Educational Service Quality in Sweden
A perspective of students from the BRIC countries

Bachelor Thesis in Business Administration
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Jönköping May 2011
Abstract

Level: Bachelor Thesis in Business Administration

Title: Educational Service Quality in Higher Education in Sweden, A perspective of students from the BRIC countries

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Date: May 2011

Key Words: Educational Service Quality, induction of tuition fee, SERVQUAL, BRIC countries, Zone of Tolerance

The induction of the tuition fee for higher education in Sweden for students arriving from outside the European Economic Area will affect Swedish universities and in particular Jönköping University considering its position on the educational market as one of the most international universities in Sweden. This, in combination with the BRIC countries’ expanding economies, has inspired the researchers to examine how these four countries experience the educational service quality offered by Jönköping University.

With the new legislation of the introduction of the tuition fee, a major change affecting the Swedish educational system has taken place and it is therefore significant to examine the possible effects this might have. This research has used Jönköping University as a case, and the collection of data will be concentrated on international and exchange students attending the university. The reason behind the choice of Jönköping University is because of its strong international profile with many partner universities worldwide, which has resulted in a high rate of international and exchange students arriving to the university (Educations.com, 2011).

Due to the nature of a service, the measurement tool of SERVQUAL has been used. Qualitative interviews were conducted to increase the reliability of the quantitative findings, where one student from each country was interviewed. In order to gain sufficient samples for the questionnaire, the researchers have used Geert Hofstede’s theory on cultural dimensions to compensate for the groups missing satisfactory population but also to examine whether students from the covered dimensions experience services differently. Due to the inability to measure the expectations of the students, the zone of tolerance was used in order to indirectly identify expectations of future students. The Total Perceived Quality model was used to demonstrate the connection between experience and expectation of a service in order facilitate the understanding of future expectations.

Descriptive- and factor analyses were used in combination with the zone of tolerance when examining the findings. The quantitative data imply that there is a gap in the educational service provided by Jönköping University and there were strong indications of the students being very satisfied with the educational quality however the qualitative data showed that the students who were interviewed were not willing to pay the fee. In the discussion part, the researchers argue for reasons why the quantitative data may be misleading since it was only implemented on students who had been at Jönköping University for free with an already established perception of the education being tuition free.
Acknowledgements

There is a very large group of teachers, professors, tutors, acquaintances, friends and family who have helped us make our work possible and that we would like to send our sincerest appreciation to.

Firstly, our tutor Johanna Holkko Lafourcade who has provided central support and knowledge in the process of writing, your assistance during the spring term of 2011 has really helped us go a long way. A special thank you to Johan Larsson for guidance and inspiration for our thesis.

Jönköping University has in a variety of ways provided help and support through knowledge shared by teachers and professors and the assistance by support staff present at the University Library and the administrative departments. You have all helped us in developing a better understanding of the chosen topic of our subject and given us invaluable support.

Lastly, we wish to thank our families and friends for the input and support you have showed us when experiencing numerous ups and downs during the process of completing our bachelor thesis. Thank you!

Yours sincerely,

David Beljulji       Amanda Ekström       Shu Liu

Jönköping International Business School, May 2011
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1 Introduction

1.1 Background

A global educational market is established around the world and is continuously being developed by the actors active on the market. Swedish universities make out only a small part of all actors present on the educational market and the number of international students has increased dramatically worldwide over the last ten years which has lead the competitiveness on the market to increase. The number of students arriving in Sweden has tripled since 1999 and represents more than eight percent of all students in Sweden (Regeringens Proposition, 2009/10:65). The interest for Sweden has increased, particularly in countries outside of Europe. In the fall semester of 2009, 120 000 applications from students outside of the European Economic Area (EEA) were administered according to Regeringens Proposition, 2009/10:65. Previously, international students, also known as free movers, arriving from anywhere in the world have not had to pay any tuition fees when studying in Sweden. The exchange students on the other hand have had their one or two semesters of studying abroad included in the tuition fee charged by their home university (Study in Sweden, 2011).

The Swedish Government believes that universities in Sweden should no longer compete on the fact that the education has been offered for free for international program students but instead on the level of quality of the education offered. The Swedish government proposes that this would lead Sweden to compete on new, equal terms with foreign educational institutions. Consequently this means that the quality of education should be of main focus and not that the education will become fee-based (Regeringens Proposition, 2009/10:65).

Numerous discussions regarding the subject within several governmental sectors have taken place and in the year of 2004 the former government in Sweden authorized the head of the ministry of education to appoint an investigation on the matter of introducing tuition fees for students arriving from outside of the EEA (Studieavgifter i Högskolan, SOU, 2006:7). The inquiry was finished by 2006 and proposed new legislations regarding the introduction of the fee for students outside of the EEA, (SOU 2006:7).

Since 2006 the matter has progressed and in January 2010 a government bill from the Swedish government was put forward to the parliament. The importance of protecting the cost-free education available at Swedish Universities was emphasized and a suggestion was to impose a new direction in the Higher Education Act (1992:1434) which referred to the topic of cost-free education for Swedish students and students from within the EEA and Switzerland (Regeringens Proposition, 2009/10:65).

Fundamentally, the Swedish government believes that international students are an important source for developing the educational systems by providing new perspectives. In addition, the government also states their belief that the expansion to a more diversified and international environment with an increased understanding of other cultures and traditions is of importance for the future development of the Swedish industry and economy (Regeringens proposition, 2009/10:65).

The conclusion is that the Swedish government believes that the new regulation will change the Swedish Universities and thus bring Sweden to compete internationally on quality of education and not merely attracting students through free education (Regerin-
gens proposition, 2009/10:65). Consequently this means that the situation for the exchange students arriving in Sweden will be the same, however there will be major changes applying to the international students from outside the EEA wanting to study at a university in Sweden. The fees will apply only for students on bachelor- or master level and will vary between SEK 80,000 – 140,000 per academic year (Study in Sweden, 2011).

With the new legislation of the introduction of the tuition fee, a major change affecting the Swedish educational system has taken place and it is therefore significant to examine the possible effects this might have. This study has used Jönköping University as a case, and the collection of data has been concentrated on international and exchange students attending the university. The reason behind the choice of Jönköping University is because of its strong international profile with many partner universities worldwide, which has resulted in a high rate of international and exchange students arriving to the university (Educations.com, 2011). Jönköping University will charge students approximately 90,000 SEK per academic year for the bachelor level and approximately 120,000 SEK per academic year for the master’s level (Högskolan i Jönköping, 2011).

1.2 Problem discussion

One of the main advantages Jönköping University has had ahead of other international universities outside of Sweden was the tuition free education for all international undergraduate and graduate students. This particular advantage has disappeared when the fee was introduced and there could potentially be a problem for Jönköping University in attracting new students.

As mentioned earlier, Swedish universities’ competitive advantage of offering free education will no longer exist and the universities will compete based on the quality of education. A possible problem residing in the introduction of the tuition fee is that the perception of service quality might change and students arriving from outside of the EEA will most likely demand higher quality of the education than students who have not paid a fee. The reason behind this is that Swedish universities will be competing on the same market as other fee-based universities around the world. There might therefore be a necessity for Jönköping University and other Swedish universities to raise the quality of the education offered in order to attract prospective international students to Sweden.

The discovered problem has also been based on personal experience as students attending Jönköping University. After talking to 7 students who come from outside the EEA, there is a strong indication that the majority had chosen Jönköping University for the cost-free education, which could also be true for other Swedish educational organizations. The information was retrieved through a convenience sample, a type of sampling procedure which involves a selection of samples convenient for the researcher to get hold of (Ghauri and Gronhaug, 2005). The selection of the samples took place at Jönköping University where the researchers asked which country the students are from and why they chose Jönköping University. Again, the researchers believe that the introduction of the fee could have a serious impact on the number of students actually choosing Jönköping University as their preferable institution of higher education in the future.

The study includes a research on how international and exchange students from a selected number of countries experience the level of educational service quality at Jönköping University. In addition, the views and new regulations of the Swedish gov-
overnment regarding the introduction of the fee will be taken into account as well as Jönköping University’s standpoint on the matter. By identifying any weaknesses of the educational service quality offered by Jönköping University, could assist the university and other Higher Educational Organizations in Sweden to identify what both exchange and international program students consider as an educational service quality.

Due to the introduction of the tuition fee, fewer students from outside of the EEA is likely to apply to study in Sweden and this research is therefore of significance since higher educational organizations in Sweden will face a decline in international and exchange students and will involve changes for everyone active within the market of education. It is therefore important to keep the possible effects of the introduction of the tuition fee in mind, but mainly to try and observe what is considered as educational service quality by students from different cultural dimensions as this could aid an organization, like Jönköping University, to adapt their marketing strategies accordingly.

It is of importance to recognize weaknesses of the service quality offered at the university, and gain an understanding of what is considered good educational service quality by the targeted countries, seeing as this will possibly assist Jönköping University, but also other Swedish educational organizations, in improving and meeting expectations of both exchange and international program students.

1.3 Purpose

The purpose of this thesis is to measure the experience of educational service quality of exchange students and international program students from Brazil, Russia, India, China (BRIC), Mexico and Ukraine at Jönköping University in Sweden.

1.4 Research questions

1. How do students from the BRIC countries, Ukraine and Mexico experience the level of educational service quality at Jönköping University?
2. How can the cultural dimensions by Geert Hofstede be used in order to identify the experienced level of educational service quality?
3. How should university marketers use the determinants of SERVQUAL in order to attract students from the BRIC countries?

1.5 Delimitations

An ideal target group for this research would be students who are actively studying and who can be related to Geert Hofstede’s cultural dimensions. For this thesis, due to the time and economical constraints, the study has only been implemented on exchange and international students attending Jönköping University during the spring term of 2011. This has provided access to a diversified population group and fulfilled the criteria for the focus of the research.

Since the introduction of the tuition fee will only affect students arriving from outside the EEA, the study will only be implemented on students affected by the fee which is the reason for the focus on students outside of the EEA and not students arriving from within the EEA since they will not be affected. More specifically, the survey will only be executed on students from Brazil, Russia, India and China. The reason behind the
choice of population is because of the economical development these countries are currently experiencing (Jensen & Larsen, 2004). With the improvement of the countries’ economies, the welfare will increase and could lead to more people receiving the chance of higher education. Because of Jönköping University’s strong international profile, the university will compete under the same conditions as universities around the world. One can argue that the BRIC countries are a favorable market for Jönköping University to be present and established on, considering the countries’ development and that there will be an educational fee introduced in the autumn term of 2011.

With the focus of this thesis being on the BRIC countries, and since Jönköping University does not have the population needed to collect valid data to analyze the experience on educational service quality by students from Brazil and Russia, the research has also been implemented on the Mexican and Ukrainian population at Jönköping University as well. The reason behind the choice of Mexico and Ukraine as substitutes for Brazil and Russia is, in regards of Brazil because they are in the same cultural dimension as Mexico, according to Geert Hofstede’s cultural dimensions (geert-hofstede.com, 2011). Ukraine was chosen as a substitute after interviewing both Georgian and Ukrainian students attending Jönköping University where all Ukrainians agreed that they were similar to Russia whereas the Georgian students did not. It is important to note that even though these countries might not have a homogenous perception of what service quality is, they are still considered to have similar perceptions according to Geert Hofstede’s theories and the answer received from the Ukrainian population at the university.

1.6 Definitions

- **BRIC countries** – Brazil, Russia, India, China (QFinance, 2011)
- **Consumer** – a person who purchases goods and services for personal use, a person or thing that eats or uses something (Oxford Reference Online, 2011).
- **Corporate culture, organizational culture** - The values, customs, rituals, attitudes, and norms shared by members of an organization, which have to be learnt and accepted by new members of the organization (Oxford Reference Online, 2011)
- **Customer** – a person who buys goods or services from a shop or business (Oxford Reference Online, 2011).
- **EEA** – European Economic Area, 25 EU members states, Iceland, Liechtenstein and Norway (SOU 2006:7)
- **Higher education** – education at universities or similar educational establishments, especially to a degree level (Oxford Reference Online, 2011).
- **Service quality** - quality assurance; the maintenance of a desired level of quality in a service or product, especially by means of attention to every stage of the process of delivery or production (Oxford Dictionary of English. Edited by Angus Stevenson. Oxford University Press, 2010)
- **Erasmus** – a program offered to students at universities in countries participating in the program. The student is provided the opportunity to study at another participating university for 3 to 12 months. All Erasmus students study under the same conditions as the domestic students (programkontoret.se, 2011)
• International student – also known as free mover, study in Sweden on same terms as Swedish students (Södertörns Högskola, 2011)
• Exchange student – attending a Swedish university through either a Erasmus agreement or joint agreement between the two universities (Södertörns Högskola, 2011)

1.7 Previous research

Research within the area of service marketing and service quality is of great proportions and there is a large amount of research with focus on higher education. Below is a selection of previous research that has been done with similar topic(s) as this thesis.

Hill (1995) did a research paper on viewing students of higher education as the primary consumer. Hill (1995) examined a group of students’ expectations and perceptions of service quality in the UK where information was gathered over time. Due to the limited scope of Frances’ research, it could not be used to generalize for all higher education institutions but his research highlighted the fact that higher education organizations should gather information regarding students’ expectations prior to arrival and at arrival in order to understand what is expected out of the service (Hill, 1995). This research therefore acknowledged the need for further research regarding expectations and perceptions of service quality in higher education.

In regards to research related to service quality and cultural dimensions, Donthu & Yoo (1998) combined the theories of SERVQUAL and Geert Hofstede’s cultural dimensions where power distance, uncertainty avoidance, collectivism and long-term orientation were measured. The researchers studied the effect of consumer’s cultural orientation on their service quality expectations of banking services in the United States, Canada, Great Britain and India. This was done by using Geert Hofstede’s cultural dimensions and the dimensions of service quality from SERVQUAL. The results from the investigation were showing that groups originating from cultures with a high power distance have high overall expectations of service quality where a responsive and reliable service was expected (Donthu & Yoo, 1998). Consumers from individualistic groups also expect a high, overall service but regard empathy and assurance as the most important factors of a service whereas consumers with high uncertainty avoidance or a short-term orientation simply had an overall high expectation of a service (Donthu & Yoo, 1998).

There has also been an examination of the dimensions of quality in higher education by Lagrosen, Seyed-Hashemi and Leitner (2004). The research involved examining what dimensions represent what is considered quality, in higher education and compared these with dimensions of quality related to a general perspective of service quality research and not higher education. The research was done on business students, 448 respondents from Austria and Sweden. The researchers expressed the need for this research as they regard it will provide a basis for quality management in the area of higher education (Lagrosen et al., 2004). In addition, previous research on quality management has shown that national cultures influence the actual perception of quality management (Lagrosen et al., 2004).

Further, a master thesis in business administration has also been examined in order to gain an understanding of what previous research has been done on the topic of service quality in higher education. The thesis was completed in 1997 and was regarding Ser-
vice Quality in Higher Education – an empirical study at the Jönköping International Business School by Martin Gustafsson and Johan Larsson. The thesis’ purpose was to develop a model that could examine perceived service quality in higher education and was based on the dimension of service quality and tested through an empirical study on students attending Jönköping International Business School. Gustafsson and Larsson (1997) had a different approach than this thesis, but is still related to the subject of service marketing and higher education, with similar theories and should therefore also be acknowledged. Gustafsson & Larsson (1997) concluded that they did fulfill the purpose of the research, designing a model for measuring service quality in higher education where three factors represent what the authors have called the core service; Interaction, Education and Flexibility and the remaining three factors, support services, namely Premises, Reputation and Library. In the analysis conducted by Gustafsson & Larsson (1997) the results for the core services, Interaction, Education and Flexibility, received higher Beta values than the result for the support services and this was considered to be a valid difference for higher education in general by the researchers.
1.8 Disposition of the thesis

- Background
- Problem
- Purpose
- Delimitations
- Definitions
- Disposition

- Research Approach
- Research Method
- Reliability & Validity
- Collection of data

- Nature of service
  - SERVQUAL
  - Zone of tolerance
  - Geert Hofstede

- Quantitative Findings
- Qualitative Findings

- Conclusion
- Discussion
- Further research
- Managerial implications

- Descriptive analysis
- Frequency analysis
- One sample test
- Analysis based on Zone of tolerance

Introduction → Theoretical Framework → Method → Empirical Findings → Analysis → Conclusion
2 Theoretical Framework

For the reader to gain a better perspective of the issue being studied, a short introduction of the nature of service and service quality is presented in section 2.1. This introduction will facilitate the understanding of the subsequent theory. In section 2.1.1, the Total Perceived Quality model is introduced which has been used to answer research question three by identifying how experience of a service affects the image of an organization. In section 2.2, the measurement tool of SERVQUAL is presented, where the determinants of SERVQUAL have been used to form the questionnaire. In section 2.3, the Zone of Tolerance is demonstrated which is the measurement tool used to answer research question one. Geert Hofstede’s theories relating to cultural dimension found in section 2.4 was used as a means to collect sufficient respondents for the study, and also to answer research question two.

2.1 Nature of service

For individual customers, defining and measuring quality is often linked with tangible goods where measurements such as the appearance or the solution a product offers are used to mark the quality. To measure service quality can be difficult because of the characteristics that a service consists of.

According to Grönroos (2007) the general characteristics of a service can be identified by four different dimensions;

1. Inseparability
2. Intangibility
3. Heterogeneity
4. Perishability

Since a service does not consist of goods, but instead is a process or series of activities which are produced and consumed at the same time which is known as Inseparability, it makes it difficult to control the quality in a traditional way (Parasuraman, 1985). Even if most service activities are invisible for the consumer it is the visible part that matters and therefore makes the visible and tangible service and the outcome equally important because it is the only part that can be evaluated very closely by the customers.

A university placement consists of both tangible and intangible quality evaluations by consumers; what is visible for the consumer is closely evaluated and since he or she cannot see what is happening and being decided upon by the management, the evaluation of the cleanliness and the appearance and behavior of the teachers is a critical part of the service delivery. Also, because the consumer is a co-producer, a receiver and a judge, it is hard to evaluate the service delivery in a traditional manner (Grönroos, 2007).

