughts of Lee and Ravenstein will be featured in the next paragraphs. The sub-chapter will also include critical reflections on the statements.

Migration: an individual investment

Following Sjaastad, migration is an individual investment in human capital. As other investments, migration is two sided for the individual and consists of costs and benefits. These can be of a monetary nature as well as non-monetary. Another parallel to an investment is that the benefit does not have to occur immediately at the point of migration (Kröhnert, 2007).

This aspect shows the drive of some individuals to migrate even if they do not know about current employment offers. For this research, this could be applied on young professionals with a skillset which is not expected to be demanded in their homeland. To pick up a job in their destination country, additional investments, e.g. learning a new language, come on top of the migration itself. Non-monetary reasons of migration can also be found in other literature. Thereby, a better quality of life is the determining factor. This aspect will be discussed later on.

3.1.2.1 Laws of Migration

This paragraph is dedicated to Ravenstein's "The Laws of Migration" which were published in 1885 and 1889. A discussion emerged after their release and formed the basis for a further evolution of migration theory (Lee, 1966). It was Ravenstein who ascertained regularities in the data which was available to him for interpretation. The result of his research was his stated "laws". In the beginning, the focus of his work was directed towards the British Census. After a while, he expanded his research and worked with data from more than 20 different countries. The interesting aspect about the laws, although they were written down in the 19th century, is that they can still be applied to the current situation. Therefore, parts of his work are included in this research and reflections on them are presented.

Distance and Migration chains

Ravenstein's first law brings up the above-mentioned correlation of distance and volume of migration, as it sees most of the occurring migration taking place between areas with a short distance. In other words, it is a certain location that attracts people. But a bigger distance to this location will lead to a decreasing number of migrants. Another statement made by Ravenstein is that people who overcome longer distance during their migration normally pick regions with a higher emergence of commerce and industry (Ravenstein, 1885).

Another finding of Ravenstein that has not lost any of its actuality is the appearance of migration in stages. As such a stage needs a trigger, he identified the individuals who are living around big centers to start it. When they move towards the centers, their previously used space becomes available. This provides migrants from more remote areas to step in and move to these locations. This phenomenon is called migration chain (Ibid).

Economy and Migration

Other notable statements made in Ravenstein's paper from 1885 relate to an underlying correlation between migration and technology. This might not be as surprising today as it was back then when he linked the development of manufactures and commerce to an increased migration rate (Ravenstein, 1885). The direct effect of the migration during the industrialization that lead to a growth of the population can be translated to the modern times where economic growth represents an indicator for location attractiveness. Thus, these economically strong areas attract migrants.

Subsequent to this, Ravenstein also identified the motive of migration due to economic reasons in his research. According to him, the individual's wish to improve his/her own situation increases the possibility of his/her migration (Ibid). As a result of this motive, the existence of strong economic regions combined with individuals who look for better economic chances for themselves could fuel strong migration.

Conclusions

Ravenstein's "Laws of Migration" from the 19th century show that especially cities could be the target of immigration. As the cities were the driver of the industrialization, the availability of jobs and the perspective for individuals for an economical improvement was attracting masses of migrants. Also, besides the technology and industry, a city provided further benefits such as closeness to doctors, daily consumption goods, or the availability of infrastructure.

With a look on the modern times, it becomes clear that the migration continues to flow to these kinds of hubs. Especially the European Union is facing the phenomenon of urbanization. With keeping the demographic structure in mind, it is apparent that the migration continues to flow towards big cities and caters for this phenomenon. One difference can be seen in the origin of the migrants. Back in the 19th century, the migration flow was mainly pan-European whereas migration nowadays is becoming more and more intercontinental.

As this research focuses on the young highly skilled international professionals' perspective on attractiveness of locations, it would be of interest to investigate if they also see the advantages on the side of bigger cities. Therefore, factors that attract young highly skilled international professionals need to be analyzed to depict a at most accurate picture. The results would help companies to understand the preferences of their much-needed highly trained employees. With this information the selection of a location with closeness to these employees could be made.

Furthermore, the later introduced questionnaire helps to scrutinize whether the motives for migration have changed from the 19th century to today or if the same reasons for migration still apply to our generation. In a first step into this direction, the review of the Theory of Migration from Everett S. Lee helps to detect possible reasons for migration.

3.1.2.2 A Theory of Migration

Ravenstein's ideas elicited an echo and critique and ensured that other research in this field was pursued. One of the theorists among this group was Everett S. Lee's who published his "A Theory of Migration" in 1966. According to Lee, just "few additional generalizations have been advanced" (Lee, 1966) since Ravenstein's publications and his own work. His appreciation of Ravenstein's work can also be seen as Lee briefly presents Ravenstein's work in his paper. In Lee's paper, factors for the migration of people are presented. These ideas were built upon Ravenstein's work. Nevertheless, the understanding of the term "Migration" itself was slightly different between the both. In Lee's understanding, the term "Migration" comprises a change of residence which can be both, permanent or semi-permanent (Ibid).

The following sub-chapter is used to present the main ideas of Lee's Theory of Migration to the reader. The approach of Lee to illustrate the correlation of the area of origin and the area of destination is to categorize the reasons for migration into factors that belong to both areas. Thus, it makes sense that, for a certain group, there are repellent factors (push factor) or attracting ones (pull factor). In the following, the main points of Lee's deliberations on these factors are presented.

Lee also pursued other ideas to find out what influences migration itself. Thereby, the concept of 'intervening obstacles' and 'personal factors' was resulting which is linked to this research in the next sub-chapter. To understand Lee's line of argument behind the concept, his ideas are discussed. Furthermore, the review will focus on some of his hypotheses on topics such as the education system and social network.

Push- and Pull Factors

Figure 5 illustrates the differences and the relationship between push- and pull factors. As the selected pull factors which attract people (in green) are the opposite of the push factors (in red) which repel people from an area, the connectedness of both becomes apparent. Obviously, not all factors affect people in the same way as it always depends on their situation. An example could be the amount of day nurseries in a city. This factor would be of higher importance for a single mom with a young child whereas a single childless man would be indifferent to it. The presented factors in the figure are chosen to illustrate the situation, but also to link them to the research topic as companies can self-assess their location and see which push- and pull factors they can find and counteract by moving to another location.

The list of push factors comprises a high unemployment rate or a high amount of people living under the poverty level. Other factors could be high crime rates, safety and security issues and perceived shortcomings in the service provision. These factors might represent a current state of a region or city and therefore have a direct influence on the personal situation of the inhabitants. Nevertheless, equally important is the personal perception of these factors by each individual that might depend on age, sex or previous experiences. On the other hand, pull factors can also vary from the availability of jobs, lower crime rate to better education opportunities. In general, factors that contribute to a high quality of life can be seen as pull factors. Once again, the weighting of each individual factor depends on the personal perception.

The challenge for companies, as their influence on these factors is limited, is to understand the preferences of the young highly skilled international professionals. This understanding helps them to be present with facilities in these regions or cities that attract the needed talents.

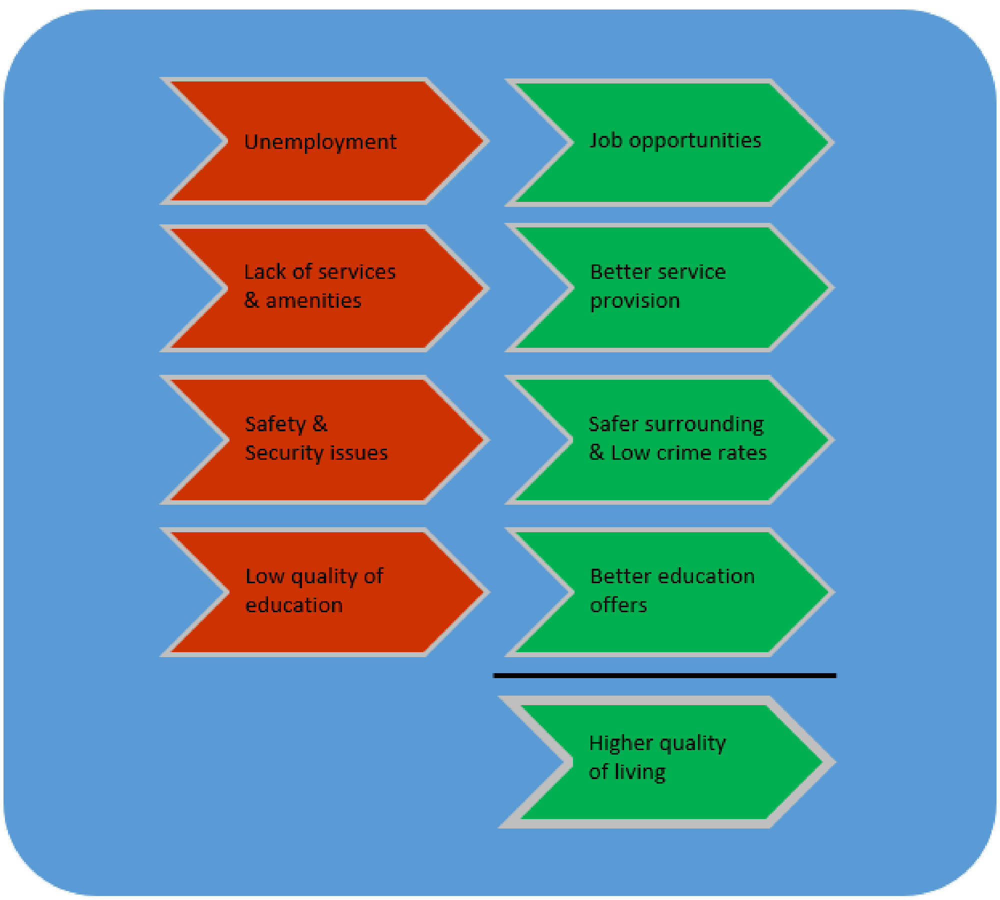


Figure 5: Relationship between Push- and Pull Factors

Intervening obstacles

As mentioned above, Lee also researched obstacles aside from the push- and pull factors that might occur in the act of migration. The term used by him for issues arising between the area of origin and destination of a migrant is called 'intervening obstacle'. Thereby, Lee also sees the distance as the most important intervening obstacle. Another parallel to Ravenstein. The distance represents a big challenge for the migrants as they are dealing with restrictions, e.g. immigration laws. Additional to this, the cost of moving cannot be neglected. The third obstacle are physical barriers (Lee, 1966). In general, intervening obstacles still exist although they were reduced within the European Union. Examples are the migration law and physical barriers which underwent a big change in comparison to the 1960s. This change was fueled through the agreement on free goods movement, services and people within EU member states. In the course of this reform, citizens of EU member states obtained the possibility to freely choose the region or city where they want to work within these states.

Nevertheless, the distance might still be one of the most important factors in the decision-making process of an individual who is thinking about migration. This might also be related to the language barrier which correlates with distance. Individuals migrating from e.g. Norway to Denmark – where two related languages are spoken – might not experience the same challenge language wise as a person migrating from Greece to the Netherlands. On the other hand, the availability of transport, e.g. provided by low-cost airlines or international buses, reduced the hindrances represented by distance and facilitated the migration.

Personal factors and perception

In Lee's act of migration, he states that personal factors also influence migration. An individual's traits or personal situation might fuel or outbreak migration (Lee, 1966). In other words, individual circumstances at a certain time have a strong influence on the decision-making of an individual on migration. According to Lee, not all factors with an impact on the decision-making exist constantly. Moreover, the factors might vary depending on the person's stage of life (Ibid.). For some people there might be stages in their lives when migration represents an option. An example could be the time after graduating when finding a job is far up on the priority list.

Another point Lee brought into play are social aspects. This adjoins the previous paragraph as aspects like having a family or being in a relationship might influence the decision-making on migration. The physical separation should not be underestimated although an increasing number of online devices helps to stay in touch and to overcome the symptoms of separation. An interesting statement of Lee is that each person has a perception of all these factors. The perception might change over the course of life, but it will always help the person to evaluate if migration is an option or not. Based on this, Lee represents the position that the influence of push- and pull factors of regions are having a smaller impact than the personal perception of these factors. It might happen that one person feels attracted by a factor that another person considers not relevant or even repelling (Lee, 1966).

As some factors depend stronger on the individual and its perception than other, outsiders might struggle to fully understand an individual's decision to migrate. Factors like the economic or political situation and even the environment might be perceived differently from person to person (Lee, 1966). As a result, the list with reasons for migration is nearly endless. Some might leave a location in order to follow their dream while others move to this location for economic reasons as mentioned by Sjaastad. All of them have in common that they follow the idea of moving to a better place. This shows how difficult it is for companies to pick a location that ensures the closeness to the needed talents. In this case, companies could try to use their internal unique selling points and other offers to outdo competing companies in the "war for talents".

Economic situation and diversity

A less surprising conclusion drawn by Lee is that the economic situation of a region or cities has a high influence on its attractiveness. This also shows another parallel between him and Ravenstein's, as both identified the availability of jobs to be integral for migration. Thus, cities in the stage of an economic growth and with companies offering plenty of open position will attract migration (Lee, 1966).

A more surprising finding of Lee is based on diversity. He recognized a connection between diversity among regions or cities and the volume of migration. A greater difference of places within one region increases the likelihood that migration occurs. This phenomenon, according to Lee, can also be observed within cities. He breaks his observations down to the statement that the more diversity is observed, the greater the flow of migration should be. Lee also made observations in regions with a high homogeneity among places and its inhabitants. His conclusion is that these regions are having a lower migration rate to and from the place (Lee, 1966). Hence, not all companies should go for the same locations especially when a remarkable number of competitors is already present in this region.

