The Relationship between Customer Satisfaction and Service Quality: a study of three Service sectors in Umeå.

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ABSTRACT

It is obvious that customers are important stakeholders in organizations and their satisfaction is a priority to management. Customer satisfaction has been a subject of great interest to organizations and researchers alike. In recent years, organizations are obliged to render more services in addition to their offers. The quality of service has become an aspect of customer satisfaction. It has been proven by some researchers that service quality is related to customer satisfaction. Others used service quality dimensions to evaluate service quality. What about the relationship between customer satisfaction and service quality dimensions; the relationship between service quality and its dimensions?

Purpose: The main purpose of this study is to examine the relationship between customer satisfaction and service quality in service sectors with respect to the service quality dimensions.

Method: Convenience sampling technique was used to collect quantitative data from customers of Umeå University, ICA and Forex to get their satisfaction levels and meaning of service quality which were substituted in the SERVQUAL model. Chi-square test was used to test the hypotheses separately and in a group.

Findings: The study showed distinctive results for the relationship between service quality dimensions and service quality/customer satisfaction. ICA and Forex had significant relationship between service quality and customer satisfaction; but Umeå University had no significant relationship between service quality and customer satisfaction. Meanwhile the group result showed that: ´responsiveness`, empathy´ and ´reliability´ were significantly related to service quality; ´reliability` and `empathy`, were significantly related to customer satisfaction but `responsiveness` was not significantly related to customer satisfaction; meanwhile service quality was significantly related to customer satisfaction.

Implication/Contribution: The findings imply that service quality is not the only factors that could lead to customer satisfaction in service sectors; that service quality dimension varies in the different service sectors. The findings suggest that to provide quality service in order to satisfy customers, organizations in this kind of service sectors need to improve on the dimensions of service quality. Also, to provide total satisfaction to customers, the service sectors need to improve on the other factors that were given as reasons for satisfaction. This study contributes to existing theories by confirming or adding value to the relationships that are involved in customer satisfaction, service quality and SERVQUAL dimensions. It provides results that could be useful to managers in business organisations for strategic planning.

Key words: Customer satisfaction, Service quality, Service quality dimensions, SERVQUAL, service sectors.

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CHAPTER 1: INTRODUCTION

The aim of this section is to identify the research topic and to formulate research questions. Thus the chapter begins with an introductory background which includes the importance of customer satisfaction in business and the reasons for researching in this area, the research questions and purpose of the study will follow. Delimitation and structure of the report will end the chapter.

1.1. Introductory Background

Customer satisfaction has been a subject of great interest to organizations and researchers alike. The principal objective of organizations is to maximise profits and to minimise cost. Profit maximisation can be achieved through increase in sales with lesser costs. One of the factors that can help to increase sales is customer satisfaction, because satisfaction leads to customer loyalty (Wilson et al., 2008, p. 79), recommendation and repeat purchase.

Customers became very vital in business during the marketing era of the 1950s when companies could produce what they can sell and not just selling what they can produce as it was during the production era. Since the beginning of the consumption era in marketing, (business.business-key.com) the focus on customers/consumers has increased more as the consumption era also shifts to post-consumption; where organizations are obliged to render more services in addition to what they provide as offers to their customers. **(**David Armano, 2009). What are the qualities of these services provided to customers? Are the customers satisfied with these services? Thus, this research originated from the fact that customer/consumer is the key to business. In fact, their satisfaction is the most important tool that helps to increase sales and generate profits in the business environment. Moreover, the importance of customer satisfaction and service quality has been proven relevant to help improve the overall performance of organizations. (Magi & Julander, 1996, p. 40)

1.1.1. Importance of Customer satisfaction

From the view of operations management, it is obvious that customers play important roles in the organizational process (Lee & Ritzman, 2005, p. 92). Before the placement of strategies and organizational structure, the customers are the first aspect considered by managements. The questions asked in the strategic planning ranges from who will need to consume these offers, where are they and for how much can they buy to how to reach the customers and will it yield them maximum satisfaction? After these questions, the organization will then designs the product, segment the markets and create awareness. This does not only show the importance of customers in the business environment but also the importance of satisfying them.

Customers are always aiming to get maximum satisfaction from the products or services that they buy. Winning in today's marketplace entails the need to build customer relationship and not just building the products; building customer relationship means delivering superior value over competitors to the target customers (Kotler et al., 2002, p. 391). Whether an organization provides quality services or not will depend on the customers' feedback on the satisfaction they get from consuming the products, since

higher levels of quality lead to higher levels of customer satisfaction (Kotler & Keller. 2009, p. 169).

Most companies are adopting quality management programs which aim at improving the quality of their products and marketing processes, because it has been proven that "quality has a direct impact on product performance, and thus on customer satisfaction" (Kotler et al., 2002, p. 8). The reason for this is to satisfy the customers. But, are the customers satisfied because of the products or service quality? I.e. are the companies providing the actual qualities perceived by the customers/consumers?

1.1.2. Reasons for researching in this area

The importance of customers in the business process has made it vital to always conduct research about customers. There has always been the need for customer research before, during and after sales, because of changes that may occur in the business process.

It has been proven by an author that "an organization that consistently satisfies its customers, enjoy higher retention levels and greater profitability due to increase customer loyalty" (Wicks & Roethlein, 2009, p.83). For this reason every company works hard daily to win the hearts of customers by satisfying them in order that they become loyal customers to their brands in order to increase sales and profit. When customers have good perceptions about a brand, they will always choose to go for the brand, because consumers form their preferences relative to perceptions and attitudes about the brands competing in their minds. (Larreche, 1998, p. 152). To get these loyal customers, companies must create relationships with the customers. To create relationship with customers, companies need to conduct research to answer questions on how the customers make their purchasing decision and whether they are pleased with what the organization provides to them as offer in terms of product quality, service quality, price, etc.

Thus customers will always prefer a product or service that gives them maximum satisfaction. But how will the organization know whether the consumers' consumption habits have changed, or if they are well served? How will the organization know if competitors' brands are doing better than theirs, which can trap their customers? With the increasing number of businesses and growing competitions today, each company wants to be the customers' first choice. To achieve this, organizations need to answer the questions above via continuous research in this area so as to lead the organizations to their twin objective of satisfying their customers and making profits.

Because customer satisfaction is the main concern of business sectors of today, their researchers are always conducting research about the customers especially on what relates to their satisfaction. Moreover, because this problem of satisfaction concerns the most unpredictable stakeholder in the business environment (the customers), who remains the main character that keeps the business in operation; and because satisfaction varies and changes among individuals, there is a need for continuous research in this area.

Although there are other factors such as price, product quality etc other than service quality that determine customer satisfaction (Wilson et al. 2008, p. 78-79) my interest on service quality alone for this study is because service quality has been proven to be

the best determinant of customer satisfaction when it come to service sectors. Also, providing quality services is one of the main targets when it comes to management with respect of customer satisfaction in the business environment of today, meaning it is a very vital topic.

1.2. Problem formulation

Customer satisfaction has been studied in different directions, from measurement to its relationships with other business aspects. Some researchers have provided possible means of measuring customer satisfaction (Levy, 2009; NBRI, 2009). Meanwhile other authors like Wilson et al. (2008) demonstrated some determinants of customer satisfaction to be product and service quality, price, personal and situational factors (Wilson et el., 2008, p. 79-80). Some researchers have looked into the relationship between total quality management and customer satisfaction. (Wen-Yi , et al,. 2009, p. 957-975).

Because customer satisfaction is also based upon the level of service quality provided by the service provider (Lee et al., 2000, p. 226) and service quality acts as a determinant of customer satisfaction (Wilson et al., 2008, page 79-80). Other authors have brought out theories relating customer satisfaction and service quality in their researches. Wang & Hing-Po, (2002, p. 50-60) measured service quality in China's mobile phone market and emphasis on the dynamic relationship among service quality, customer value, customer satisfaction and their influence on future behaviours after the key drives of customer value and customer satisfaction are identified.

In relation to the idea of Lee et al. (2000, p. 226), some authors examined the relationship between service quality, customer satisfaction, and store loyalty within the retail department store context and found out that; "service quality influences relative attitude and satisfaction with department stores." (Sivadas & Baker-Prewitt 2000, p. 73-82). Because service quality is following all aspect of business, Kuo, (2003) conducted a research on service quality of virtual community websites among college students of three major universities in Taiwan and got poor results of the service quality level of this dimension is the poorest in relating customer satisfaction and service quality. In trying to relate the result of these past researchers on non profit organisations, Bennett & Barkensjo (2005) studied of relationship quality, relationship marketing, and client perceptions of the levels of service quality of charitable organisations of service quality and customer satisfaction and got a result which was suggesting that "the SERVQUAL approach is indeed applicable within the non-profit domain" (Bennett & Barkensjo 2005, p. 102) To comply with what Bennett & Barkensjo (2005) suggested, Negi (2009), investigated the relevance of customer-perceived service quality in determining the overall satisfaction of customers in the context of mobile services. The result was that reliability and network quality were relevant factors to evaluate service quality and he confirms that tangibles, empathy and assurance should not be neglected when evaluating perceived service quality and customer satisfaction. Still with the idea of using service quality dimensions to study customer satisfaction, Ahmed et al., (2010) conducted a mediation of customer satisfaction relationship between service quality and repurchase intentions for the telecom sector among university students, with SERVQUAL model's 5 dimensions (tangibles, responsiveness, empathy, assurance and reliability) by Parasuraman et al.(1988) to measure service quality. To confirm the fact researchers are still working on customer satisfaction especially on its relationship with

service quality. Just of recent, Gera (2011) investigated the link between service quality, value, satisfaction and behavioural intentions in a public sector bank in India and one of their results states that **"** Service quality was found to significantly impact on customer satisfaction and value perceptions" (Gera, 2011, p. 2-20)

Among the articles search for past studies on the relationship between customer satisfaction and service quality, few studies have been conducted to evaluate service quality then relating it with customer satisfaction and other marketing, or business aspects. Very few or none of the studies have been conducted on the relationship between customer satisfaction and service quality by testing the service quality dimensions on both service quality and customer satisfaction. Even among those that used service quality dimensions to evaluate service quality and relate either direct or indirectly to customer satisfaction, they neither used all of the variables of SERVQUAL nor did use SERVQUAL at all. (Kuo, 2003, 461-473)

Statistics of articles about customer satisfaction in the field of business, economics and management shows latest results of 2235 studies from 1992 to 2011; 1088 on customer satisfaction and service quality from 1992 to 2011; 315 articles on the relationship between customer satisfaction and service quality from 1992 to 2011; 32 on the relationship between customer satisfaction and service quality with service quality dimensions from 1997 to 2011 and just 6 on the relationship between customer satisfaction and service quality with SERVQUAL dimensions from 2003 to 2010. (Search on Web of science, 02, 09, 2011). These statistics is also to confirm the fact that customer satisfaction especially its relationship with service quality is an important research field in business, economics and management. The statistics also shows that; little research has been conducted on relationship between customer satisfaction and service quality alone, and very little research on the relationship between customer satisfaction and service quality with service quality dimensions. Thus this indicates that there is a need for more research in this area.

Service quality and customer satisfaction have been proven from past researches to be positively related (Baker-Prewitt, 2000; Kuo, 2003; Gera, 2011) but no study had tested the service quality dimensions directly to see if it is related to customer satisfaction, thus, there is a need to test the direct relationship between each of the service quality dimensions and customer satisfaction. Moreover, it has been proven that service quality could be evaluated with the use of the other two dimensions of service quality that is technical and functional (Bennett & Barkensjo, 2005, p. 102; Laroche et al., 2004) with the customer perspective, yet SERVQUAL model is still a method of evaluation for service quality, there is a need to test the relationship between service quality and service quality dimensions in different service sectors especially with the SERVQUAL dimensions.

1.3. Research Question

- Is there a significant relationship between customer satisfaction and the service quality dimensions?
- Is there a significant relationship between Service quality and the service quality dimensions?
- Is there a significant relationship between customer satisfaction and service quality?

In answering the above questions, I aimed at contributing to the study of the relationship between customer satisfaction and service quality whereby I will be able to confirm if actually customer satisfaction is related to the service quality dimensions and proves if there are factors other than service quality that affects customer satisfaction.

1.4. Purpose of the study

The purpose of this study is to examine the relationship between customer satisfaction and service quality in service sectors with respect to the service quality dimensions

A research like this is essential to assess and improve service delivery and design, because it will provide management with data that they can use in making inferences about the customers. (Wilson et al. 2006, 27). Thus the results of this study should be proved useful for academics; business in the field of marketing and management researchers of customer satisfaction and service quality especially in service sector organizations.

1.5. Delimitation

Because of the broad nature of this area of study, I could not access all the literature concerning customer satisfaction and service quality because it would have been very voluminous. Thus, I hovered in a limited aspect within the literature, thereby around the relationship between customer satisfaction and service quality dimensions of the SERVQUAL model. Although this topic concerns both the employees and customers, I focused on customers because I am interested in viewing this subject from the customer perspective and customers who consume services. Also the topic can be viewed from a manufacturing and/or service sector; but I was limited to study it with the service sectors since service quality is best evaluated from the service sectors.

1.6. Structure of the Thesis

Chapter one presented the Introduction, the next chapter will be to present existing literature and theoretical frame work on the relationship between customer satisfaction and service quality. The chapter that follows; chapter three, will be the methodology of the research where the research design and research methods will be explained. Then the empirical findings and analysis will come in chapter 4; chapter five will presents the conclusion, implications and suggestions.