Services cannot be kept in stock like most goods, which is related to the term Perishability. There is however one solution for service delivery companies where they keep their consumers in stock, for example during an application process, prospective students are not always given a placement at a university. The university can keep the students “in stock” (Grönroos, 2007), as substitutes, for a possible placement.
Intangibility, which relates to the most important characteristic of a service, means that a service cannot be tried before it is purchased. Consumers describe a service as an “experience” of different feelings which is an abstract way to describe a service. This characteristic of a service and the degree of intangibility results in difficulties when evaluating a service, not only for managers, but also for consumers (Parasuraman, 1985).

Since a service does not result in ownership, many service organizations have made services more tangible to facilitate the evaluation and identification of the position of the service. Tangible goods such as plastic cards can be used to strengthen a service.

Every human being has different perceptions and experiences and during a service delivery, personal impact between a consumer and a supplier influences the outcome of service quality. The production and consumption of a service can vary with the mood of the consumer. The delivery process is related to what Grönroos (2007) suggests as Heterogeneity. Heterogeneous means that a service delivery is not exactly the same every time. Inconsistency in a service delivery is the hardest problem to solve for managers since it is the human perception that influences the service experience (Parasuraman, 1985).

2.1.1 What is service quality?
Parasuraman, Zeithaml and Berry (1985) developed a model which is intended to be used to analyze quality problems and understand how service quality can be improved. Four categories were investigated; retail banking, credit card, security brokerage and product repair and maintenance. Twelve groups were interviewed where three groups for each category were selected. According to Grönroos (2007) the result of the research became one of the most important patterns of analyzing service quality, highlighting the critical gaps in the service delivery process. These gaps are;

- Gap 1 Management perception of consumer expectations are interpreted inaccurately
- Gap 2 Service quality specifications are not consistent with management perception of quality expectations
- Gap 3 Quality specifications are not met by performance in the service production
- Gap 4 Promises made by marketing communication are not consistent by service delivery
- Gap 5 The perceived or experienced service is not consistent with the expected service

As a result of the first four gaps and the nature of the service where consumption and production take place simultaneously, it is only in gap number five where a service can actually be evaluated by the consumer. Because of the focus of this thesis on students at Jönköping University and the experienced service which, according to Parasuraman et al., (1985), is gap number five, it is critical to investigate the perceived service since this is a result of the service delivery. Gap number five results in negatively confirmed quality, bad word of mouth, a negative impact on the corporate or local image and lost business (Parasuraman et al., 1985).

Service quality is experienced in two different dimensions. The technical “what” dimension which is related to the outcome of the service and the functional “how” dimension which is a process-related dimension (Kang, 2004; 2006). These two dimensions are the ones that influence consumers’ experience. What a consumer experiences during
the interaction with the service provider is important to consumers since it is the “what” that is more easily evaluated due to the nature of the service, which is often objectively measured. Even if the technical solution is what the consumer is left with, the total quality is not only based on the technical outcome, it is based on the total delivery process (Grönroos 1984).

Since a service consist of several activities or processes, consumers are influenced to also judge the quality of the service by the process the technical outcome has been delivered by (Grönroos, 1984; 2007). Therefore the “how” dimension also influences the experienced quality. Although due to the nature of a service which is subjective, it cannot be evaluated in the same way as the technical outcome. Consumers’ insight in a service company is also influencing the experienced quality because of the image consumers receive. By making the operating method of a service more visible to the consumer, the service providers can influence the perception of the service quality and create a higher level of trust from the consumers’ side. For example if a student understands the process of something affecting him or her, within the university, it can provide a higher level of tolerance towards the service provider since he or she understands the process of the service (Grönroos, 1984; 2007). Although the technical outcome and the functional process are vital in order to identify service quality, it is not entirely enough. A third dimension that has been widely used and integrated into the perception of service quality is the “where” dimension, also known as atmospherics (Bitner, 1990; 1992). The logic behind the third dimension is that the context the service is delivered in affects the experienced quality which is also known as servicescape (Bitner, 1992). The interior and exterior of a service provider can influence the purchasing decision and create a special feeling or reinforce the effect of the purchasing action (Kotler, 1974). Servicescape is thought to not only reinforce the feeling; researchers have also reported that physical surroundings also influence the consumers’ and employees’ behavior during the individual and social interaction with the service provider (Bitner, 1992; Sureshchandar 2001). Even if the technical outcome, servicescape and functional processes are vital dimension to identify the experienced quality, these dimensions are only one part of the total perceived quality. Expected quality which is influenced by marketing communications, sales, word-of-mouth and previous performance together with the image the consumer has of a company, and the experienced quality creates the total perceived quality (Grönroos, 1984; 2007).

Total Perceived Quality Model by Christian Grönroos, 2007 combined with Bitner's “Servicescape” (1992).
Whether quality is perceived as good or bad depends on how much of the experienced quality meets the expected quality. This means that marketing communication which increases the expectations should be controlled as much as possible in order to meet the consumers’ experience and thus be perceived as good quality. As a result of expected and experienced quality the image of the company rises. Bad experiences give companies a bad image which can be crucial for most companies to avoid (Grönroos, 2007).

The focus groups used in Parasuraman et al.,’s research from 1985 supported the theory that a successful service delivery is meeting or exceeding the service expected by the consumers.

2.2 SERVQUAL – How to measure service quality

Due to the nature of a service Inseparability, Perishability, Heterogeneity and Intangibility, the actual research needs to be implemented in a specific manner in order to fulfill the requirements in measuring educational service quality. To implement SERVQUAL correctly, discrepancies between the expected and the perceived service must be identified since the gap between expectation and experience represents a service failure, (Parasuraman et al., 1988). SERVQUAL, which is a measurement tool for services quality, will be used in order to measure educational service quality on international and exchange students attending Jönköping University. The reason behind the choice of SERVQUAL is that it has been widely used in research within the service marketing subject and is well reviewed by researchers, which increases the validity of the research on service quality at Jönköping University. SERVQUAL also suits the nature of the research since the goal is to measure the level of educational service quality.

Minor knowledge of service quality, in combination with increased demand on perceived service quality, has driven the research by Parasuraman et al., (1985) which has created ten determinants identifying service quality. Regardless of the service type, consumers have similar criteria when evaluating service quality based on the ten determinants (Parasuraman et al., 1985). This could suggest that the researchers do not have to consider the population’s cultural background at Jönköping University and can only focus on the educational service quality.

As a result of increased demand on service quality in the 1980s, and previous research done on the ten determinants in 1985, the SERVQUAL scale derived. The scale has been reduced to only five determinants where empathy includes understanding and knowing customers and assurance includes creditability, communication, security, competence and courtesy which represent the seven original determinants which were studied in the exploratory research that Parasuraman et al., implemented in 1985. This actually means that the five determinants of SERVQUAL still contain the ten original determinants of service quality from 1985 (Parasuraman et al., 1988).
The quantitative data collection of this thesis has covered the five determinants of the generalized view of service quality. The remaining five determinants focus on the measurement of perceived service quality. The five determinants covering the questionnaire are:

1. **Reliability**
   The ability to perform the service accurately
2. **Responsiveness**
   The willingness or readiness of employees to provide a service.
3. **Assurance**
   Knowledge and courtesy to inspire trust and confidence
4. **Empathy**
   The firm provides individualized services to its customer
5. **Tangibles**
   Facilities, equipment and appearance of personnel

*Parasuraman, Zeithaml and Berry 1988*

Since the researchers are only focusing on the experienced service quality at Jönköping University, the five determinants have been the foundation of the questionnaire. For this thesis, the focus is not on the expectations and therefore it has not been needed to measure the discrepancies between the expectations and experience. Instead, the five determinants of SERVQUAL have been used as navigation for the research.

2.3 **Zone of Tolerance**

Almost every decision made by a consumer is often related to the idea of minimizing the actual investment and maximizing the quality (Miller, 1977). Should the distance between the expectation and the experience be too wide, there will most likely be no purchase of the service since the service is not within the consumer’s *zone of tolerance*. The “zone of tolerance” is indirectly measuring the consumers’ expectation by the position that the consumer has within the zone which represents the satisfaction the consumer has.

Miller (1977) suggested four different types of expectations: *ideal, expected, desired* and *minimum tolerable*. Tse and Wilton (1988) established an idea that *ideal expectations* could have a possible indirect negative effect on the performance of satisfaction. In order to make an analysis more explicit, the graph called *zone of tolerance* suggests that consumers do not have expectations of a service on only one level. Instead, a consumer can accept a variation of the actual experiences but still consider them acceptable, in relation to the consumer’s expectations.
According to the above graph, the highest level of expectation is defined as the *desired level of service* and the lowest level is conceptualized as the lowest level or the *adequate level of service*. Zeithaml et al., (1991) established arguments related to the area between the desired level and adequate level of a service and named it the *zone of tolerance*. The five determinants have been the foundation for the quantitative research questions, while the zone of Tolerance has been used as a measurement tool which identifies whether the students are satisfied or dissatisfied with the educational service quality at Jönköping University.

Consumers usually have expectations about what type of service should be expected in the next encounter, which could be considered as the type and level of service the consumer appropriately desires. When it comes to an *investment* a consumer makes, it can be related to what performance the consumer is expecting. The more money a consumer will spend, the higher the expectation of the service will be (Zeithaml et al., 1991). This conclusion can be illustrated by the definition of *perceived value*. Zeithaml (1998) defined value as “*consumer overall assessment of utility of a product based on perceptions of what is received and what is given*” (Zeithaml, 1998, p. 14).

In sum, perceived value concentrates a negotiation between a consumer’s perceptions of quality. It is considered as *positive*, when the perception of quality reaches the *zone of tolerance* (Grönroos, 2007). Further on, this positive relationship is related to the willingness to purchase, which is correlated to the comparison between price and perceived quality.

### 2.4 Cultural theories by Geert Hofstede

To analyze the cultures in each targeted country would take a lot of time and preparation, and it would also be valid only on the countries that had been targeted. Geert Hofstede’s *five cultural dimensions* have aided the identification and generalization of the different cultures present in the targeted countries for this research. When using Hofstede’s cultural dimensions as a basis for this research, a possible adaptation of the research could be used by other higher educational organizations active within Hofstede’s cultural dimensions. One can also assume that this theory will facilitate the identification of whether the different dimensions distinguish themselves from one another when it comes to the demands of the educational service quality. Although Geert Hofstede’s theory regarding cultural dimension has been widely criticized, there are no other theories that can generalize the cultures the way Hofstede’s theory on cultural dimensions does.
The actual meaning of the word culture is *collective or cooperative*, something that is done together and culture is always, to a certain extent at least, shared with the people who are around you or in your neighborhood (Hofstede & Hofstede, 2005). In addition, Hofstede & Hofstede continue by stating that a culture is the collective programming of the mind that distinguishes the members of one group or category of people from others (Hofstede & Hofstede, 2005, p.4).

An important knowledge to possess for anyone who finds him or herself among people who are not from your own family is the understanding and acceptance of other cultures. Geert Hofstede (1997) begins by stating that our world is inhabited by groups of people who act and feel in different ways and they are all exposed to different problems which require people to work together to reach a solution.

Every human being has got his or her own way of thinking, feeling and acting. According to Hofstede (1991) a child’s mind is more open for learning than later on in life and this is also the period when the person is most influenced. In other words, a certain part of culture is learned and not born with. When a certain type of behavior has been established in a person it is often hard to learn something different and one is usually attached to the behavior, or at least a similar behavior one was brought up with (Hofstede, 1991). Ones way of behaving in a certain way is affected by the atmosphere and environment of where one grew up. This is one of the reasons why human behavior differs, although the persons might be from the same town (Hofstede & Hofstede, 2005).

### 2.4.1 The three levels of uniqueness

There are two terms, human nature and personality which ought to be mentioned since they together with the culture of a person constitute what Hofstede and Hofstede (2005) call the *Three Levels of Uniqueness in Mental Programming*. Different ways of thinking, feeling and acting are what Hofstede and Hofstede (2005) have named mental programs and could possibly affect how someone experiences a service.

What all of us human beings have in common, is our human nature (Hofstede & Hofstede, 2005). It is what the authors have described as the universal level of one’s mental software. It is the ability humans have to feel emotions and feel the need to connect with others but it is in what way, and how one expresses these emotions that are influenced by the culture. A human being’s personality on the other hand, is something exclusive for that person. We have our own, unique combinations of mental programs which do not have to be shared with any other person (Hofstede & Hofstede, 2005).
2.5 Dimensions of national culture

That all humans are exposed to different problems in life has already been mentioned in the previous sections. In the year of 1954, sociologist Alex Inkeles and psychologist Daniel Levinson, (1954) proposed five elementary problems all countries have in common (cited in Hofstede & Hofstede, 2005);

1. Relation to authority
2. Conception of oneself, in particular:
   - the relationship between the individual and the society
   - the individual’s idea of what is masculinity and what is femininity
3. How to deal with conflicts but also how to control anger and expressing feelings

Geert Hofstede did his own study about twenty years later where he analyzed a large amount of data relating to people’s values and conducted a statistical analysis of the country averages which showed that the countries shared the type of “common problems” but that the solutions to these problems differed from country to country, especially in the following areas (Hofstede & Hofstede, 2005):

1. Inequality on a social level, especially the relationship between oneself and authority
2. The type of relationship between the individual and the group
3. The idea of what is masculinity and what is femininity; what are the social and emotional implications of being born either a boy or a girl,
4. How to handle uncertainty, which was also related to control of aggression and expression of emotions

As one can see from Inkeles & Levinson’s results from 1954, Hofstede’s result of the study is very comparable concerning the elementary everyday problems that people experience. In the two analyses, the four fundamental problem areas were found both in the study by Inkeles & Levinson and in the IBM study conducted by Hofstede. These four problems are related to dimensions of cultures:

1. Power distance
2. Collectivism versus Individualism
3. Femininity versus Masculinity
4. Uncertainty avoidance

These dimensions make a model of the differences found between national cultures. In short, one dimension is one aspect of a culture that can be measured in relation to another culture (Hofstede & Hofstede, 2005).

Geert Hofstede introduced a model relating to the different dimensions of culture. The model includes 76 countries per dimension and has a scale from 0 to 100 where each country is compared to another (Hofstede, 2001, Hofstede & Hofstede, 2005).

2.5.1 Power distance

The power distance is defined by Hofstede and Hofstede (2005) as, “the extent to which the less powerful members of institutions and organizations within a country expect and
accept that power is distributed unequally” (Hofstede & Hofstede, 2005, p. 46). In this context, institutions are compared to divisions of society, such as school, neighborhood and the family. Organizations are related to the place where people work (Hofstede & Hofstede, 2005). The authors describe power distance based on a value system of the less powerful members since power is typically spread across the leaders and not those who are led by the leaders (Hofstede, 2001; Hofstede & Hofstede, 2005).

According to the data that is retrievable on Hofstede.com, Russia and India score a very high value on the Power Distance Index, PDI.

### 2.5.2 Individualism versus Collectivism

It is most common that humans live in societies, which Hofstede and Hofstede (2005) call collectivist and by this they actually mean the power a group has together and where the interest of the group outweighs the interest of the few.

The first group one belongs to is the family one grows up with, but there is also the extended family which includes not just the parents and siblings but also grandparents, mother and fathers, brother or sisters and other people who are present in the same home (Hofstede & Hofstede, 2005). This family is what becomes the we group or ingroup which is a major source for what one’s identity is. There is also the they groups which is what separates you from other people in society (Hofstede, 1991; Hofstede & Hofstede, 2005).

There is however also societies in which the interest of the few or the individual outweigh the interest of the group which are the societies the authors call individualist (Hofstede & Hofstede, 2005). Children who grow up in these societies usually come from what Hofstede & Hofstede (1991; 2005) call a nuclear family which is a family consisting of a father, a mother and children. Often these children learn when growing up to perceive themselves as I which becomes the children’s personal identity (Hofstede et al., 2005) and is therefore what separates the child from other people’s Is which is related to individual characteristics and not to the group one belongs to (Hofstede & Hofstede, 2005).

### 2.5.3 Masculinity versus Femininity

Hofstede, Arrindell, Best, De Mooij, Hoppe, Van De Vliert, Van Rossum, Verweij, Vunderink and Williams (1998) describes masculinity as a society where the men are supposed to be tough and confident, with a focus on material success whereas the women are supposed to have other characteristics such as being more humble and more focused on the actual quality of life and caring for others (Hofstede et al., 1998).

Femininity on the other hand, is a society where both men and women are meant to be what the definition of women in the Masculinity society is consequently modest, tender and concerned with the general well being (Hofstede et al., 1998).

### 2.5.4 Uncertainty avoidance

This term has been borrowed from American organization sociology, and especially from a researcher named James G. March (cited by Hofstede, 1991; Hofstede & Hofstede, 2005). The term is described as the extent to which a national culture avoids uncertainty in life through career stability, formal rules, intolerance of deviance, belief in absolute truth, and attainment of expertise in A Dictionary of Human Resource Man-
agement by Edmund Heerey and Mike Noon (2008). What March and his fellow researchers identified was that in any human organization there will always be situations of uncertainty which must be handled in one way or another (Hofstede & Hofstede, 2005).

There are various approaches and tools to use when dealing with uncertainty. These tools can be technology developed for the society which can help in avoiding uncertainty caused by nature, laws and regulations which are meant to stop people from causing uncertainties and lastly religion, which might be used as a mean to explain or instill a sense of security and acceptance for uncertainties (Hofstede & Hofstede, 2005).

According to geert-hofstede.com, Brazil is similar to other countries in Latin America and the country’s highest value is found in the Uncertainty Avoidance Index, shortened UAI.