Education system

Conformable to Lee, diversity within a group of people is characterized by "[…] race or ethnic origin, education, income, or tradition" (Lee, 1966). Thus, having a diverse educational portfolio also contributes to the diversity of a region. But education contributes even more to the training and establishment of high human capital. A side effect of education systems that bring out specialists such as engineers or professors has been observed from Lee as well. These specialists are welcoming towards migration as they realize the need for their specialized knowledge for what migration represents a way to bring it to other places (Lee, 1966). This example shows that a diverse educational landscape is beneficial for a region or city. The region might lose some experts due to their specialized knowledge, but at the same time people are attracted from the educational possibilities and move to the region.

Cortright (2001) argues in his new growth theory that companies should not be blinded by regions that host excellent universities but little else. The risk that the graduates will leave this region is high. Thus, the region would indirectly be subsidizing the economic development of other areas. A recent example is the Brandenburgisch Technische Universität in Cottbus which is based in a remote region and loses most of its graduates to well-known companies in bigger cities (Wirtschaftswoche, 2018). For this reason, the assessment of a location should encompass all the previously mentioned factors. Just when the educational landscape is in balance with other factors that might influence the attraction of people to this location, a company should go for it.

Social networks on arrival

The last finding of Lee that is featured in this thesis relates to the connection between the volume/rate of migration and the time. The core of his statement is based on migrants who already settled down in their migration destination as they are able to share their experiences with those back home. Additionally, they can function as a social network for new arrivals. This shows that intervening obstacles diminish and the volume and rate of migration increases with time. A so-called leapfrog situation is the consequence (Lee, 1966). With a look on the history of migration in Europe, one can see that migrants from different countries can be found among all EU member states. In many cases they form a social network which helps arriving migrants from the same countries with their first steps in the new country. The knowledge that these networks exists reduces some hindrances for migration. Once more, a connection to the benefits of a nationally diverse population can be made as the former migrants are forming the welcoming networks.

Conclusions

The reviewed literature of Lee brought up several factors with an influence on the migration flow to a region or city. The four exemplary factors for hindrances are physical barriers, law restrictions, distances and the financial cost for the migration. Secondly, Lee presented more general factors among which the employment situation, wealth, security, diversity, service provision and a high quality of living can be numbered. The last group consists of the social relations and networks and belongs to personal factors. In the end it is the individual’s perception of these factors and the ability to overcome obstacles that decides about the act of migration. The following figure depicts these findings once again in a lucid manner.

Hindrances	General Factors	Personal Factors
Physical barriers	Employment	Social relations
Law restrictions	Wealth	Social networks
Distances	Security	
Financial cost	Diversity	
	Service provision	
	Quality of living	

Figure 6: Factors with an influence on Migration (based on Lee)

The influence of the grouped factors varies as well. Hindrances can be seen as a determinant for how likely migration is. The general and personal factors, on the other hand, might even outweigh each other. It might be the case that a region or city shows a low diversity and the income level would also not have a huge pull function, but an individual's social connection to this place in combination with an existing job offer would outweigh these general factors and lead to migration. This means an interplay between these factors exists. The individual who is thinking about migration has the position of an outsider when he assesses a certain location. The individual takes the factors – whose positive or negative perception depends on the individual – as well as the hindrances for migration into account. Additionally, social networks might exist and influence the decision-making of the individual. But the final evaluation of the situation depends on the personal perception which is formed out of his/her experiences, knowledge, and abilities.

Based on Lee's theory, what are the take-aways for companies? The most important insight is that factors influence the migration of individuals. Thus, these factors provide orientation but only after they are brought together with a certain situation and the actors, conclusions can be drawn. The reason is the impact an individual's perception of these factors is having. Hence, to be guided by the different factors to choose the most attractive location helps to be present at a location that is classified as attractive, but there is no guarantee that it attracts exactly the group of people a company needs. This circumstance has to be accepted. Nevertheless, selecting a location based on the push- and pull factors that determine the location attractiveness helps at least to be present in regions or cities that, generally spoken, are more likely to attract young highly skilled international professionals.

The next step for companies is to get a good understanding of how young highly skilled international professionals perceive location attractiveness? Which factors are the most relevant for them and do national differences exist? The answers to these questions might provide companies with a clearer idea in the process of selecting an attractive location.

As the personal perception of factors and other variables remains impalpable, a survey is conducted later in this project to offer insights on the perception of these factors by young highly skilled international professionals.

3.2 Young highly skilled international Professionals

The previous chapter addressed migration theories in depth as they are a fundamental phenomenon influencing the society and thus the economy. In this chapter, the gained insights are connected with another phenomenon stemming from the demographic transition, the “war for talents”. The investigated group of young highly skilled international graduates and professionals is part of the defined “talent” group. This group has been selected based on the high demand due to the demographic transition and Lee’s statement that there are times in an individual’s life where the probability of migration is more likely. “[S]uch times are the cessation of education, entrance into the labour force, or retirement from work” (Lee, 1966). Thus, the group of young highly skilled international professionals who combine migration will and the highly demanded professional skills are selected for this thesis.

The term "war for talents" traces back to Steven Hankins who studied the change in human resources as part of a McKinsey study in 1997. The demand for labor shows that the difficulty of finding a job among well-educated graduates with good degrees – a group that can be numbered among talents – decreases (McKinsey Deutschland, 1997). This goes back to more open positions than available workforce. By implication, the pressure on companies to find suitable employees for vacancies increases. Highly qualified employees have become a scarce production factor. This leads to the assumption that this situation gives graduates better job search opportunities as well as a more favorable bargaining position (McKinsey Deutschland, 2011). The literature provides several reasons for this presumption which are further explained now.

Growing global competition

A first reason that fuels the development are open markets and global networks. Both are key features of today's economy. Companies are no longer just competing with regional providers as international competition is growing constantly (Utton, 2006). If a company wants to be successful in the market in the long run, it has to handle high quality and high sales figures. This only works when the employees give the company an advantage over their competitors. Thus, human resource professionals look for candidates who have the best set of skills and are a good fit to the job and the company personality-wise (Michaels, Handfield-Jones, Axelrod, 2001). In order to remain competitive, they must find suitable young talent and bind the good employees to the company.

Demographic transition

Further on, the demographic change fuels the “war for talents”. This phenomenon can first and foremost be found in industrialized countries where birth rate has been falling for a long time. The inevitable result is a shortage of junior staff. To counteract this development, companies are starting to recruit at a very early stage (Larkan, 2007; Johnson, 2014). This shows the high value and importance of the target group and justifies its investigation in the thesis.

Ever-evolving knowledge-based society

In addition, an ever-evolving knowledge-based society leads to an increased importance of skills and competencies of the workforce. This also includes the ability to quickly acquire new knowledge. For this reason, employees and companies have to strive for advancement to achieve sustainable success. Regarding this, new and fresh minds are demanded (Johnson, 2014).

Societal change of values

Going along with the previous three reasons, the changing values in society expresses another reason for the “war for talents”. Historically, previous generations were looking mainly for security and a high salary. This condition changes as especially younger generations make different demands on their employer. Examples are wishes that businesses need to be flexible about working hours, give their employees enough room to flourish, design work processes according to the latest findings in occupational psychology and for and foremost contribute to a high quality of living. This leads to the creation of new incentives to attract new employees and retain them for a longer time (Johnson, 2014).

Rapid economic growth of periphery countries

One more development can be added to all these challenges. The economy of the so-called periphery countries is growing rapidly and is heating up the “war for talents”. As a result, well-educated graduates are pushing from abroad to the European labor market. At the same time, many young academics are moving abroad. A consequence of this development is that a greater flexibility of the young talents leads to more competition to secure the talents. Thus, companies have to offer more to the employees (Larkan, 2007; Johnson, 2014).

Conclusion

The investigated literature reveals various trends and changes in comparison the previous generations. Young highly skilled international professionals know about their status on the labor market and are in a favorable negotiation position. It is the companies turn to convince potential employees. One important aspect which can be used in this negotiation is the presence in attractive regions or cities. Resulting from this situation, new challenges for companies emerge. One of them is to find such a location that gives them the edge over their competitors. At the same time, new chances for the companies arise as the international pool of young highly skilled professionals becomes more and more accessible due to the flexibility and migration will among their targeted group. Therefore, companies have to adapt to the various challenges and understand the potential employees. One key question is, where do they want to work?

3.3 Location Theory

This chapter follows the unanswered question from the previous sub-chapter and brings together various points of views from different location theorists. The objective is to approach the topic of location attractiveness by considering factors that are known to have an impact on the location selection of companies. As not all location theorists agree on the importance of different factors, a closer look is required. For this reason, so called hard and soft location factors are considered first as this general categorization is broadly accepted across most location theorists.

In a first step, a definition for hard location factors is presented. As these factors do not influence the decision of individuals that much, they are of limited importance for this research. Nevertheless, the interdependency between the location of industries and the location preferences of potential employees depends on different factors which are classed among soft location factors.

For this reason, soft location factors are further explained. Additionally, awareness regarding the two meanings of soft factors is required. Some researchers see a direct influence of these factors to the location of industries whereas the influence on an individual's choice of location is of an indirect kind. On the other hand, more current research represents the position that soft factors can indeed influence the individual's choice of location. In the course of this research the latter are considered to be more important and are going to constitute the greater part in this chapter.

3.3.1 Hard Location Factors

In literature, hard location factors are described as quantifiable data structure on a site and its surrounding. In other words, transport infrastructure, links to other cities, socio-demographic characteristics and the political and administrative framework are part of these factors that have a big influence on business activities (Grabow, 1995; Hahne, 1995).

Examples for hard location factors could be availability of required raw materials, industrial subsidies, taxes, and costs for transportation and for stocking (Bürki, 2006). Also, as a part of acceptable production costs, work force can be seen as a hard location factor. This illustrates the conflict for companies to find a location that covers as many factors as possible, but at the same time this location has to be attractive in the eyes of the potential employees as well.

Some of these factors also influence the decision of young highly skilled international professionals when it comes to the selection of the place of living and working. Nevertheless, the hard location factors are of higher importance for the companies themselves. In times of declining production and manufacturing and increasing service business models, some hard location factors lose a bit of their importance. Against the backdrop of the research topic and this development, the focus is more on the soft location factors.

3.3.2 Soft Location Factors

The research on location factors provides two widely acknowledged definitions for soft factors. Both of them are of more qualitative nature. In most cases they are characterized by their influence on the location of industries rather than having a direct impact on individuals. Examples are cultural factors, the image of an area or the qualifications of available personnel (Bürki, 2006). Other factors that have to be taken into account are scientific infrastructure and existing links to universities and government institutions (OECD, 2011). Also of interest for the research is the prior investigation of the correlation between the location of industries and the attraction of highly skilled professionals.

As mentioned above, an elementary difference between soft and hard factors is that hard location factors are closer linked to the location of industries whereas research on soft location factors is more aiming at the location of individuals and how it is influenced by these factors. This situation challenges the companies as the conditions are changing. Earlier on, key production factors had a high impact on the choice of a location. Those could be low costs, good transportation and closeness to required raw materials. In the knowledge-based economy, some of these factors lose their importance and highly skilled professionals are targeted. This causes a development where companies take location decisions based on the availability of skilled labor (Florida, 2001). This change from when labor attracted workers to locations where they found the best conditions for their production to the skilled employees making companies move, expresses a shift of power. As a result, the location of industries starts to depend more and more on factors that influence the location of labor, the soft factors. The bilateral relation between industries and workers, where the former looks for employees and the latter for employment, leads to activities and change in the researched field as both interests need to balance each other out and a mutual understanding of the preferences and requirements is developing. Nevertheless, what remains to be a key factor besides all soft factors for the individuals is the availability of employment opportunities.

To get a better understanding, soft location factors are further defined in the following. Generally spoken, these factors influence the quality of life of individuals as well as the quality of living of the region or country. Thus, they are of high importance. This is underlined by the amount of literature dedicated to the attraction of individuals that focuses on this aspect. Further on, the term quality of life summarizes most other factors mentioned in the literature on soft location factors.

Quality of Life

A better quality of life can be seen as a pull factor for individuals. In the course of the investigated research, this pull factor equals the soft location factors. It is composed by parts such as good climate and natural amenities (De Vol, 1999; Florida, 2000; Goodstein, 1999). Both examples illustrate well how different and influenceable factors can be. While natural amenities can be influenced by local governments, e.g. in order to achieve a clean environment or the general accessibility to water, the climate remains out of hand. Natural waters like lakes and rivers or a more modest climate has to be taken and dealt with as it is. This leads to the result that some locations are perceived as more attractive than others based on their geographical features.

These geographical advantages offer companies the possibility to use the natural amenities in a way to cover demands of the employees. Richard Florida states in his publication from 2000 that (outdoor) recreation facilities are especially for knowledge workers of importance. Another statement shows the connection of economic growth of a region and enjoyable living and working conditions (Atkinson & Gottlieb, 2001). Thus, companies are challenged to evaluate locations to see if they are set for a positive development. Further on, recreation facilities such as culture or sports related facilities contribute to an increased quality of life and thus attract workers (Cohen, 2000; Cortright, 2001). Another point comes along with the load through long working hours of highly skilled employees which challenges them to streamline their out of work activities. This leads to the preference of accessing the mentioned amenities on demand (Florida, 2000). Additional to the mentioned aspects, two more factors with an influence on a better life quality are mentioned in the reviewed literature. On one hand the feeling of personal security and the complementing low crime rates and on the other hand the general cost of living which also includes affordable housing (De Vol, 1999; Cohen, 2000).

Another soft location factor contributing to the quality of living is education. It consists of more than qualified labor force, as it also includes elementary and secondary schools for the children of the employees. On top of that, facilities for adult education and training are related to this factor (Atkinson & Gottlieb, 2001; Cohen, 2000; Glaeser & Shapiro, 2001). The aspect of providing broad educational possibilities to the employees challenges companies as this offer is mostly found in already existing commercial regions which leads to a higher competition for the location. Lee (1966) emphasizes this correlation with the statement that a good educational system is important for the attractiveness of a place.