CHAPTER 2: LITERATURE REVIEW AND THEORITICAL FRAMEWORK

The aim of this section is to present literatures relevant to this research and to provide a theoretical framework. The chapter begins with a review of definitions and some measurements of customer satisfaction and service quality, and then follows by the relationship between customer satisfaction and service quality which leads to the conceptual frame work of the study. Identification of variables and formulation of hypothesis end the chapter.

2.1. Customer satisfaction

Those who buy the goods or services provided by companies are customers. In other words, a customer is a stakeholder of an organization who provides payment in exchange for the offer provided to him by the organization with the aim of fulfilling a need and to maximise satisfaction. Sometimes the term customer and consumer are confusing. A customer can be a consumer, but a consumer may not necessarily be a customer. Another author explained this difference. I.e. a customer is the person who does the buying of the products and the consumer is the person who ultimately consumes the product (Solomon, 2009, p. 34.)

When a consumer/customer is contented with either the product or services it is termed satisfaction. Satisfaction can also be a person's feelings of pleasure or disappointment that results from comparing a product's perceived performance or outcome with their expectations (Kotler & Keller, 2009, p. 789). As a matter of fact, satisfaction could be the pleasure derived by someone from the consumption of goods or services offered by another person or group of people; or it can be the state of being happy with a situation. Satisfaction varies from one person to another because it is utility. "One man's meal is another man's poison," an old adage stated describing utility; thus highlighting the fact that it is sometimes very difficult to satisfy everybody or to determine satisfaction among group of individuals.

Client happiness, which is a sign of customer satisfaction, is and has always been the most essential thing for any organization. Customer satisfaction is defined by one author as "the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product or service as perceived after its consumption" (Tse & Wilton, 1988, p. 204) hence considering satisfaction as an overall post-purchase evaluation by the consumer" (Fornell, 1992, p. 11). Some authors stated that there is no specific definition of customer satisfaction, and after their studies of several definitions they defined customer satisfaction as "customer satisfaction is identified by a response (cognitive or affective) that pertains to a particular focus (i.e. a purchase experience and/or the associated product) and occurs at a certain time (i.e. post-purchase, post-consumption)". (Giese & Cote, 2000, p. 15) This definition is supported by some other authors, who think that consumer's level of satisfaction is determined by his or her cumulative experience at the point of contact with the supplier (Sureshchander et al., 2002, p. 364). It is factual that, there is no specific definition of customer satisfaction since as the years passes, different authors come up with different definitions. Customer satisfaction has also been defined by another author as the extent to which a product's perceived performance matches a buyer's expectations (Kotler et al., 2002, p. 8). According to Schiffman & Karun (2004) Customer satisfaction is

defined as “the individual’s perception of the performance of the products or services in relation to his or her expectations” (Schiffman & Karun 2004, p. 14). In a nutshell, customer satisfaction could be the pleasure obtained from consuming an offer.

Measuring customer satisfaction could be very difficult at times because it is an attempt to measure human feelings. It was for this reason that some existing researcher presented that “the simplest way to know how customers feel, and what they want is to ask them” this applied to the informal measures (Levy, 2009, p. 6; NBRI, 2009).

Levy (2009, p. 6) in his studies, suggested three ways of measuring customer satisfaction:

- A survey where customer feedback can be transformed into measurable quantitative data:
- Focus group or informal where discussions orchestrated by a trained moderator reveal what customers think.
- Informal measures like reading blocs, talking directly to customers.

Asking each and every customer is advantageous in as much as the company will know everyone’s feelings, and disadvantageous because the company will have to collect this information from each customer (NBRI, 2009). The National Business Research Institute (NBRI) suggested possible dimensions that one can use in measuring customer satisfaction, e.g.:

- quality of service
- Innocently
- speed of service
- pricing
- complaints or problems
- trust in your employees
- the closeness of the relationship with contacts in your firm
- other types of services needed
- your positioning in clients’ minds

There exist two conceptualizations of customer satisfaction; transaction-specific and cumulative (Boulding, et al., 1993; Andreassen, 2000). Following the transaction-specific, customer satisfaction is viewed as a post-choice evaluation judgement of a specific purchase occasion (Oliver, 1980) until present date, researchers have developed a rich body of literature focusing on this antecedents and consequences of this type of customer satisfaction at the individual level (Yi, 1990). Cumulative customer satisfaction is an overall evaluation based on the total purchase and consumption experiences with a product or service over time. (Fornell, 1992, Johnson & Fornell 1991) This is more fundamental and useful than transaction specificity customer satisfaction in predicting customer subsequent behaviour and firm’s past, present and future performances. It is the cumulative customer satisfaction that motivates a firm’s investment in customer satisfaction.

2.2. Service quality

In order for a company's offer to reach the customers there is a need for services. These services depend on the type of product and it differs in the various organizations. Service can be defined in many ways depending on which area the term is being used. An author defines service as "any intangible act or performance that one party offers to another that does not result in the ownership of anything" (Kotler & Keller, 2009, p. 789). In all, service can also be defined as an intangible offer by one party to another in exchange of money for pleasure.

Quality is one of the things that consumers look for in an offer, which service happens to be one (Solomon 2009, p. 413). Quality can also be defined as the totality of features and characteristics of a product or services that bear on its ability to satisfy stated or implied needs (Kotler et al., 2002, p. 831). It is evident that quality is also related to the value of an offer, which could evoke satisfaction or dissatisfaction on the part of the user.

Service quality in the management and marketing literature is the extent to which customers' perceptions of service meet and/or exceed their expectations for example as defined by Zeithaml et al. (1990), cited in Bowen & David, 2005, p. 340) Thus service quality can intend to be the way in which customers are served in an organization which could be good or poor. Parasuraman defines service quality as "the differences between customer expectations and perceptions of service" (Parasuraman, 1988). They argued that measuring service quality as the difference between perceived and expected service was a valid way and could make management to identify gaps to what they offer as services.

The aim of providing quality services is to satisfy customers. Measuring service quality is a better way to dictate whether the services are good or bad and whether the customers will or are satisfied with it. A researcher listed in his study: "three components of service quality, called the 3 "Ps" of service quality" (Haywood 1988, p. 19-29). In the study, service quality was described as comprising of three elements:

- "Physical facilities, processes and procedures;
- Personal behaviour on the part of serving staff, and;
- Professional judgment on the part of serving staff but to get good quality service. "Haywood 1988, p. 19-29).

He stated that "an appropriate, carefully balanced mix of these three elements must be achieved." (Haywood, 1988, p. 9-29) What constitutes an appropriate mix, according to him will, in part, be determined by the relative degrees of labour intensity, service process customization, and contact and interaction between the customer and the service process. From the look of things, this idea of his could be design to fit with evaluating service quality with the employee perspective.

One of the most useful measurements of service quality is the dimensions from the SERVQUAL model. In the creation of this model for the very first time, "Parasuraman

et al. (1985) identified 97 attributes which were condensed into ten dimensions; they were found to have an impact on service quality and were regarded as the criteria that were important to access customer's expectations and perceptions on delivered service (Kumar et al., 2009, p. 214).

The SERVQUAL scale which is also known as the gap model by Parasuraman, et al. (1988) has been proven to be one of the best ways to measure the quality of services provided to customers. This service evaluation method has been proven consistent and reliable by some authors (Brown et al., 1993). They held that, when perceived or experienced service is less than the expected service; it implies less than satisfactory service quality; and when perceived service is more than expected service, the obvious inference is that service quality is more than satisfactory (Jain et al., 2004, p. 27). From the way this theory is presented, it seems the idea of SERVQUAL best fits the evaluation of service quality form the customer perspective. This is because when it is stated "perceived" and "expected" service, it is very clear that this goes to the person, who is going to or is consuming the service; who definitely is the consumer/customer.

The original study by Parasuraman et al., (1988) presented ten dimensions of service quality.

- Tangibles: the appearance of physical artefacts and staff members connected with the service (accommodation, equipment, staff uniforms, and so on).
- Reliability: the ability to deliver the promised service.
- Responsiveness: the readiness of staff members to help in a pleasant and effective way.
- Competence: the capability of staff members in executing the service.
- Courtesy: the respect, thoughtfulness, and politeness exhibited by staff members who are in contact with the customer.
- Credibility: the trustworthiness and honesty of the service provider.
- Security: the absence of doubt, economic risk, and physical danger.
- Access: the accessibility of the service provider.
- Communication: an understandable manner and use of language by the service provider.
- Understanding the customer: efforts by the service provider to know and understand the customer.

In first SERVQUAL model that came had 22 pairs of Likert-type items, where one part measured perceived level of service provided by a particular organization and the other part measured expected level of service quality by respondent. (Kuo-YF, 2003, p. 464-465). Further investigation led to the finding that, among these 10 dimensions, some were correlated. After refinement, these ten dimensions above were later reduced to five dimensions as below:

Tangibility: physical facilities, equipment, and appearance of personnel
Reliability: ability to perform the promised service dependably and accurately
Responsiveness: willingness to help customers and provide prompt service

Assurance: knowledge and courtesy of employees and their ability to inspire trust and Confidence
Empathy: caring individualized attention the firm provides to its customers

The aggregated sum of difference between perceptions and expectations from the five dimensions forms the global perceive quality construct. (Laroche et al., 2004, p. 363) Following this view, customers' expectations were met through the outcome dimension (reliability) and exceed it by means of the process dimension (tangibility, assurance, responsiveness, and empathy).

To confirm the validity of SERVQUAL model in the evaluation of service quality, Zeithaml et al (2006), stated that "service quality is a focused evaluation that reflects the customer's perception of reliability, assurance, responsiveness, empathy, and tangibles" (Zeithaml et al., 2006, p. 106-107). They added that among these dimensions, "reliability" has been shown consistently to be the most important dimension in service quality (Zeithaml et al., 2006, p. 106-107).

Other researchers saw the need of additional components of service expectations that is functional and technical dimensions. (Grönroos 1983) The idea was that, consumers make service evaluations based on the technical dimension that is what is delivered and on the functional dimension that is how, why, who, and when it is delivered. (Laroche et al., 2004 p. 363: Grönroos 1983)

Although the elements listed in SERVQUAL model have been proven to be the main method for evaluating service quality from the consumer's perspective (Brown et al., 1993), drawbacks in using SERVQUAL in measuring service quality has been the reason that the SERVPERF scale was proposed by Cronin & Taylor (1992, cited in Jain et al. (2004, p. 25-37) after they called into question the conceptual basis of the SERVQUAL, having found it, led to confusion with service satisfaction (Jain et al., 2004, p. 25-37). These researchers discarded the ´E´ for ´expectation` claiming instead that ´P´ for ´performance´ alone should be used. They meant that higher perceived performance entails higher quality service. Unfortunately, during this past century, customers have changed their behaviours in ways that do not suit organizational behaviour. Till date, it is unclear as to which of SERVQUAL and SERVPERF is superior in measuring service quality (Jain et al., 2004, p. 25-37).

Laroche et al., (2004) made an assessment of the dimensionality of should and will service expectations. They used a survey measuring customers' post encounter expectations and vis-à-vis a well-known airline with a sample of 363 and examined the existence of hypothesized functional and technical dimensions of should and will expectations and determined the casual relationships between two types of expectations and hypothesized dimensions. They tested their dimensions in the context of the turbulent airline industry. This study measured service quality with other service quality dimensions such as technical and functional dimensions proposed by Grönross (1983). Hence it was proven that the SERVQUAL model must not be used in evaluating service quality in all organizations. This could mean that; different industries might require different measurements for service quality.

2.3. Customer satisfaction and service quality

Since customer satisfaction has been considered to be based on the customer's experience on a particular service encounter, (Cronin & Taylor, 1992) it is in line with the fact that service quality is a determinant of customer satisfaction, because service quality comes from outcome of the services from service providers in organizations. Another author stated in his theory that "definitions of consumer satisfaction relate to a specific transaction (the difference between predicted service and perceived service) in contrast with 'attitudes', which are more enduring and less situational-oriented," (Lewis, 1993, p. 4-12) This is in line with the idea of Zeithaml et al (2006, p. 106-107).

Regarding the relationship between customer satisfaction and service quality, Oliver (1993) first suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs were cumulative or transaction-specific. Some researchers have found empirical supports for the view of the point mentioned above (Anderson & Sullivan, 1993; Fornell et al 1996; Spreng & Macky 1996); where customer satisfaction came as a result of service quality.

In relating customer satisfaction and service quality, researchers have been more precise about the meaning and measurements of satisfaction and service quality. Satisfaction and service quality have certain things in common, but satisfaction generally is a broader concept, whereas service quality focuses specifically on dimensions of service. (Wilson et al., 2008, p. 78). Although it is stated that other factors such as price and product quality can affect customer satisfaction, perceived service quality is a component of customer satisfaction (Zeithaml et al. 2006, p. 106-107). This theory complies with the idea of Wilson et al. (2008) and has been confirmed by the definition of customer satisfaction presented by other researchers.