2.5.5 Long term versus Short term orientation

China is associated with the long term orientation, which is the fostering of virtues oriented toward future rewards - in particular perseverance and thrift. The opposite, short term orientation is the fostering of virtues related to the past and present – in particular respect for tradition, preservation of “face” and fulfilling social obligations (Hofstede et al., 2005, p. 210). What is meant by preservation of face is that one should simply pay respect for others (Hofstede & Hofstede, 2005).

This fifth element has actually derived from the work by Michael Bond who described the sides of long and short term orientation as Confucian which originates from Confucius, or Kong Ze, a Chinese philosopher from around 500 B.C (cited by Hofstede & Hofstede, 2005). His philosophies are lessons of ethics and rules for daily life but without any religious associations.

It is of importance to see the difference between the two orientations; the long-term orientation is the positive orientation with the future in mind whereas the short-term orientation is the opposite, an idle orientation toward the past and the present although they both derive from the Confucian teachings (Hofstede & Hofstede, 2005).

2.5.6 Limitations of Geert Hofstede’s cultural dimensions

Because of the importance of cultural dimensions in a business world, many experts have predicted theories or models trying to analyze cultural influence on marketing or management areas. Conceptualization of culture by Geert Hofstede earned more popularity than any other cultural framework. Fang (2007) mentioned the popularity of Hofstede’s theories stemmed from his capacity to probe a complex phenomenon and modify it into simple conclusions. But at the same time, Geert Hofstede’s cultural dimensions have confronted much criticism. Even Hofstede (2001) admitted that his research “does not present a finished theory” and encouraged other researchers to continue the exploration in order to “serve the understanding of cultural differences and the improvement of intercultural communication and cooperation, which the world will increasingly and forever need” (Hofstede, 2001, p. 466).

There are many different cultural dimensions existing in a particular country and therefore it does not seem appropriate to do cultural research on a country’s different va-
riables. However, as Hofstede (2002) said, “nations are not best units for culture stu-
dies, but they are the only kind of units” (Hofstede, 2002, p. 2).

The respondents to the survey related to Geert Hofstede’s research were only employees of the IBM Company, which caused a large limitation to his study. Adler (1983) emphasized that main problems related to cross-cultural research have been during the data collection and sampling processes from respondent and Gernon and Wallace (1995) emphasized that data from a survey in one organization may not be applicable to other organizations. Further, Chinta and Caper (2007) suggested that the employees of IBM have been influenced by a corporate culture and as result, the employees who have participated in the survey, may be considered to not be reflective enough of their countries.

Nakata (2009) defined culture as a process of constant evaluation and accumulation. As a result any stable or rigid thought cannot be considered as an unchangeable assessment. Geert Hofstede’s cultural dimensions originated approximately during the late 1970s and beginning of 1980s. As time has gone by, the controversy and criticism towards the cultural dimensions have developed into more severe criticism than ever (Baskerville, 2003).

Douglas (1978) first pointed out the concept of “cultural bias”, which in essence means that researchers have a subjective consciousness of what a culture should be like. Hofstede as a researcher of the IBM Company in Europe realized the problem of cultural bias and mentioned that a research should involve researchers from different cultural background in order to avoid cultural bias (Hofstede, 2007). However, McDonald (2000) maintained that cultural bias undoubtedly existed in experimental designs, research and interviews for cross-cultural research which makes it impossible for Geert Hofstede to escape from the suspicion of unfairness.
3 Method

3.1 Positivistic and Hermeneutic philosophical approaches

The nature of positivism is based on experimental and statistical methods and assumptions. It is also of importance that a researcher is independent and not affected by the subject of the research as to make the result as objective as possible (Saunders, Lewis & Thornhill, 2009). The research should be built on objective and value-free facts if the positivism criteria should be fulfilled (Saunders et al., 2009). Because of the research group’s dynamics, one of the researchers belongs to the population being researched and has therefore influenced the structure of the research and consequently the criteria of the positivistic approach has not fully been fulfilled. Since two members of the group are not influenced by the research, the study can be examined objectively giving the thesis, to a larger extent a value-free view on the research. The nature of positivism is identified by the data collection techniques that are most often practiced in highly structured and quantitative methods where the measurement is an important characteristic (Saunders et al., 2009). By using the SERVQUAL measurement and collecting quantitative data to analyze the educational service quality, gives the thesis a positivistic philosophical approach.

The Hermeneutics philosophy, unlike the one of Positivism is very subjective where the researcher’s value plays a role which cannot be separated from the actual research (Saunders, 2009); this means that the researcher to some degree can influence the results because of the researcher’s knowledge about the subject. The nature of the Hermeneutic philosophy is that it is socially constructed and subjective and therefore suggests that in-depth investigations and qualitative research is the right approach for this type of research. Even if the research for the thesis is influenced by knowledge that one of the group members have about a certain population, the overall structure of the thesis has the Positivistic philosophical approach.

3.2 Inductive and Deductive research orientations

A Deductive research approach is a highly structured approach where quantitative data is collected and where the researcher is independent of the area being researched. The collected data must fulfill requirements of an explanation of the casual relationship between different variables and enough data must be collected in order to generalize a conclusion (Saunders et al., 2009). In addition, Ghauri and Gronhaug (2010) explain that the approach of deduction is supported by logic instead of actual evidence, in other words the conclusions made by researchers are supported by logic but there is consequently a risk with this approach that the speculation might not be completely true. For a deductive approach a hypothesis is created from already existing knowledge and is later examined by whatever findings were encountered and from there one can either draw a conclusion on the hypothesis’ validity or falsity (Ghauri & Gronhaug, 2010).

An alternative is the Inductive approach which is used when a researcher gains an understanding of the research context. The researcher is part of the research process where the collection of the qualitative data is more flexible and not as structured as in the Deductive approach (Saunders et al., 2009). By using the inductive approach, the researcher make his or her final conclusion on previous empirical investigation and the procedure of an inductive research approach goes from the researcher’s observations, to his or
her findings and lastly to the stage where the current theory and new findings are merged in order to build new, improved theories (Ghauri & Gronhaug, 2010).

According to Saunders et al., (2009) the above mentioned approaches give researchers an advantage if they are used simultaneously in the same research. For this reason, with consideration of the diversity of the members of the research group, the approach for our research is a combination of an inductive and a deductive approach. Since the group members are students attending Jönköping University, the group has a thorough understanding of the research context. In addition, since one of the group members is affected by the research to some extent, the group will not be completely separated from the actual research as is the case of a deductive research approach (Saunders et al., 2009).

### 3.3 Research approach

Ghauri and Gronhaug (2005) suggest three research designs to choose from depending on the actual problem the researcher is facing. The exploratory approach is an approach that is used when the problem being researched is hard to grasp and when the researcher does not have much information regarding the issue. The exploratory research involves different methods of collecting data such as observing, gathering information and trying to find an explanation to a rather new issue being researched (Ghauri & Gronhaug, 2005). Saunders et al., (2009) also suggest that an exploratory study is finding out “what is happening” and to understand and seek information regarding a certain phenomena or problem.

The descriptive research looks at what the actual situation is like and the researcher should possess prior knowledge and information regarding the subject being studied (Ghauri & Gronhaug, 2005). Collecting data is necessary and can either be done through surveys or interviews where well-designed and carefully considered questions must be composed in order to be able to gather the needed data (Ghauri & Gronhaug, 2005). Robson (2002) states that a descriptive research should “portray an accurate profile of persons, events or situations”.

A third approach is the approach of explanatory studies which answers the question of “why” something is the way it is through studying possible relationships between variables (Saunders et al., 2009; Williamson, 2002). To gain an understanding of the report, the collected data can be examined by running several statistical tests, such as One Sample Tests in the likes of frequency analyses (Saunders et al., 2009).

For this study, a combination of the descriptive and the explanatory approach has been used where a questionnaire, interview and statistical tests have provided the researchers with an understanding of the current situation and possible explanations of the relationship between the different determinants and the studied countries.

### 3.4 Quantitative and Qualitative research methods

In practice there are two different methods that can be used to collect the data needed for a research. These methods are known as qualitative and quantitative methods. Interactive data collection, where interpreting interviews in order to find a meaningful pattern which describes a certain phenomenon, is known as a qualitative data collection (Auberbach & Silverstein, 2003). The qualitative method is largely connected to data gathering techniques that are mainly collecting non-numerical data, from interviews for instance (Saunders et al., 2009). Another reason for using qualitative data is that when
researching in a different culture, or studying a population from a different culture, the interview questions are often unstructured and can therefore be reformulated more easily and fewer misunderstandings of the questions may occur (Gronhaug & Ghauri, 2005). In addition, qualitative research provides the study with a deeper insight into the research and can cut out any psychic distances between the researchers and the population being studied, which is often the case when conducting a study across different cultures (Gronhaug & Ghauri, 2005).

The term quantitative data collection is data that can be analyzed by calculations and statistics without making any effort of implementing an in-depth analysis (Gorard, 2003). Even if both quantitative and qualitative methods are applicable to the philosophical approach of Positivism, the method of quantitative research is more suitable (Williamson, 2002).

According Marshan-Piekkari and Welch (2004), qualitative research is often undertaken when little prior information is held regarding an issue and when one wants to examine and discover a person’s behavior or experience of something. Thus, a combination of both the qualitative and the quantitative research methods has been selected for this study in order to receive both statistical evidence but also a deeper insight into the students’ experiences of the educational service quality at Jönköping University.

### 3.5 Triangulation

In addition to the quantitative data collection of using a questionnaire, a qualitative method has been used in order to expand the data collection. Using both qualitative and quantitative data collection techniques and analysis, is referred to as using mixed methods (Saunders et al., 2009). The research design of a thesis can use the method of using both qualitative and quantitative data collection techniques at the same time, or one after the other, also known as parallel or sequential mixed methods (Saunders et al., 2009). The data collected through the qualitative technique will be examined and analyzed qualitatively, whereas the quantitative data will be quantitatively measured. Creswell and Plano Clark (2007) and Johnson and Onwuegbuzie (2004) present the technique when one uses several methods of research and different sources when collecting data and ending up with more than one type of analysis. This method is also called triangulation. Further, Jick (1979), proposes two different kinds of triangulation techniques, namely within-methods triangulation and across-methods triangulation. The latter is the type of triangulation used for this study. The across-methods triangulation deals with the combination of quantitative and qualitative methods (Davis, Golicic & Boerstler, 2010).

The main part of the data collection for this research is based on the quantitative technique using a questionnaire influenced by the SERVQUAL measurement tool. This type of research comes into shapes of experimental designs and surveys, which is one type of research method that has been used for this study (Williamson, 2002). In combination with the quantitative technique, qualitative data in the form of semi-structured interviews with four students from each country has also been collected since this type of mixed-method approach seemed most rewarding and suitable for the research and has provided a deeper insight and understanding of the issue being researched.
Silverman (2006) mentions the assumption regarding multiple methods, when combining both qualitative and quantitative methods, that if the results from both methods correlate, the validity of the findings has been established (Silverman, 2006).

### 3.6 Validity of data

For a research to be valid and reliable, one must confirm the credibility of the findings in order to make sure that the data is correct and true (Saunders et al., 2007). It is of importance to find out whether the data is correct or not, and this process is not always possible and it is therefore crucial that one makes sure to eliminate as many possibilities of errors and incorrect answers through a good research design ensuring both validity and reliability of the research (Saunders et al., 2009). Validity relates to whether the findings of a research are what they appear to be. The findings should represent the reality and be as accurate as possible (Saunders et al., 2009).

According to Williamson (2002), to attain validity of a research one should use similar situations and activities and use people from the same type of group who are engaged in similar situations. In order to ensure validity of a quantitative study, after the actual analysis of the data, a complementary study of a focus group could increase the validity of the research (Saunders et al., 2009).

When measuring quantitative data, errors can easily become visible which could result in that the actual measurement score one has of the data will not be correct. It is therefore of importance that once takes into account various possible influences that can affect the score of the measurement and Ghauri and Gronhaug (2005) proposes three factors to be considered: Stable characteristics is relating to how respondents use the scale of a survey; the authors imply that some respondents use the extreme values of the scale whereas other tend to keep to the mid-values of the scale. Transient personal factors, such as mood can influence the response. Other factors that can possibly affect the response are what Ghauri and Gronhaug (2005) call situational factors, such as time pressure, variations in the administration of the measurement, and mechanical factors such as mark in a wrong box or incorrectly coded responses.

Richards and Morse (2007) suggest that there is no such thing as validity or reliability of data when it comes to qualitative data since it is “subjective, interpretive, time and context bound” (Richards & Morse, 2007 p. 189). Further, Richard and Morse (2007) suggest the procedure of using truth value which is associated to the credibility of the data collected, applicability, related to the transferability of the actual results received and lastly the consistency which is linked to the dependability of the results (Richards & Morse, 2007 p.189). In order to reach as high credibility as possible for the qualitative data, the transcripts of the interviews were read individually by the researchers of the thesis. Following, notes and thoughts were compared and only those features that were perceived and understood alike, were chosen for the final analysis of the qualitative data.

For the quantitative data, the researchers have run a one-sample test, which is one category of different t-tests, (Gastwirth & Rubin, 1971).

A target group was also used in order to find similar population to the Russian students where a random selection of Georgian and Ukrainian students were gathered and questioned regarding their opinion on their likeness to the Russian population.
A minor pre-study was also conducted for this research but does not relate to the actual data collection, merely the collection of information prior to the data collection.

3.7 Reliability of data

By ensuring that the data of the study is valid, will not only provide the research complete protection towards possible errors and mistakes, assuring the reliability of the data collection, but it can also provide an increased guarantee regarding the trustworthiness of the results. Selecting a suitable data collection technique according to the purpose of the research is crucial for this purpose (Saunders et al., 2009). When data is reliable, the data should be possible to regenerate and reach the same results, on another occasion. In other words, the result of the data must be consistent in order for it to be regarded as reliable data. By constructing the settings of a research will simplify and increase the understanding of a research consequently aiding an implementation of a new research (Saunders et al., 2009). Possible issues with the reliability of the data could be that respondents of a survey interprets and understands the survey question differently than others (Saunders et al., 2009).

Since this research is focusing on measuring the level of educational service quality, the widely used measurement technique SERVQUAL, by Parasuraman, Zeithaml and Berry (1988) has also been applied when conducting the research. The five determinants of SERVQUAL formed the questionnaire which identified the nature of the service that was measured.

As was also mentioned in the validity of data, the interpretation of the questionnaire or interview questions can affect the results received (Saunders et al., 2009). In order to assure that the questionnaire as well as the interview questions were understandable, they were pilot-tested where 10 students from 4 countries pre-tested the questions in order to avoid any major mistakes or misunderstandings during the interpretation of the questions.

3.8 Generalizability of data

In order to check the credibility and enable external usage of data, generalizability, also known as external validity, is used. When data is generalized, it provides the possibility of putting the data into a new context, outside the original research. In other words, the research should be applicable to other settings and still provide corresponding results (Saunders et al. 2009). When a research has the aim of providing something useful to the academic society and not just conduct a simple research for the sake of one self’s interest, it is of importance that the data is applicable to other settings. Creswell (2009) proposes that generalizability illustrates to what extent a study confirms the already existing findings in the same field, and whether it confirms or contradicts the results. In addition, generalizability, includes the probability that the observed data will be repeated in the general population. For a research that does not provide data that can be generalized, it is of importance that the researchers realize and admit this shortcoming (Saunders et al., 2009).

For this particular study, a random sample of respondents was selected for each targeted country. The possibility of generalizing the data for all international students is non-existent since there were limitations implemented on the targeted population.
3.9 Collection of data

3.9.1 Primary data

When conducting a survey, one is collecting data from a selected group of participants and it involves various collection techniques, such as printed or electronically distributed questionnaires, interviews and observations (Williamson, 2002). For this research, both printed and electronically questionnaires were distributed as well as four semi-structured interviews were held.

The primary source data has been collected through a questionnaire which was sent to the population electronically by email and also handed out in paper form. Because of the characteristics of the research, which included the cultural diversity of the population, the questionnaire was a suitable tool for collecting the required data. The reason behind the choice of the data collection technique was because a questionnaire allows an easier distribution to a large amount of participants where the questions can easily be explained and self-administrated (Williamson, 2002). In addition to the advantages mentioned, the chosen method is also both time and cost efficient (Williamson, 2002).

Four in-depth semi-structured interviews were held with students representing the BRIC countries. The interview design covered the five determinants from SERVQUAL in order to examine any connections to the quantitative data.

In addition, short interviews were held with 7 students from outside the European Economic Area, who were selected through a convenience sample. In order to reach enough respondents for the Russian population, a target group of 3 Georgian and 4 Ukrainian students were selected to examine whether they were in the same cultural dimension as Russia.

3.9.2 Questionnaire design

The data was collected through a questionnaire that was sent to the population electronically by email as well as a supplementary hand-out copy which provided the researchers the advantage of calculating and administrating the responses in a manageable way. The questionnaire was sent out to all international and exchange students attending Jönköping University.

The questionnaire was sent out on the 13th of April and was taken offline on the 27th of April giving 14 days of access to the survey. 68 students conducted the survey online whereas the remaining 25 samples were gathered in paper form, offline.

The response rate for the questionnaire could not be calculated due to insufficient information regarding the number of international and exchange students at Jönköping University. The reason behind this was due to that the admission office at Jönköping University cannot identify who is an international student and who is not, since the students are provided four last digits by the Migration Board in Sweden when moving to Sweden to begin their studies.

Since this research is measuring the educational service quality the research group chose to conduct an online and offline questionnaire covering the five determinants of SERVQUAL. The questionnaire was inspired by a survey already implemented on international business students present at universities in Malaysia. The survey was mea-
suring the dimensions of SERVQUAL, reliability, responsiveness, assurance, empathy and tangibles (Shekarchizadeh, Rasli & Hon-Tat, 2011).

The questionnaire was designed to cover the five determinants of SERVQUAL where three questions for each determinant were randomly spread out in the questionnaire, see appendix 2.