Conclusion

The rationale of the last paragraphs is that a bilateral process underlies the attraction of highly skilled workers and the companies themselves. This can be observed in the behavior of highly skilled graduates who are attracted by job opportunities and companies who are attracted by the presence of skilled labor. The shortage of skilled labor puts more pressure on the companies which leads to a higher importance of the location itself. Florida (2000) underlines this assumption as he says the ability to choose attractive cities and regions as a place to live and work in is on the side of the highly skilled professionals. For this reason, it is not unlikely to see companies follow the individuals to their chosen location. Overall, the term quality of life comprises all factors that influence the decision-making of individuals when it comes to the selection of their place to live and work. Therefore, companies have to adapt or at least understand the thinking of the highly skilled employees to be present in attractive locations themselves. Regarding this, the “war for talents” is a war for location as well.

3.4 Conclusions on the Theoretical Framework

In the course of this chapter, evidence attributable to theories and research is provided. This evidence is based on certain factors which were identified by analyzing these existing publications and show that these factors have an influence on the decision of people weather to move to a location or not. Thus, the point of view stemming from the theories of Ravenstein, Lee and others on migration theory is discussed. The second part of the chapter connects the phenomenon of migration with the target group of this study, the young highly skilled international professionals. Therefore, their situation and characteristics are identified so as to understand what motivates them to migrate for a job. Also, the power relationship between the employer and employee is investigated as it also influences the kind of migration. On one side, the labor has to move in order to get a good job, on the other hand the labor wants to move to combine ideal working and living conditions. In the third part of this chapter, soft location factors are elaborated as they also have an impact on an individual’s choice of a location to live or work in. The three separate angles on the overall research topic are brought together now and lead to a conclusion in form of working hypotheses. These hypotheses are going to be tested in the analysis of the research.

But what, from a strategical point of view, is the main aim for companies when they face the challenge of attracting the group of young highly skilled international professionals? After reviewing various theories and researches on migration and location theory as well as the "war for talents", different approaches to the topic have been presented. To provide an overview of the obtained answers from the literature review, the following figure is presented. The factors listed in this graphic are taken up and explained in the following chapter for the survey with a questionnaire.

Progressivity	- Technological innovation - Modern working structures - Excellent public services	- Atkinson, Gottlieb 2001; - Cortright 2002; - Rondinelli 1998; - Jaffe 1995; - Audretsch, Feldmann 1996; - Porter 2000; - Collaborative Economics 1999; - Fulton, Shighley 2001
Demographic Diversity	- Look for a variation in the group of residents - Be open for foreign born residents	- Florida 2000; - Florida 2001; - Glaeser, Shapiro 2001
High human capital	- Benefit from education facilities - Form types of cooperation and networks	- Glaeser, Shapiro 2001; - Rondinelli 1998
Distinctiveness	- Use the region's or city's image - Be open to adopt to the location's key characteristics	- Cortright 2002

Figure 7: Factors of Location Attractiveness

Another important take-away addressed by Goodstein lies within the danger of overcrowding of a place. In this case, the phenomenon of attracting people to a location will sooner or later be reversed if the high living costs are not in balance with the income and the standard of life composed by the location factors themselves. This means, certain cities which are limited through their city design might not be able to tackle all challenges arising with a high influx of labor as quickly as required. Thus, prior to the selection of a location, companies have to assess the situation of the location and decide for themselves if a risk of overcrowded schools, an increasing crime rate, traffic congestion and pollution might occur (Goodstein, 1999). In this case, the initial factors that have drawn the people towards the location would be expired and the migration of the talents would leave the companies on the bad end of the development.

The following sub-chapter shows how the conclusions from the theoretical framework are connected to the research. Therefore, working hypotheses on how companies can estimate the location attractive perceived by the young highly skilled international professionals are set up. In this context, the identified factors are taken into account.

3.4.1 Working Hypotheses

As mentioned above, the working hypotheses are formulated based on the findings in this theory chapter. Thereby, the hypotheses pick up the investigated factors from literature and theory and connect them to the challenges of companies to find ideal locations to attract talent. In other words: To provide companies orientation when it comes to the selection of an ideal location, their target group – young highly skilled international professionals – is asked about their perception of location attractiveness. Consequently, the aim of the survey is to understand the influence of certain factors on the young highly skilled international professionals' perception of a location. In this context, the constructed hypotheses relate to the previously identified four fields; progressivity, demographic diversity, high human capital and being different.

1) Young highly skilled international professionals' positive perception of a city's / region's progressivity determines the location's attractiveness

First, the reviewed literature brought up the field of progressivity. Thus, the targeted region or city must provide a friendly environment for technological innovation. This can relate to governance structures but also to structures around the public services. In this context, political stability, a strong economy, internet and connectivity can be mentioned. Other examples on the company level are shared working spaces or the establishment of learning networks instead of tight hierarchies. Thus, it is important for a company that their own structures go along with the identity of a location. This might involve a bigger focus on business development with the objective to break out of current structures to attract the target group which they struggled to attract so far. Thereby, the selection of a location can help to transfer the characteristics associated with the location to the company itself.

2) Young highly skilled international professionals’ positive perception of a city’s / region’s demographic diversity determines the location’s attractiveness

It can be seen that the first keyword is linked to the industrial sector whereas demographic diversity as well as health have the sociology of a region or cities population in focus. This perspective is of interest for this research as the presence of various demographic groups, e.g. foreign born, as well as a location’s state of health have a positive effect on the attractiveness of a location (Florida, 2000 & 2001). Thus, factors like freedom, social cohesion, but also health related aspects like environmental quality and life expectancy are considered. This means, companies who want to attract young highly skilled international professionals have better chances to find these people in locations that are welcoming towards demographic diversity and providing a health preserving surrounding.

3) Young highly skilled international professionals accredit a higher location attractiveness to a city / region with high human capital

Parallels can be seen when the positive influence of high human capital is minded. On one hand, quality and quantity of education facilities ensures high skilled graduates and therefore counteracts the aggravation of the scarcity of skilled labor, but it also attracts the now-needed talents. The offered educational landscape also provides the young highly skilled international professionals with the perspective to further educate themselves and their families (Glaser & Shapiro, 2001). Naturally, the purchasing power and employment is also in focus of the target group as the cost of living depends on the social structure of the region. Companies can benefit of the education structures and can invest in networking with innovation centers and universities to further entrench themselves. At the same time, they should also have an eye on the cost of living in this region / city as it affects the life of the employees.

4) Young highly skilled international professionals’ positive reception in terms of the distinctiveness of a region / city has can be seen as an indicator for location attractiveness

The last identified factor with an influence on the attractiveness of a region or city is being different. Although the term is a bit vague, it has a high importance. In this thesis, the term is understood as the efforts to build distinctiveness (Cortright, 2002) through an individuated image of a region or city. Aspects that influence the distinctiveness are the natural environment, recreation possibilities and the housing situation. The location’s image can further on be used to attract the targeted group. Once again, as mentioned in the first hypothesis, the companies need to be aware if their own distinctiveness is compatible and matching with the location’s distinctiveness. In some cases, the key values a location represents should be picked up from the company as well.

All the hypotheses examine how the young highly skilled international professionals from the different countries perceive certain factors related to the four fields; progressivity, diversity, high human capital and distinctiveness. Thus, the aim is to ascertain if there are significant differences among the participants from several countries or if there is a consensual understanding of location attractiveness.

3.4.2 Summary of the Working Hypotheses

The previous paragraph provides the reader with information on factors companies with a need for young highly skilled international professionals could consider when it comes to the selection of their location. The overall task remains to overcome the challenge of attracting young highly skilled international professionals. The hypotheses show that thereby a well-selected location can be helpful. Nevertheless, the hypotheses are not supposed to draw a complete picture of all existing factors related to location attractiveness. Instead, they summarize the findings from the literature review. Based on these findings, possible approaches to the selection of attractive locations are formed. Finally, companies have to take their own strategic decisions on the selection of an ideal location, but the presented factors presented in the hypotheses can provide orientation. The analysis of the questionnaires in the next chapter has the aim to complete these findings.

4. Empirical Framework

In this chapter, insights into the conducted empirical work of this research is given. First, studies related to the topic of location attractiveness are named, followed by the analysis of the received questionnaires. The aim of the presentation of the results from the survey is to provide insights into practice as the perception of location attractiveness of young highly skilled international professionals is made available to companies. In the last step, all findings within the analysis are brought together. Thus, discussion and conclusion are going to be presented in chapter five with the aim to provide an answer on the overall research question "How important is the attractiveness of a company's location regarding the decision of highly skilled international professionals where to work?".

The discussion deals with aspects which came up during the research and are connected to the topic. Other than that, the major findings of the study and their meaning is presented. The last chapter, the conclusion chapter also answers the research problem and combines the findings from theory and practice and integrates this research in the context of former and future research in this field.

4.1 Consideration of related Studies

The first three parts of the literature review are dedicated to the analysis of the underlying reasons for migration of highly skilled labor power and young people as well as the aspects that influence their decision to do so. It also examined the attractiveness of locations by having closer looks at factors influencing the selection of a location and relevant aspects for individuals. In this part of the thesis, another perspective, stemming from quite recent related studies, is added. Thus, European studies on location attractiveness where looked up on the internet and in journals to identify additional factors for location attractiveness. Consequently, these factors are filtered for the project's purpose as not all studies had the same research aim. Aspects, that went too deep into a subject matter, e.g. financial policy determinants such as taxation percentages, where excluded although they are relevant for research with another objective. The remaining factors where brought together with the findings of the reviewed literature from the literature review. Thus, the questionnaire is a result of the filtered factors of several existing studies and the relevant literature. To provide the reader with an overview on the considered studies, the following list is presented:

- Regional Quality of Living in Europe
    - PBL Netherlands Environmental Assessment Agency, 2014
- Offshore Location Attractiveness Index
    - A.T. Kearney's, 2004
- Benchmarking the Future World of Cities
    - Cities Research Center, 2016
- Indikatoren zur Lebensqualität - Vorschläge der europäischen Expertengruppe und ausgewählte nationale Initiativen
    - Dr. Susana Garcia Diez, 2015
- A New Way of Monitoring the Quality of Urban Life
    - The 3rd OECD World Forum on "Statistics, Knowledge and Policy", 2009
- Quality of Life Survey
    - Monocle, 2017
- 20th Quality of Living ranking
    - Mercer, 2018

4.2 Questionnaire Design

A characteristic of questionnaires is that errors resulting from an insufficient questionnaire are very hard to be compensated once the data collection process is in full swing. Thus, the author's attention is directed at the questionnaire design and testing procedures. Thereby, the five stages of questionnaire design and testing – shown in the figure below – are followed to ensure data quality and the limitation of measurement errors (Brancato et al., 2006).

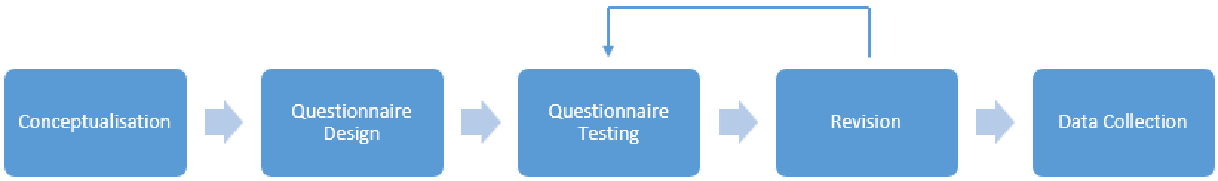


Figure 8: The five Stages of Questionnaire Design and Testing; adapted from Brancato et al., 2006

The conceptualization stage has a very important task described by the following quote. “A prerequisite to design a good survey instrument is deciding what is to be measured” (Fowler, 2002). This quote can be seen as the most important point when using a questionnaire. In the case of this study, the questionnaire represents a method to reach out to locally distributed people of the target group. The objective of the study is to find out if there is a difference from country to country in the perception of location attractiveness by analyzing the received answers of the participants.

The questionnaire design stage considers the structure of the questionnaire. Thereby, the data collection method is important. In this case, the questionnaire is send out online as an excel file. Once again, the local distribution of the target group plays a role for this decision as well as time and money savings compared to a survey sent out via mail. The questionnaire itself is divided into five blocks. Three introductory personal questions are asked to verify that the participant belongs to the target group. Following this, the participants are asked to rank nine categories which are of importance for most individuals when they consider settling down in a specific region. The two main questions, where the location factors are evaluated, are presented before the questionnaire concludes with two precise questions about the participants favorite region/city to work in and its ideal size.

As mentioned in the beginning of the chapter, the questionnaire testing stage is of high importance to ensure data quality. For this reason, the fully implemented draft questionnaire has been tested by two potential respondents. Fruitful feedback has been received and lead to the cut-down and restatement of factors. After a first revision, a larger scale pilot study was conducted. Five people of the actual target group were contacted and asked to fill in the questionnaire. Their valuable feedback was once again important input for the questionnaire design stage (Brancato et al., 2006).

The revision stage leads to the described implementation of received feedback after each testing round. This questionnaire went through two revision loops that helped to increase the clarity and comprehensibility of the questionnaire by counteracting mentioned obscurities and implementing suggested improvements (Brancato et al., 2006).

In the data collection stage, the researcher decided to benefit of the modern technology on one hand and finding a solution to his budget constraints on the other hand. The result is a self-administered, web-based survey (Brancato et al., 2006). As the participants fill in the questionnaire on their own, the testing phase is of even higher importance to ensure that the complexity is not too high, and the questions are clear and understood in the same way. Thus, the questionnaires are sent out via email to the participants who send the questionnaires back via the same medium. The participants are students and alumni of Aalborg University, Esslingen University of Applied Sciences and Zaragoza University. Due to the authors prior studies, he is able to distribute the questionnaires among this group. This approach can be described as convenience sampling as the sample is drawn from a part of the targeted population that is close to hand. The advantages are that the researcher knows that the selected participants are part of the group of young highly skilled international professionals. An obvious disadvantage is that a high number of potential participants does not get considered. This leads to a result that cannot be labeled as representative. Nevertheless, the approach helps to conduct a survey under the time restrictions of the thesis.