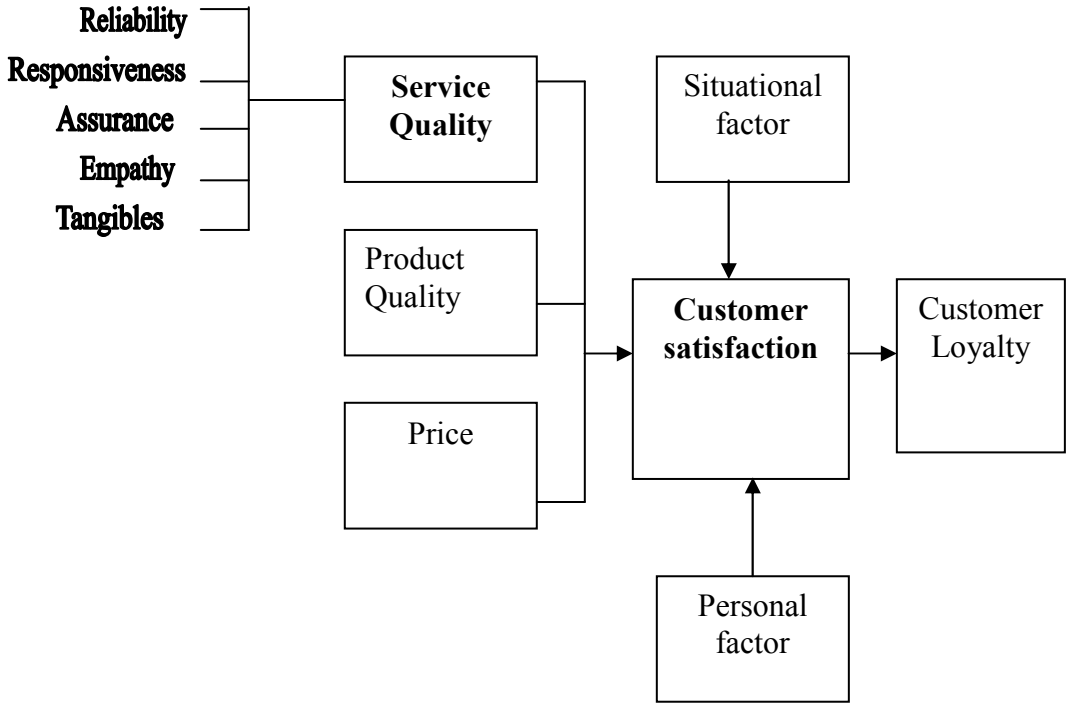


Figure 1: Customer perceptions of quality and customer satisfaction (Wilson et al., 2008, p. 79)

The above figure shows the relationship between customer satisfaction and service quality. The author presented a situation that service quality is a focused evaluation that reflects the customer's perception of reliability, assurance, responsiveness, empathy and tangibility while satisfaction is more inclusive and it is influenced by perceptions of service quality, product quality and price, also situational factors and personal factors. (Wilson, 2008, p. 78)

It has been proven from past researches on service quality and customer satisfaction that Customer satisfaction and service quality are related from their definitions to their relationships with other aspects in business. Some authors have agreed to the fact that service quality determines customer satisfaction. Parasuraman et al., (1985) in their study, proposed that when perceived service quality is high, then it will lead to increase in customer satisfaction. Some other authors did comprehend with the idea brought up by Parasuraman (1995) and they acknowledged that "Customer satisfaction is based upon the level of service quality that is provided by the service providers" (Saravana & Rao, 2007, p. 436, Lee et al., 2000, p. 226). Looking into (figure 1), relating it to these authors' views, it is evident that definition of customer satisfaction involves predicted and perceived service; since service quality acted as one of the factors that influence satisfaction. More evidence of this relationship has been proven by past researches.

As a result of the definition of customer satisfaction presented by Lewis, (1993, p. 4-12), Sivadas & Baker-Prewitt (2000, p. 73-82) used a national random telephone survey of 542 shoppers to examine the relationship between service quality, customer satisfaction, and store loyalty within the retail department store context. One of the results was that service quality influences relative attitude and satisfaction with department stores. They found out that there is a relationship between customer satisfaction and service quality.

In line with the findings of Sivadas & Baker-Prewitt (2000, p. 73-82), Su et al., (2002, p. 372) in their study of customer satisfaction and service quality, found out that; these two variables are related, confirming the definitions of both variables which have always been linked. They also dictated that service quality is more abstract because it may be affected by perceptions of value or by the experiences of others that may not be so good, than customer satisfaction which reflects the customer's feelings about many encounters and experiences with service firm. (Su et al., 2002, p. 372).

In addition to what the other researchers have found out from customer satisfaction and service quality, some other authors Wang & Hing-Po (2002), went into details to bring in customer value in the study of the relationship between customer satisfaction and service quality. Their study used SERVQUAL model in measuring service quality in China's mobile phone market, but with modification on the basis of focus group discussions and expert opinions to reflect the specific industry attributes and the special culture of China. Emphasis was then paid to the study of the dynamic relationships among service quality, customer value, customer satisfaction and their influences on future behaviours after the key drivers of customer value and customer satisfaction were identified. All of them were based on the development of structural equation models by using PLS-GRAPH Package. (Wang & Hing-Po, 2002 p. 50-60) This study blended the study of customer satisfaction and service quality with customer value which added more weight to the linkage between customer satisfaction and service quality because value is what customers look in an offer.

Past studies on the relationship between customer satisfaction and service quality which included SERVQUAL dimension have been published since from 2003 to 2010, the research on this topic droped from 2004 to 2006 and was stable, between 2008 and 2009, there was no study on this field of study that treated the relationship between customer satisfaction and service quality with SERVQUAL dimension; research on this topic increased rapidly in 2010 (Appendix 1)

With regards to the above statistics; Kuo (2003) conducted a research on service quality of virtual community websites with the purpose of constructing an instrument to evaluate service quality of virtual community websites and to have a further discussion of the relationship between service quality dimensions and overall service quality, customer satisfaction and loyalty. The researcher used Factor analysis, t-test, and Pearson correlation analysis to analyse the data collected from college students of three major universities in Taiwan. One of the results was that" on-line quality and information safety is positively related to the overall service quality, customer satisfaction, and loyalty, but the service quality level of this dimension was the poorest. " (Kuo, 2003, 461-473).

In contrast to the above studies; Bennett & Barkensjo (2005) studied relationship quality, relationship marketing, and client perceptions of the levels of service quality of charitable organisations. Questions were asked to 100 people on their perceptions of service quality of the organisations that had given them assistance, their satisfaction with a charity service etc. they constructed a model and estimated using the method of partial least square. Also, perceived service quality was measured via adaptations of the SERVQUAL instrument but without any assessments of the respondents' prior expectations concerning the services they would receive from an organisation. In their results, relationship marketing was found to represent an effective weapon for improving both relationship quality and beneficiaries' satisfaction with service provision. They stated that "relationship quality and actual service quality induced beneficiaries to want to recommend a charity to other people and to engage in positive word-of-mouth." (Bennett & Barkensjo, 2005, p. 101). Meaning the beneficiaries who stood as the customers were satisfied since recommendation is signal of satisfaction, confirming the idea that service quality is related to customer satisfaction. They were not directly conducting a research on the relationship between customer satisfaction and service quality, but because when talking about client perceptions, one must think of their satisfaction, and when talking about service quality there is a link between these two as has been proven by many researchers (Baker-Prewitt, 2000, p. 73-82; Kuo-YF, 2003, 461-473; Gera, 2011, p. 2-20) This means it could be useful to test these three variables (Customer satisfaction, service quality and Service quality dimensions). The study of Bennett & Barkensjo (2005) stated that "the hypothesis elements of SERVQUAL model (Tangible, assurance etc.) were scientifically associated with the service quality construct" (Bennett & Barkensjo, 2005, p. 101). It could be interesting to test SERVQUAL model with the five dimensions and service quality assuming that expectations is included to see if it will be significantly associated.

In support of the use of SERVQUAL in the relationship between customer satisfaction and service quality, Ahmed et al., (2010) conducted a mediation of customer satisfaction relationship between service quality and repurchase intentions for the telecom sector among university students, with SERVQUAL model's 5 dimensions

(tangibles, responsiveness, empathy, assurance and reliability) by Parasuraman et al. to measure service quality.

To crown the fact that customer satisfaction and service quality are important variables in business research on customers, Gera (2011) investigated the link between service quality, value, satisfaction and behavioural intentions in a public sector bank in India and one of their results states that "Service quality was found to significantly impact on customer satisfaction and value perceptions" (Gera, 2011, p. 2-20)

The literature review shows latest researches up to 2011 on the relationship between customer satisfaction and service quality. The researches in this area have been covered so far as below;

- It has been researched that there is a relationship between customer satisfaction and service quality.
- It has been researched that service quality could be evaluated with the use of SERVQUAL model.
- It has been researched that service quality could be evaluated by other dimensions of service quality that is, functional and technical and not necessarily SERVQUAL model
- Some researchers even tested service quality and service quality dimensions.

What is lacking is the relationship between customer satisfaction and service quality dimensions. Among all the recent articles that I could reach, none of the studies had tested the five dimensions of SERVQUAL and customer satisfaction and service quality at the same time to confirm this relationship between customer satisfaction and service quality.

2.4. Conceptual Frame work

The aim of this section is to summarise the idea I got from past literature and to bring out the contributions I have for this study area. Thus this part starts with the idea generated and the contribution follows.

The general idea from the past literature is that there is a relationship between customer satisfaction and service quality; also that service quality could be evaluated with the use of five service quality dimensions and the most useable is the SERVQUAL scale.

Following the two clarifications about the different views of customer satisfaction of a customer of either being transaction-specific or cumulative (Boulding et al., 1993; Andreassen, 2000). My theoretical frame work treats customer satisfaction as transaction-specific. Thus, customers in this paper are those who consume the services, satisfaction denotes customer's desire to maintain a business relationship with the organization and it is also the feelings of the customers towards the services provided to them by the organizations; while customer satisfaction in this study is the pleasures obtained by customers for the services provided to them by the employees of the organizations.

It has been proven that "perceived service quality is a component of customer satisfaction" (Ziethaml et al. 2006, p.106-107). Other researchers had proven also that there is a relationship between customer satisfaction and service quality (Sivadas &

Baker-Prewitt, 2000, p. 73-82; Wang et al., 2002, p. 50-60; Kuo-YF, 2003, Liang & Zhang, 2009, p. 113-12, Gera, 2011, p. 2-20; Sureshchandar, et al., 2002 p. 363-379). Moreover, the SERVQUAL model has been proven to be the best model to measure service quality in service sectors especially with the customer perspective. This idea generates an assumption that the five dimensions of SERVQUAL model could have a direct relationship with customer satisfaction. (Figure 2) The questions that arose from this assumption is that ´Is there a significant relationship between customer satisfaction and service quality dimensions? ´; `Is there a significant relationship between customer satisfaction and service quality?`

Also, it has been stated that service quality is the overall assessment of a service by the customers, (Eshghi et al., 2008, p.121). Also, the five dimension of SERVQUAL model has been proven to be the main yardstick used by most of the researchers in the evaluation of service quality (Wilson et al., 2008, p. 79; Bennett & Barkensjo, 2005, p. 101, Negi, 2009; Wang & Hing-Po, 2002). This idea generates an assumption that each of the five dimensions of SERVQUAL model could have a direct relationship with service quality. (Figure 2) The question that arose from this assumption is that: ´Is there a significant relationship between Service quality and the five dimensions of SERVQUAL model? `

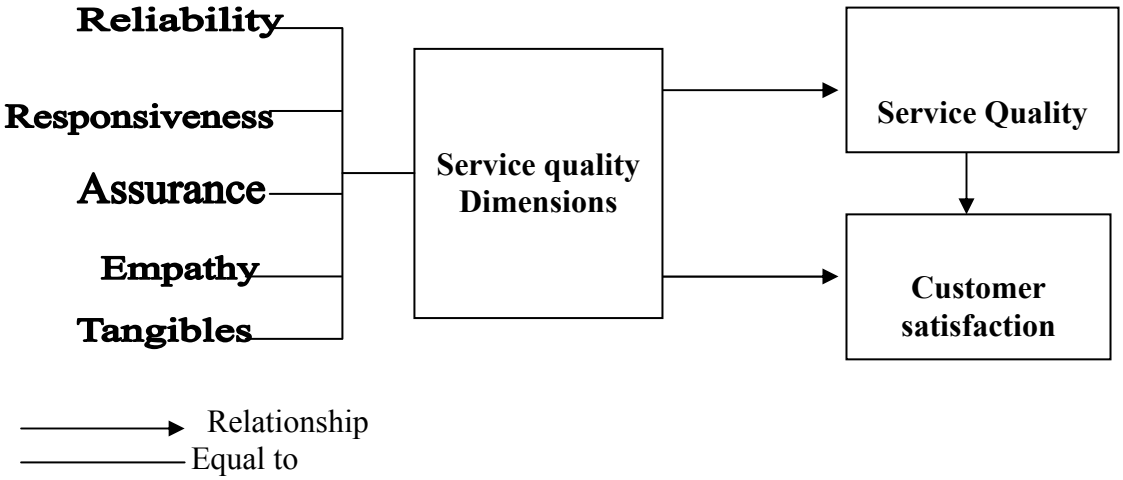


Figure 2: The relationship between customer satisfaction and Service quality for this study

If customers agree that they are satisfied and give the reasons for satisfaction as service quality; service quality dimension has significant relationship with service quality and customer satisfaction, then a conclusion could be drawn that service quality has a significant relationship with customer satisfaction and with service quality dimensions. Based on these, the research hypotheses were on the fact that service quality dimension had significant relationship with customer satisfaction and with service quality. The hypotheses tested were:

H1: Customer satisfaction has significant relationship with Service quality dimensions

H2: Service quality has significant relationship with service quality dimensions

H3: Customer satisfaction has a significant relationship with service quality

CHAPTER 3: METHODOLOGY

The aim of this section is to explain methods used in carrying out this research, how the research was design and reasons for the choices. Thus the chapter begins with the author's preconceptions, choice of study and perspective. The research philosophies follows, then research Approach, research design, and the chosen research strategy. The research technique and paradigm are also presented in this chapter. The chapter also presents the questionnaire structure and explains data collection method. The chapter ends with the analysis method and precision measurement.