The questionnaire consisted of closed questions, and was measured by the zone of tolerance where the adequate level and desired level were used as variables 2 to 4. If the result of the questionnaire is below 2, it represents a service failure and if the result is above 4 it represents excellent service. The Likert scale, from 1 to 5, was chosen since Williamson (2002) suggests this type of scale to be applicable for the measurement of attitudes among a population. The scale used in the survey was reversed, in other words, number 1 was Highly Satisfied and number 5 was Highly Dissatisfied. The researchers are aware of the issue with “misresponse” as stated by Swain, Weather and Niedrich (2008) however the data received from the quantitative collection was correlated with the data received from the qualitative collection in order to reduce any possible errors or misinterpretations.

The participants of the questionnaire considered the questions and provided answers to what they felt was most accurate according to his or her opinion. As previously mentioned, the researchers of the thesis applied a mixed approach of the inductive and deductive reasoning. The inductive reasoning of understanding played a central role when forming the questions for the questionnaire, where influences from previous research and the researchers’ experience from Jönköping University formed the SERVQUAL questionnaire.

In the table presented below, the questions from the questionnaire are represented by the different determinants. By using three questions for each determinant the authors believe that the result is more accurate since the questions are focusing on the same determinant but include different aspects.

Question 1 was a filter question to eliminate the students who do not come from any of the countries mentioned in the alternatives. The question was posed for the researchers to gain information about which country the respondent comes from in order to see whether the respondent was of interest for the study. Question number 2 stated whether the student was an international or an exchange student.

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>Q3, Q5, Q7</td>
</tr>
<tr>
<td>Assurance</td>
<td>Q4, Q6, Q8</td>
</tr>
<tr>
<td>Empathy</td>
<td>Q9, Q10, Q11</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Q12, Q15, Q16</td>
</tr>
<tr>
<td>Reliability</td>
<td>Q13, Q14, Q17</td>
</tr>
</tbody>
</table>

Table 1.1
The determinants above are connected to the tool of SERVQUAL, used in order to measure students’ experiences and there are three questions for every determinant.

The SERVQUAL determinants are connected to the questionnaire in order to cover the various aspects of a service. The zone of tolerance, by Zeithaml et al., (1991) in combination with the Likert Scale (Saunders et al., 2007) was used in order to measure the level of experience by the international and exchange students attending Jönköping University.

3.9.3 Limitation of SERVQUAL

The original goal of SERVQUAL was to capture the discrepancies between expectations and experience in order to measure the experienced service quality (Parasuraman, 1985; Grönroos, 2007). The reason behind the measurement of only the experience of the students attending Jönköping University was mainly due to time constraint. The ideal research would have been to do the research on newly arrived students from outside of the European Economic Area, namely Brazil, Russia, Ukraine, India and China, in order to measure the expectations of educational service quality and then, after six months, the actual measurement of their experiences. This could possibly provide a more comprehensive view on the educational service quality offered at Jönköping University, however for this research, the measuring of the experience of the educational service quality has been done.

3.9.4 Sampling method

The research was implemented on international and exchange students attending Jönköping University. Students from Brazil, Mexico, Russia, Ukraine, India and China have represented the studied population. There are two sampling techniques that can be used: probability- or representative sampling and non-probability or judgmental sampling (Saunders et al., 2007). When conducting questionnaires and the population is of importance to answer the chosen research questions, the technique of probability- or representative sampling is helpful and done in four steps:

- Deciding upon an appropriate sampling frame related to the research questions
- Choose sample size
- Choose the most suitable sampling technique and then select the sample
- Verify and confirm that the sample is representative of the population


Non-probability sampling has been chosen for this research. Saunders et al., (2007) explain that the method of non-probability sampling is providing the researchers with various techniques to use when selecting a specific sample. For the purpose of the thesis, the researchers selected the group needed to be investigated in order to answer the research questions as well as the purpose of the study which is done by combining the purposive sampling with the convenience sampling (Saunders et al., 2007). The purpose of the research requires a sampling group of students from Brazil, Mexico, Russia, Ukraine, India and China who are either international or exchange students.

3.9.5 Interview

Since a quantitative method for the data collection was used, the data received from the interview has merely been a source of information regarding a current situation. This in-
terview is not considered a supplement to the survey collection since the interview was held with the director of the recruitment office at Jönköping University and not the participants of the survey. The interview held with the recruitment office was of a semi-structured nature where there is a list of questions to be followed. However, if the participant provides other information that is not found in the questions, the interviewer can follow this lead in order to explore and gain an insight into the subject (Williamson, 2002).

Unstructured interviews with 7 international students have also been used as a fundamental influence of the thesis. It provided an understanding of the foreign students’ perceptions of the Swedish educational system.

Semi-structured interviews were also held with 4 students selected from each studied country. Saunders et al (2007) proposed semi-structured or in-depth interviews as a mean to collect qualitative research. When conducting a semi-structured interview, the interviewer usually follows already decided upon questions that need to be included in the interview, however there is also the possibility that some questions can be excluded depending on the development of the interview and/or the purpose of the data collection (Saunders et al., 2007). In comparison to a survey, the order of the questions can be changed since there is a process of communication and the interviewer can always go back to a question that has been lost. On the other hand, Saunders et al., (2007) suggest that further questions might have to be added in order to be able to answer the objective and research questions related to the research.

To increase validity to the research, qualitative data was collected by semi structured interviews with one student from each cultural dimension in addition to the previously collected quantitative data. The five determinants of SERVQUAL have been the foundation of the interview and the questions were influenced by the questionnaire in order to ensure that all five determinants were included. The interviews had to be semi-structure so that the received qualitative information was comparable with the quantitative information from the questionnaire but still provided an insight into what the student thought of various aspects brought up in the interview. To see the structure of the qualitative interview questions that was used for the interview appendix number 3.

3.9.6 Pilot study

Before any questionnaire is sent out, it is essential that the questions are tested in order to ensure that the respondents understand the questions and that it will provide the needed and correct information (Saunders et al., 2007). By making sure that the respondents will understand the questionnaire, the researchers can ensure that the questions are possible to answer and could receive a first view on what their data might be like and whether it reaches validity and reliability (Saunders et al, 2007). The number of people used in a pilot test is depending on several reasons, such as how much time is available, what objectives the research has and also the size of the project. It does not matter what the scale of the study is, one should always try to pilot-test it before hand-out in order to ensure the validity of the research (Saunders et al., 2007).

A pilot study was conducted on the first draft of the questionnaire, where a total of 10 questionnaires were completed. The selection of participants was made through a simple convenience selection based on the group member’s colleagues who covered several nationalities and cultures. The participants involved in the pilot study answered the ques-
tions and provided feedback on what was positive and negative and what needed to be further explained in order to fully comprehend the questions. After receiving each participant’s feedback, the group decided to change from closed, leading statements to closed neutral questions in order to receive more reliable answers.

In regards to the interview questions, a person outside the group confirmed and tested that the interview questions were understandable and neutral.

3.9.7 Data analysis
The collected data is from the respondents’ answers from each question. The zone of tolerance was combined with the questionnaire scale where scale 1 represents highly dissatisfied and scale 5 represents highly satisfied. For the cause of analyzing the data in the Statistical Package for the Social Sciences, SPSS, the researchers reversed the direction of the scale, to 1 representing 1 highly dissatisfied and 5 representing highly satisfied, aiming to achieve consistency with the zone of tolerance model. The online survey was based on the Qualtrics software, where an initial report can be created automatically containing the distribution, the means value and the standard deviation. The researchers exported the figures from Qualtrics into Excel format. The figures were separated by countries, in order to investigate whether different nationality might lead to different answers. Further, the researchers input the figures into the SPSS software. The purpose was to use SPSS to achieve more precise statistical information apart from the basic descriptive- and frequency analyses. In addition, a one sample test was also run through SPSS.

3.9.8 Descriptive analysis
In order to analyze the collected data, the descriptive analysis was used to simplify the quantitative data collected for the thesis. Since the collected data consisted of 93 samples the descriptive statistics was a perfect tool to summarize the data and describe the relationship between the BRIC countries and the SERVQUAL determinants. The reduction and simplification of the data thanks to the descriptive analysis technique, facilitated the actual analysis, but could also cause a disadvantage since it only focused on the summarized data and did not consider any details.

3.9.9 Factor Analysis
The One Sample Test was based on the assumption of zone of tolerance, 4, 3 and 2 representing different service quality levels respectively above 4, is excellent service, 3 locates in the middle of the zone of tolerance, and lower than 2 falls within the area of service failure. The One Sample Test is based on hypothesis testing of whether means are higher or lower than 4, 3 and 2 (belong to factor analysis). After the SPSS running, the researchers can obtain the different p-values of each questions (starting from the test-value 4), and then compare to significance 0.05, where the lower one must reject $H_0$, and the higher one must accept $H_0$. For those figures not reaching above level 4 were continuously tested on value 3 or value 2.
4 Empirical data

4.1 Quantitative empirical data

In this part, the empirical data collected through the survey will be introduced. As a start, the goal was to reach a number of 120 respondents, which would be 30 respondents per country. Since there are no rules of how large the population of the study should be, the researchers chose to have 30 in each group since they regarded this number to be sufficient for the study. In addition, Coolridge (2000) states that the number of respondents in a quantitative study, can increase the level of representativeness of the population. Regrettably, there was no possibility in receiving 30 respondents in each group however Coolridge (2000) proposes that there must be a minimum of 10 participants in each studied group or in the over-all study a minimum of 30 participants. Therefore, the requirements for the questionnaire regarding the valid quantitative study were fulfilled (Coolridge, 2000).

The respondents of the survey cover Brazil, Russia, India, and China. However, in order to reach the number of respondents needed for the survey, Geert Hofstede’s theories regarding cultural dimensions were used to find countries similar to those two countries that needed extra population, where 15 Mexican students represent the Brazilian population. For Russia, a target group of a total of ten Ukrainian and Georgian students was used. The result from the focus group showed that the Ukrainian students believe themselves to be similar to the Russian population while the Georgian students did not. When considering the common history and politics that Ukraine and Russia has shared for thousands of years, it becomes quite obvious that the Ukrainian students considered themselves as well as their demands to be similar to the Russian student’s demand on the educational service quality. The study made by Reisinger, Miller, Hesli and Maher (1994) on Political Values in Russia, Ukraine and Lithuania confirms the assumption that the Ukrainian population is similar to the Russian population in many social sciences aspects.

Therefore, 4 Ukrainian students were used in order for Russia to reach a higher level of respondents.

The table below provides an overview of approximate percentages of the respondents.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil and Mexico</td>
<td>19</td>
<td>20%</td>
</tr>
<tr>
<td>Russia</td>
<td>23</td>
<td>25%</td>
</tr>
<tr>
<td>India</td>
<td>21</td>
<td>22%</td>
</tr>
<tr>
<td>China</td>
<td>30</td>
<td>33%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>93</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1.2

The empirical data collected from the survey is shortly presented and divided according to the five determinants of SERVQUAL and the countries. In order to summarize the collected data from the five determinants with three questions per determinant, the aver-
age of every question from the same determinant has been summarized and calculated providing averages of the three questions relating to each determinant. The following model was used to calculate the average of the determinants.

\[
u = \frac{X_1 + X_2 + X_3 + \ldots + X_{N-1} + X_N}{N} = \frac{\sum}{N}
\]

\[
X = \text{Answer Scale} \quad N = \text{Amount of questions} \quad \sum = \text{Sum} \quad u = \text{Average}
\]

For the reader to gain a better view of the findings, the diagrams for each determinant are also represented in this section where each determinant is represented separately. The diagrams facilitate the understanding of the differences between the BRIC countries and provide more visual and detailed information of the distribution between the determinants and the countries.

Table 1.3, represents the average for each determinant. All of the values are within the zone of tolerance, which is within values 2 to 4. The table shows that the lowest value is received by the Russian students where 3, 06 is the value for Assurance while the highest value which was given by the Brazilian students for the Tangible determinant at 4, 25 which is a value that is above the desired level of the zone of tolerance. As the table shows, there is no value that is below the zone of tolerance or below the middle of the zone of tolerance which is represented by value 3. The average values for each determinant are also represented where Tangibility reached 3, 94 and Assurance 3, 18. Even if both values of the averages are within the zone of tolerance, tangibility is closer to the desired level while the assurance is slightly above the middle value.

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Brazil and Mexico</th>
<th>Russia</th>
<th>India</th>
<th>China</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>4, 25</td>
<td>3, 58</td>
<td>4, 22</td>
<td>3, 73</td>
<td>3, 94</td>
</tr>
<tr>
<td>Assurance</td>
<td>3, 37</td>
<td>3, 06</td>
<td>3, 31</td>
<td>3, 08</td>
<td>3, 18</td>
</tr>
<tr>
<td>Empathy</td>
<td>3, 74</td>
<td>3, 36</td>
<td>3, 75</td>
<td>3, 24</td>
<td>3, 48</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>3, 88</td>
<td>3, 65</td>
<td>3, 97</td>
<td>3, 71</td>
<td>3, 79</td>
</tr>
<tr>
<td>Reliability</td>
<td>3, 54</td>
<td>3, 26</td>
<td>3, 71</td>
<td>3, 37</td>
<td>3, 46</td>
</tr>
</tbody>
</table>

The following information is divided according to each determinant. The diagrams are visuals used in order to provide a better understanding of the differences between the countries. The Likert scale on the left side of the diagram changes depending on the values given by the respondents.
The highest values have been given for the dimension of tangibility where respondents from India and Brazil considered the experience of the tangible aspects of the service to be above the desired level, according to the data received from the questionnaire. The values of the respondents from Russia and China are also to be found above the average, but below the desired level. The mean of all countries reached a value of 3.91 which suggests that the complete population regard the tangible aspect of the service to be almost reaching the desired level. The diagram demonstrates that the determinant of tangibility is one of the strongest determinants experienced within the educational service quality at Jönköping University.

The determinant of assurance has received the lowest values of all determinants. Although the value of assurance is the lowest, it still represents the upper half of the zone
of tolerance. In other words, the determinant of assurance is still above the middle of zone of tolerance. Yet again the highest values were given by the students from Brazil and India with 3.37 and 3.31 respectively, whereas the Russian and Chinese students provided a much lower score, 3.06 and 3.08 respectively.

Figure 1.6

Empathy as well as the remaining determinants is, as previously mentioned, above the average of zone of tolerance. The highest score were again provided by the respondents from Brazil and India, whereas the lowest scores were received from Russia and China. The average level for Empathy is 3.48 which can be considered as a good result since it is above level 3, which represents the middle of the zone of tolerance.

Figure 1.7

One can see that responsiveness reached highest values after tangibility among the targeted countries where the students from India provided the highest values, 3.97. Brazil
and China provided scores close to the desired level whereas the students from Russia showed an average level of 3.65.

Indian and Brazilian students have, according to the questionnaire, the best experience among the selected countries when it comes to the reliability of the service provided by Jönköping University. The high scores by Brazil and India are close to the desired level of the zone of tolerance with scores reaching 3.54 and 3.71 respectively. Although the Russian values are above the middle of the zone of tolerance, they have still reached the lowest level regarding the experienced reliability.

Above is a presentation of the collected data from the questionnaire covering the BRIC countries where Mexico can be found in the figures of Brazil and Ukraine in the Russian data. There is a clear pattern that students from BRIC countries are all above the average of the zone of tolerance, level 3. There are also indications that students from
Brazil and India are, on average, most satisfied with all five determinants associated with the educational service quality at Jönköping University. Tangibility has been considered as the strongest and most high-qualitative of all five determinants whereas assurance has proven to be the weakest determinant of the educational service quality offered by the university.

It has also become clear that students from Russia, according to the total experienced educational service, are the least content with the service while the students from India have shown the highest scores on average on all determinants.

4.2 Qualitative empirical data

In order to increase the validity of the study, the researchers combined quantitative and qualitative studies. For the qualitative study, four students from each of the selected countries were interviewed in order to gain a deeper and more thorough understanding of the experience of educational service quality and the general opinion from the students. The findings from the four interviews will be presented one by one and will follow with an analysis and comparison in the analysis chapter of the thesis.

<table>
<thead>
<tr>
<th>ID</th>
<th>Gender</th>
<th>Level</th>
<th>Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant A</td>
<td>Male</td>
<td>Masters</td>
<td>2011.05.13</td>
<td>31 minutes</td>
</tr>
<tr>
<td>Participant B</td>
<td>Female</td>
<td>Bachelor</td>
<td>2011.05.13</td>
<td>19 minutes</td>
</tr>
<tr>
<td>Participant C</td>
<td>Male</td>
<td>Masters</td>
<td>2011.05.10</td>
<td>25 minutes</td>
</tr>
<tr>
<td>Participant D</td>
<td>Male</td>
<td>Bachelor</td>
<td>2011.05.15</td>
<td>29 minutes</td>
</tr>
</tbody>
</table>

4.2.1 Interview held with participant A

The low costs, in combination with the educational service quality and thanks to the subsidiaries provided by the Swedish government made all the difference for the Mexican student. This, combined with his interest in Sweden and the new, entrepreneurial and innovative way of thinking, inspired him to apply to a university in Sweden.

His first choice was Stockholm School of Economics, however he was not accepted to Stockholm but instead to Jönköping International Business School. Even though the student confirms that the main reason to study in Sweden was the low cost he highlights that the quality and uniqueness of the Swedish education also appealed to him.

Although the student considers Jönköping University to be an international university, he believes that there is a clear indication of failure in the process of integrating international students with Swedish, local students which slightly lowers the experience of the Swedish, but still international university education.

When discussing the entrepreneurial profile of the university, the Mexican student stated that he did not feel that the university or Science Park had a sensible approach to the non-Swedish speaking entrepreneurs. He said that is a great service that is being offered by Science Park, but that it does not come across as very "international-student" friendly. He was very disappointed when nobody could help him to create contact with the Swedish market and he highlights the importance that the international students tru-
ly need extra care and help in order to find partners on the Swedish market and assist with communication and language difficulties.