As not all contacted people returned the questionnaire, a sample issue arose. Some countries are represented by only one individual. This directly affects the result as the individual's perception and its character has a higher weight. Nevertheless, under these circumstances the quality of these answers can be seen as as high as possible. The reason is that the participants are among the group of young highly skilled international professionals that already showed the flexibility to live/study abroad. Thus, their answers might be seen as more meaningful than answers from a group of people from the same country that does not debate working outside of their home region. Another approach to reduce the impact of this issue is undertaken by grouping nationalities into regional segments. The background for the classification is the map of the "Ständigen Ausschusses für geographische Namen (StAGN)". The following figure shows the six regional segments.

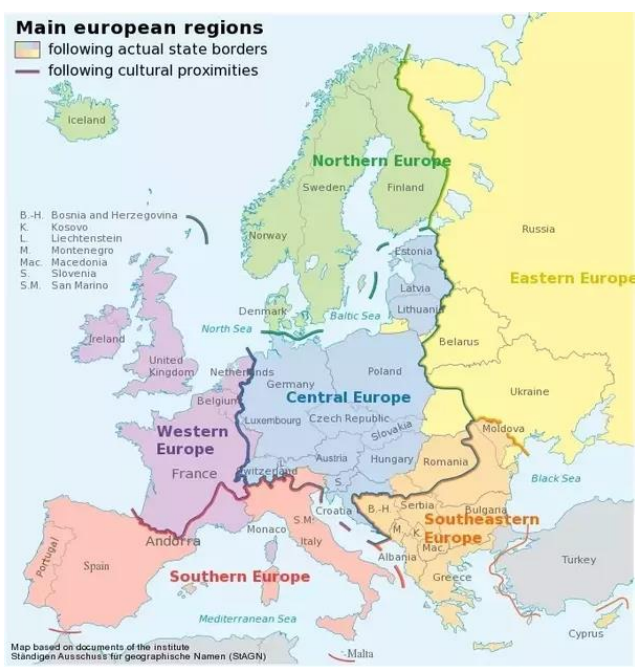


Figure 9: Main European regions (taken from Ständigen Ausschusses für geographische Namen (StAGN))

The questionnaire itself

As mentioned above, the questionnaire is divided into five parts. The three introductory personal questions are followed by the three big sections with the central questions. The answers on these questions are evaluable and comparable and thus will provide new insights regarding the research topic. The final part provides the participants with the possibility to name precise examples of the locations they would like to work in and the ideal size of this city/region. The last part helps to identify possible role model cities/regions as multiple mention indicates the attractiveness of these locations. The question regarding the size provides insights into the preferences of the participants and helps to identify a pattern. To bring in a new perspective on the topic of location attractiveness, young highly skilled international (professionals) are asked.

The questionnaire starts with three personal questions to secure that the participants are part of the target group. They are asked for age, nationality, and study degree. Especially the nationality is important for the evaluation of the collected data as the results are grouped nationality wise.

The second part starts with the nine main categories which were identified to have an impact on location attractiveness. The categories are:

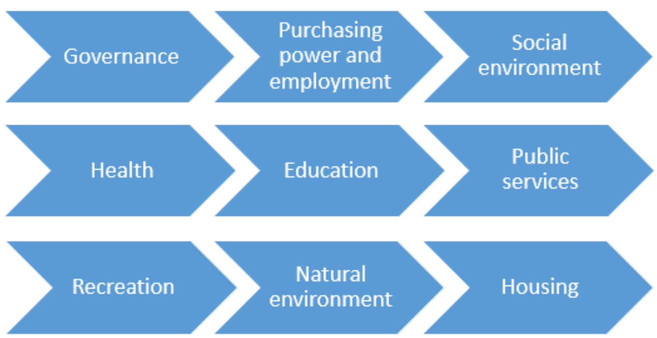


Figure 10: Categories with an influence on a location's attractiveness

The participants are asked to rank these categories based on the importance they have regarding location attractiveness.

After that, the questionnaire continues with the following question:

"Which factors define the attractiveness of a region/city for you?

Thereby, 89 factors that belong to the upper mentioned nine categories are presented. These nine categories are broken down in several topical sub-categories for a better lucidity. As the participants select only the factors that define the attractiveness for themselves, individual results are obtained and can be compared.

To receive more meaningful results, a second question is asked. It can be seen as a second layer as it builds up on question one:

"How important are the selected factors for you?"

In this part of the questionnaire, the participants are asked to weight the individually selected factors of question one. To achieve standardized results, a Likert-type scale is applied. The unbalanced scale contains five levels and reaches from lower importance to high importance without having specific categories for the three selectable options in the middle. The chosen unbalanced, odd scale allows to mirror each participant's personal impression of the factor's importance without forcing them in any direction (Brancato et al., 2006). An additional explanation why the scale does not start with the category "low importance" is that the participant would not have selected the factor in question one if it does not have any importance for him/her.

The final part of the questionnaire aims at getting insights in the more precise perception of the participants when it comes to the size of an ideal city/region to live in. Thus, they are asked what the ideal population number of a city/region would be. Therefore, the participants can select one out of six options that represent most of the city/region types in Europe. The options are:

- 0 – 50.000
- 50.000 – 100.000
- 100.000 – 250.000
- 250.000 – 500.000
- 500.000 – 1.000.000
- 1.000.000+

The last question asks the participants to name three regional areas or cities where they would like to work at. The idea is to identify regional areas and cities that are popular among the target group. Additionally, the named regional areas and cities can be seen as the benchmark for other areas and cities as they obviously offer good conditions if they are seen this positive.

Overall, the questionnaire is designed to collect data from young highly skilled international people. Based on the scope of the research, it cannot reflect an ideal study where the number of participants from different countries is balanced or where further aspects like the ratio between male and female respondents is considered. For this reason, the study does not have the claim to completeness. Nevertheless, it still represents a true situation among the participants of the study and provides valuable input about the thinking of this group. The result of the analyzed data is not aiming at the revealing of correlations between factors. Instead, the author seeks for a national/regional pattern in the answering of the questionees of different countries. The results can help companies who are targeting the group of young highly skilled international professionals as future employees when it comes to the location decision for their facilities.

4.3 Findings and Analysis

This part of the thesis connects the collected data from the questionnaire with the four hypotheses. The result is a comprehensive overview on how young highly skilled international professionals perceive location attractiveness, where they set priorities and if these priorities are valid for young highly skilled professionals indifferent of their nationality. This indication is of relevance for companies in need of this group of talents as it provides them with new insights on various factors that define location attractiveness.

Information on the participants

The data used for this analysis is exclusively gathered from the returned questionnaires. A total of 134 questionnaires was sent out from which 91 valid questionnaires were returned. The term "valid" refers to the correct completion of the questionnaire that allowed to analyze the obtained data in a standardized manner. Additionally, these 91 questionnaires were all completed by current or former students from different study programs. This is ensured through a mandatory field in the questionnaire where the participants had to fill in their study degree.

The same approach helped to receive information on the participants' age and nationality. The average age of the participants is 25.6 years which is approximately the same average age students graduate with in the EU (OECD, 2014). The following figure shows the nationality of the participants. The number in brackets represents the number of participants from each country.

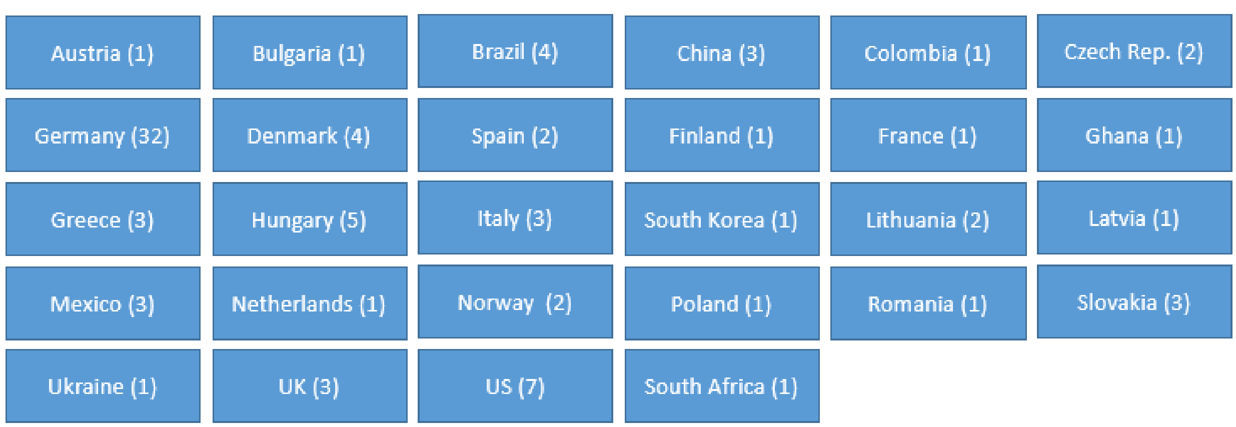


Figure 11: Nationality of the participants

Structure of the analysis

After the introduction of the questionnaire and the group of participants, the handling of the obtained data is in focus. Thus, the structure of the analysis is presented. The data extracted from the answers to each question is used for the different stages of the analysis. Figure 12 shows these four stages. During the breakdown of the responses it becomes visible that the findings on the first stage of the analysis are more general and get more and more particular over the next stages. The first stage delivers insights into the ranking of the nine categories (compare figure 10). Thereby, the responses of all participants are averaged so that the result represents the importance attributed to the categories by the participating young highly skilled international professionals. This forms the basis for the next stage where the categories are further compartmentalized. Several factors attributed to each of the categories are introduced. The selection and weighing of these factors by the participants grants the next insights. Thereby, the amount of data is filtered by the country and region of the participants. This helps to identify local differences in the perception of location attractiveness and forms the connection to the working hypotheses. The last two stages provide even more precise results as the ideal size (by population) of a city or region and the names of role model cities or regions are identified. The whole procedure helps companies to understand the preferences and requirements young highly skilled international professionals have towards a location. At the same time, the gradually refinement through the four stages shows companies the factors of high importance and examples of cities and regions which are perceived as attractive.

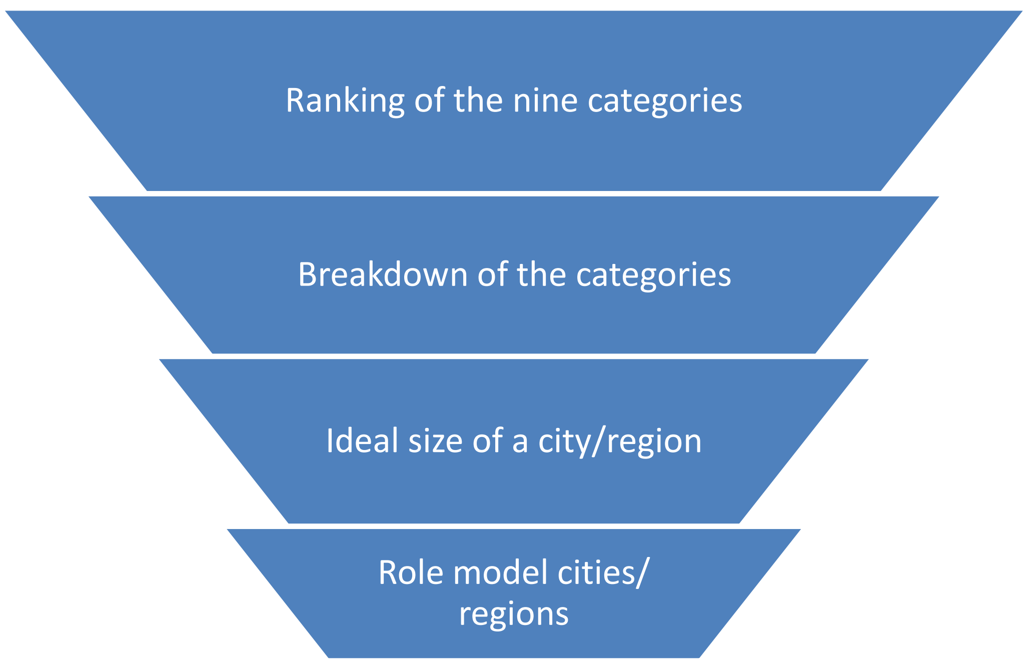


Figure 12: Structure of the analysis

Ranking of the nine categories

The first question in the questionnaire asks the participants to rank nine categories based on their individually perceived importance regarding location attractiveness. These categories are – as shown in figure 13 – closely linked to the four hypotheses presented in the previous chapter.

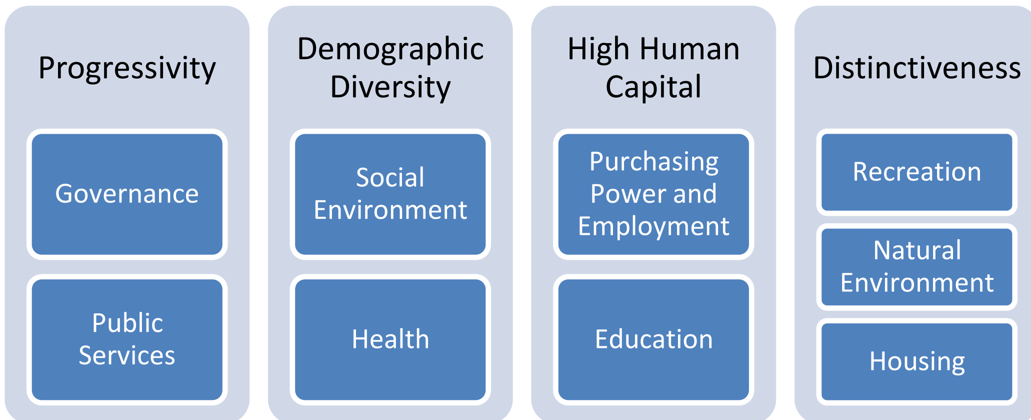


Figure 13: Relation between the hypotheses and the superordinated categories on location attractiveness

Once all participants filled in their individual order of these nine categories, the received data is summarized. In order to draw conclusions out of the received answers on this question, a weighing scheme is used. In this way, the responses became comparable. The chosen approach is to allocate values from one to nine based on the position of the category in the ranking. This means, the first-mentioned category receives the value nine, the second-mentioned category receives the value eight and so on. As a result, this weighing scheme allows to calculate the average value for each category which itself represents the assigned importance of these factors. The figure below presents the obtained outcome.