3.1. Author's preconceptions

Research such as this must have some roots from where the researcher began in order to generate the topic. Both practical and theoretical background knowledge have been used to get the research topic. Getting this area to research on was not a problem for me because I have been interested in customer satisfaction not only as a business student but also as a customer.

I looked at the topic "the relationship between customer satisfaction and service quality because customers, just as I am, my decision on repeat purchase or recommendation depends on the satisfaction I derive from the products I consume or the services rendered to me by the employees of an organization.

Thus I started by self-examination based on past experiences on satisfaction and service quality. I have examined the ways in which I am served by the employees of the organizations that I have happened to be a customer. Sometimes I compare the service quality with price and product quality before I decide to consume the offer. I have also been checking on other aspects such as situational factors and personal factors before I purchase or repeat purchase for a particular product. With regards to service sector companies, most often, I consider service quality as the main determinant of satisfaction, whereas with product companies, I consider price and product quality as the determinants of satisfaction.

The theoretical background knowledge for this research area was gotten from some courses such as; principles of marketing and economics that I studied at the bachelor level with Buea University in Cameroon. I have studied some courses such as consumer behaviour, consumer analysis, business-to-business marketing, Advance marketing, Executive decision making, operation management, as part of the business program at Umeå school of Business. Moreover, I got some theoretical background knowledge from past studies by other researchers on this topic and area of research.

The preconception had helped me in developing the manner of treating this topic and it gave me some background about how a customer could derive satisfaction in a service sector. Both the practical and theoretical background was important because, from the practical background, I got an idea and was not sure of whether that could apply to every customer. Then the theoretical background through theories proved to me that the ideology I had from the practical background were reality. So this helped me to place my interest on testing this reality, hence I did a quantitative study for this topic.

3.2. Choice of Subject

The basic idea I got before starting this research was to establish the relationship between customer satisfaction and human resources management. When I started reading the literature, the idea began to narrow down to customer satisfaction and job satisfaction. As I read further, I came to realize that I will have to look at service quality too because I found out that service quality appeared in both job satisfaction and customer satisfaction articles. Although I was still gathering facts for this subject of the relationship between customer satisfaction and job satisfaction with regards to service quality I found out that the service quality dimensions had a greater part to play in customer satisfaction. Thus I decided to examine the relationship between customer satisfaction and service quality with regards to service quality dimensions.

The topic is about customer satisfaction and service quality which makes it very interesting but broad. I had chosen this topic because it concerns customer who are the most important stakeholders in organizations. Another reason for choosing this topic is because I realized that companies today are concentrating more on providing additional services to what they offer to the customers. Thus I thought it will be good to look into the dimensions of service quality with the SERVQUAL model being the icon to relate to customer satisfaction and or service quality.

3.3. Perspective of the thesis

This research is a general view of the situation for academic purpose because I did not conduct it on behalf of a particular organization. To coin it all, my topic: "The relationship between customer satisfaction and service quality" was viewed from a company perspective and in service sectors regarding the business sectors. The aim of business is to maximise profits through increase sales which also comes as a result of customer satisfaction, getting to know what actually satisfy the customers is a target in the business research, which means this thesis will be beneficial to companies.

3.4. Research Philosophies

There exist two main research philosophies; ontology and epistemology. The first aspect of research philosophy is ontology, which is concern with what constitutes reality. My choice of the ontological view was objectivism. Objectivism is the view that social entities exist in a reality external to social actors concerned with their existence (Saunders et al. 2009, p. 111; Saunders et al. 2007, p. 108, Bryman & Bell 2003, p. 19)

The reason for objectivist stance was because the variables by themselves, customer satisfaction and service quality have tangible realities. Customers must be satisfied if the organization must increase its sales for profits, but satisfaction which is utility, vary for individuals. To sell out the products to customers, organizations need to serve the customers and the services too vary in the organizations because each organization has its own offer and mission. Customer satisfaction and service quality are two variables with the characteristics of an object in organizations, thus with an objective reality. With this conception, I believe that the reason for satisfaction will differ in different organisation and the meaning of service quality too will also differ in different organizations; which means the relationship between customer satisfaction and service quality could have a distinctive outcome in different organizations.

The second aspect of research philosophy is epistemology, which is concerned with how to generate knowledge. My choice of the epistemology view was positivism, which is the view that we can only get knowledge about reality by following a scientific method of testing hypotheses (Bryman & Bell, 2003, p. 19-20; Saunders et al., 2009, p. 113- 116). Some principles of positivism as below;

> "• The principle of phenomenalism which states that only phenomena and hence knowledge confirmed by the senses a genuinely be warranted as knowledge.
> • The principle of deductivism which states that the purpose of theory is to generate hypotheses that can be tested and that will thereby allow explanations of laws to be assessed.
> • The principle of inductivism which states, knowledge is arrived at through the gathering of facts that provide the basis for laws.
> • Objective, that is, science must be conducted in a way that is value free.
> • There is a clear distinction between scientific statements and normative statements and a belief that the former are true domain of scientist." Bryman & Bell (2007, p.16)

The reason for my positivist stance was because from the past experience and past literatures, I got a general view that service quality has something to do with customer satisfaction, and it has been proven by researchers that there is reality in what I was thinking. It was evident that I can only prove what I think exists by testing hypotheses. That is I can only confirm that there is a relationship between customer satisfaction and service quality and should be a relationship between service quality dimensions and customer satisfaction and/or service quality by testing hypotheses derived from existing theories. If I didn't know anything about this relationships it could have pushed me to investigate the relationship in a total sense by trying to generate theories then I would have been going totally to the subjective aspect of the research, and then I would have been dealing with the feelings of individual customers to get their own opinion about the reality of the situation (Saunders et al., 2009, p. 111). But in my study, social entities exist (Saunders et al., 2009, p. 110). In fact, the relationship had already been investigated by some authors. So I am out to test these situations in using my own design.

Generally it is known that individuals are irrational beings they perceive situations differently and it is not possible to get a complete positivist view in the area of scientific methods. This might be true when we view things in a broad manner because studying the relationship between customer satisfaction and service quality; just viewing it would mean that about 98% of the study dealt with hypothesis testing and about 2% on the customer's views on their reasons for satisfaction. The second thoughts sound as if I was dealing with the feelings of this stakeholder making it to be some worth subjective. But then for the fact that even for the customers to give reasons for their satisfaction they were not given the free will to express their own opinions because they were restricted on some factors already designed from past researches; and the fact that my analysis and conclusion were based on the results from the hypotheses tests, this gave firm thoughts that my stance was totally of positivism.

To further elaborate on the research philosophies, it is good to bring in the research Paradigm. A paradigm is a way of examining social phenomena from which particular understanding of these phenomena can be gained and explanations attempted; and it is a frequently used term in social science and could lead to confusion because it turns to have multiple meaning (Saunders et al, 2009, p. 118). Within this paradigm, there exist four different types: Functionalist, interpretive, radical humanist, and radical structuralist paradigms. For functionalist, and radical structuralist paradigms their ontological positions are objectivism while interpretive and radical humanist paradigms have subjectivist as their ontological positions. (Saunders et al 2009 p. 120 -121) these could be linked to (figure 9) in that; Functionalist and radical structuralist paradigms represents the physicist paradigms and interpretive and radical humanist paradigms represents the psychiatrist paradigm. (Kent, 2007, p. 49)

According to the four paradigms for the analysis of social theory as a researcher here, the researcher could be placed in the functionalist paradigm because it is within this paradigm that most business and management research operates. Although this is an academic research and not a business one, when it comes to the purpose of conducting the research; but when it comes to purpose of the study and general benefits, it is a business research because it concerns managerial problems in businesses hence confirming my place in that paradigm. (table 1).

The reason for this functionalist position in the paradigm for me was because this research assumed rational human actions and believed that one can understand organizational behaviour through hypothesis testing (Burrell and Morgan, 1979, pg 1-37)

Table 1: ***Four Paradigms for the analysis of social theory (Kent 2007 pg 49)***

Radical change

subjectivist	Radical humanist	Radical structuralist
	Interpretive	Functionalist

Objectivist

Regulation

Following a marketing research like this although it is an academic work, the researcher could be placed under a physicist. The reason for this position was because, of my ontological position of objectivism and epistemological position of Positivism which pushed the researcher to a deductive approach with a quantitative research method and quantitative data analysis (table: 1).

Table 2: Paradigms in marketing research (Kent 2007 pg 49)

Paradigm Research as	**Ontology**	**Epistemology**	**Perspective**	**Theory**	**Method**	**Technique**
Physicist	*Objectivist*	*Positivist*	*Researcher*	*Deductive*	*Quantitative research*	*Quantitative analysis*
Physician	Realist	Activist	Client	Mixed	Mixed	Mixed
Psychiatrist	Subjectivist	Interpretive	Participant	Inductive	Qualitative research	Qualitative Analysis

3.5. Research Approaches

My choice for research approach is deductive approach. A deductive approach is when existing theories are being used to come up with a hypothesis (Saunders et al., 2007, p. 117-121) as below:

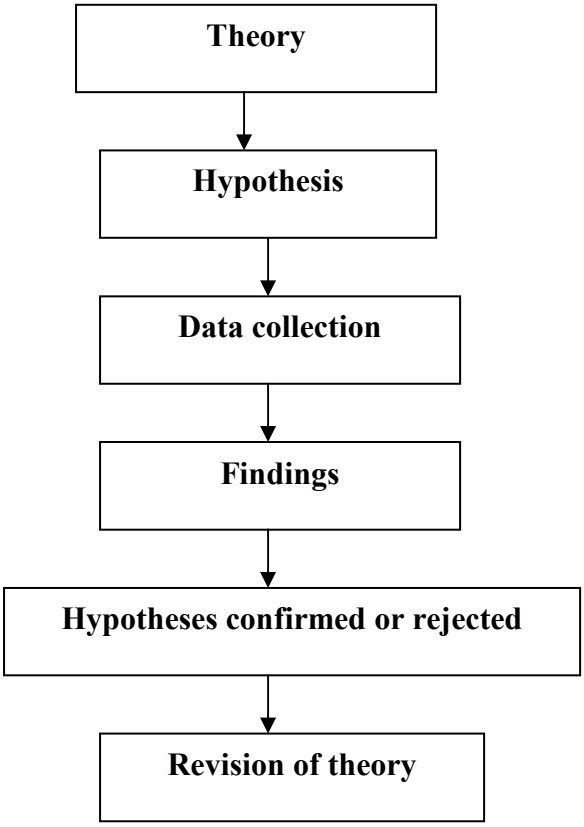


Figure 3: ***The Process of Deduction, (Bryman, 2008, pg 10)***

In relation with the research philosophies, deductive approach is being used in the positivist science. Following the nature of my research question, `Is there a significantly positive relationship between customer satisfaction and service quality dimensions` ;`Is there a significantly positive relationship between customer satisfaction and service quality dimensions;` `Is there a significant relationship between customer satisfaction and service quality?` this signifies that the reality of the situation is out there, that is

there are literatures which had provided some evidences in what I was thinking that created a doubt for me to ask if it was significant at all. This made me formulated hypotheses based on the existed theories that were important for the study; I designed a method for collecting quantitative data in order to test the hypotheses. In a similar way, the theories I had on customer satisfaction, service quality and service quality dimension (the SERVQUAL model) gave rise to the research questions which I used to formulate the research hypotheses "customer satisfaction has significant relationship with service quality dimensions"; service quality has significant relationship with service quality dimensions" and "customer satisfaction has a significant relationship with service quality". Then I collected quantitative data to get findings by testing hypotheses which were either confirmed or rejected and the theories revised.

3.6. Sampling Technique and Stratification

Sampling techniques provide a range of methods that enable one to reduce the amount of data needed for a study by considering only data from a sub-group rather than all possible elements (Saunders et al., 2009, p. 210). Although the normal sense of population is not usually used in most sampling (as the set of case are not people), (Saunders et al., 2009, p. 212) the population in this case was in its normal sense because the research dealt with customers and employees who fell in the "people" category. According to Saunders et al., (2009, p. 213) there exist two types of sampling: probability, where the chances of each case being selected from the population is known and is usually equal for all cases, and non-probability - sampling where the chances of each case selected from the total population is not known, making it impossible to answer research questions (Saunders et al., 2009, p. 213).

I used a non-probability sampling strategy called convenience sampling. "A convenience sampling is available to the researcher by virtue of its accessibility" (Bryman & Bell, 2003, p. 105) I was interested in customer satisfaction and service quality in a service sector and I administered my questionnaire to international students of Umeå University, customers of ICA Ålidhem Centrum and customers of Forex Bank. I used these different organisations because I wanted to see how the service quality dimension will affect customer satisfaction or service quality in different organisations in the same sector. Because there is a need for more research on customer satisfaction and service quality, I decided to use this sampling technique because I wanted to get a good response rate for my study which could provide a springboard for further research or allow links to be forged with existing findings in the area (Bryman & Bell, 2003, p. 105)

The service sectors were thus classified under an educational sector; a financial sector and a shop. The similarity these three service sectors had was that they all provided services to their customers. The differences they have comes from their offers, they had different offers to customers and different organizational designs. The reason for this classification was for me to be able to present a clear analysis of the research. Following my objective view, I belief that customer satisfaction and service quality will vary in the different sectors that these organizations represent. I had to classify the organizations in this manner to see if the service quality dimensions even if different would still relate to customer satisfaction and service quality in the same manner. Another reason was that I wanted to draw a better conclusion from the study to point out how the relationships among these variables could be different in service sectors. Moreover, these three

organizations deal directly with customers and this research is about service quality, which is a critical element of customer perceptions and it will be both dominant element in customer evaluation and may be very critical in determining customer satisfaction. (Wilson et al., 2008, p. 83)

I selected Umeå University because I wanted to test the relationship between customer satisfaction and service quality with respect to SERVQUAL dimensions in a school. There was no special criterion for choosing this school but I selected the school because it was more convenient for me to get the data. Moreover, at the University one could get matured students as customers who could be able to evaluate the services rendered to them other than other preliminary schools. Also, I selected Forex bank because I wanted to test the relationship between customer satisfaction and service quality with respect to SERVQUAL dimensions in a bank. There was no special criterion of choosing this bank but I selected the bank because it was the only bank that gave me quick response when I requested to get information from its customers. As a bank like this, I could get matured people as customers who could be able to evaluate the services rendered to them, since there is no customer below 18years. I selected ICA Ålidhem Centrum because I needed to use a shop. I wanted to test the relationship between customer satisfaction and service quality with respect to SERVQUAL dimensions in a shop. There was no special criterion of choosing this shop but I selected the shop because it was the only shop that gave me quick response to use its customer's just like with Forex bank because I needed any shop.