The Mexican student is aware of the introduction of the fee but does not feel too affected since he has already started his education but mentions that he would not have been able to pay the 120,000 SEK per year. It is the belief of the student that the introduction of the fee will lead to fewer international students arriving to Jönköping University and that they perhaps should change their slogan from “Truly International” to “Truly European”. Although the student says that the education he has received is worth the money they will start to charge in autumn 2011, he says that he would primarily try to be accepted into a university in a more international metropolitan.

The tangible aspects of the service is considered to be good however the student believes that they should provide more books and information related to his topic of study (entertainment and arts). Despite the lack of books, he believes that the computer rooms and university holds a good qualitative level. The only problem that he has come across is the never-ending issue with the student accommodation.

The student’s perspective of the assurance aspects of the service is poor since there has been no real connection to the industry related to his topic of study. He does mention however that the lecturers have provided him with letters of recommendation, which he highly appreciates. In general however, the student is satisfied with the educational level provided by the university and has no major complaints regarding this matter.

The determinant of empathy has been positively experienced by the student; he mentions that the university’s contact personnel have always been very helpful and that the employees at the international offices have never failed to be understanding and caring.

The response from the university has always been professional and fast and there has never been any issues experienced by the student. The provided service has been according to the student’s expectations.

In regards to the lectures, the Mexican student believes that they have been structured and well-prepared however that the English of some of the lecturers and teachers should be improved.

The administrative part of the service, also related to the determinant of responsiveness was believed to be weak and lacking cooperation between the different administrative departments. The student has experienced several times that he is often sent to another personnel who “should be able to answer your question”. It is the belief of the student that perhaps the staff of the administrative departments should be empowered in order to provide a more swift and effective service for the students.

Although the university has not fulfilled all the expectations that the student had, on the whole, he feels content and has a high opinion of the reliability of the university since he has so far not experienced any major issues.

4.2.2 Interview held with participant B

With the opportunity to choose between Sweden and France, and with an underlying interest in Sweden, the Russian student chose Sweden because she believed Sweden to have better educational systems. The student considered Jönköping University to be very international but she expressed her concern that it will most likely change in the
coming years, due to the introduction of the tuition fee. In the Russian student’s point of view, the tuition fee is too high and she would not want to spend that much money.

When discussing the tangible aspects of the service, the Russian student regards the university to be very well equipped and good, compared to her home university. Also, the student highlights the freedom of entering the university whenever she wants and the safety that is related to the usage of the identification card and the openness of the university and library.

The aspect of assurance, which is represented by the confidence for their academic future and career the student said she felt very confident and safe and she strongly believes that her Swedish experience will benefit her future career.

Further, the student expressed her concern regarding the English language skills of several lecturers and professors. She feels that many only follows the slides “too carefully” and do not provide information other than what is actually on the slide.

The Russian is somewhat satisfied with the determinant of empathy. Examples that she provided are that she is pleased with the international office and that they are very nice and understanding and always offer to help the students, with many different issues. In addition, the student believes that the professors are respectful and understanding despite the cultural diversity at the university but that they are not personal at all. What the student meant by “not personal” is that they do not seem to care whether the student is attending the lectures or not. She compares her experience in Sweden with her university in Russia and says that the teachers in Russia are far more interested in the students, they know everyone by name and pay great attention as to who is there and who is not.

The determinant of responsiveness at the university is considered to be very good according to the student. She believes that the IT-helpdesk and the software systems that are available at the university are always very helpful and of high-quality. The other support staff present at the university has come across as very knowledgeable and pedagogical. In regards to the responsiveness of the teachers the student was not as pleased with their performance since she has experienced several times that the teachers are only following what is stated on the slides, but do not encourage or inspire to discussions on subjects related to the topic, but that are not brought up on the slides. The student truly believes that this would make the lectures more interactive and rewarding.

The student considers the university to be reliable, the execution of the seminars is correctly and well prepared but the student believes that they can sometimes be lacking in pedagogical structure.

In addition, the student thought that it is great that the university brings in entrepreneurial aspects into the economic educations however she feels that not many international students exploit the opportunity of Science Park and the entrepreneurial profile of JIBS but she believes this is due to the lack of knowledge of the Swedish language and the complicated process of coming out to the Swedish market.

4.2.3 Interview held with participant C

The Indian master student at the School of Engineering considers the tangible aspects of the service to be very satisfying. The computers offered by the university are of very high quality where the student would like to highlight the availability of the computers.
The appearance of the teachers is relaxed and not too smart which the student believes to be a positive and attractive way to facilitate the communication between the students and the professors. In addition, the student feels highly confident for the future after studying at Jönköping University since he strongly believes that any kind of international experience is good for the future career but that this is not something the university has instilled in him, it is rather his own opinion.

The university does a great job and the employees are very attentive in fulfilling the specific needs which the student regards as being one of the greatest aspects of the university. Further, the student mentions that even if the teachers are respectful and understanding of the cultural differences present at the university, the School of Engineering has not shown any interest in his wellbeing and experience at the university. An issue that the student would like to raise is the problem with student accommodation and that they should be improved and perhaps provide accommodation closer to the university.

The knowledge the teachers possess in a certain subject is of high quality and very satisfying however misunderstandings occur at times but the student believes this to perhaps be rooted in language barriers and communication issues. The determinant of responsiveness and the willingness to fix any occurring problems have also been very satisfying according to the Indian master student.

The reliability aspect of the educational service provided by the university has provided the student with a very satisfying overall impression.

In regards to the university being entrepreneurial he states that he cannot express much related to this as he has not experienced much of the entrepreneurial spirit at the university and believes this should be improved and perhaps be made more available for international students.

Even if the student was very satisfied with the seminars and lectures, he would enjoy more structured seminars and he believes that the students should show the lecturer more respect by being on time and listening and participating throughout the lesson.

4.2.4 Interview held with participant D

One of the main reasons the student chose Jönköping University was for the tuition-free education. The student finds the increase from free education to paying approximately SEK 90,000 per academic year to be slightly high, but highlights that this fee can be found at other universities in Europe so it is not too surprising. The student also makes it clear that if the fee would already have been implemented, the student would not have chosen Jönköping University as the place of education, but rather a university in an English speaking country.

From the perspective of the Chinese student, the student argued that the introduction fee would lead to Jönköping University losing its largest competitiveness and attractiveness, in other words being free of tuition fees and an international university. In addition, he sharply pointed out that the fee cost (approx, SEK 90,000) does not respond to the level of the educational service provide by the university.

According to the student, the educational facilities in China are not of the same standard as in Sweden, hence the tangible aspects of the service is considered to be very satisfying, such as the technological solutions in the library and the computer rooms. Howev-
er, the dissatisfaction towards teachers’ performance in combination with the universities weak position on the international market, the determinant of assurance is considered to be weak.

The student thought that the international offices are supportive and caring which is related to the determinant of empathy. The Chinese student considered the university to be a bit “lazy” from time to time, since the opening hours of the support staff was limited.

The teachers’ knowledge is according to the Chinese student limited to the specific subject which decreases the quality of the Responsiveness. The service provided by the support staff is however executed perfectly according to the student. Further, he considers the university being very reliable since the performed seminars are often very structured and well prepared. Other aspects which gain satisfactory level by the Chinese student are the “international” and “entrepreneurial” image of the university but he believes that these two features are pretty common in international universities.
5 Analysis

5.1 Descriptive analysis

For this research, a combination of the values from 1 to 5 found in the questionnaire and the zone of tolerance has been used. “Highly dissatisfied” represents the area below the adequate level in the zone of tolerance, where a service failure occurs. On the other hand, “Highly satisfied” represents the area above the desired level, also known as excellent service. The researchers have placed the zone of tolerance between values 2 and 4 on the Likert scale, since value 1 and 5 are two extreme opposite values of the scale. The combination of the Likert scale and zone of tolerance is a result of the researchers’ reflections and influences from previous research.

Since the collected data show that most responses are within the zone of tolerance, the descriptive analysis will focus only on the data that can be found above the desired level, level 4. The reason behind this choice of analysis is based on the findings by Parasuraman, Berry and Zeithaml (1991), where a service ending up in the area of excellent service is called “customer franchise”, or as has been titled “excellent service” in the model above. This indicates that it is the students who are above the desired level who will remain loyal to the university and who may become future ambassadors of the university since it is the loyalty to the university that will influence the students to create the future image of the university.

Loyal customer can spread a good image and positive word of mouth regarding an experienced service (Andreassen & Lindestad, 1998), and in this case regarding the educational service quality offered by Jönköping University. By identifying the group that is above the desired level, the university can use the identified service quality and turn it into their competitive advantage in their future marketing strategy. Since word of mouth cannot be controlled, but is considered to be one of the strongest marketing tools influencing the image of a company and communicates the perceptions which in turn can influence the expectation of the service quality, it would be an advantage for the university to identify the expectations of the future students. The model of Total Perceived Quality is demonstrating the function between expectations and the experience, by meeting the expectations of the students the educational service quality will be fulfilled.
and the student will be satisfied with the experienced service. By not meeting the expectations which are influenced by image, word of mouth and marketing communication the quality will be evaluated as poor.

5.1.1 Frequency analysis

The frequency analysis is a descriptive analysis that demonstrates the sample distribution of the answers between the BRIC countries. As has already been mentioned, the description of the analysis will only focus on the results above the value of 4. The higher the percentage is in the frequency analysis, the better the results for the university. The percentage represents samples of the population who are very satisfied with the educational service quality and who could end up as “future ambassadors” for the university.

The five determinants of SERVQUAL are separately summarized to gain a better view and to identify which parts of the service is the excellent and which parts the university should strengthen in order to not lose its customers.

5.1.2 Frequency analysis for Brazil and Mexico

The frequency analysis shows that all nineteen samples are valid where 52, 6 % are exchange students and the rest, 47, 4 % are international program students. The Brazilian samples represented in the frequency analysis, which measures the tangibility shows in Q3 that 89, 5 % of the samples were above the desired level, Q5 shows 78, 9 % and Q7 shows 73, 2 % above the desired level, which is also known as excellent service. Assurance, measured by Q4 shows that 52, 6 % are above the desired level, Q6 shows that 26, 3 % are above the desired level of the zone of tolerance and Q8 shows that 15, 8 % are above the desired level. The determinant of empathy is most widely spread according to the frequency analysis, where Q9 has only 42, 1 % over the desired level, Q10 shows that 57, 7 % are above the desired level and Q11 shows the highest scores of 73, 7 % of being above the desired level. Responsiveness is represented by Q12 which shows 84, 2 % and Q16 shows 68, 5 % are above the desired level, and Q15 shows 42, 1 %. The last determinant reliability is represented by Q13 where 52, 6 % are above the desired level, Q14 shows 63, 2 % and Q17 shows that 57, 9 % reached above the desired level. See the table 1.10, below.

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Q3 = 89.5%</th>
<th>Q5 = 78.9%</th>
<th>Q7 = 73.2%</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td></td>
<td></td>
<td></td>
<td>80.5%</td>
</tr>
<tr>
<td>Assurance</td>
<td>Q4 = 52.6%</td>
<td>Q6 = 26.3%</td>
<td>Q8 = 15.8%</td>
<td>39.5%</td>
</tr>
<tr>
<td>Empathy</td>
<td>Q9 = 42.1%</td>
<td>Q10 = 57.7%</td>
<td>Q11 = 73.7%</td>
<td>57.8%</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Q12 = 84.2%</td>
<td>Q16 = 68.5%</td>
<td>Q15 = 42.1%</td>
<td>64.9%</td>
</tr>
<tr>
<td>Reliability</td>
<td>Q13 = 52.6%</td>
<td>Q14 = 63.2%</td>
<td>Q17 = 57.9%</td>
<td>57.9%</td>
</tr>
</tbody>
</table>

Table 1.10

5.1.3 Frequency analysis for Russia and Ukraine

According to the frequency analysis all 23 samples representing Russia are valid where 26, 1 % is exchange students and the rest, 73, 9 % are international program students.
For tangibility, Q3 shows 60.9% are above the desired level, Q5 shows 65.2% and for Q7 there are only 43.4% who consider the tangible aspect of the service to be above the desired level. Assurance which is measured by Q4 shows that only 43.4% are very satisfied; Q6 shows 34.7% and Q8 shows 34.8%. Empathy measured by Q9 shows 43.4%, Q10 shows 52.2% and Q11 shows 52.2%. Even here, the variance between the questions can be seen although they are measuring the same determinant. Responsiveness according to the Russian respondents which are presented by Q12 are 47.8% above the desired level in the zone of tolerance, Q15 is showing 78.2% and in Q16 are 56.5% of the respondents very satisfied. Reliability is measured by Q13, Q14 and Q17 which is 52.1%, 65.2% and 34.8% respectively which are the highest scores of the five determinants for the Russian samples. See the table below.

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Q3 = 60.9%</th>
<th>Q5 = 65.2%</th>
<th>Q7 = 43.4%</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td></td>
<td></td>
<td></td>
<td>56.5%</td>
</tr>
<tr>
<td>Assurance</td>
<td>Q4 = 43.4%</td>
<td>Q6 = 34.7%</td>
<td>Q8 = 34.8%</td>
<td>37.6%</td>
</tr>
<tr>
<td>Empathy</td>
<td>Q9 = 43.4%</td>
<td>Q10 = 52.2%</td>
<td>Q11 = 52.2%</td>
<td>49.3%</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Q12 = 47.8%</td>
<td>Q15 = 78.2%</td>
<td>Q16 = 56.5%</td>
<td>60.8%</td>
</tr>
<tr>
<td>Reliability</td>
<td>Q13 = 52.1%</td>
<td>Q14 = 65.2%</td>
<td>Q17 = 34.8%</td>
<td>50.7%</td>
</tr>
</tbody>
</table>

**Table 1.11**

5.1.4 Frequency analysis for India

The frequency analysis shows that there is no error in the 21 respondents from India. Tangibility is measured by Q3, Q5 and Q7 and respectively shows that the result of 95.2%, 85.7% and 61.9% is above the desired level which is the best result among all BRIC countries. Assurance is measured by Q4 which shows that 42.9% are above the desired level, Q6 shows 61.9% and Q8 42.8%. Even if the scores are high assurance is the weakest determinant among the students from India. Empathy Q9, Q10 and Q11 are showing 49.3%, 71.5% and 57.2% respectively. Responsiveness is measured by Q12 where 82.5% were very satisfied, Q15 shows 85.8% and Q16 shows the result of 61.9% of being above the desired level. Reliability covered by Q13, Q14 and Q17 shows 71.4%, 52.4% and 66.7% of being very satisfied and above the desired level. See the table below.

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Q3 = 95.2%</th>
<th>Q5 = 85.7%</th>
<th>Q7 = 61.9%</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td></td>
<td></td>
<td></td>
<td>81%</td>
</tr>
<tr>
<td>Assurance</td>
<td>Q4 = 42.9%</td>
<td>Q6 = 61.9%</td>
<td>Q8 = 42.8%</td>
<td>49.2%</td>
</tr>
<tr>
<td>Empathy</td>
<td>Q9 = 49.3%</td>
<td>Q10 = 71.5%</td>
<td>Q11 = 57.2%</td>
<td>59.3%</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Q12 = 82.5%</td>
<td>Q15 = 85.5%</td>
<td>Q16 = 61.9%</td>
<td>76.6%</td>
</tr>
<tr>
<td>Reliability</td>
<td>Q13 = 71.4%</td>
<td>Q14 = 52.4%</td>
<td>Q17 = 66.7%</td>
<td>63.5%</td>
</tr>
</tbody>
</table>

**Table 1.12**
5.1.5 Frequency analysis for China

According to the frequency analysis on the students from China, the 30 samples consist of 10% exchange students and the rest, 90% of the samples were international program students. Tangibility measured by Q3, Q5 and Q7 shows that 73, 3%, 73, 2% and 40% respectively are above the desired level of the educational service quality. Assurance measured by Q4, Q6 and Q8 show 16, 7%, 36, 6% and 23, 4% respectively indicating that assurance again has the lowest score according to the Chinese students. Empathy, measured by Q9, Q10 and Q11 demonstrates the results of 26, 7%, 33, 3% and 43, 4% and reaches above the desired level. Responsiveness, measured by Q12 shows that 53, 3% are above the desired level, Q15 shows 84, 3% and Q16 shows 56, 7% of the Chinese respondents being above the desired level of the educational service quality. Reliability, Q13, Q14 and Q17 demonstrate that 60%, 54, 3% and 36, 6% respectively can be found above the desired level. See the table below.

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Q3 = 73, 3%</th>
<th>Q5 = 73, 2%</th>
<th>Q7 = 40%</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assurance</td>
<td>Q4 = 16, 7%</td>
<td>Q6 = 36, 6%</td>
<td>Q8 = 23, 4%</td>
<td>25, 5%</td>
</tr>
<tr>
<td>Empathy</td>
<td>Q9 = 26, 7%</td>
<td>Q10 = 33, 3%</td>
<td>Q11 = 43, 4%</td>
<td>34, 5%</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Q12 = 53, 3%</td>
<td>Q15 = 84, 3%</td>
<td>Q16 = 56, 7%</td>
<td>64, 7%</td>
</tr>
<tr>
<td>Reliability</td>
<td>Q13 = 60%</td>
<td>Q14 = 54, 3%</td>
<td>Q17 = 36, 6%</td>
<td>50, 3%</td>
</tr>
</tbody>
</table>

Figure 1.14, found on the following page, demonstrates a holistic picture of the distribution between the determinants and the different countries that are within the experience of excellent service. There is a clear pattern of a relationship between the empirical findings and the frequency analyses and in figure 1.14, and the reader is demonstrated the similarities to the tables introduced in the empirical findings. In the previously presented tables, Assurance and Empathy scored the lowest values where only 50% of the students considered the part of the service to be excellent. Tangibility and Responsiveness reached the highest values where Reliability had 60% and tangibility 80% of very satisfied respondents.