Category	Average Value
Social Environment	7.01
Purchasing Power and Employment	5.91
Health	5.33
Natural Environment	5.09
Governance	4.74
Education	4.58
Public Services	4.30
Housing	4.29
Recreation	3.76

Figure 14: Importance of the nine categories

What can be concluded from this table is that two categories have a significantly higher average value than the others. Especially social environment with 7.01 stands aloof from the next category by the value 1.1. This category is purchasing power and employment which itself is 0.58 ahead of the next category. This is the second biggest gap from category to category. The next six categories provide a different picture as all of them are within a range of 1.04. The lowest rated category is recreation which is 0.53 behind the second last value. Overall, the presented numbers show that the participants' priorities are set around the social environment and purchasing power and employment. The upper mentioned bigger gap from these two categories to the next ones shows that they are consistently ranked high by the participants. On the other hand, the smaller gaps between the next six categories limit the significance of the final position of each of those categories. A few more completed questionnaires are more likely to cause changes among the position of these categories than they would affect the position of the first two categories. The same as for the first two categories applies to the category recreation. The relatively low average value shows the lower importance of the category for young highly skilled international professionals when it comes to location attractiveness. Altogether, the ranking shows that there seems to be a consensus on the importance of the first two categories – social environment and purchasing power and employment – and the last-mentioned category recreation, whereas the others are more or less perceived as equally important and might be more dependent on each individual's perception.

But how does the picture look like when the results are connected with the hypotheses? Therefore, the values of the categories that represent a hypothesis (as shown in figure 13) are totalized and divided by the number of categories. In the case of hypothesis 1 regarding progressivity, it would look like as follows:

4.74 + 4.3 = 9.04

9.04 / 2 = 4.52

By calculating it through for all hypotheses, the resulting order is received:

1. Demographic Diversity: 6.17
2. Human Capital: 5.25
3. Progressivity: 4.52
4. Distinctiveness: 4.38

Solely based on these numbers one could conclude that hypothesis two and hypothesis three are backed up the most by this result. Also, hypothesis one and four show a reasonably high number and seem to be true for the participants. Nevertheless, the reasoning for the rating remains unapparent. To make it more comprehensible and provide companies with more tangible insights, the nine categories are broken down in the next step. Thereby, several sub-categories and factors that represent each category are presented.

Breakdown of the categories

In this part of the analysis, the hypotheses are connected with the collected data. In the questionnaire, the participants are asked to select factors that they consider as important for a location's attractiveness. In the next step, the individually selected factors are rated on a five-point scale (from lower importance (1) to higher importance (5)). Thereby, the perceived importance of the factors among the participants became measurable and comparable. Figure 15 shows the 9 categories with their 26 sub-categories.

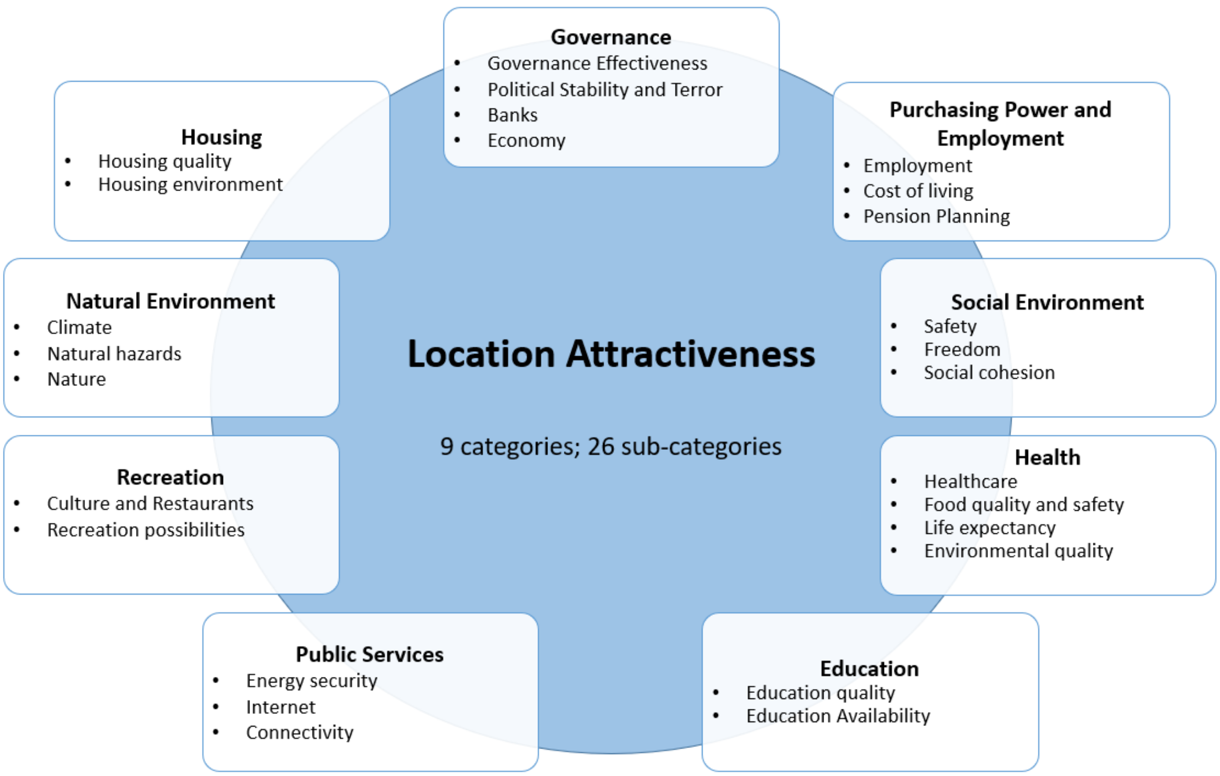


Figure 15: Categorization of Location Attractiveness

Figure 16 shows the regional classification – that is based on figure 9 – of the countries represented in the study. The blue arrows represent the nine regions and the 28 grey boxes depict the countries. The approach to regional classify the countries is chosen to increase the size of each group. This helps to attain more meaningful results in comparison to the collected data for each individual country. If the data is analyzed for each country, the influence of an individual's personal characteristics would have a higher influence in cases where just one or two participants represent a country.

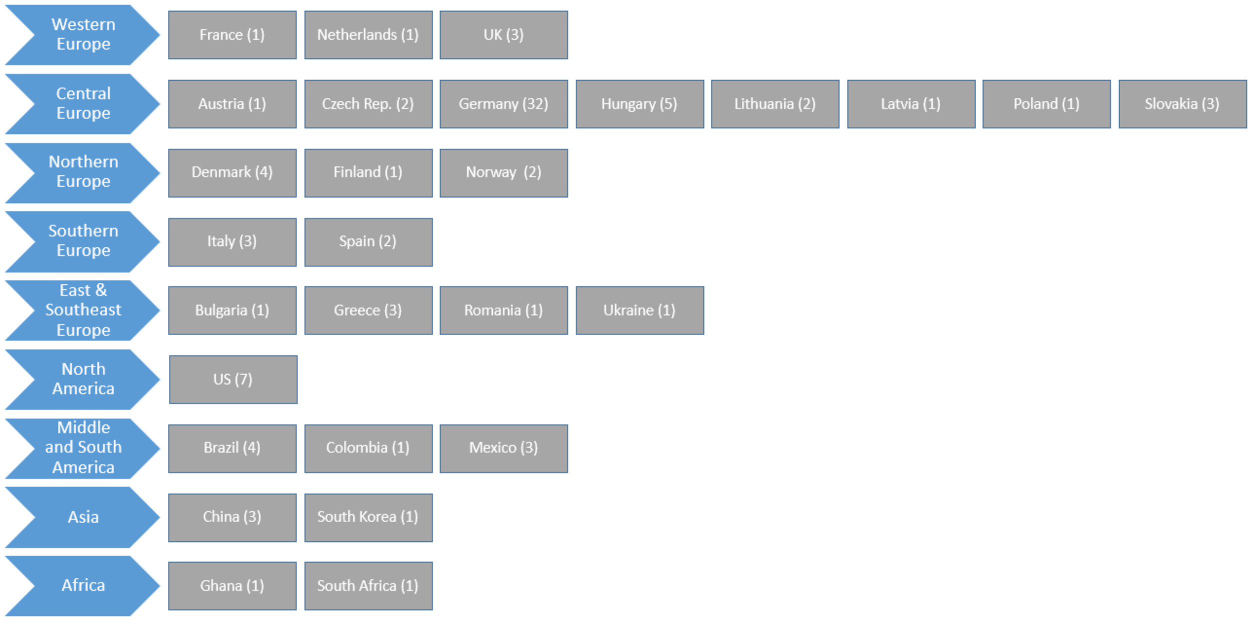


Figure 16: Regional classification of the countries represented in the study

After the introduction of the categories and the participants, the next step is to analyze the received data and connect it to the hypotheses. Thereby, the received data is used to calculate the average for each factor. Also, the average value of the factors for each of the regions is calculated so that it can be compared to the other regions and contrasted to the overall average of each factor. This approach helps to identify the overall importance, represented by a high average value, of a factor. It also allows to detect differences in the regions' perception of the factors.

Hypothesis 1:

Young highly skilled international professionals' positive perception of a city's / region's progressivity determines the location's attractiveness

In the beginning, a closer look is taken on the categories 'Governance' and 'Public Services' which are part of the first hypothesis. The analysis of the first sub-category related to 'Governance' shows differences between the nine regional groups. 'Governance Effectiveness' seems to be of a lower importance for young highly skilled professionals from Central and Southern Europe as well as from Asia. Participants of the other regions attribute this sub-category a higher importance. The same conclusion could be drawn on the sub-category 'Political Stability and Terror' whereby Western Europeans join the three previously mentioned regions and also ascribe a lower importance to it. The sub-category 'Banks' seems to be more significant to North, Middle and South Americans and Asians. Overall, the factors 'control of corruption', 'absence of violence/terrorism', 'physical integrity rights (no torture, no political imprisonment, ...)', and 'political stability' are generally perceived as the most important ones as they show the highest average values of this group.

In the next step, factors belonging to 'Public Services' are analyzed. Again, Central and Southern European young highly skilled professionals seem to consider these factors as less important then the others. Especially the factors regarding 'Energy Security' and 'Internet' are rated significantly lower by them as well as from the Asian participants. When it comes to 'Connectivity', Northern Americans join the Central and Southern Europeans as they also show averaged values below the overall average. All in all, the factors 'households with broadband internet access', 'public transport' and 'road accessibility' show the highest values and thus might be seen as the most important ones among the group of participants.

Hypothesis 2:

Young highly skilled international professionals' positive perception of a city's / region's demographic diversity determines the location's attractiveness

As previously defined, 'Social Environment' and 'Health' are the categories related to this hypothesis. Once again, Central and Southern Europe show the most values below the overall average for factors related to 'Safety'. Another region that accompanies Central and Southern Europe in this sub-category is Africa. The picture slightly changes for the factors on 'Freedom' as Asia replaces Africa in the group of regions that rates these factors with a below average value. The factors of the last sub-category 'Social Cohesion' go along with the first impressions of the category 'Social Environment' as once again the group of Central and Southern European participants rated the factors the lowest. In total, the number of factors with a high rating is remarkable. These factors are 'safety in this region/city', 'most people can be trusted', 'reliability of police services', 'civil rights', 'access to information', 'participation in political decisions (free elections)', 'equality', 'diversity', 'important to help people and care for others well-being', 'important to be loyal to friends and devote to people close to you'.

The second category belonging to this hypothesis is 'Health'. It is divided into four sub-categories of which 'Healthcare' is the first one. This time, three regions are eye catching as they display above average values for all factors. The regions are East & Southeast Europe, North America and Asia. Northern Europe also has all, but one factor rated higher than the average. The next sub-category, 'Food quality and safety' is of high importance for all regions. Even the three regions below average show a reasonably high average value. On the other hand, 'Life expectancy' seems to be of a lower importance for the young highly skilled international professionals based on the low overall and regional averages of the factor. The last sub-category, 'Environmental quality' shows a quite mixed result. North America and Central Europe seem to see these factors as less determining for the attractiveness of a location whereas Western, East & Southeast Europe and Middle & South America see it as more important. Once again, a remarkable number of factors are rated quite high which supports the number one ranking of 'Demographic Diversity' in the previous paragraph *Ranking of the nine categories.* The mentioned factors are: 'satisfied with hospitals', 'satisfied with healthcare', 'satisfied with doctors', 'food and water quality and safety', 'low air pollution', 'cleanliness of the region/city', 'environmental protection'.

Hypothesis 3:

Young highly skilled international professionals accredit a higher location attractiveness to a city /region with high human capital

For the third hypothesis, the received data on the categories 'Purchasing Power and Employment' and 'Education' are analyzed. Related sub-categories to 'Purchasing Power and Employment' are 'Employment', 'Cost of living' and 'Pension planning'. A closer look on the first-named shows that Western European and East & Southeast European rate the corresponding factors the highest. All other regions are quite mixed in their opinion relative to employment. Regarding the 'Cost of living', three regions – East & Southeast Europe, North America, Middle & South America – show values above the average. On the other hand, Western European young highly skilled professionals put the least emphasis on these factors. The investigation of the sub-category 'Pension planning' shows two extreme side. It is either valued quite high or with very low ratings as it is the case for North America, Asia and Southern Europe. A conspicuity is only the high average value for the factor 'price for day-to-day goods'.