Thus the respondents from these chosen organizations were just customers available to me as a researcher but not necessarily a representative of the customer population, Although the findings of this kind of sampling strategy could be interesting, the problem is that it is difficult to generalize the findings but the findings could provide a springboard for further research or allow links to be forged with existing findings in an area. (Bryman & Bell, 2003, p. 105). Moreover, Bryman & Bell stated that this samples kind is very common in business and management (Bryman 1989a: 113-14 cited by Bryman & Bell, 2003, p. 105)

Sample Design

A sample design is meant to address two basic issues: how many elements of population and how they were selected?

Sample size determination is an important and often difficult step in planning an empirical study. A sample is a subset of a population element, where a population is a theoretically-specified aggregation of an element. Hence a sample size is a subset of a population. (Agresti & Finlay, 2009, p. 4)

One of the most important reasons for me to determine a sample size for this study was because I could not cover the entire population. Although large sample size was a recommendation for my method, but very large as large as the entire population would have led to time wastage and the wastage of resources and money, given that small samples also produce accurate results (isixsigma.com). For this reason, I got customers across three of the different service included both definite and indefinite population. Definite population meant I could be able to know the entire number of the population and indefinite population meant I could not know the number of population.

The aim of the sample was for me to select estimated population parameters. I planned getting a sample size of 300 from the population and from the service sectors so that I could be sure with a large sample. I planned to get 100 customers from each organization. By the end of the collection of data, I got 100 completed and 7 uncompleted questionnaires from international students of Umeå University; 60 completed questionnaires from customers from ICA Ålidhem and 60 completed questionnaires from customers from Forex.

3.7. Research Strategy and Design

This research used a quantitative method. A research that focuses primarily on the construction of quantitative data follows a quantitative method (Kent, 2007, p. 10, 570). The reason for this choice of method was from my ontological position of objectivism, my epistemological position of positivism and my research approach which is deductive (Bryman & Bell, 2003, p. 25) Moreover, it was because I collected quantitative data and my analysis method was quantitative. I wanted to test the relationship of some variables in a situation and I emphasized "on quantification in the collection and analysis of the data collected" (Bryman & Bell, 2003, p. 25) I was not developing theories but testing existing theories that made me to use numerical data which is one of the characteristics of a quantitative method.

Research strategy can be chosen with the use of a single data collection technique and corresponding analysis procedure. This is known as a mono method (Saunders et al, 2009, p. 151). Using more than one data collection technique and analysis procedure to answer research questions is known as multiple methods, with four different possibilities. (Saunders et al., 2009, p. 151-152) Based on this research method, the deductive approach led me to use a mono method, because I used a quantitative data collection technique with the use of questionnaires, and quantitative data analysis procedures as well.

Following the research approach also, with the idea that I was not generating new theories, this research was a descriptive study. A descriptive study is aimed to create an accurate profile of persons, events, or situations. (Robson, 2002 p. 59 cited in Saunders et al, 2009, p. 139-140). Another author adds that a descriptive study may mean to establish only associations between variables (Hopskins, 2009). The reason for this choice was based on my objective "to examine the relationship between customer satisfaction and service quality with respect to the service quality dimensions" and on the way in which my research questions were structured; "Is there a significantly positive relationship between customer satisfaction and SERVQUAL dimensions?" Is there a significantly positive relationship between service quality and SERVQUAL dimensions?" `Is there a significant relationship between customer satisfaction and service quality?` This meant relationships existed among these variables either directly or indirectly, so I was trying to test the associations between the variables and I was not seeking new insights or establishing casual relationships. Also the research used descriptive design since a descriptive study establishes only association between variables which was what I was trying to do; creating an accurate profile of a situation about the relationship between customer satisfaction and service quality. Another reason that caused me to have designed this research as a descriptive study was because I was

not making any attempt to change the behaviour of the variables measured. (Hopkins 2001)

Moreover, the research followed a cross-sectional descriptive study because I used more than one case in my research (Bryman & Bell, 2003, p. 48) and in cross-sectional studies variables of interest in a sample of subjects are tested once and the relationships between them are determined (Hopskins, 2001). Furthermore, survey strategy as this kind of descriptive study is being addressed by other authors (Bryman & Bell, 2003, pg 49) was used as my design because I was interested in variation in respect of people and organizations, i.e. customers, then the three service sectors. By implication, survey strategy is used by a deductive approach, and it allows one to collect quantitative data, which one can analyze quantitatively using descriptive and inferential statistics (Saunders et al., 2009, p. 144).

Because I was neither measuring customer satisfaction nor service quality but I was testing their relationships with the SERVQUAL dimensions, the designed of the study was different from the past studies. I tested the relationship between service quality dimensions with customer satisfaction and with service quality; then I tested the relationship between customer satisfaction and service quality. I did these tests in the different service sectors separately and then I combined the common variables and did all the tests in a group for the total sample. The reason for this design was for me to be able to see the variables that will have the same values with separated and combined; to see if the tests would maintain their stances in the two sets of analysis.

The two main aspects satisfaction and service quality were viewed in different dimensions for this study to be completed. Following this study, satisfaction was viewed from the customers' perspectives. To determine the customers' satisfaction level, I used "a survey where customer feedback were transformed into measurable quantitative data" the measurement technique by Levy (2009, p. 6) and model presenting dimension to use in measuring customer satisfaction by the National Business Research Institute's suggestion. In this view, customers were asked a direct question in a survey such as "How satisfied are you?" and "Reason for satisfaction?" I also attempted to understand their perception measures, selecting factors, and recommendations.

This study focuses on service sectors and service quality evaluation was from the customer's perspectives. Evaluation of customers was able to be conducted through their views of the meaning of service quality. The Parasuraman's view of service quality with SERVUAL Model as the *service quality dimensions* was used because I was able to relate the `*meaning of service quality*` from the customers of the three service sectors to the definitions of the five dimensions of the SERVQUAL models. Because the service sectors provided different offers, they had few similar dimensions. Following the definitions of each of the SERVQUAL dimensions, classifications of service quality dimensions according to the meaning of service quality for this study were as in table ( )

Table 3: SERVQUAL dimensions and Service sectors classifications for this study

Meaning of Service Quality	**Service Sectors**	**SERVQUAL Dimensions**
Accurate course Materials (good library and Computer facilities)	Umeå University	Responsiveness
Service time	Forex	
Availability of Shop assistance	ICA	
Welcoming staff	Umeå University¨ Forex ICA	Empathy
Time conscious staff	Umeå University	Reliability:
Accurate services	FOREX	
Less queue	ICA	
Positioning	ICA	Tangibles:
Qualified lecturers	Umeå University	Assurance

The above table related the SERVQUAL dimensions to the attributes that were used for defining service quality by the different customers for this study.

Recalling to the various organizations where the samples were drawn; international students from Umeå University, customers of ICA and Forex Bank (3.6.1) and because the three service sectors provided different offers, this affected their applications to the service quality dimensions as below;

Responsiveness: SERVQUAL described responsiveness as "willingness to help customers and provide prompt service" (Parasuraman et al., 1988, p.23) this dimension was viewed as the *`service time`* for Forex bank that is; when the customers expects the services to be completed and this applied to one of the three service sectors that I targeted for this study i.e. Forex bank. The reason I had to use this dimension on Forex was because this sector has a middle person rendering the services to the consumers. For instance Forex does national and international money transactions and the transactions are always made among a customer. Responsiveness from SERVQUAL was also viewed as *´shop assistance´* for ICA Ålidhem Centrum, that is; the help offered to customers in obtaining what they need in the shop. The reason I used this dimension on ICA was because ICA is a shop who has some workers who help to direct the customers towards the items they need. Responsiveness was related to *`accurate course materials`* for Umeå University, that is; the students who are the customers could get the necessary materials (good library and computer facilities) to help them validate the courses. I had to use this dimension on Umeå University because the service sector provides students with course materials, library and free access to computer and internet services to help the students validate their courses, and there are workers appointed to help the students get these services. Thus these organisations have the willingness to help their customers and provide them with prompt services.

Empathy: SERVQUAL described empathy as "caring, individual attention the firm provides its customers" (Parasuraman et al., 1988, p.23). This dimension was viewed as `*welcoming staff*` for all of the three service sectors for this study (Umeå University, ICA Ålidhem Centrum and Forex bank) that is; the people rendering the services to customers have these attribute of care and concern. The reason I used this dimension on these three service sectors is because Umeå University has lectures who made sure the students understands the lessons; student services and administrators who makes sure the individual students problems are solved. With regards to why I had to use this dimension for ICA Ålidhem Centrum, it is because this shop has employees both shop assistance and sales persons who always makes sure to live the customers happy as they go for the day. I had to use this dimension on Forex bank because just like ICA, Forex also has employees who pay attention to the customers and makes sure they treat each customer confidentially and provide relevant answers when they inquire anything. Thus these three organisations in different ways provide individual attentions and care to their customers.

Reliability: SERVQUAL describes reliability as "ability to perform the promised service dependably and accurately" (Parasuraman et al., 1988, p.23). This dimension was viewed as `*Accurate service*` for Forex, that is; the customer view the services provided reliable or perfect. I used this dimension on Forex bank because it is the only service sector that involves a middle man and concerns money transactions which delicate issue to deal with and sometimes at distance and involving a third party. Reliability is also viewed as *`time conscious staff`* for Umeå University, that is; the students get the necessary lessons for the courses as required. The reason I had used this dimension on Umeå University is because the service sector has a timeframe drawn for each programme and course on which the service providers are based on providing the services to the customers. Reliability was also viewed as *´less queue*` at ICA that is the customers found it convenient and perfect for the services with less queue in the shop. I used this on ICA because as a shop, the customers might think the services are not perfect or accurate to their individual judgements. Thus these organizations have some ability to perform the promised service dependably and or accurately.

Assurance: SERVQUAL describes assurance as "knowledge and courtesy of employees and their ability to inspire trust and confidence" (Parasuraman et al., 1988, p.23). This dimension was viewed as `*Qualified staff*` for Umeå University, that is; the people rendering the services to customers have the attribute of knowledge and ability to inspire trust and confidence. Why I had to use this dimension on Umeå University is because this service sector has employees well knowledgeable and follows strict regulations on the school to provide services to the students and it was the only service sector among the three service sectors; that the customers have some ways of evaluating the outcome of the services rendered to them for example the course evaluation.

Tangibles: SERVQUAL describes tangibles as "physical facilities, equipments, and staff appearance. (Parasuraman et al., 1988, p.23) This dimension was viewed as ` *Shop display (positioning)* ` for ICA Ålidhem, that is the customer is convenient to move around the shop to get the needed items with regards to the shop display. The reason I had used this dimension on ICA was because ICA is a shop and the way its places the items is the concern for the customer who regards it as an influence on the service and it was the only service sectors that was a shop from the three service sectors for this study.

In this paper, quality is in relation to services and not products because the study deals with service sectors; service is referring to the treatment of customers during the process of consuming an offer by the organization. Meanwhile, Service quality in this paper means the value of the services provided by employees to customers, and it was viewed in the direction of "*Service quality meaning*" by the customers. Here, service quality meant that the customers were satisfied with the services provided to them by the organization.

Thus, service quality dimensions were used as a yardstick in the customers' perspective to confirm if the service sectors provided quality services to customers. In doing so, customers were asked if according to them the organization had quality service as an attribute and if service quality was a selecting factor for them to use the organization. They were also asked to state what they meant by "quality service" so as to view the dimensions of service quality with respect to the SERVQUAL model. Also they were asked to choose from among service quality and other attributes of the organization like price, positioning, environmental conditions, etc., which of the factors that gave them satisfaction. Thus the service quality dimensions in relation to the SERVQUAL model was used to support the results of Customer satisfaction and service quality.

The main variables were Customer satisfaction and service quality from customers' perspectives. The identification of service quality that determines customer satisfaction from past researches resulted to a better understanding of how service quality could be a factor affecting customer satisfaction. Looking at it in this sense, it means customer satisfaction is a dependent variable and service quality and its dimensions are independent variable. Also if the service quality dimensions could act as influence on service quality that will go to determine customer satisfaction, it will mean these dimensions could be independent of service quality. Hence service quality is the dependent and its dimensions independent variables in the latter case as summarised below:

Table 4: Variable identification

Relationship	**Dependent variable**	**Independent variable**
Customer satisfaction and Service quality dimensions	Customer satisfaction	Service quality dimensions
Service quality and Service quality dimensions	Service quality	Service quality dimensions
Service quality and Customer satisfaction	Customer satisfaction	Service quality

Following the design of this study, the questionnaire was structured to answer questions on satisfaction level, organization attributes, reason for customer satisfaction, meaning of service quality, recommendation and some categorical questions.