By identifying the experienced educational service quality among the foreign students the university can form their marketing strategy that will meet the future students’ expectations. By marketing aspects of the service relating to tangibility and responsiveness, students might receive the educational service quality that they are promised which will increase the reliability of the university and the service experience as a whole since it will fulfill the promises given.
The technical and functional dimensions of the service that is presented in the Total Perceived Quality model by Grönroos (2007) is creating an image of the experienced service, which means that the image can indirectly be controlled by the university. According to Grönroos (2007) image functions as a filter and for students this provides an easier identification process of an appropriate university to study in. Image is also creating the expectation of students which is important for the university to consider if it wishes to deliver a better service to its customers.

The frequency analysis demonstrates that the most excellent determinants were *Tangibility* and *Responsiveness* and the weakest *Assurance* and *Empathy*. To create a strong image and word of mouth, the university must take into consideration to not only meet the students’ expectations within the zone of tolerance but also work towards delivering educational service quality that is close to or above the desired level. By improving the services’ weakest determinants, the university can create excellent service since the experience of the service for future students will be met by paying attention to the former students’ perception of the university’s educational service quality and image.

In the empirical data collection, figure 1.9 clearly shows that regardless of the theory on cultural dimension as proposed by Geert Hofstede, the exchange and international students have similar perceptions of the educational service quality. Even if students’ cultural background influences how they perceive service, the pattern of the educational service quality that the university offers appears where students’ perception of the different determinant are similar but at different levels. Even if the tangible part of the service is experienced at different levels from different cultural dimensions, it is still the strongest part of the service for every dimension. In further analysis, the data also shows that the cultural dimensions of Russia and China have most similar results although India and Russia are within the same cultural dimensions according to Geert Hofstede.

Judging by the data and the analysis, Geert Hofstede’s cultural dimension seems not to be useful in understanding or analyzing the perception of educational service quality by different countries. The respondents who took part in this research answered in similar patterns and there is a strong indication that the determinants of tangibility and respon-
siveness are close to desired level whereas reliability, empathy and assurance can be found in the midrange of the zone of tolerance.

The main goal of the questionnaire was to have a wide approach to each determinant and cover the different areas of the determinants. The result demonstrates that the experience within the same determinant can vary remarkably and a possible reason behind the variance could be the formation of the questionnaire. The frequency analysis confirms that students have different perceptions of the same determinant which increases the reliability of the findings since the data is not only based on one specific experience of the determinant but several. This means that even if the results vary within the same determinant the overall result is more accurate than if the focus had only been on one variable.

5.2 Standard deviation of the collected data

Aczel (2006) mentions that a mean is a measure centrality of a set of observations, and standard deviation is their spread. In other words, deviation reflects the observations of each fluctuation compared with the means. Therefore, a higher deviation demonstrates that most of the observations are long distance with an average point, while, a lower deviation demonstrates that most of observations are close to an average point. Therefore, in this case, standard deviation reflects the difference among respondents’ answers of each question. The higher the standard deviation of each question is, the more controversial the answers of the questions.

\[
\text{SD} = \sqrt{\frac{1}{n-1} \sum (X - \bar{X})^2}
\]

This rule can be noticed from the following formula: \(SD= \frac{\text{X}}{\text{X}}\)

Where: \(X\) is each score, \(\bar{X}\) is the mean or average, \(n\) is the number of values and \(\Sigma\) is the accumulation of sum across the values.

Based upon this formula, if the numerator is larger, (score subtract average) the SD will be larger. Therefore, it can be concluded that the SD is a measurement for survey scores’ fluctuation.

Standard Deviation of each question

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Relate to SERVQUAL</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>Tangible</td>
<td>1.02</td>
</tr>
<tr>
<td>Q4</td>
<td>Assurance</td>
<td>0.97</td>
</tr>
<tr>
<td>Q5</td>
<td>Tangible</td>
<td>1.03</td>
</tr>
<tr>
<td>Q6</td>
<td>Assurance</td>
<td>1.00</td>
</tr>
<tr>
<td>Q7</td>
<td>Tangible</td>
<td>1.08</td>
</tr>
<tr>
<td>Q8</td>
<td>Assurance</td>
<td>1.17</td>
</tr>
<tr>
<td>Q9</td>
<td>Empathy</td>
<td>0.96</td>
</tr>
<tr>
<td>Q10</td>
<td>Empathy</td>
<td>1.16</td>
</tr>
<tr>
<td>-----</td>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>Q11</td>
<td>Empathy</td>
<td>0.99</td>
</tr>
<tr>
<td>Q12</td>
<td>Reliability</td>
<td>1.04</td>
</tr>
<tr>
<td>Q13</td>
<td>Responsiveness</td>
<td>1.07</td>
</tr>
<tr>
<td>Q14</td>
<td>Responsiveness</td>
<td>0.96</td>
</tr>
<tr>
<td>Q15</td>
<td>Reliability</td>
<td>0.88</td>
</tr>
<tr>
<td>Q16</td>
<td>Reliability</td>
<td>0.93</td>
</tr>
<tr>
<td>Q17</td>
<td>Responsiveness</td>
<td>0.94</td>
</tr>
</tbody>
</table>

Table 1.15

Q8 is within the highest deviation and Q7, Q10 Q12 and Q13 are also high compared to the remaining ones. These questions have already covered each determinants of the SERVQUAL model, which demonstrates that the questionnaire design is objective and effective.

5.3 Description of the scales of the questionnaire

In this thesis, the research purpose is built upon such assumption, whether students’ different cultural background or nationalities will influence their experience towards service quality or not. The degree of students’ satisfaction or dissatisfaction can be illustrated by the zone of tolerance. When originally collecting the data, there were scales from 1 to 5 where 1 was Highly Satisfied and 5 was Highly Dissatisfied. After the data collection, the scale was reversed and the purpose for this change was to provide convenience for the statistical part of the research and to achieve consistency with the zone of tolerance, see table 6. In order to make the analysis more accurate, it was reasonable to launch a one sample T-test based on the different countries and the different questions.

5.3.1 “Null hypothesis” and “alternative hypothesis”

Bradley (2007) defines the null hypothesis as a measure for the test values and that testing values can be done randomly. Gujarati (2009) states that the null hypothesis as symbol of H₀ and alternative hypothesis as H₁. For instance in this case, firstly assume null hypothesis as H₀: μ=4 and alternative hypothesis as H₁: μ≠4. In the above pages of this thesis, the frequency distribution analysis and descriptive analysis has already been presented, however they are not sufficient for this research.

Suter (1996) argues that one of the major statistical methods is the hypothesis method, which is one of the most common ways for data analysis in social sciences research. Actually, the means or deviations are not enough in order to test the validity or reliability of the data as it is not accurate to predict the rules of data collection. Therefore, based on hypothesis, the topic of the thesis can be improved and provide a more broad and detailed perspective.

Commonly, a hypothesis is accompanied with one specific statistical test and Aczel (2006) confirms that the concept of hypothesis can be tested through statistical means
through certain types of testing ways, the most widely used including: T-test, F-test, Chi-square, correlation, and ANOVA. In this part of the analysis, the research group chose to use the T-test for descriptive and frequency analyses.

5.3.2 Subgroup sampling by group

Up to the end of April, the research group had received 93 responses to the questionnaire. In order to clarify the survey analysis, subgroup or group segmentation method was adopted when doing the following statistical test. The subgroup based on the nationality of each respondent was in accordance with Geert Hofstede’s cultural dimensions. The questionnaire contains 17 questions and can be categorized in groups according to the respondents’ nationality and whether the student is an exchange or international program respondent.

It can be noticed that the four major respondent groups following the nationality criteria, had a distribution of respondents as Russia and Ukraine 23 respondents, India 21 respondents, China 30 respondents and Brazil and Mexico 19 respondents, totaling the number to 93 respondents. For this research, the one sample test was based on the nationality groups in order to analyze the 15 questions.

Moreover, the 15 questions can be categorized into five parts, according to the SERVQUAL model.

Q3, Q5 and Q7 belong to the tangible aspects of a service; Q4, Q6 and Q8 belong to assurance aspect; Q9, Q10 and Q11 belong to empathy; Q12, Q15 and Q16 belong to reliability and Q13, Q14, and Q17 belong to responsiveness.

As was mentioned before, the scales of the questionnaire represents the degree of satisfaction. The higher the value on the scale, the more satisfied the respondent feels. Based on the zone of tolerance, scale 3 (neutral) locates in the middle of the zone of tolerance, and scale 4, or even above 4 actually refers to excellent service. Therefore, after the descriptive- and frequency analyses, it proves to be more suitable to launch a T-test on each result per question, based on the different nationalities of the 93 respondents.

5.3.3 One Sample T-Test

Gastwirth and Rubin (1971) summarize the t-test and states that it follows the principles as to test the null hypothesis: mean μ of the population sampled is a specific value (for instance 0) against two possibilities, a one-tailed alternative μ > 0 or two-tailed alternatives μ≠0. Basic conditions for one sample test is applied to those sample sizes which are smaller than 30 respondents. After segmenting the respondents’ answers based on nationalities, each group’s population is only suitable for these rules.

In this thesis, the T-test is based on such null hypothesis, in order to test whether each service performance achieves the excellent service level or not. In other words, a statistical test is to figure out whether H₀: μ=4, H₁: μ≠4. This two-tailed test can be predicted to the level of each service aspect. If one certain service performance t-test value is higher than 0, and the p-value is higher than the significance level, this confirms that Jönköping University achieves excellent service in specific areas. Moreover, according to Geert Hofstede’s series of cultural dimension theory, the null hypotheses tests have been separated by nationality categories, where four groups of figures have been given for Brazil, Mexico, Russia, Ukraine, India and China.
The basic formula of one sample test is:

\[ T = \frac{x}{\sigma} \]

Based on this formula, it can be acknowledged that the t-test value is correlated with the following variables: sample means (X bar), test value (\( \mu \)), deviation(S) and sample population (N). Fortunately, the calculation process is quite more efficient with the help of the SPSS software.

5.4 Analysis based on results from One Sample T-Test

5.4.1 Brazilian and Mexican students: One Sample Test

From the table on the following page, it can be noticed that this one-sample test is solely for Brazilian students’ responses towards the 15 questions from Q3 to Q17. In this table, the second column is the t-value from each question, and the third one is the degree of freedom, based on the formula of degree of freedom \( df = n-1 = 19-1 = 18 \) (n is population of Brazilian students 19). The most important is the forth column, p-value (2-tailed). Based on the testing rules, if the p-value is lower than the significant level 5% (1-95%) means that \( H_0 \) should be rejected. After rejection, according to the t-value (the second column), if one question’s t-value is positive, its means (average scale) will be higher than test-value 4, if t-value is negative, its means (average scale) will be lower than test-value 4.

Secondly, in terms of the remaining questions whose test results are lower than 4, there were continuous tests on test-value 3.

Thirdly, for those remaining questions whose test results were lower than 3, continuous tests were made on test-value 2.
One-Sample Test

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>2.141</td>
<td>18</td>
<td>.046</td>
<td>.474</td>
<td>.01</td>
<td>.94</td>
</tr>
<tr>
<td>Q4</td>
<td>-2.455</td>
<td>18</td>
<td>.025</td>
<td>-.474</td>
<td>-.88</td>
<td>-.07</td>
</tr>
<tr>
<td>Q5</td>
<td>.766</td>
<td>18</td>
<td>.454</td>
<td>.158</td>
<td>-.28</td>
<td>.59</td>
</tr>
<tr>
<td>Q6</td>
<td>-2.357</td>
<td>18</td>
<td>.030</td>
<td>-.579</td>
<td>-1.09</td>
<td>-.06</td>
</tr>
<tr>
<td>Q7</td>
<td>.490</td>
<td>18</td>
<td>.630</td>
<td>.105</td>
<td>-.35</td>
<td>.56</td>
</tr>
<tr>
<td>Q8</td>
<td>-3.720</td>
<td>18</td>
<td>.002</td>
<td>-.895</td>
<td>-1.40</td>
<td>-.39</td>
</tr>
<tr>
<td>Q9</td>
<td>-3.750</td>
<td>18</td>
<td>.001</td>
<td>-.789</td>
<td>-1.23</td>
<td>-.35</td>
</tr>
<tr>
<td>Q10</td>
<td>-.889</td>
<td>18</td>
<td>.385</td>
<td>-.211</td>
<td>-.71</td>
<td>.29</td>
</tr>
<tr>
<td>Q11</td>
<td>.490</td>
<td>18</td>
<td>.630</td>
<td>.105</td>
<td>-.35</td>
<td>.56</td>
</tr>
<tr>
<td>Q12</td>
<td>-1.508</td>
<td>18</td>
<td>.149</td>
<td>-.368</td>
<td>-.88</td>
<td>.14</td>
</tr>
<tr>
<td>Q13</td>
<td>-1.143</td>
<td>18</td>
<td>.268</td>
<td>-.316</td>
<td>-.90</td>
<td>.26</td>
</tr>
<tr>
<td>Q14</td>
<td>-2.625</td>
<td>18</td>
<td>.017</td>
<td>-.579</td>
<td>-1.04</td>
<td>-.12</td>
</tr>
<tr>
<td>Q15</td>
<td>.718</td>
<td>18</td>
<td>.482</td>
<td>.158</td>
<td>-.30</td>
<td>.62</td>
</tr>
<tr>
<td>Q16</td>
<td>-.825</td>
<td>18</td>
<td>.420</td>
<td>-.158</td>
<td>-.56</td>
<td>.24</td>
</tr>
<tr>
<td>Q17</td>
<td>-2.673</td>
<td>18</td>
<td>.016</td>
<td>-.474</td>
<td>-.85</td>
<td>-.10</td>
</tr>
</tbody>
</table>

In this part, the researchers clearly show the process of hypothesis analysis. The same process is adapted to the following countries: Russia and Ukraine, India and China, however, the researchers only provide summarized versions of the countries’ hypothesis analyses.

Q3: $H_0: \mu = 4$, $H_1: \mu \neq 4$, since $P$-value 0.046 is lower than 0.05 significant level, do not reject $H_0$, therefore the researchers believe in $H_0$, which is for Q3, Brazil students’ response towards Q3 means is lower than 4 and Jönköping University has not achieved the excellent service level.

Above is the basic process for an analysis towards the one sample t-test on simple questions. Following is the table of each question’s one sample t-test analyses.

Q4: $H_0: \mu = 4$, $H_1: \mu \neq 4$, P-value 0.025 < sig. 0.05, reject $H_0$ and the researchers believe $H_1$, also t-value -3.872 < 0, therefore means of Q4 is lower than test value 4.

Q5: $H_0: \mu = 4$, $H_1: \mu \neq 4$ p-value 0.454 > sig. 0.05, do not reject $H_0$ and the researchers believe $H_0$.

Q6: $H_0: \mu = 4$, $H_1: \mu \neq 4$ p-value 0.030 < sig. 0.05, reject $H_0$ and the researchers believe $H_1$, also t-value -3.867 < 0, there means of Q6 is lower than test value 4.

Q7: $H_0: \mu = 4$, $H_1: \mu \neq 4$ p-value 0.630 > sig. 0.05, do not reject $H_0$ and the researchers believe $H_0$.

Q8: $H_0: \mu = 4$, $H_1: \mu \neq 4$ p-value 0.002 > sig. 0.05, reject $H_0$ and the researchers believe $H_1$, also t-value -4.322 < 0, there means of Q8 is lower than test-value 4.
Q9: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.001 < sig.0.05, reject H₀ and the researchers believe H₁, also t-value -3.945 < 0, there means of Q9 is lower than test-value 4.

Q10: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.385 > sig.0.05, do not reject H₀ and the researchers believe H₀.

Q11: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.630 > sig.0.05, do not reject H₀ and the researchers believe H₀.

Q12: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.149 > sig.0.05, do not reject H₀ and the researchers believe H₀.

Q13: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.268 > sig.0.05, do not reject H₀ and the researchers believe H₀.

Q14: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.017 < sig.0.05, reject H₀ and the researchers believe H₁, also t-value -4.592 < 0, there means of Q14 is lower than test-value 4.

Q15: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.482 > sig.0.05, do not reject H₀ and the researchers believe H₀.

Q16: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.420 > sig.0.05, do not reject H₀ and the researchers believe H₀.

Q17: H₀: μ = 4, H₁: μ ≠ 4 p-value 0.016 < sig.0.05, reject H₀ and the researchers believe H₁, also t-value -3.872 < 0, there means of Q17 is lower than test-value 4.

In this population (Brazilian and Mexican students), based on 19 respondents’ answers, it can be found that, the means of Q5, Q7, Q10, Q11, Q12, Q13, Q15 and Q16 are higher than test-value 4. In other words, the above questions for each service performance have already achieved an excellent service level, while the remaining of the service performance may still be in the zone of tolerance or even located in the zone of service failure.

5.4.1.1 Brazilian and Mexican students testing value 3 and value 2

After a rudimentary analysis based on testing value 4, it can be acknowledged there are still some uncertainties for the remaining questions, whose hypotheses have a mean value lower than 4. From the zone of tolerance model, the scale 3 is defined as the middle of the zone of tolerance. Therefore, for the remaining question tests, the researchers began by testing test value as 3, to probe which ones are within the zone of tolerance and which ones are above.
\[
\text{Table 1.17}
\]

### One-Sample Test

<table>
<thead>
<tr>
<th>Question</th>
<th>Testing results</th>
<th>Relate to SERVQUAL</th>
<th>Relate to zone of tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>Reject (H_0) Reject (H_1)</td>
<td>Tangible</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q4</td>
<td>Reject (H_0) Reject (H_1)</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q5</td>
<td>Accept (H_0)</td>
<td>Tangible</td>
<td>Excellent service</td>
</tr>
<tr>
<td>Q6</td>
<td>Reject (H_0) Accept (H_1)</td>
<td>Assurance</td>
<td>Service failure</td>
</tr>
</tbody>
</table>

Assume \(H_0\): \(\mu = 3\), \(H_1\): \(\mu \neq 3\) 2-tailed assumption for each question. Also based on the p-value, Q6, Q8, Q9 and Q14 accept \(H_0\).