As mentioned above, the second category connected with the hypothesis is 'Education'. Young highly skilled professionals from Central Europe, Northern Europe, Southern Europe and Asia consider the 'education quality' not as important as the other regions do. The 'education availability' shows a similar picture as it is of a lower importance for Central Europeans, Northern Europeans, Southern Europeans and Northern Americans among the target group. The highest values within this category can be found for the factors 'quality of universities' and 'affordable education'.

Hypothesis 4:

Young highly skilled international professionals' positive reception in terms of the distinctiveness of a region / city has can be seen as an indicator for location attractiveness

The fourth and last hypothesis consists of three categories. The first one is 'Recreation' which itself consists of two sub-categories, 'Culture and Restaurants' and 'Recreation possibilities'. The most above-average indications on the first mentioned category can be counted for participants from Western, Northern, East & Southeast Europe, Middle & South America and Asia. When it comes to 'Recreation possibilities' just Western, East & Southeast Europe, and Middle & South America are left and rate the respective factors higher than the average. Overall, two factors – 'satisfied with cultural facilities (museums, theaters, concerts…)' and 'satisfied with outdoor recreation' – show noticeable high averages.

The next category – 'Natural Environment' – combines the sub-categories 'Climate', 'Natural hazards' and 'Nature'. The analyzed data for the first sub-category shows that most participants connect a moderate or continental climate with location attractiveness. Just participants from Southern Europe and Africa prefer a tropical climate. 'Natural hazards' are especially determining for Northern Europeans and Asians. Noticeably high values can be seen for the factor 'sensitivity and response to catastrophes' in the answers of North, Middle & South

American and Asian participants. Factors related to the sub-category ‘Nature’ are valued above average form Northern Europeans, East & Southeast Europeans as well as Middle & South Americans. In total, just the factor of ‘outdoor recreation, leisure and sport’ has a remarkable high overall average value.

The last of the nine categories is ‘Housing’. In this context, at first ‘Housing quality’ is investigated which lead to the result that participants from Western Europe, Southern Europe, East & Southeast Europe and Middle & South America consider the factor ‘price owner-occupied housing’ as more important than the participants of other regions. East & Southeast European and Middle & South American young highly skilled professionals also see the factor ‘price rented housing’ as a determinant for location attractivity. This opinion is shared with the participants from Asia and North America. The last sub-category is ‘Housing environment’. Once again, a pattern becomes visible as only Central and Southern European as well as African participants rate the factors lower than the average whereas the other regions put a higher emphasis on this sub-category. The factors with the highest averages are ‘satisfied with green space’, ‘satisfied to live in this region/ city’, ‘satisfied with public spaces’ and ‘closeness to food and daily consumption items’.

The analysis of the received data from the questionnaire and their connection with the working hypotheses provided some more insights. The amount of high rated factors underlines the previously found out order of the four hypotheses to some extend as many of them are related to the categories of ‘Demographic Diversity’. Based on the average values of the factors, the hypothesis on ‘Progressivity’ would be on the second spot ahead of the hypotheses on ‘High Human Capital’ and ‘Distinctiveness’. Nevertheless, this approach just helps to gain insights on location attractiveness and their perception by young highly skilled international professionals. As not all categories are represented by the same number of factors, it is difficult to find a formula to come to clear results in the sense of a calculated number. The approach, however, helps to understand the reasoning of young highly skilled international professionals better as it delivers a value for each factor. Thus, it becomes more transparent which factors are of what importance for the talents from different international regions.

Ideal size of a city/region

The question underlying this paragraph asks the participants for the preferred size of the city or region they would like to live in. There are six selection options that represent different population sizes. These options can be seen in figure 17.

Again, for reasons of better evaluability, the responses are translated into digits. The selection of the first range of the population size (0 – 50,000) equals ‘1’. This continues incremental so that 1,000,000+ equals 6. The determined average value out of all 91 questionnaires is 4.21. To comprehend the formation of this value, the distribution of the answers is provided in the following figure.

Population size	Number of votes
0 – 50,000	9
50,000 – 100,000	7
100,000 – 250,000	11
250,000 – 500,000	15
500,000 – 1,000,000	27
1,000,000+	22

Figure 17: Vote distribution on size of city/region

The average value of 4.21 might lead to the conclusion that cities or regions with a population of 250,000 to 500,000 are the ideal locations for companies. If the distribution of the answers is taken into account, the conclusion might be different. A clear majority of 54% of the participants prefers cities/regions with a higher population than that. These circumstances lead to a further investigation on the received data in order to provide companies with more details on the results. A comparison of the responses based on nationality shows that the average value of only ten countries is below the average. Five of these countries are represented by just one individual which means the value does not necessarily represent the country as a whole, but more the individual itself. The remaining five countries – namely the Czech Republic, Germany, Denmark, Spain and Italy – display a combined average value of 3.48 themselves. This score in combination with the overall average and the distribution of the answers shows a tendency. A location with a population of more than 100,000 inhabitants is more likely to attract young highly skilled international professionals than smaller areas. The results, however, cannot represent the worldwide group of young highly skilled international professionals. Just insights are given as a bigger sample size might lead to different results.

Role model cities/regions

In the last part of the analysis, a closer look at specific cities and regions is taken. The cities and regions listed in the following were mentioned of the participants in order to answer the question regarding their favorite cities/regions to work in. Each participant had the possibility to name a total of three cities and/or regions. In this context, 271 responses were received. The responses are divided into ten regional segments to attain a better overview of the distribution of the most popular cities and regions among the group of participants. Thereby, the share of cities/regions in the regional segments Central Europe, North America and Northern Europe stand out with a percentage in double digits (see figure 18). Especially the result regarding North America and Northern Europe surprises in the context that the percentage is noticeably higher than the share participants from this regional segment have in the surveyed group (Northern Europe & North America each: +7.7%). The same applies for Asia (+2.6%) and

Southern Europe (+3.5%). Although no participants in the survey originated from New Zealand and Australia, the region is present in the chart with 4%. On the other hand, Central Europe shows a minus of 17.6%. Also, South America (-7.8%) and Southeast Europe (-4.6%) showcase a noticeable lower number of mentioned cities and regions in their regional segments than their percentage among the group of participants expresses (compare figure 20 in the attachment).

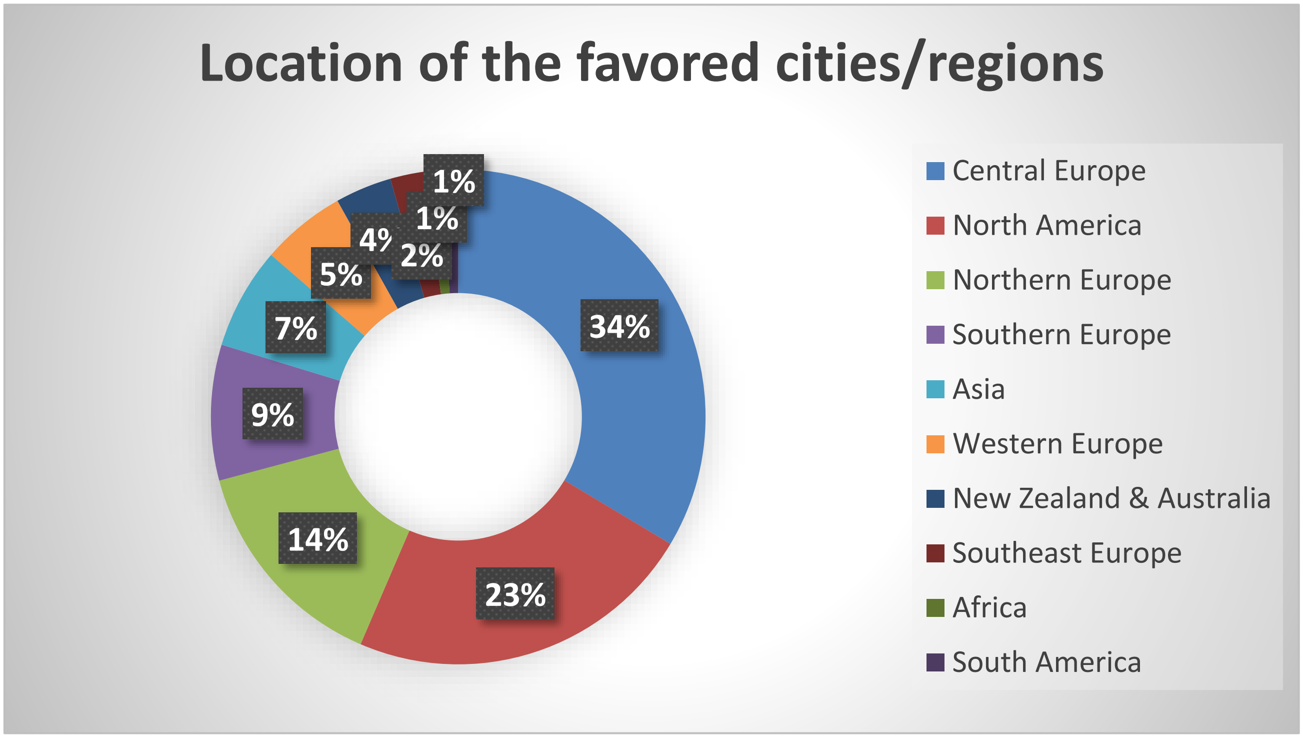


Figure 18: Location of the favored cities/regions

In a next step the cities/regions that are mentioned four or more times – what equals an occurrence of at least 1.5% – are presented. This helps to condense the results and to focus on the cities and regions that are currently seen as the most attractive locations to work in among the surveyed group. As shown in the figure below, just two out of the 19 indications are regions (Allgäu and Baden Wuerttemberg). Another remarkable aspect is the size of the mentioned cities. All of them – besides Aalborg – belong to the group of big cities with a population of more than half a million and more. The 16 listed big cities (without Allgäu, Baden-Wuerttemberg & Aalborg) make up for 40% of all indications. This percentage goes well along with the result from the previous question on the ideal size of a city or region where 54% of the participants prefers cities/regions with a population of more than 500,000. The gap between both percentages closes when other big cities with less than four indications would be considered as well.

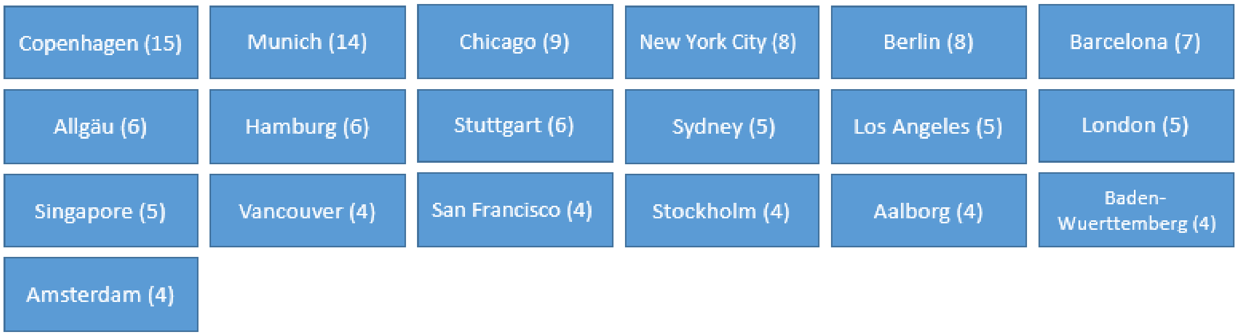


Figure 19: Most attractive cities/regions to work in

The composition of the cities and regions grants companies insights into the recently most popular locations based on the participants' opinions. This constraint is crucial as the result represents the opinions of the group of participants and not of all young highly skilled international professionals. This limitation is based on the sample size.

5. Discussion and Conclusion

This part of the thesis comprises the conclusion on the overall topic. Thereby, results from further research that lead to the setup of the working hypotheses is compared with the attained results from the conducted survey via questionnaire. This chapter also contains the limitations of this study which leads to possible future studies. These studies might extend the findings of the thesis in a similar way the thesis lead to new findings compared to previous studies. The overall aim of this chapter is, however, to present the relevance of the findings for other researchers as well as the general public and companies.

5.1 Discussion

The discussion provides an answer to the overall research question: How important is the attractiveness of a company's location regarding the decision of young highly-skilled international professionals where to work?

To answer this question, all parts of the project are considered with the objective to provide insights into the perception of location attractiveness among the talents. Therefore, key factors and role model cities and regions are identified in the analysis. Additionally, the results are further broken down to reveal national differences in the perception of the importance of those factors. The wide range of factors which are classified into different categories help to understand location attractiveness better and to show all the facets belonging to the term. Overall, the result intends to support companies to find ideal locations that help to attract the needed young highly-skilled international professionals. This challenge is of importance as the strong competition for highly qualified workforce is predicted to remain high due to the demographic transition of our societies. This is why this project focuses on this target group. Thus, the results can help the companies to identify possible locations for their businesses that are more likely to be perceived as attractive by the young highly qualified workforce. This leads to being present at a location that is seen as an attractive destination to live and work in.

The analysis of the completed questionnaires leads to the conclusion that the topic of location attractiveness is present in the minds of young highly skilled international professionals. This is underlined by the high answer rate as well as the results themselves. The empirical as well as the theoretical framework show that the attractiveness of cities and regions consists of several factors and, to a certain extent, as well of each individual’s reasoning. This is why especially the migration and location theory are of interest to understand the overall topic. Thereby, the former has its focus on the needs of people and the people themselves, while location theory puts more emphasis on the factors with a higher relevance for companies. However, the field of location theory is more and more opening up when it comes to soft factors as the growth of the knowledge-based sector requires nothing more than qualified workforce. This is where this research contributes to the research and offers new insights.