Questionnaire:

The main variable in the questionnaire was customer satisfaction. Here I tried to get the customers point of view about their satisfaction level by simply asking the customers

that “how satisfied are you? Then gave them a scale of 1- 10; 1 being very satisfied 10 being very dissatisfied.

Because recommendation is a direct product of satisfaction, if a customer is not satisfied, he or she will not recommend a friend or relative to engage in that product. Recommendation was thus used as a variable to confirm the satisfaction levels of the customers i.e. if they are satisfied obviously they will recommend. I gave the customers a scale from 1 -10, 1 being “will recommend” and 10 being “will not recommend”.

I used the attribute variables in the questionnaire because I wanted to confirm customer satisfaction. Then gave them a scale from 1- 10, 1 being “strongly agree” and 10 being “strongly disagree”. Because the organizations were from different line of business, this made the attribute variables to vary as below:

- Umeå University attributes were; (service quality, programme, Good library, Welcoming staffs, Low cost for studies, Qualified Staffs, Attractive campus infrastructure, Computer facilities)
- ICA Ålidhem Centrum (Service quality, shop assistants, Variety of goods, Welcoming staff, and position)
- Forex attributes were; (Service quality, welcoming staffs, Service time, cost of service and accurate service)

Among the attributes, service quality and welcoming staffs were the two that were common in the entire service sector.

Also, I included selecting factors in the questionnaire because I wanted to use it as a variable to support the attributes. Thus I asked the customers to rank each of the attributes in the order; very important, important and not important.

I used the reason for customer satisfaction in the questionnaire because I wanted to get a vivid fact to support the relationship between customer satisfaction and service quality. Thus the attributes of each of the service sectors were listed for the customers to choose among them, one factor.

The meaning of service quality was also included in the questionnaire as a variable because I wanted to relate it to the results from the customers’ feedback on the service quality attribute and the relationship between customer satisfaction and service quality. Thus it represented the SERVQUAL dimensions as explained in the paragraphs above. Because the service sectors operate in different business lines, different options were placed to the customers of each of the service sectors for them to choose as meanings of service quality as below:

- Umeå University; (Accurate course materials, welcoming staffs, qualified staff, Time conscious staff)
- ICA Ålidhem Centrum (Welcoming staff, less queue, availability of shop assistance, ease of reaching items)
- Forex attributes were; (welcoming staffs, Service time, and accurate service

Welcoming staff appeared to be common in all the service sectors because they all have employees who provide the services to the customers.

The classification variables were included also in the questionnaire because I wanted to describe the sample population. These variables varied in the various service sectors because of the nature of their businesses.

- Umeå University had; (student levels i.e. undergraduate or graduate, gender, age)
- ICA Ålidhem Centrum (age, gender and customer category (students or non-students))
- Forex (gender, age and customer type (private or company)

Relating the questionnaire to the dimensions SERVQUAL model I had to bring out all the actual attributes of the organizations and select those that relates to the SERVQUAL dimensions in testing my hypotheses.

3.8. Research Data, Data Capture Instrument, Collection Method

Data could either be primary or secondary. Primary data are new data collected specifically for that purpose; while secondary data are data that have already been collected for some other purpose (Saunders et al., 2009, p. 256). Data capture instrument is the item used to collect data for a research project (Kent, 2007). This could be a questionnaire or a personal interview.

Source of data is where a researcher gets the data. Data were collected from primary sources. I collected primary data from customers to be able to test those hypotheses developed. I used survey links and hard-copy questionnaires to collect the primary data because I wanted to reach most customers and quicker.

For this research, the data capture instrument used was a questionnaire as seen the sections above. The reason for this choice of data capture instrument was because; based on my research method which was quantitative method; questionnaire was the best way to collect quantitative data. The questions were made under linker scale, nominal and ordinal scales also I used a structured and a non-disguise questionnaire, where the respondents were limited with their answers and I told the respondents about the purpose of the collection of data.

Before giving out the survey to customers, I conducted a pivot test of 25 surveys, testing to see how it went and allowed it to run for two weeks. The reason for this was to see how easy it was for the respondents to answer the questions in the survey. The results of this turned out to be that most of the customers of Umeå University could easily answer the survey but some of the ICA and FOREX customers complained of language. Hence I translated the questionnaires to Swedish.

The data collecting method varied within the three business sectors. With Umeå University I was also given the opportunity to send my survey link to international students. I used only the survey link to reach the customer because it was the simplest means to collect data from them through the international student department. I sent a survey link for customers to the international office of Umeå University and the link was sent to all the international students. The survey ran for three months i.e. December to February 2010 and by then I had collected 107 filled questionnaires. With ICA, I collected emails from customers of ICA Ålidhem Centrum. I went to ICA Ålidhem Centrum on three different days (a Sunday, Wednesday, and Friday talked with

customers and collected their e-mail addresses then sent the customer survey links of both Swedish and English versions. One of the reasons I went on different days was to avoid meeting same sets of customers. When I collected 100 emails from the customers, I stopped visiting ICA. After the end of the survey session that lasted three months December to February 2010, I had collected 60 filled questionnaires. As for Forex I was allowed to keep questionnaires at Forex bank for customers. I printed questionnaires of 100 English and 100 Swedish to avoid language barrier and dropped at the customer desk which lasted for three months from December to February 2010. By the end of the three months I had 60 filled questionnaires.

3.9 Data Cleaning

With the methods I used to collect the primary data, there was a risk of getting back uncompleted questionnaires, either because of the language and that the respondent ignored or did not see the question. With regards to the uncompleted questionnaires due to language problems: because I initially wrote the questions in English, I had to translate the questionnaires into Swedish with the help of a Swedish-speaking friend before I could get feedbacks from some of the customers.

Because I went to ICA ÅLIDHEM CENTRUM by myself on different days to collect people's e-mail addresses so that I could send them my survey links, I would have had a situation where one person might have given me his or her email twice. In order to solve the problem of repeated e-mails I entered the e-mails collected each day in an MS Excel spreadsheet, so that each time I entered the new sets of e-mails collected, those that were collected twice were easily identified.

Because the problem of uncompleted questionnaires is very common in questionnaire answering, it is always good to see how to sort this out to avoid problem in analysis uncompleted questionnaires. To handle this, after I collected the responses I went through them and selected only the questionnaires that were filled out in full and threw away the uncompleted questionnaires. I only had this problem from Umeå University customers I collected a total of 107 filled survey, of which 7 were uncompleted, and 100 completed some ignored the age and gender section and others did not did not tick whether they were satisfied or not.

As for the secondary source (books and articles) that I used for this study, there were a lot of materials in fact confusing. This was because I was studying customer satisfaction which is concern with the feelings of individuals, then relating it with service quality another vague topic made it more complicated. There were lots of articles on customer satisfaction and with their relationships with other business concepts. Hence I had to take time to screen the articles to select the most useful ones for this study even though almost all the articles got something to add to my study. Also, with the use of Google, there were lots of irrelevant articles so when I got an article from Google what I did was that I would take the same topic to emerald or EBSCO to check if the article was good or if some authors have used it before as reference.

3.10. Data Analysis Procedure

Before analysis procedure to follow it will be good to look at the data type that I used. When using quantitative analysis, data could be classified under categorical or

quantitative variables. When the measuring scales of data are numerical values, then they are classified under quantitative variables. When the measurement scale of data is a set of categories then they are classified under categorical variables (Agresti & Finlay, 2009, p. 12-14). Thus interval data are quantitative variables while ordinal and nominal are categorical variables as illustrated in (Fig 4)

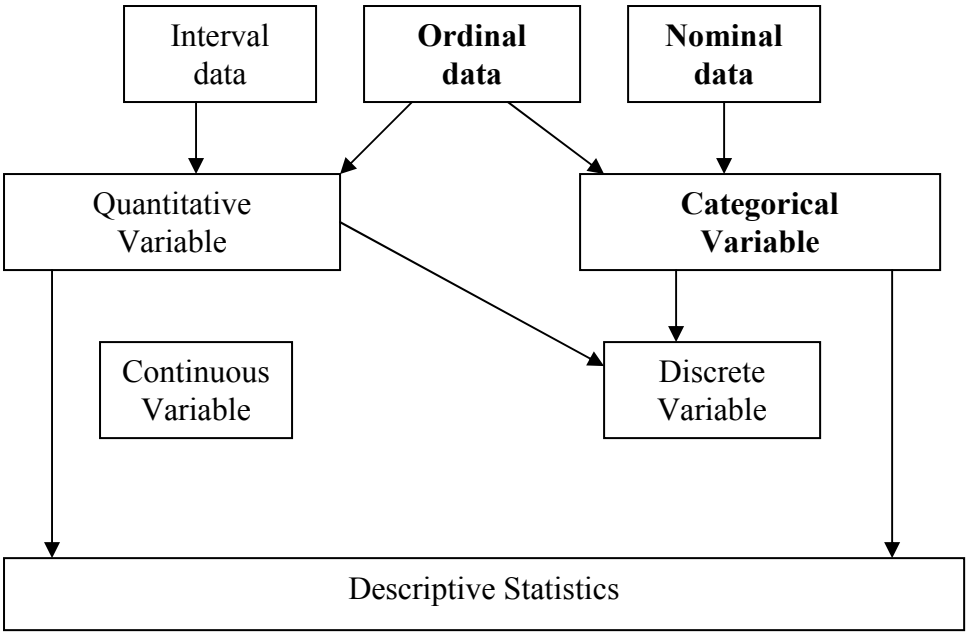


Figure 4: Data classification for the study

Sometimes ordinal scale can be quantitative variable, I had no such situation. So within the scope of this study the variables were categorical because my measurement scales were sets of categories. For instance some of the variables were coded and categorised as below:

- Customer satisfaction: 1-5 = satisfied, and 6-10 = dissatisfied
- Service quality: 1-5 = agree and 6-10 = disagree
- Age : 18-30 = <= 30, and 31-45 and >45 = >30
- Service quality: 1-4 = Good = 1, 5= poor = 2 6= No comment = 3
- Accurate course material for Umeå University = Good library + Computer facilities : 1-5 = agree and 6-10 = disagree

It was important for me to check the data types so as to know the kind of test to take during my analysis because: firstly it is extremely easy to generate statistics from one's data using analysis software that are inappropriate for the data type and are consequently of little value and the more precise the scale of measurement, the greater the range of analytical techniques available (Saunders et al., 2009, p. 419).

Analysis is the ability to break down data and to clarify the nature of the component parts and the relationship between them (Saunders et al., 2009, p. 587). There are two ways to analyze data, i.e. quantitative and qualitative data analysis procedures. A qualitative data analysis procedure allows you to develop a theory from your data (Saunders et al., 2009, p. 480), while a quantitative data analysis enables you to explore,

present, describe and examine relationships and trends within the quantitative data already collected (Saunders et al, 2009, p. 414).

This study used quantitative data analysis methods. The reason for this choice of analysis method was because firstly I collected quantitative data and secondly because my objective to examine the relationship between customer satisfaction and service quality with the five dimensions of SERVQUAL model. In doing so, I had to test hypotheses the relationship between customer satisfaction and service quality dimensions by SERVQUAL model; relationship between service quality and service quality dimensions by SERVQUAL model; either to reject or accept the null hypotheses. (Saunders et al., 2007, p. 134)

In order to analyze the data of this study using quantitative analysis, I used both descriptive and inferential statistics. The reason for using descriptive statistics was because I wanted to summarize the data collected in tables and graphs for better understanding for the reader and for me to easily examine the results. (Agresti & Finlay, 2009, p. 4) To present a descriptive statistics for this study, I used bar and pie charts and cross tabulation. Bar and Pie charts were to present the individual information, while cross tabulation was used to present the variables and sample characteristics. The reason for this choice of presentations graphs was because the data were categorical by nature and bar and pie charts are the main graphical presentational tools for such nature of data. Moreover, I used cross-tabulation because I wanted to link the variables and the sampled population.

Also the reason I had to use inferential statistics was because I wanted to generalize and make predictions from the results of the data. (Agresti & Finlay, 2009, p. 4) Among the many statistical tests that one can use for inferential statistics, I used Chi-square test or Fisher exact to test the hypotheses. The reason for this choice of test was because of the nature of my data, i.e. categorical data. I would have used simple linear regression analysis or bivariate correlation for my analyses because my hypotheses were to test relationships. But because the variables to be tested were set as categorical data, logistic regression, Chi-square test or Fisher exact were the statistical tests to follow with this kind of variables. I choose to use chi-square and fisher exact test in some cases that had expected counts below 5 and more to that fisher exact test goes with all sample size. (Agresti & Finlay, 2008, p. 228).

Hypothesis

Hypothesis is a testable proposition about the relationship between two or more events or concepts (Saunders et al., 2007 p. 599). There are two statements of a hypothesis: the statement that the parameter takes a particular value, which is stated as Ho; and the statement that the parameter fails in some alternative, which is stated as Ha. (Agresti & Finlay, 2008, p. 144). The null hypothesis is mostly the statement we want to reject and the alternative hypothesis is the statement we want to keep and it is the research hypothesis.

The decision of accepting or rejection the null hypotheses (Ho) of the statistical test were based on the 95% confidence interval that is the P-value was compared with a 0.05 level of significance, because I was trying to avoid errors as much as possible.

3.11. Validity and Reliability

This section presents the precision methods for this kind of study; meanwhile the test for precision methods used for this study will come in the results section.