However, the remaining Q3, Q4 and Q17 still needed to be tested within test value 2. There were two possibilities, one mean locates in the zone of tolerance \((2 < \mu < 3)\), the other is in service failure \((\mu < 2)\).
<table>
<thead>
<tr>
<th></th>
<th>Accept $H_0$</th>
<th>Tangible</th>
<th>Excellent service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q8</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q9</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Empathy</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q10</td>
<td>Accept $H_0$</td>
<td>Empathy</td>
<td>Excellent service</td>
</tr>
<tr>
<td>Q11</td>
<td>Accept $H_0$</td>
<td>Empathy</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q12</td>
<td>Accept $H_0$</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q13</td>
<td>Accept $H_0$</td>
<td>Responsiveness</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q14</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Responsiveness</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q15</td>
<td>Accept $H_0$</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q16</td>
<td>Accept $H_0$</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q17</td>
<td>Reject $H_0$ Reject $H_0$</td>
<td>Responsiveness</td>
<td>Zone of tolerance</td>
</tr>
</tbody>
</table>

Table 1.19
5.4.2 Russian and Ukrainian students: One Sample Test

23 Russian and Ukrainian students participated in the survey of educational service quality. With the SPSS software, the researchers continually tested the means of each question. Testing values similar with the above analysis for Brazilian and Mexican students, assuming testing value as 4 and then assuming testing value as 3 for those questions whose means do not achieve 4. For those questions which still had not achieved 3, were continuously tested based on value 2.

5.4.2.1 Russian and Ukrainian students testing value 4 and value 3

<table>
<thead>
<tr>
<th>Test Value = 4</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>Q3</td>
<td>-.514</td>
</tr>
<tr>
<td>Q4</td>
<td>-3.872</td>
</tr>
<tr>
<td>Q5</td>
<td>-.816</td>
</tr>
<tr>
<td>Q6</td>
<td>-3.867</td>
</tr>
<tr>
<td>Q7</td>
<td>-3.431</td>
</tr>
<tr>
<td>Q8</td>
<td>-4.322</td>
</tr>
<tr>
<td>Q9</td>
<td>-3.945</td>
</tr>
<tr>
<td>Q10</td>
<td>-3.014</td>
</tr>
<tr>
<td>Q11</td>
<td>-1.679</td>
</tr>
<tr>
<td>Q12</td>
<td>-3.138</td>
</tr>
<tr>
<td>Q13</td>
<td>-1.751</td>
</tr>
<tr>
<td>Q14</td>
<td>-4.592</td>
</tr>
<tr>
<td>Q15</td>
<td>.569</td>
</tr>
<tr>
<td>Q16</td>
<td>-1.910</td>
</tr>
<tr>
<td>Q17</td>
<td>-3.872</td>
</tr>
</tbody>
</table>

Table 1.20

H₀: μ=4, H₁: μ≠4. Among these 15 questions, Q3, Q5, Q11, Q13, Q15 and Q16 accept H₀ since their p values are higher than sig.0.05, while the remaining questions still need further analysis based on test value 3.
- Sample Test

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Difference</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.21

H₀: μ=3, H₁ μ≠3, it can be noticed that all these 9 questions’ p-value are higher than the significant level 0.05, therefore, the researchers do not reject H₀, and believe in H₁.

5.4.2.2 Results from the Russian One Sample Test

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Testing results</th>
<th>Relate to SERVQUAL</th>
<th>Relate to zone of tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>Accept H₀</td>
<td>Tangible</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q4</td>
<td>Reject H₀ Accept H₀</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q5</td>
<td>Accept H₀</td>
<td>Tangible</td>
<td>Excellent service</td>
</tr>
<tr>
<td>Q6</td>
<td>Reject H₀ Accept H₀</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q7</td>
<td>Reject H₀ Accept H₀</td>
<td>Tangible</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q8</td>
<td>Reject H₀ Accept H₀</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q9</td>
<td>Reject H₀ Accept H₀</td>
<td>Empathy</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q10</td>
<td>Reject H₀ Accept H₀</td>
<td>Empathy</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q11</td>
<td>Accept H₀</td>
<td>Empathy</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q12</td>
<td>Reject H₀ Accept H₀</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q13</td>
<td>Accept H₀</td>
<td>Responsiveness</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q14</td>
<td>Reject H₀ Accept H₀</td>
<td>Responsiveness</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q15</td>
<td>Accept H₀</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q16</td>
<td>Accept H₀</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
</tbody>
</table>
5.4.3 Indian students: One Sample Test

21 Indian students participated in the survey relating to educational service quality. With the SPSS software, the researchers continually tested the means of each question. Testing the value similar with the previous analyses on Brazilian, Mexican, Russian and Ukrainian students, firstly assuming the testing value as 4 and then assuming the testing value as 3 for those questions whose means did not achieve 4.

5.4.3.1 Indian students testing value 4, value 3 and value 2

<table>
<thead>
<tr>
<th>Test Value = 4</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>Q3</td>
<td>3.202</td>
</tr>
<tr>
<td>Q4</td>
<td>-2.751</td>
</tr>
<tr>
<td>Q5</td>
<td>1.073</td>
</tr>
<tr>
<td>Q6</td>
<td>-2.034</td>
</tr>
<tr>
<td>Q7</td>
<td>-.224</td>
</tr>
<tr>
<td>Q8</td>
<td>-3.246</td>
</tr>
<tr>
<td>Q9</td>
<td>-2.227</td>
</tr>
<tr>
<td>Q10</td>
<td>.000</td>
</tr>
<tr>
<td>Q11</td>
<td>-1.096</td>
</tr>
<tr>
<td>Q12</td>
<td>.252</td>
</tr>
<tr>
<td>Q13</td>
<td>.237</td>
</tr>
<tr>
<td>Q14</td>
<td>-3.162</td>
</tr>
<tr>
<td>Q15</td>
<td>1.313</td>
</tr>
<tr>
<td>Q16</td>
<td>-2.092</td>
</tr>
<tr>
<td>Q17</td>
<td>-.960</td>
</tr>
</tbody>
</table>

Assume H$_0$: $\mu$=4, H$_1$: $\mu$$\neq$4. Among these 15 questions, Q5, Q6, Q7, Q10, Q11, Q12, Q13, Q15 and Q17 can accept H$_0$, since their p-values are higher than 0.05 at significant level, while the remaining questions still need further analysis based on test value 3.
One-Sample Test

Test Value = 3

<table>
<thead>
<tr>
<th>Question Number</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>9.316</td>
<td>20</td>
<td>.000</td>
<td>1.524</td>
<td>1.18</td>
<td>1.87</td>
</tr>
<tr>
<td>Q4</td>
<td>1.375</td>
<td>20</td>
<td>.184</td>
<td>.333</td>
<td>-.47</td>
<td>.84</td>
</tr>
<tr>
<td>Q8</td>
<td>.282</td>
<td>20</td>
<td>.781</td>
<td>-.095</td>
<td>-.80</td>
<td>.61</td>
</tr>
<tr>
<td>Q9</td>
<td>2.024</td>
<td>20</td>
<td>.056</td>
<td>.476</td>
<td>-.91</td>
<td>.97</td>
</tr>
<tr>
<td>Q14</td>
<td>1.581</td>
<td>20</td>
<td>.130</td>
<td>.333</td>
<td>-.11</td>
<td>.77</td>
</tr>
<tr>
<td>Q16</td>
<td>4.183</td>
<td>20</td>
<td>.000</td>
<td>.667</td>
<td>.33</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 1.24

Assume $H'_0$: $\mu=3$, $H'_1 \mu\neq3$ 2-tailed assumption for each question. Also based on the p-value, Q4, Q8, and Q9 accept $H_0$, however, the remaining Q3, Q9, and Q16 still need to test within test value 2. Similar with the above Chinese student case, there are two possibilities, one is that the means locates in the zone of tolerance ($2<\mu<3$), the other is service failure ($\mu<2$).

One-Sample Test

Test Value = 2

<table>
<thead>
<tr>
<th>Question Number</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>15.429</td>
<td>20</td>
<td>.000</td>
<td>2.524</td>
<td>2.18</td>
<td>2.87</td>
</tr>
<tr>
<td>Q9</td>
<td>6.276</td>
<td>20</td>
<td>.000</td>
<td>1.476</td>
<td>.99</td>
<td>1.97</td>
</tr>
<tr>
<td>Q16</td>
<td>10.458</td>
<td>20</td>
<td>.000</td>
<td>1.667</td>
<td>1.33</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Table 1.25

Assume $H''_0$: $\mu=2$, $H''_1 \mu\neq2$ 2-tailed assumption for each question. Based on p value, Q3, Q9 and Q16 reject $H''_0$, and since t values (second column) are much higher than 0. It can be predicted that the means of these four questions have already been over 2. Therefore, Q3, Q9 and Q16 still located in zone of tolerance. The Indian students’ results can be seen in the following table.

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Testing results</th>
<th>Relate to SERVQAL</th>
<th>Relate to zone of tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>Reject $H_0$</td>
<td>Tangible</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q4</td>
<td>Reject $H_0$</td>
<td>Accept $H_0$</td>
<td>Assurance</td>
</tr>
<tr>
<td>Q5</td>
<td>Accept $H_0$</td>
<td>Tangible</td>
<td>Excellent service</td>
</tr>
<tr>
<td>Q6</td>
<td>Accept $H_0$</td>
<td>Assurance</td>
<td>Excellent service</td>
</tr>
<tr>
<td>Q7</td>
<td>Accept $H_0$</td>
<td>Tangible</td>
<td>Excellent service</td>
</tr>
<tr>
<td>Q8</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------</td>
<td>-----------</td>
<td>------------------</td>
</tr>
<tr>
<td>Q9</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Empathy</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q10</td>
<td>Accept $H_0$</td>
<td>Empathy</td>
<td>Excellent service</td>
</tr>
<tr>
<td>Q11</td>
<td>Accept $H_0$</td>
<td>Empathy</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q12</td>
<td>Accept $H_0$</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q13</td>
<td>Accept $H_0$</td>
<td>Responsiveness</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q14</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Responsiveness</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q15</td>
<td>Accept $H_0$</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q16</td>
<td>Reject $H_0$ Reject $H_0$</td>
<td>Reliability</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q17</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Responsiveness</td>
<td>Zone of tolerance</td>
</tr>
</tbody>
</table>

Table 1.26

5.4.4 Chinese students: One Sample Test

30 Chinese students participated in the survey. With the SPSS software, the researchers continually tested the means of each question. Testing value similar with the above analyses, firstly assuming the testing value as 4 and then assuming the testing value as 3 for those questions whose means did not achieve 4.

5.4.4.1 Chinese students testing value 4, value 3 and value 2

One-Sample Test

<table>
<thead>
<tr>
<th>Q3</th>
<th>$t$</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4</td>
<td>-6.528</td>
<td>29</td>
<td>.000</td>
<td>-1.100</td>
<td>-1.44</td>
<td>-.76</td>
</tr>
<tr>
<td>Q5</td>
<td>-1.270</td>
<td>29</td>
<td>.214</td>
<td>-1.233</td>
<td>-.61</td>
<td>.14</td>
</tr>
<tr>
<td>Q6</td>
<td>-4.026</td>
<td>29</td>
<td>.000</td>
<td>-1.700</td>
<td>-1.06</td>
<td>-.34</td>
</tr>
<tr>
<td>Q7</td>
<td>-3.844</td>
<td>29</td>
<td>.001</td>
<td>-1.600</td>
<td>-.92</td>
<td>-.28</td>
</tr>
<tr>
<td>Q8</td>
<td>-5.950</td>
<td>29</td>
<td>.000</td>
<td>-1.967</td>
<td>-1.30</td>
<td>-.63</td>
</tr>
<tr>
<td>Q9</td>
<td>-5.635</td>
<td>29</td>
<td>.000</td>
<td>-1.933</td>
<td>-1.27</td>
<td>-.59</td>
</tr>
<tr>
<td>Q10</td>
<td>-3.515</td>
<td>29</td>
<td>.001</td>
<td>-1.733</td>
<td>-1.16</td>
<td>-.31</td>
</tr>
<tr>
<td>Q11</td>
<td>-4.080</td>
<td>29</td>
<td>.000</td>
<td>-.633</td>
<td>-.95</td>
<td>-.32</td>
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<tr>
<td>Q12</td>
<td>-3.751</td>
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<td>.001</td>
<td>-.700</td>
<td>-1.08</td>
<td>-.32</td>
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<tr>
<td>Q13</td>
<td>-2.562</td>
<td>29</td>
<td>.016</td>
<td>-.400</td>
<td>-.72</td>
<td>-.08</td>
</tr>
<tr>
<td>Q14</td>
<td>-4.428</td>
<td>29</td>
<td>.000</td>
<td>-.733</td>
<td>-1.07</td>
<td>-.39</td>
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<tr>
<td>Q15</td>
<td>-1.533</td>
<td>29</td>
<td>.136</td>
<td>-.200</td>
<td>-.07</td>
<td>.47</td>
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<tr>
<td>Q16</td>
<td>-2.257</td>
<td>29</td>
<td>.032</td>
<td>-.367</td>
<td>-.70</td>
<td>-.03</td>
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<td>Q17</td>
<td>-4.892</td>
<td>29</td>
<td>.000</td>
<td>-.767</td>
<td>-.109</td>
<td>-.45</td>
</tr>
</tbody>
</table>

Table 1.27
H₀: μ=4, H₁: μ≠4. Among these 15 questions, only Q3, Q5 and Q15 accept H₀, since their p values are higher than sig.0.05, while the remaining questions still need further analysis based on test-value 3.

Assume H’₀: μ=3, H’₁ μ≠3 2-tailed assumption for each question. Also based on the p value, Q4, Q6, Q8, Q9, Q10, Q12, Q14 and Q17 accept H’₀. However, the remaining Q7, Q11, Q13 and Q16 need to be tested based on 2 continuously. Since there are two possibilities, one mean locates in the zone of tolerance (2<μ<3), the other is service failure (μ<2). Therefore, it is reasonable to create a new hypothesis and tests, testing value 2.

Assume H’”₀: μ=2, H’”₁ μ≠2 2-tailed assumption for each question. Based on p-value, Q7, Q11, Q13 and Q16 reject H’”₀, and since t-values (second column) are much higher than 0, it can be predicted that the means of these four questions have already been over 2. Therefore, Q7, Q11, Q13 and Q16 are still located in the zone of tolerance. The Chinese students’ results can be seen in the following table.
### 5.4.4.2 Results from the Chinese One Sample Test

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Testing results</th>
<th>Relate to SERVQUAL</th>
<th>Relate to zone of tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3</td>
<td>Accept $H_0$</td>
<td>Tangible</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q4</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q5</td>
<td>Accept $H_0$</td>
<td>Tangible</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q6</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q7</td>
<td>Reject $H_0$ Reject $H''_0$</td>
<td>Tangible</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q8</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Assurance</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q9</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Empathy</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q10</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Empathy</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q11</td>
<td>Reject $H_0$ Reject $H''_0$</td>
<td>Empathy</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q12</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Reliability</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q13</td>
<td>Reject $H_0$ reject $H''_0$</td>
<td>Responsiveness</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q14</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Responsiveness</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q15</td>
<td>Accept $H_0$</td>
<td>Reliability</td>
<td>Excellent Service</td>
</tr>
<tr>
<td>Q16</td>
<td>Reject $H_0$ Reject $H''_0$</td>
<td>Reliability</td>
<td>Zone of tolerance</td>
</tr>
<tr>
<td>Q17</td>
<td>Reject $H_0$ Accept $H_0$</td>
<td>Responsiveness</td>
<td>Zone of tolerance</td>
</tr>
</tbody>
</table>

Table 1.30

### 5.4.5 Summary of the One Sample Tests

When going through the statistical results gained from the research, it can be noticed that the educational service offered by Jönköping University has already reached a moderate level as all the results are present in either the zone of tolerance or the section of excellent service. It is important to notice however that following the subgroup testing, the results were complicated to summarize as a result of an unbalanced distribution between the different nationalities. This phenomenon, can be confirmed by Geert Hofstede’s cultural dimension however due to the limitations of his theories, a general rule cannot be provided related to this fact. In addition, the zone of tolerance has been combined with the survey scales.

One sample tests have been applied to each question divided by the different countries. Test value 4, 3 and 2 represent the margins among the excellent service, zone of tolerance and also the service failure. The testing results have proved that the service offered by Jönköping University is fair, since no service failure has been experienced. Moreover, the statistical results have already achieved the similar consequence within frequency test, based on table number 6, even the lowest point has a mean over 3 (no service failure). Actually, the real purpose of one sample test is to illustrate the facts of different
countries’ students’ response more precisely and detailed. After the frequency test, it was noticed that the basic information of the 15 questions showed that certain types of services should be preserved and other service failures should be improved at once, since the word of mouth has both positive and negative influence. If Jönköping University cannot reverse the service failure, the negative influence will impact the recruitment and reputations in the future.

The thesis is built upon the query of whether cultural dimensions can influence a consumer’s experience of a service. Based on the statistical results, the researchers propose that this cannot be confirmed with certainty. Fifteen questions provided results with greatly varying answers among the different nationalities providing different perspectives. For example, one type of service was regarded as excellent service by Chinese students, but the same service was to be found only within the zone of tolerance, or even below the zone of tolerance which would indicate a service failure by respondents from other countries. Thanks to the international profile of Jönköping University, the research on the various cultures and the data collection from the students from the BRIC countries has been made possible.

Looking through each country’s table, it can be found that the Chinese students obviously is the most critical, since only Q3, Q5, and Q15 have achieved excellent service in their opinion. In terms of the other three countries, the majority of each country’s student choices achieved excellent service levels.

Russia: Q3, Q5, Q11, Q12, Q13, Q14, Q15 and Q17;
India: Q5, Q10, Q11, Q12, Q13 and Q15;
Mexico: Q5, Q7, Q10, Q11, Q12, Q13, Q15 and Q16.