The theory chapter introduced repelling and attracting factors that influence the attraction of people to a certain place. The questionnaire picks up this point and especially affiliates with the attracting factors. In the course of the survey, the participants weighed these factors what lead to the identification of the most important factors on location attractiveness. The classification of the factors into sub-categories and categories helped to further identify the importance and coherences of factors. It also allowed to recognize national and regional differences. These findings help to complement the general opinion that sees the employment situation and wages as the main migration factors for the target group. The research proves that especially the social environment has a huge impact on the decision-making as well. A quote of Florida (2000) depicts the situation perfectly as he argues, young highly skilled international professionals “have the ability to choose cities and regions that are attractive places to live as well as work [in]”. Hereby, the research provides a good overview on the ranking of additional categories that are influencing the perception of location attractiveness among the target group. This shows, their decision for a company gets automatically influenced by the attractiveness of the company’s location. This is why the importance of an attractive location becomes more and more important and requires companies to be aware of the advantages and disadvantages of their current and targeted location.

Overall, the results of the survey go along with the theoretical framework. This can be seen by recalling the studies from Florida (2000) or Atkinson and Gottlieb (2001) that also emphasized the importance of factors like recreational facilities and cultural offers. This is complemented by Lee as he argues for high quality of living – which comprises several factors – and employment opportunities as pull factors. Additionally, the reviewed recent studies helped to figure out more factors related to the quality of living and location attractiveness which have been tested in the questionnaire. Thereby, the importance of geographical and political aspects is picked up. The amount of studies in this field can also be taken as an indicator for the importance of the investigated topic. Nevertheless, none of the theories and studies took up the approach of this research that combined the challenges of the demographic transition and the "war for talents". By putting the emphasis on this specific group, companies gain new insights into the recent perceived location attractiveness of young highly skilled international professionals.

The theory chapter brings up one other aspect of high significance. Lee's mentioned that personal factors play an important role as well. He stated that these factors depend on the individual. By looking at the results, this proves to be correct. A lower sample size of individuals representing a country is more likely to reflect these individuals' perceptions. On the other hand, it became obvious that people from the same countries and regional segments perceive different factors in a similar way. This lead to the different results on the sub-categories and factors between the regional segments.

All in all, it can be concluded that there is no general answer or formula which helps to estimate a location's attractiveness. The review of the theories and the survey shows that location attractiveness is a multifaceted matter. It is influenced by a wide range of different factors which are perceived differently on multiple layers. The variation stems from the different nationalities but can also be tracked down to each individual. Although not being part of the study, other aspects such as the age of the participants might have an influence as well as the priorities and perceptions might change when the living situation changes (e.g. having a family).

On the other hand, consensuses on multiple factors and categories can be found within the group of young highly skilled international professionals. A trend towards a life in bigger cities is identified in this study as 54% of the participants prefer to live and work in cities with more than 500,000 people. As this might not be a good finding for companies located in more remote areas, it goes along with the trend of urbanization. Additionally, the research shows that especially factors regarding the social environment of a location have a high importance for young highly skilled international professionals. Examples are 'safety in this region/city', 'most people can be trusted', 'reliability of police services', 'civil rights', 'access to information', 'participation in political decisions (free elections)', 'equality', 'diversity', 'important to help people and care for others well-being', 'important to be loyal to friends and devote to people close to you'. These high rated factors go along with the highest rated category 'Social Environment' and show that safety, freedom and social cohesion have to be the basis for the attraction of talents. Moreover, other categories such as 'Health' and 'Purchasing Power and Employment' are ranked highly whose importance can be received positively for companies located in countries that offer a high standard in these field.

Overall, the findings help companies to understand what their targeted group of potential future employees is looking for regarding the location. The analysis part of this project and the data provided in the attachment and in the supporting files grants further, more detailed insights into the topic and allows interested companies to filter the results for their purposes.

The discussion on the topic can be taken as a good basis for strategic decisions of companies on the selection of a young highly skilled international professionals attracting location. Thereby, companies can use the results based on the people they attract. If the nationality of the talents does not play a big role, the averages might be the values they are looking for. When they are targeting people from a specific area, the further broken-down results on the factors might give them a good overview. Nevertheless, each company needs to evaluate for themselves how to use the insights and how to integrate them into their selection of a location. This leads to the limitations of the results. The survey was not conducted on behalf of a certain company or business sector. Thus, the questionnaire included a wide range of topics to comprise the topic of location attractiveness as holistic as possible. This lead to results that rather provide insights than guidelines. This can be seen in the sample size and selection as well. The results represent the perception of the factors and categories within the group of participating young highly skilled international professionals. Further research could pick up the chosen approach and conduct the same survey with a higher sample size. Also, the group of participants could be more specified, e.g. by questioning just a group of young international IT students, to provide companies active in this field with insights into the group of IT talents. It is conceivable that the factors with the highest average values are tested once again to receive even more precise results on them. This would help to slim down the survey which might increase the chances to find a reasonable number of participants.

5.2 Conclusion

The theoretical framework comprises four working hypotheses which include fields with a possibly positive influence on location attractiveness. After identifying and analyzing the categories and factors which are related to these field, the working hypotheses can be proved or confuted.

The conclusion offers a joint answer on all four hypotheses. The study showed that the hypotheses on ‘Progressivity’, ‘Demographic Diversity’, ‘High Human Capital’ and ‘Distinctiveness’ are all highly relevant and are taken into account from young highly skilled international professionals when they evaluate a location’s attractiveness. The identified ranking of the four hypotheses which showed ‘Demographic Diversity’ ahead of ‘High Human Capital’, ‘Progressivity’ and ‘Distinctiveness’ represents the overall perceived importance. Companies could take the ranking as a suggestion for what an ideal location should comprise and stand for. Nevertheless, a more detailed breakdown of the hypotheses into their smallest entity of factors provides a better understanding of the above-mentioned ranking. Thereby it also becomes apparent that each hypothesis encompasses aspects that are of significance for the participants. This is why no hypothesis can be confuted.

In the context of the ‘Progressivity’ of an area a company should always evaluate a location’s governmental situation and the availability of public services as they have an impact on blocking or accelerating development and change. Also, a city's/region's 'Social Environment' and 'Health' related offers have to be looked at as they are related to demographic diversity. The high ranking of this category makes sense as highly skilled young international professionals would become migrants themselves and prefer a welcoming and tolerant surrounding. Based on the literature, this surrounding is more likely to be found in demographic diverse areas. Further on, a region's 'High Human Capital' is related to the categories 'Purchasing Power and Employment' and 'Education'. Especially the importance of 'Purchasing Power and Employment' has proved to be a central point for the group of talents which can be deduced from the category's high ranking. On the other hand, 'Education' might be one of the fields where the perception of companies and young highly skilled international professionals varies as a location that offers a high level of education obviously has a high importance for companies and their recruiting activities. The study showed that the members of target group themselves do not necessarily see education as such an important category. Nevertheless, their answers do not show that the availability of good education would have a negative impact on their perception of a location's attractiveness. The last point, 'Distinctiveness', is characterized by the three categories 'Recreation', 'Natural Environment' and 'Housing'. These three aspects are subject to the highest influence of an individuals' perception. There is no way to generalize and say that e.g. a city located at the sea is more attractive to the target group. This is what it makes difficult for companies to find the ideal location. Overall, the factors with the highest average resulting from the conducted survey provide a good starting point for a company's evaluation of a location as they highlight the most important fields. Consequently, these factors should be in the center of the assessment of a location.

The most precise data resulting from the survey is on the size of the ideal city/region. In combination with the estimated role model cities/regions a clear tendency towards big cities is identified. Based on the sample group, these cities should have at least 100,000 inhabitants and should ideally be located in Central Europe, North America and Northern Europe. The named cities themselves are not too surprising as many of them are known for offering a high quality of living. The challenge for companies resulting from this selection is that the prices for offices in most of these cities are high. This is why the thesis suggests companies to rather look at these role model cities, identify their strengths and combine the discoveries with the results from the questionnaires. There might be other locations that are not trailing behind these role model cities by much. This is why the companies should look deeper into the evaluation of the factors and define for themselves how the challenge of location attractiveness can be combined with their overall goals.

Additionally, a finding of the survey is that the perception of some factors and sub-categories varies from country to country and region to region. On the other hand, similarities between some countries and regions are also found. This condition complicates the formulation of a holistic conclusion that meets the requirements companies might have. Therefore, the author points to the most remarkable findings that are presented in the analysis part. For a more in-depth look, the files with the collected data is made accessible in the attachment. A possible field for further research could be to direct the focus of the research to the differences and similarities between nationalities in the perception of the factors. Thus, correlations between nationalities and factors could be identified. In this regard the study was limited to a certain extent as imbalances between the number of participants from different countries arose. Consequently, the study provides insights based on the participants rather than results that represent the whole group of young highly skilled international professionals. Nevertheless, the results give the companies a hint that differences and similarities in the perception of factors on location attractiveness between the talents from different countries exist. Thus, one suggestion for the companies can be that a customization of their recruiting activities might represent a way of reaching out to the needed talents in different countries. Therefore, it is important to be aware of the advantages of the own location. Based on the origin of the targeted people, existing factors that go along with the study results can be highlighted to increase the chance of a positive perception of the location. This shows that a combination of the knowledge about the own locations advantages and the information on the preferences of the targeted highly skilled people from the different countries might give them an advantage in the war for talent. Thus, the discovery about the differences is one major finding, as some location attractiveness defining factors might have a high pull effect on young highly skilled professionals from e.g. Southern Europe whereas skilled people from North America have a rather indifferent opinion on the exact same factor.

As mentioned above, the approach of the study is rather generalist regarding location attractiveness. The main focus is on the group of young highly skilled international professionals and their point of view on the topic. This is why the study does not provide tools to companies or provides them with a guideline. Moreover, the topic of location attractiveness is presented. The survey among the highly demanded group of international talents provides the companies with insights into their perception of the topic. The hypotheses should help to condense the complexity of the topic a bit more. Additionally, it is aimed to increase the comprehensibility of the topic through the analysis of all the collected data. The study as a whole cannot offer results that represent the whole group of young highly skilled international professionals. Nevertheless, the results represent the participants' perception of location attractiveness. As the master thesis is written under time restrains, the method of convenience sampling was chosen to ensure a high number of completed questionnaires. This lead to an imbalance between the groups of participants from different countries. As a result, countries with a high number of participants have a higher impact on the calculated average value than countries with a lower number of participants. Putting more emphasis on the origin of the participants could be a starting point for future research. Another approach could be to identify connections between different nationalities and certain factors. All this could help companies to understand the young highly skilled international professionals even better. Consequently, companies could pick use this knowledge to match their location with the desired area to work in of the talents.

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Attachements

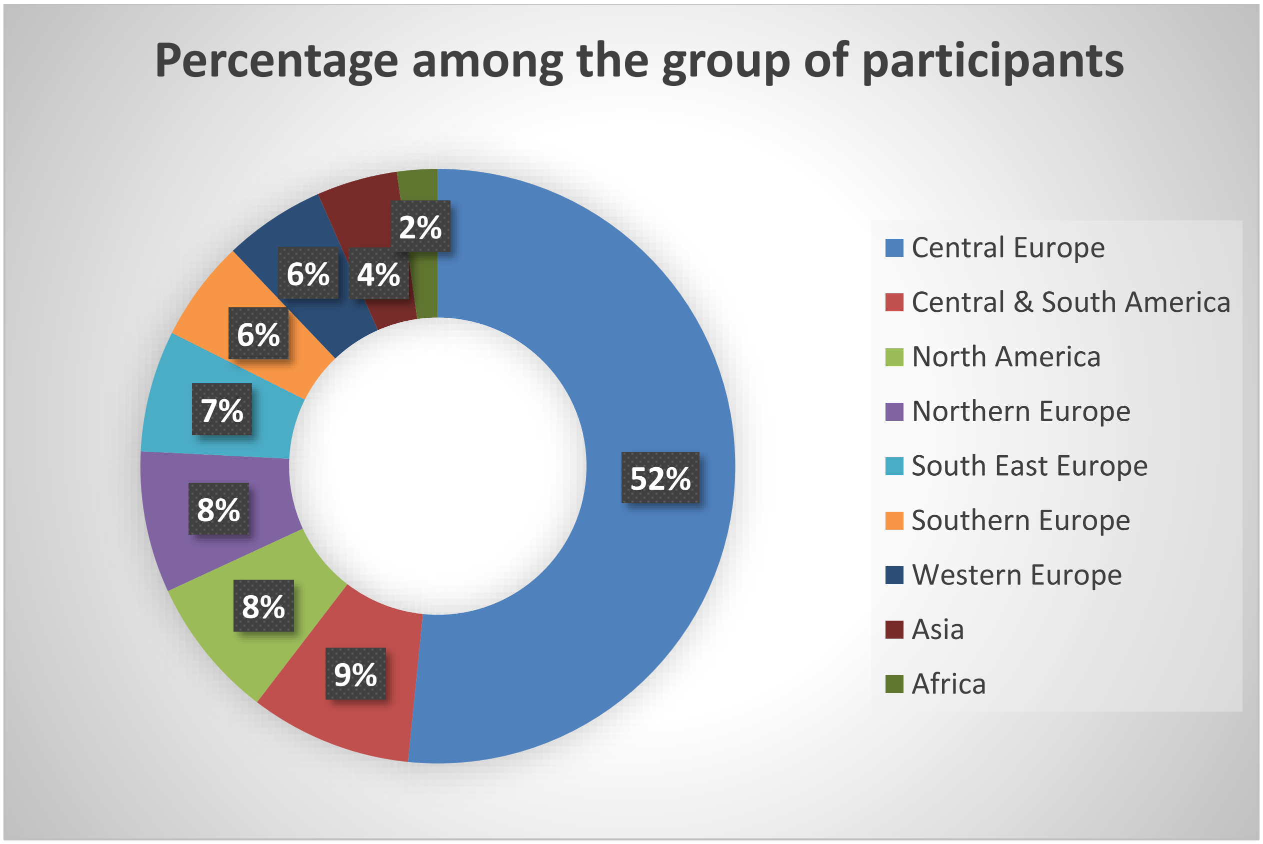

Figure 20: Percentage among the group of participants

Calculated share of each regional segment in the complete sample group (e.g. 47 participants from Central Europe among all 91 participants → 52%)