The precision with which things are measured in a study is expressed in terms of validity and reliability. (Hopkins, 2001). These two are related because if a measure is valid then it is reliable. (Bryman & Bell 2003, p. 79) Validity is concerned with whether the findings are really about what they appear to be about. (Saunders et al 2009, p. 157). Validity represents how well a variable measures what it is supposed to measure Hopkins (2001). Likewise reliability refers to the extent to which the data collection techniques or analysis procedure will yield consistent findings (Saunders et al., 2009, p. 157, Bryman & Bell 2003, p. 33).

According to Agresti & Finlay (2009, p. 11) a measure should have both validity and reliability. That is describing what it is intended to measure and accurately reflecting the concept; being consistent in the sense that a subject will give the same response when asked again. (Agresti & Finlay (2009, p. 11) this is for sure and in contradiction with another author's idea Hopkins (2001), who suggested validity for descriptive study and reliability for experimental study. i.e. because validity represents how well a variable measures what it is supposed to measure and it is good in descriptive studies, while reliability tells one how reproducible the measures are on a retest so good in experimental studies (Hopkins, 2001).

Three of the criteria for the evaluation of business research are Reliability, replication and validity.(Bryman & Bell 2003, p. 49) Because of the research strategy and design of this study, I tried to checked replication; reliability, measurement validity (construct validity) and external validity; external validity whether the results of the study can be generalised beyond the specific research context. Although internal validity is for quantitative study it is not strong in this design type because it deals with the issue of causality and thus it is good for a cause – effects study which is not what I did here. The fact that my study used an answerable questionnaire, it has limited ecological validity because ecological validity is concern with whether scientific findings are applicable to people's everyday life, natural science settings (Bryman & Bell, 2003, p. 34-35)

The choice of presenting the precision with which things were measured for this study was expressed in terms internal reliability, external and construct validity. Following the design type for this study, only internal reliability could be measured using Cronbach's alpha. Details on this will be in the result chapter. Cronbach's alpha coefficient varies from 0 to 1 with 1 indicating perfect reliability and 0 no internal reliability; 0.80 denotes an acceptable level of internal reliability. (Bryman & Bell, 2003, p. 77). Another author added that if the Cronbach's alpha coefficient is greater than 0 .9 it implies excellent, greater than 0.8 is Good, greater than 0.7 is acceptable, greater than 0 .6 is questionable, greater than 0 .5 is poor, and less than 0.5 is unacceptable" (George & Mallery, 2003, p. 231).

Meanwhile I used "Type 1 and type 11 errors" to measure external validity, explanations will be in the result chapter, These are errors that may occur when one reject the null hypothesis if one was supposed to accept it (Type 1 error) or if one accept

the null hypothesis when one was supposed to ignore it (type II error). (Gilbert, et al., 2005, Agresti & Finlay, 2009, p. 160).

3.12. Ethical Considerations

All information gotten from the respondents were treated with confidentiality without disclosure of the respondents' identity. Moreover, no information was modified or changed, hence information gotten was presented as collected and all the literatures collected for the purpose of this study were appreciated in the reference list.

CHAPTER 4: EMPIRICAL FINDINGS AND ANALYSIS

The aim of this section is to present the results and analysis of my work. I decided to combine both the empirical findings and analytical part of this work together in this chapter to make it easier and for a better understanding for the reader. I have also decided to present the findings of each service sectors separately so that the reader will get a clear picture of each of the organization's presentation for a better understanding of the analyses. Thus the chapter begins with Umeå University, follows by ICA Ålidhem Centrum, FOREX bank and to a group presentation. The descriptive statistics are followed by the inferential statistics for each part. The chapter ends with the precision measures and discussion.

4.1. Umea University

4.1.1. Sample presentation for Umeå University

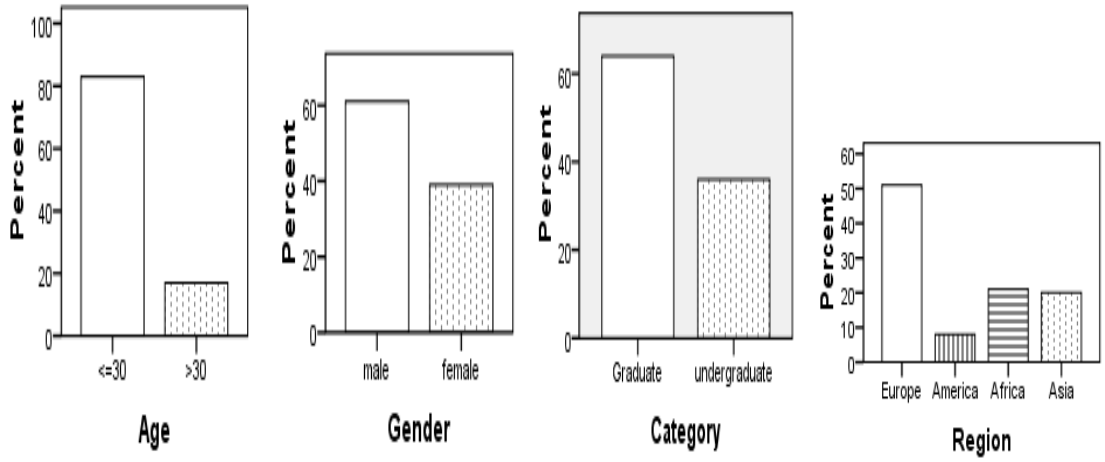


Figure 5: ***sample presentation for Umeå University***

The above bar charts present the sample characteristics of Umeå University sample population. It could be seen from the charts that, the customers of Umeå University were not equally distributed. With a total sample of 100 students from Umeå University, among the age characteristics, those with ages greater than or equals to 30 had a higher percentage (83%) than those of ages greater than 30 years (17%). Male were made up of 61% of the sample while female were made up of 39%. Concerning the region, Europe had 51% of the sample, America 8%, Africa 21% and Asia 20%. Meanwhile the category differs as graduate had a higher percentage of 64% than undergraduates with 36%.

4.1.2: Variables presentation for Umeå University

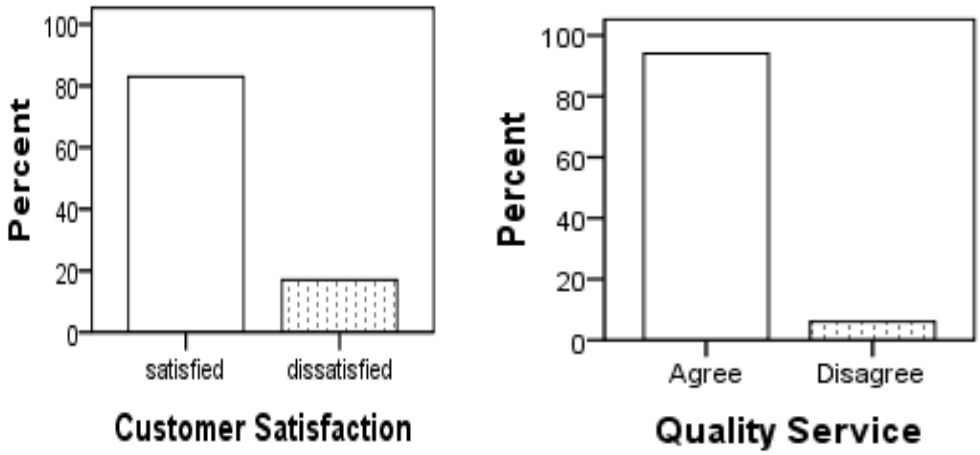


Figure 6: ***customer satisfaction and service quality for Umeå University***

The above bar chart presents customer satisfaction and service quality of Umea University. From the charts, it could be seen that the variables were not equally distributed among the sample population. Within the customer satisfaction variable, 83% of the sample customers were satisfied while 17% were dissatisfied. Within the service quality variable, 94% of the customers agreed to the fact that Umeå University provided quality service while only 6% disagreed to the fact that Umeå University provide quality service.

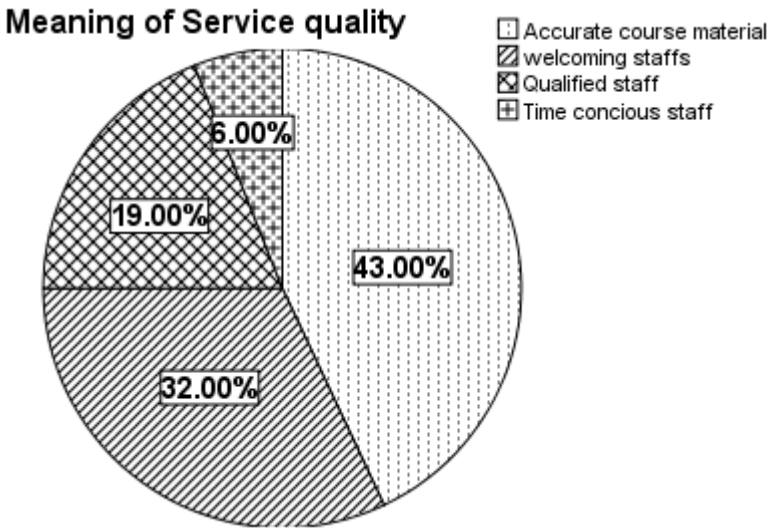


Figure 7: ***Meaning of service quality (Service quality dimensions) for Umeå University***

The above pie chart presents the service quality dimensions of Umeå University, which is the meaning of service quality according to the customers. From the chart, it could be seen that the meaning of service quality was not equally distributed among the sample population. 43% of the sample customers said service quality means `accurate course material` (good library and computer facilities) provided by Umeå University; 32% of the customers said service quality means `welcoming staff`, while 19% said service

quality means `qualified staffs` and only 6% said service quality means `time conscious staff`.

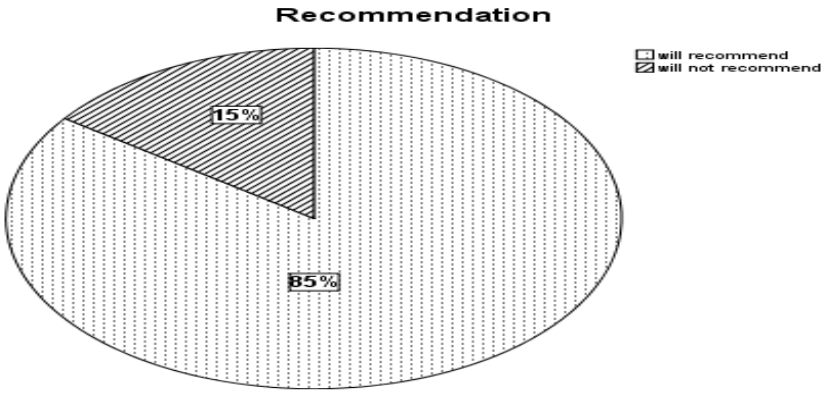


Figure 8: Recommendation for Umeå University

The above pie chart presents recommendation for Umeå University's sampled population. From the chart, it could be seen that recommendation too was not equally distributed among the sampled population. 85% of the sample population said they will recommend Umeå University while 15% of the sample population said they will not recommend Umeå University. This recommendation came from both satisfied and dissatisfied customers; and even among the satisfied and dissatisfied customers, recommendation too was still not equally distributed. 81 out of 83 satisfied customers said they will recommend Umeå University and only 2 of the 83 satisfied customers said they will no recommend Umeå University. Meanwhile only 4 of the dissatisfied, customer said they will recommend Umeå University and 13 of them said they will not recommend the University. (Appendix 4)

Figure 9: Service quality rating for Umeå University

The above pie chart presents the service quality rating by international students of Umeå University. From the chart, it could be seen that service quality rating was not equally distributed among the sample population, 47% of the customers said service quality was good, 40% said it was poor and 13% had no comment about the rating.
The rating was also unequally distributed among the satisfied and dissatisfied customers and also among the sample characteristics as seen in (Appendix 5)

4.1.3: Variables and Sample characteristics for Umeå University

The variables, customer satisfaction, service quality and meaning of service quality were not equality distributed within the sample characteristics.

Table 5: Customer satisfaction and sample characteristics for Umeå University

Sample characteristic for sample size of 100	**Satisfied (count)**	**Dissatisfied (count)**
Region		
Europe	45	6
America	7	1
Africa	16	5
Asia	15	5
Gender		
Male	51	10
Female	32	7
Age		
<=30	67	16
> 30	16	1
Student level		
Graduate	51	13
Undergraduate	32	4

The above table presents customer satisfaction and sample characteristics for Umeå University. From the figures in the table, it could be seen that customer satisfaction was not equally distributed for Umeå University among the age characteristics of a sample size of 100. For both satisfied and dissatisfied customers, students of age less than or equal to 30 had higher numbers than students with age more than 30. Among the gender characteristics, male had higher figures than female for both satisfied customers and dissatisfied customers. Meanwhile within the graduate characteristics of the sample, graduates had higher number of satisfied customers than undergraduate sample. Within the region characteristics, students from Europe had highest number for both satisfied and dissatisfied customers; America had the lowest figure in both satisfied and dissatisfied students. Africa had a figure slightly higher than Asia for satisfied students and they both have equal dissatisfied figures.