Only Q5 and Q15 have reached the excellent service level in four countries students’ opinion, which are the aspects of tangibility and reliability, respectively.

5.5 Qualitative analysis

In all four interviews the students representing the BRIC countries had similar perception of the educational service quality. It was clear that most of the students would not choose Sweden had the tuition not been for free. This suggests that it was the tuition free education that attracted the students which demonstrates the gap between the findings of the qualitative and quantitative data. The researchers do not exclude that the findings of the students being highly satisfied with the educational service quality, can be affected by the tuition-free education they have experienced. The researchers also argue that the inconsistent findings could suggest that the quantitative results would possibly have had lower values if the foreign students had paid the tuition fee. In other words, this can be understood as the more the students pay, the higher the expectation are which can be associated to the theory regarding consumer behavior, by Zeithaml et al., (1991). The four students who were interviewed were certain that the amount of international students coming to Jönköping University will decrease as a result of the tuition fee. Thanks to this data, the researchers can draw the conclusion that Jönköping University may experience problems in the future attracting the needed amount of international students to keep certain programs and courses active.
The opinion of the tangible aspects of the service is confirmed where the students in comparison to their own countries thought that Jönköping University offered a very good service with the main focus being on the computers, group rooms, library and the overall appearance of the university. The researchers propose that a possible explanation to the results received regarding tangibility, could be associated with the generally high living standards in Sweden.

The determinant of assurance, which is the worst determinant according to the quantitative data, shows other results in the qualitative data. The students have confidence that the experience in Sweden will benefit for their future career, however this is not built on the reputation of Jönköping University. Rather, they see the positive aspects of receiving an international education.

The determinant of empathy shows similar results between the quantitative and qualitative study. The international students have built various relationships to Jönköping University, many have done so through the international office which the students consider to be one of the most excellent and most supportive aspects of the university. A possible reason for the high values for empathy, may very well be based on the high opinion of the International Office, however the data collected shows that the university as a whole does have flaws in the aspect of empathy. Students have expressed their views on weak relationships with their lecturers and professors.

The determinant of responsiveness has gained high values. Both data from the quantitative and the qualitative research confirm that the interaction with the support staff at the university, such as the it helpdesk and library is regarded to be extraordinary by the majority of the respondents. The researchers suggest that the reason behind the answer of the population is influenced by the Swedish culture. Swedish people are quite time conscious and disciplined.

Both the qualitative and the quantitative data show that the students are somewhat satisfied or satisfied with the performed lectures and seminars however there were indications that three out of four students considered the knowledge of the teacher to be limited. These issues are related to the determinant of reliability.
6 Conclusions and discussion

6.1 Conclusion

When considering the major change that has taken place in the Swedish educational system affecting students arriving to Sweden from outside the European Economic Area, it is of importance to incorporate and understand the affect the new regulation will have on the number of students deciding to study in Sweden. As proposed by Zeithaml, Parasuraman and Berry (1991), customer loyalty is gained when the service reaches the level of excellent service and it is thus of importance to measure and evaluate the educational service quality of universities. The researchers for this study used the measurement tool SERVQUAL to examine and investigate the level of educational service quality satisfaction amongst international and exchange students attending Jönköping University. A questionnaire was conducted on 93 respondents where the researchers measured the experience of the educational service quality, focusing on the determinants of tangibility, assurance, empathy, responsiveness and reliability. The data was tested through One Sample Test, Descriptive- and Frequency analyses. In addition, four semi-structured interviews were held with one student from each studied country where the qualitative data has provided complementing knowledge regarding the opinions of the students at Jönköping University.

Based on the investigation and interpretation of the research subject, the following conclusions have been made. A majority of the students that have been studied have shown that they are primarily satisfied with the tangible aspects of the service. This can be associated with the statement of Grönroos (2007) where he proposes that it is mainly the tangible and visible aspects of a service that are considered to be of main importance for a customer since it is the only part of the service that can be objectively evaluated. It can therefore be concluded that Jönköping University has been successful in providing high quality of an important aspect of the experienced service. The aspect of assurance reached the lowest values by the respondents, however it still remained within the zone of tolerance. In other words, the students were somewhat satisfied with this aspect and one can conclude that Jönköping University should focus on increasing the level of assurance in the provided service. Although there are differences in the level of experiences, the researchers can see a clear pattern that the educational service quality is experienced similarly by the students. In addition, the qualitative findings confirm the findings of the high satisfactory level of the service with no major discrepancies in the results. The researchers argue that the high values can possibly be a result of the tuition-free education since 79, 5 % of the studied group is international students who study for free. The researchers speculate that if the international students had paid for their education, the quantitative empirical findings would have reached lower values since the students would have had higher demands. This can also be related to the theory by Zeithaml et al., (1991), that the level of expectation can often be influenced by the investment made by the customer.

It can be concluded by the findings of the research that the students share similar perception of the educational service quality offered by Jönköping University. The researchers argue that the international students could represent a homogenous group of international students at Jönköping University, based on their similar perceptions of the service. The experiences by the respondents showed that India and Brazil shared a similar experience, and Russia and China shared a similar experience. These findings caused
the researchers to draw the conclusion that Geert Hofstede’s theory on cultural dimensions is not an ideal theory to use when studying a population with an international experience.

The results from the qualitative research show that the majority of the students from the BRIC countries would not consider paying the tuition fee as they are attracted to English speaking countries. This suggests that the student would rather pay a tuition fee for an education in a country sharing the same language traditions as for instance, the United Kingdom.

Although the researchers are aware that the image of Sweden cannot be changed for the purpose of attracting students from the BRIC countries, the researchers want to emphasize the importance of investigating the experienced educational service quality which influences and creates the actual image of the university, see the Total Perceived Quality Model by Grönroos (2007). By raising the overall quality of the service determinants will create an overall high qualitative educational service, however if a university wishes to attract students from a specific population or group, knowledge and information regarding their preferences and prior expectations are of high importance in order to meet the students’ needs.

6.2 Discussion and further research suggestions

The study was aiming at measuring the experience of the educational service quality at Jönköping University in order to receive an understanding of how students from the BRIC countries experience the educational service quality. The conducted quantitative and qualitative studies demonstrated that the current students are generally satisfied with the overall educational service quality however not many would consider paying for the tuition. It should be mentioned that this study was only an initial study in the context of the new regulations being introduced and the researchers believe that further studies must be conducted in order to increase the knowledge and understanding of the experience of educational service quality at Jönköping University.

The research was restricted to only the BRIC countries and a fairly small amount of respondents were targeted, with even fewer respondents. To increase the respondents and get a better view of the perception among the foreign students the further research could take into consideration foreign students in other universities than Jönköping University. The choice of the BRIC countries was deliberate, but the low response rate was due to both time and information restrictions.

Although the results of the study show a generally high satisfactory level, the researchers believe that a study should be conducted on students’ expectations of a service and afterwards measure and compare what the actual experience of the educational service quality was. By identifying possible gaps between what the expectations and the experiences were, universities like Jönköping University would be able to adjust and improve the service in order to restrict the number of unsatisfactory experiences and improve the image of its services.

The cultural dimensions by Geert Hofstede was not considered useful by the researchers when measuring the experience of educational service quality, and the researchers thus suggest to exclude his theories when conducting further research on a similar research population. When measuring the experience of the service, it might prove to be more
useful to simply divide the students into groups depending on long they have been in Sweden and see whether there are any suggestions of diverse experiences or not as a result of the time spent in Sweden. It would be desirable to see whether there are any relations to whether the time spent in Sweden influences the experience of service quality or not. By redesigning the research and only focusing on what has previously been mentioned, the researchers believe that the study will be more time-efficient and provide more useful information for higher educational organizations in Sweden.

When researching on different cultures, one should also keep in mind the culture that the research is present in and in this case it is Sweden. The researchers suggest that one could re-consider the findings from the research from another cultural point of view, keeping the Swedish culture and traditions in mind which is most likely influencing the way the university is being experienced by international and exchange students. In addition, the research might also prove to be more valuable if it could be compared to another, or several other, universities in Sweden with an international profile.

6.3 Managerial recommendations

The researchers believe that the study would benefit from additional investigation on a larger scale with adjusted perspectives and with keeping in mind the amount of time the student has spent in Sweden. However, the researchers still believe that the study conducted at Jönköping University has provided useful findings regarding the experience of the educational service quality and that the current students are very satisfied with the service, however they do not feel prepared to pay for the tuition. The researchers consider this to verify that there is a need for Jönköping University to adjust or reconsider their marketing strategy. In order to attract and convince students that the tuition and experience received at Jönköping University is an investment for life that will provide the students with invaluable knowledge and experiences. In addition, Sweden as a country might have to pay more attention towards the marketing of the image of Sweden and possibly increase the activity of promoting Sweden by already established Swedish organizations present around the world. By improving the image of Sweden and raising the awareness of what Sweden can offer, may facilitate the process of attracting new international students to the Swedish higher education institutions.
7 References


Higher Education Act (1992) Retrieved 2011-4-30 from
http://62.95.69.15/cgi-bin/thw?%24{HTML}=sfst_lst&%24{OOHTML}=sfst_doc
k&%24{SNHTML}=sfst_err&%24{BASE}=SFST&%24{TRIPSHOW}=format%3DTHW&BET=1992%3A1434%24

as primary consumer, Quality Assurance in Education, Volume 3(3), 10-21


ed Kingdom: Oxford University Press


America: McGraw Hill

Hofstede, G., (2001). Culture’s consequences: Comparing values, behaviors, institu
tions, and organizations across nations (2nd ed.). Thousand Oaks, CA: Sage

Relations, Volume 55(11), 1355–1361

10(1), 16-21


lert,E.,Van Rossum,J.HA., Verweij, J., Vunderink, & M., Willisms,J.S.E.,
tures. United Kingdom: SAGE Publications Inc.

bank, Monetary Review 4th Quarter, 39-54

tion. Administrative Science Quarterly, Volume 24(4), 602-611

ity model, Managing Service Quality, Volume 14(4), 266

and functional quality. Managing service quality Volume 16(1), 37-50


Södertörns Högskola (2011) Retrieved 2011-5-19 from [http://www.soders.nu/international-students/exchange-students](http://www.soders.nu/international-students/exchange-students)


Appendix I

Pre-study: Interview with the recruitment office at Jönköping International Business School, 18th February 2011

- How many students outside of the EEU/EEA does the Jönköping University receive each year?
- How long do the students usually stay? One semester, one year or a whole degree?
- Introduction of tuition fee:
- Do you believe that the induction of the tuition fee will lead to less students choosing Jönköping University if similar programs are offered elsewhere?
- If so, what actions do you believe the University of Jönköping will undertake as to attract students both from within the European Union but also outside of the EU?
- What do you think the reason is behind this introduction of the tuition fee? Save money? Increase the reputation of the Universities? Other?
- What is your opinion of how the tuition fee will affect the perception of the University?
- Do you believe that the expectations the students hold on the service quality will be the same as now or higher?
- What do you regard as negative as well as positive with the induction of the tuition fee?
- Are there any special attributes which you try to market JIBS / Jönköping University with when you’re outside of Sweden? Which ones do you focus on?
- Do you consider for example empathy, courtesy, professionalism, assurance, reliability, respect etc.?
- Do you practice various strategies when marketing the service of JIBS/ Jönköping University?
- Do you consider the effects the cultural dimensions have on a market (diverse perception of what is quality and what isn’t, what the customer expects out of a service, what is considered “good quality” by the customer)?
- What attributes do you use when you market your service?
- How do you adapt to the different markets?
- What has you come across as being most important for students choosing to come to Jönköping?
Appendix II
Survey on Educational Service Quality

Q1: Which country are you from? If you are NOT from any of these countries please DO NOT continue answering the questionnaire.
- Brazil
- Russia
- India
- China
- Mexico
- Other countries please specify

Q2: You are an...
- Exchange student
- International student

Q3: How do you feel towards Jönköping University’s hardware facilities, such as the cleanliness of the group rooms and general appearance of the university?
- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)

Q4: What is your opinion about the confidence of the educational level at Jönköping University compared to other international universities at the same educational level? (For example when you are looking for a job, etc.)
- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)

Q5: What is your opinion towards the technology offered at Jönköping University?
- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)
Q6: What is your opinion about Jönköping University's attempt to meet your personal requirements? E.g. different learning difficulties that must be assisted.

☐ 1. Highly satisfied (1)
☐ 2. (2)
☐ 3. Neutral (3)
☐ 4. (4)
☐ 5. Highly dissatisfied (5)

Q7: How do you feel towards the teachers' and professors' appearance when present at the university?

☐ 1. Highly satisfied (1)
☐ 2. (2)
☐ 3. Neutral (3)
☐ 4. (4)
☐ 5. Highly dissatisfied (5)

Q8: How do you feel about Jönköping University instilling confidence in you for your academic future and career?

☐ 1. Highly satisfied (1)
☐ 2. (2)
☐ 3. Neutral (3)
☐ 4. (4)
☐ 5. Highly dissatisfied (5)

Q9: How do you feel towards Jönköping University's assistance in fulfilling your specific academic needs?

☐ 1. Highly satisfied (1)
☐ 2. (2)
☐ 3. Neutral (3)
☐ 4. (4)
☐ 5. Highly dissatisfied (5)

Q10: How do you feel about the teachers; are you satisfied or dissatisfied - are they respectful and understanding despite the diversity of cultures present at the university?

☐ 1. Highly satisfied (1)
☐ 2. (2)
☐ 3. Neutral (3)
☐ 4. (4)
☐ 5. Highly dissatisfied (5)
Q11: How do you feel towards Jönköping University's interest in your well being at the university?

- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)

Q12: What is your opinion towards the teachers' knowledge to answer questions related to a certain subject?

- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)

Q13: Has Jönköping University achieved what has been promised through its communication and marketing strategy of being "Truly International" and "Entrepreneurial"?

- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)

Q14: What is your opinion about performed lectures and seminars?

- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)

Q15: How do you feel towards the support staff present at Jönköping University, e.g. librarians and IT help desk?

- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)
Q16: How do you feel towards Jönköping University's response and reaction to your requests?
- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)

Q17: What is your opinion about Jönköping University's recovery of any occurring problems related to the tuition or education (effective service recovery)?
- 1. Highly satisfied (1)
- 2. (2)
- 3. Neutral (3)
- 4. (4)
- 5. Highly dissatisfied (5)
Appendix III

Guide for semi-structured interviews

- What was the main reason or the two main reasons, for you choosing Jönköping University as your place of study? Was there a specific reason?
- Do you see Jönköping University as “truly international” and “entrepreneurial”?
- How much do you know about the introduction of the tuition fees in august 2011?
- Are you aware that tuition fees are introduced for new international program students arriving from outside the European Economic Area from august 2011? If so, what is your opinion towards this?
- How do you think that the introduction of the tuition fee will affect Jönköping University?
- Since you have now been here for free, what is your opinion that students arriving this fall from outside the EEA will have to pay approx. 13000 euro per year for their education?
- Would you consider paying for the education provided by Jönköping University?

Tangibility

How do you feel towards the hardware facilities provided by Jönköping University? (e.g. cleanliness of group rooms, computer labs, appearance of the university etc.)

Is there anything you enjoy more or that enjoy less?

What do you consider being most important regarding the hardware facilities at the university?

Assurance

Does Jönköping University instill confidence in you, for your academic future and career?

What is your opinion regarding the confidence of the educational level at Jönköping University compared to other international universities at the same educational level?

Empathy

Do you regard the university having an interest in your well-being when present at the university?

Since Jönköping University has a large amount of international students at present, do you feel that the teachers are understanding and respectful despite the diversity of cultures at the university?

Responsiveness

What is your opinion towards the support staff at Jönköping University? (IT helpdesk, librarians etc.)
What is your opinion towards the teachers' knowledge to answer questions related to a certain subject?

If you have any questions relating to a course, how do you feel upon the response provided by the lecturer?

If you have queries relating to your grades or any other subject associated with the administrative departments of the university, what is your opinion towards the response to your queries or requests?

Reliability

What is your opinion towards performed lectures and seminars that you have attended? Are they what you expect them to be or are they worse or better?

Does it vary at times or do you consider it to be on the same level at the majority of times?
Frequency Tables for all countries combined

Q1: Which country are you from? If you are NOT from any of these countries please DO NOT continue answering the questionnaire.

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Q2: You are an...

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Q3: How do you feel towards Jönköping University’s hardware facilities, such as the cleanliness of the group rooms and general appearance of the university?

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Q4: What is your opinion about the confidence of the educational level at Jönköping University compared to other international universities at the same educational level?

(For example for when you are looking for a job, etc.)
### Q5: What is your opinion towards the technology offered at Jönköping University?

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### Q6: What is your opinion about Jönköping University’s attempt to meet your personal requirements? E.g. different learning difficulties that must be assisted.

The text does not provide a table or further details about the responses for Q6.
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Q7: How do you feel towards the teachers' and professors' appearance when present at the university?

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Q8: How do you feel about Jönköping University instilling confidence in you for your academic future and career?

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Q9: How do you feel towards Jönköping University's assistance in fulfilling your specific academic needs?

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Q10: How do you feel about the teachers; are you satisfied or dissatisfied - are they respectful and understanding despite the diversity of cultures present at the university?

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Q11: How do you feel towards Jönköping University’s interest in your well being at the university?

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</table>
Q12: What is your opinion towards the teachers’ knowledge to answer questions related to a certain subject?

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Q13: Has Jönköping University achieved what has been promised through its communication and marketing strategy of being “Truly International” and “Entrepreneurial”?

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Q14: What is your opinion about performed lectures and seminars?

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Q15: How do you feel towards the support staff present at Jönköping University, e.g. librarians and IT help-desk?

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Q16: How do you feel towards Jönköping University’s response and reaction to your requests?

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Q17: What is your opinion about Jönköping University’s recovery of any occurring problems related to the tuition or education (effective service recovery)?

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