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
1.1 Governance Effectiveness	Overall average	Group average	Group average	Group average	Group average	Group average	Group average	Group average	Group average	Group average
Government effectiveness	**2,39**	2,11	1,47	2,17	0,50	3,75	2,86	4,72	2,17	2,50
Rule of law	**2,45**	3,33	2,30	2,50	0,67	3,17	3,86	3,39	0,83	1,50
Control of corruption	**3,21**	4,11	2,41	3,25	2,25	4,58	2,71	4,64	0,50	4,00
1.2 Political Stability and Terror										
Absence of violence/terrorism	**3,96**	2,67	4,12	4,00	2,17	4,75	4,86	4,25	4,50	4,00
Physical integrity rights (no torture, no political imprisonment, ...)	**3,52**	4,22	3,33	3,92	2,17	4,83	3,57	4,50	0,83	2,50
Political stability	**3,10**	3,00	2,24	3,58	1,50	4,42	4,43	4,61	0,67	4,50
1.3 Banks										
Standard & Poor country ratings	**1,02**	0,33	0,87	1,25	1,58	1,00	1,57	1,03	2,50	0,00
Reliability of banks	**2,59**	3,11	2,14	2,17	0,50	2,92	3,86	3,50	3,33	3,00
1.4 Economy										
Well-known companies nearby	**1,79**	1,00	1,67	2,00	0,00	1,00	2,00	2,61	3,00	4,00
Employment protection	**3,20**	3,56	1,69	3,75	1,67	4,67	3,57	4,56	3,00	4,50
Sustainablity	**2,80**	3,89	2,47	3,50	0,00	3,75	2,00	4,31	0,83	2,50

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
6.1 Energy security										
Energy security and access	**2,55**	3,11	2,11	2,67	0,25	2,33	2,57	4,50	0,67	5,00
6.2 Internet										
Public internet access	**2,20**	2,89	2,07	2,50	0,83	3,00	3,71	2,28	0,33	2,00
Households with broadband internet access	**2,95**	3,22	2,35	3,33	1,00	3,58	3,57	3,72	1,50	5,00
Number of individuals who ordered goods or services over the Internet	**0,86**	1,22	0,37	1,00	0,00	1,08	1,43	2,31	0,83	0,00
6.3 Connectivity										
Satisfied with public transport	**3,78**	3,78	3,60	4,58	2,67	4,17	3,43	4,14	3,50	3,50
Rail accessibility	**2,59**	3,56	1,65	3,58	1,50	2,67	1,86	2,69	3,17	4,00
Road accessibility	**3,49**	4,22	3,16	4,67	2,00	4,33	3,14	3,33	3,67	2,00
Air accessibility	**2,78**	3,22	1,87	2,75	1,50	3,58	2,14	3,22	4,33	3,50

Figure 21: Data on 'Governance' & 'Public Services' for hypothesis 1

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
3.1 Safety										
Feel safe in this region/ city	**4,00**	3,33	4,02	4,75	3,58	4,08	4,86	4,17	3,83	3,50
Most people can be trusted	**3,00**	3,67	2,63	4,67	2,75	4,33	2,43	2,11	3,17	0,00
Business costs to control crime and violence	**1,26**	1,67	0,43	1,67	0,67	2,08	2,57	1,75	2,17	0,00
Reliability of police services	**3,29**	3,33	2,89	4,00	2,50	3,58	4,71	4,39	3,33	1,50
Absence of organised crime	**2,86**	2,11	2,36	3,42	1,33	4,42	4,43	3,08	3,33	2,00
3.2 Freedom										
Civil rights	**4,02**	3,67	4,14	4,50	4,17	4,00	4,57	4,83	0,83	5,00
Access to information	**3,97**	4,56	3,40	4,58	2,67	4,17	4,57	4,81	2,83	5,00
Participation in political decisions (free elections)	**3,09**	2,67	2,85	2,92	1,50	3,17	3,43	4,06	2,83	5,00
Equality	**3,53**	4,22	2,70	4,33	1,50	4,33	4,86	4,39	1,67	5,00
Diversity	**3,24**	3,78	2,36	3,42	2,33	4,42	4,14	3,69	1,33	5,00
Voice and accountability	**2,58**	3,22	2,11	2,67	0,00	2,83	3,86	3,39	1,17	5,00
3.3 Social cohesion										
Important to help people and care for others well-being	**3,02**	4,11	2,17	4,17	2,17	4,17	3,57	3,89	3,00	0,00
Important to be loyal to friends and devote to people close	**3,29**	3,89	2,19	4,67	2,17	4,58	4,43	4,33	3,00	1,50
Participating in social activities of a club, society or association	**2,44**	3,00	1,60	3,83	2,00	2,00	3,29	2,89	3,00	2,50
Unpaid voluntary work	**1,36**	2,33	0,57	0,58	0,75	2,17	2,14	2,33	2,67	0,00
Low poverty risk	**2,40**	1,44	2,13	2,50	2,50	3,25	2,43	2,69	2,83	2,00

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
4.1 Healthcare										
Low infant mortality rate	**1,44**	1,67	0,46	2,33	0,67	2,75	2,14	1,31	0,67	2,50
Satisfied with hospitals	**3,64**	3,67	3,36	4,25	2,92	4,42	4,57	4,06	1,50	4,00
Cancer death rate	**1,10**	1,00	0,33	1,75	1,50	1,75	1,86	0,69	0,50	2,50
Satisfied with healthcare	**3,80**	4,11	3,98	4,08	2,67	4,17	3,86	4,72	1,00	4,00
Satisfied with doctors	**3,22**	4,11	2,73	2,83	1,25	4,08	4,00	3,33	3,33	4,00
Low heart disease death rate	**0,81**	0,67	0,31	1,42	0,00	1,25	1,86	0,50	0,33	2,50
4.2 Food quality and safety										
Food and water quality and safety	**4,39**	5,00	3,92	4,42	3,67	5,00	4,86	4,58	4,17	4,50
4.3 Life expectancy										
Number of years of healthy life expected	**1,54**	0,44	1,08	1,75	0,00	2,33	2,29	1,97	2,67	2,50
4.4 Environmental quality										
Low air pollution	**3,43**	3,78	2,82	3,08	4,17	4,17	2,86	4,33	3,50	2,50
Low noise disturbance	**1,79**	0,56	1,33	2,17	1,58	1,92	0,14	3,03	3,17	2,50
Cleanliness of the region/ city	**3,15**	4,11	2,68	3,08	3,17	3,33	3,57	2,33	3,50	4,00
Environmental protection	**3,11**	4,00	2,30	3,58	2,25	4,17	1,71	4,03	1,50	4,00
Waste disposal	**2,90**	4,00	1,65	4,17	2,50	4,08	2,86	3,75	1,50	2,50

Figure 22: Data on 'Social Environment' and 'Health' for hypothesis 2

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
2.1 Employment										
Unemployment rate among the 15–24 year age group	**1,31**	3,33	0,91	1,08	0,83	2,33	0,00	1,19	0,83	0,00
Unemployment rate among the 25–65 year age group	**2,07**	3,00	1,44	1,58	1,33	3,75	1,29	1,64	2,83	1,50
Unemployment benefits	**1,41**	1,44	1,44	1,50	1,17	1,67	1,43	2,58	0,50	0,00
2.2 Cost of living										
Price for day-to-day goods	**3,58**	2,67	3,77	2,83	3,17	4,17	3,86	4,11	3,17	4,00
Price fuel/alcohol	**1,53**	0,33	1,28	2,08	0,00	2,75	3,29	2,11	2,33	0,00
2.3 Pension Planning										
Tax-financed pension system	**2,21**	2,78	2,24	2,17	0,00	3,50	0,71	2,72	0,67	2,50

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
5.1 Education quality										
Quality of schools	**2,72**	3,11	2,28	2,25	2,00	2,58	4,00	3,97	1,83	4,00
Quality of universities	**3,06**	3,00	2,50	2,33	2,58	3,33	4,29	4,14	2,67	4,50
Number of foreign languages	**2,03**	2,33	2,32	1,75	1,25	3,42	1,29	1,56	2,00	0,00
Affordable education	**2,87**	3,11	2,07	3,58	2,42	3,75	3,00	3,72	2,83	2,00
5.2 Education Availability										
Number of universities per region	**1,37**	2,00	0,80	0,92	1,00	1,58	0,86	3,58	1,67	0,00
Number of international schools per region	**1,06**	2,00	0,61	0,67	0,50	1,25	0,43	2,64	1,17	0,00

Figure 23: Data on 'Purchasing Power and Employment' and 'Education' for hypothesis 3

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
7.1 Culture and Restaurants										
Michelin star restaurants	**0,32**	0,33	0,11	0,50	0,00	0,25	0,00	0,00	2,33	0,00
Satisfied with cultural facilities (museums, theaters, concerts,...)	**3,22**	3,78	3,18	4,08	1,75	3,50	3,14	3,86	3,00	1,50
Satisfied with cinemas	**1,41**	2,11	0,79	0,25	1,00	2,25	1,57	2,92	2,33	0,00
Sports teams with positive reputation	**1,01**	2,89	0,49	1,42	0,00	1,25	1,00	1,83	0,00	0,00
Tourist destination	**1,35**	1,33	1,19	1,42	2,83	0,50	0,86	2,39	2,17	0,00
Lifestyle (fashion, architecture,...)	**2,71**	2,78	2,89	2,50	1,50	3,33	2,71	2,53	3,67	1,50
7.2 Recreation possibilities										
Satisfied with sports facilities	**2,44**	2,44	2,89	2,00	2,00	2,58	1,43	4,06	2,00	0,00
Area for recreational sports and leisure use	**2,48**	2,67	3,14	1,92	1,25	2,58	3,14	3,83	1,50	0,00
Length of bicycle network	**1,55**	3,11	1,21	1,67	1,75	1,33	0,71	2,47	1,17	0,00
Satisfied with outdoor recreation	**2,90**	3,11	2,78	2,25	2,92	3,75	2,00	4,25	2,17	1,50

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
8.1 Climate *Climate Map as reference on Sheet 2 'Climate Map'										
Tropical	**1,10**	1,67	0,57	0,50	1,75	1,25	0,43	2,42	0,33	1,50
Dry	**0,65**	0,78	0,58	0,50	1,50	0,50	0,29	1,11	0,50	0,00
Moderate	**2,39**	0,89	2,04	2,92	1,50	3,00	2,86	4,03	3,67	1,00
Continental	**1,49**	1,78	1,05	2,33	1,08	3,00	1,14	1,69	0,33	0,00
8.2 Natural hazards										
Record of natural disaster	**2,20**	2,00	2,46	2,83	1,33	2,08	2,14	1,11	3,50	2,00
Sensitivity and response to catastrophies	**2,43**	2,44	1,60	2,83	0,83	2,75	4,29	3,72	3,67	2,00
8.3 Nature										
Outdoor recreation, leisure and sport	**3,39**	3,11	3,43	3,42	3,17	3,75	4,00	4,36	3,17	1,50
Nature reserves	**1,95**	1,89	1,66	2,83	0,75	2,92	1,71	3,31	1,17	0,00
Forestry	**1,68**	0,56	1,62	1,50	0,75	3,25	1,14	3,22	1,33	0,00
Closeness to mountains	**1,56**	0,56	1,74	2,00	1,25	2,58	1,29	2,42	0,33	0,00
Closeness to the sea/ a lake	**2,53**	2,44	1,66	3,42	2,92	4,50	1,14	3,14	2,83	0,00

		WE	CE	NE	SE	E & SEE	NA	M & SA	ASI	AFR
9.1 Housing quality										
Price owner-occupied housing	**1,95**	2,78	1,63	1,83	2,00	2,42	0,71	3,31	1,67	0,00
Price rented housing	**2,58**	2,44	2,21	1,92	2,17	4,00	3,14	4,11	2,83	0,00
9.2 Housing environment										
Satisfied with green space	**3,09**	3,11	2,59	3,83	1,50	4,08	2,29	4,36	3,17	2,00
Satisfied to live in this region/ city	**3,54**	3,89	3,04	3,83	2,58	4,00	4,43	3,94	3,17	4,00
In 5 years, it will be more pleasant to live here	**1,75**	2,00	1,85	1,67	1,25	2,00	2,29	1,94	2,33	0,00
Satisfied with public spaces	**3,18**	3,44	2,92	3,75	1,50	3,50	3,29	4,08	3,33	2,50
Development of area/city (growing population)	**1,27**	2,22	0,49	1,42	0,33	1,75	2,29	2,14	2,17	0,00
Closeness to food and daily consumption items	**3,04**	4,00	2,51	4,50	0,00	4,00	4,71	3,81	3,67	0,00

Figure 24: Data on 'Recreation', 'Natural Environment' and 'Housing' for hypothesis 4

If the examiner or external examiner would wish to see the following extra files,

- The complete set of collected data (Complete Data From Questionnaires)
- The file with the analysis on country and regional level (Analyzed data)
- The file with the breakdown of the role model cities/regions (Cities and Regions)

those will be available in digital exam:

https://digitaleksamen.aau.dk/

As a back-up, they can also be accessed via the following link:

https://www.dropbox.com/sh/4ruwsry8rxm4vhz/AAD267lbAGRuFpJR_hgmQvEVa?dl=0