Table 6: Service quality and Sample characteristics for Umeå University

Sample characteristic for sample size of 100	**Agree (Count)**	**Disagree (Count)**
Region		
Europe	48	3
America	8	0
Africa	21	0
Asia	17	3
Gender		
Male	58	3
Female	36	3
Age		
<=30	78	5
> 30	16	1
Student level		
Graduate	61	3
Undergraduate	33	3

The above table presents service quality and the sample characteristics for Umeå University. From the table it could be seen that the view on service quality was not equally distributed among the region sample characteristics for Umeå University. As for agreement to quality service; students from Europe had the highest number of students who agreed to the fact that Umeå University provides quality service. Those from Africa followed and then Asia with students from America having the least number. As for disagreement to quality service, figures from Europe and Asian customers at Umeå University were equal and no figures from Africa and America. Among the student level also service quality agreement was not equally distributed. Graduate student had higher number of agreement that Umeå University provides quality service than undergraduate students. With quality service disagreement, both graduates and undergraduate levels had the same numbers. Among the gender characteristics male had higher number than female for students who agreed that Umeå University provides quality services and both male and female had equal number of student who disagreed to the fact that Umeå University provides quality service. Among the age characteristic, students of age less than or equal to 30 had higher figure than students of age greater than 30 for both those who agreed and those who disagreed that Umeå University provides quality service. (Table 6)

Table 7: Service quality dimensions and Sample characteristics for Umeå University

Sample characteristic for sample size of 100	Accurate course material	Welcoming staff (Count)	Qualified staff (Count)	Time conscious staff (Count)
Region				
Europe	23	13	11	9
America	5	1	2	8
Africa	6	10	4	2
Asia	9	8	1	1
Gender				
Male	29	20	8	4
Female	14	12	11	2
Age				
<=30	35	26	17	5
> 30	8	6	2	1
Student level				
Graduate	25	22	13	4
Undergraduate	8	10	6	2

The above table presents service quality dimensions and sample characteristics for Umeå University. It could be seen from the figures that service quality dimensions were not equally distributed among the gender population. The male population had more numbers than female for those who said service quality means `accurate course material`; `time conscious staff and `welcoming staff`. While female got more numbers than male for those who said service quality means ` qualified staff`. Even among the age population, service quality dimensions were not equally distributed. Those of age less than or equals to 30 years got more number than customers with age greater than 30 for those who said service quality means `accurate course material`; `time conscious staff, `welcoming staff` and qualified staff. Service dimension among the region's population is also not equally distributed. Among all the meanings given for service quality, customers from Europe had the highest numbers. For the meaning as `accurate course material`, those from Asia followed then Africa, America is the least. For the meaning of service quality as `welcoming staff`, those from Africa followed and then Asia, America still had the least number. Also for the meaning of service quality as `qualified staff` Africa followed Europe with higher figures; Asia and America had equal numbers. Meanwhile for those who said service quality means `time conscious staff`, no American figure was found, and Asia and Africa had same numbers. Service quality meaning with the customer category of Umeå University was not also equally distributed. Graduate students had higher numbers than those from undergraduate in all the various meanings of service quality according to the customers. (Table 7)

4.1.4. Statistical Tests for Umeå University

Relationship between customer satisfaction and service quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality dimension.

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality dimension.

Results:

Table 8: Test results for service quality and service quality dimensions for Umeå University

	Independent Variable Service quality dimensions	**P-Value**
Customer satisfaction	Welcoming staff	0.199
	Accurate course materials	0.007
	Qualified staff	0.001
	Time conscious staff	0.006

The above table shows the fisher exact test result of the relationship between customer satisfaction and service quality dimensions. The p-value of three of the dimensions; accurate course materials`, `qualified staff``, and `time conscious staff` < 0.05, thus the Ho is rejected for these two dimensions and Ha is kept. That is; there is a significant relationship between customer satisfaction and these three service quality dimensions. Meanwhile the p-value of `welcoming staff` > 0.05, thus accepting Ho for these dimensions and Ha is rejected. Meaning there is no significant relationship between customer satisfaction and this dimension.

Relationship between service quality and service quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between service quality and service quality dimension.

Alternative hypothesis = Ha: There is a significant relationship between service quality and service quality dimension.

Table 9: Test results for service quality and service quality dimensions for Umeå University

	Independent Variable Service quality dimensions	**P-Value**
Service quality	Welcoming staff	0.000
	Accurate course materials	0.000
	Qualified staff	0.000
	Time conscious staff	0.006

The above table shows the fisher exact test result of the relationship between service quality and service quality dimensions. All of the dimensions have P-values < 0.05, thus the Ho is rejected and the Ha is for all the dimensions. Meaning there is a significant relationship between service quality and these service quality dimensions.

Relationship between customer satisfaction and Service quality

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality.

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality.

Table 10: Test results for customer satisfaction and service quality for Umeå University

Customer Satisfaction	Service quality	P-Value = 0.269

The above table shows the fisher exact test result of the relationship between customer satisfaction and service quality. The p-value > 0.05, thus Ho is accepted and Ha is rejected. Meaning there is no significant relationship between customer satisfaction and service quality.

4.2. ICA Ålidhem Centrum

4.2.1 Sample presentation for ICA Ålidhem Centrum

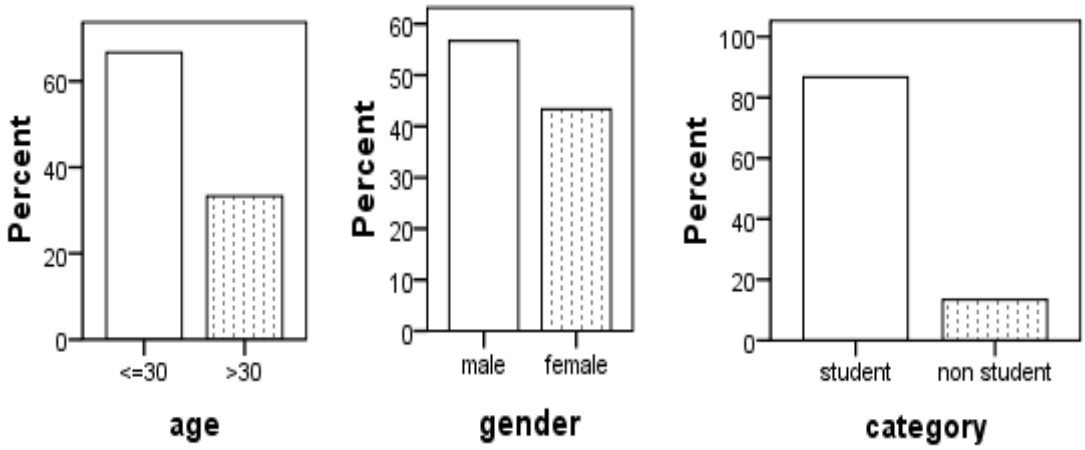


Figure 10: Age, Gender and category of customers for ICA Ålidhem

The above bar charts present the sample characteristics of ICA Ålidhem customers. From the charts, it could be seen that the customers were not equally distributed in the sample population. For age, <= 30 had a higher percentage (66.7%) than > 30 (33.3%). Male made 56.7% of the sample while female made 43.3%. Meanwhile the category of students had higher percentage 86.7% than non student 13.3%.

4.2.2. Variable characteristics for ICA Ålidhem Centrum

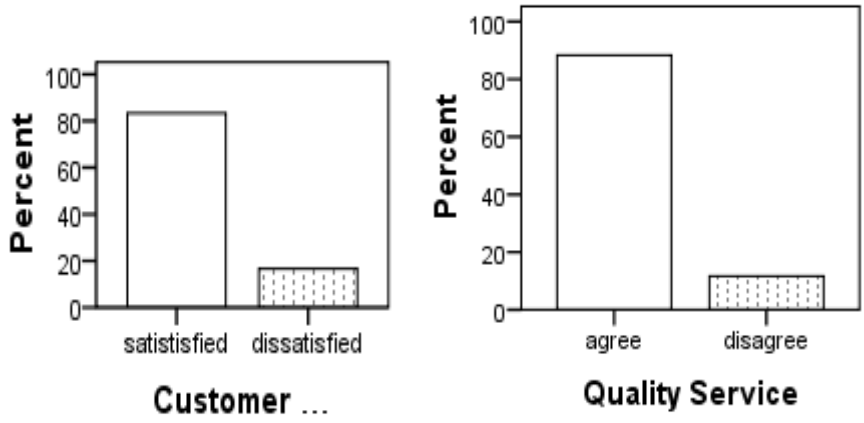


Figure 11: ***Customer satisfaction and Service Quality for ICA Ålidhem***

The above bar charts present customer satisfaction and service quality of ICA Ålidhem. From the charts; it could be seen that the sample population were not equally distributed. 83.3% of the sample customers were satisfied while 16.7% were dissatisfied and that 88.3% of the customers agreed that ICA provided quality service while only 11.7% disagreed that ICA provided quality service.

Figure 12: ***Service quality meaning for ICA Ålidhem***

The above pie chart presents the service quality dimensions of ICA Ålidhem Centrum. From the chart, it could be seen that the sample population were not equally distributed. 50% of the sampled population said service quality means `Welcoming staffs` while 23.33% said it means `availability of shopping assistance` 21.67% of the sample population said service quality means `good positioning` and only 5% of the customers said it means `less queue`.

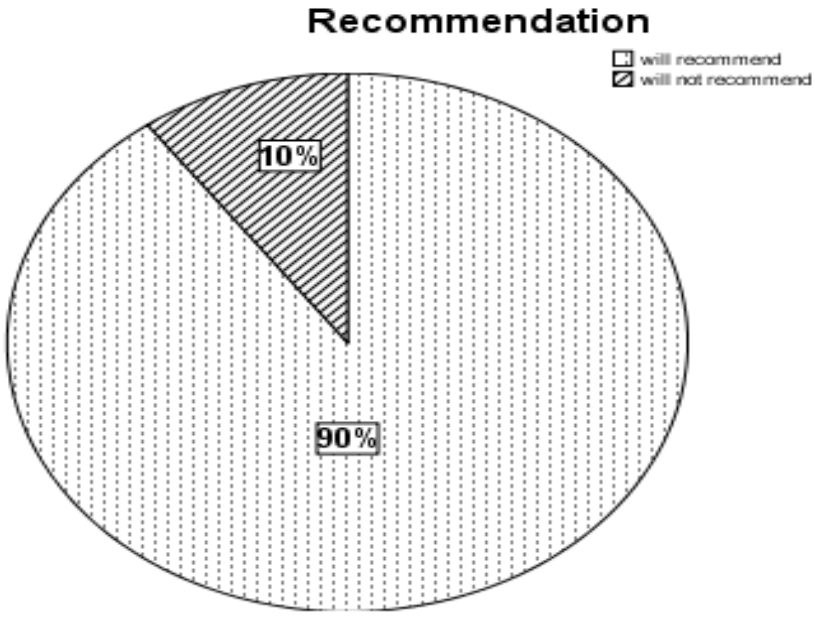


Figure 13: Recommendation for ICA Ålidhem

The above pie chart presents the recommendation for ICA sample population. It could be seen that recommendation is not equally distributed among the sample population as 90% of the sampled population said they will recommend ICA while 10% said they will not recommend ICA Ålidhem. This recommendation came from both satisfied and

dissatisfied customers; 46 out of 50 satisfied customers said they will recommend ICA and only 4 of the 50 satisfied customers said they will not recommend ICA. Meanwhile 8 of the dissatisfied customers said they will recommend ICA and 2 of them said they will not recommend ICA. (Appendix 8)

Figure 14: service quality rating for ICA Ålidhem

The above pie chart presents the service quality rating by customers of ICA Ålidhem Centrum. From the chart, it could be seen that service quality rating was not equally distributed among the sample population 50% of the customers said service quality was good, 22% said it was poor and 28% had no comment about the rating. The rating was also unequally distributed among the satisfied and dissatisfied customers and also among the sample characteristics as seen in (Appendix 9)

4.2.3. Variable and Sample characteristics for ICA

Table 11: ***Customer satisfaction and sample characteristics for ICA Ålidhem***

Sample characteristic	Satisfaction (Count)	Dissatisfaction (Count)
Gender		
Male	30	4
Female	25	6
Age		
<=30	30	10
> 30	20	0
Customer category		
Student	42	10
Non-student	8	0

The above table presents customer satisfaction and sample characteristics for ICA Ålidhem. From the table, it could be seen that customer satisfaction and dissatisfaction was not equally distributed among the sample characteristics. With a sample size 60, both customers of age <= 30 and > 30 had higher figure for satisfaction than dissatisfaction; but customers of age <= 30 had higher figures for both satisfaction and

dissatisfaction than those of age >30. Also figures for both male and female are higher for satisfaction than dissatisfaction and female had higher figure for dissatisfaction than male, while male has higher figure for satisfaction than female. Regarding customer categories both students and non-student had higher figures for satisfaction than dissatisfaction, meanwhile students had higher figures than non-students in both satisfaction and dissatisfaction because all non students for the sample were satisfied.

Table 12: Service quality and Sample characteristics for ICA Ålidhem

Sample characteristic	**Agree (Count)**	**Disagree (Count)**
Gender		
Male	46	6
Female	7	1
Age		
<=30	35	18
> 30	5	2
Customer category		
Student	31	3
Non-student	22	4

The above table presents service quality and the sample characteristics for ICA Ålidhem. From the table it could be seen that the view on service quality was not equally distributed among the sample characteristics for ICA. With a sample size of 60, both student and non student had higher figures for agreement than disagreement to the fact that ICA provided quality service, but the figures for students agreed that ICA provided quality service is greater than the figures of non students and the figure for non-students who disagree is slightly greater than students for those who disagreed that ICA provided quality service. Figures for both male and female who agreed that ICA provided quality service are higher than those who disagreed; but male has higher figure than female for both those who agreed and those who disagreed that ICA provided quality service. Even among the age characteristic, figures of both <=30 and >30 are higher for those who agreed that ICA provided quality service than for those who disagreed that ICA provided quality service.

Table 13: Service quality dimensions (Meaning of service quality) and Sample characteristics for ICA Ålidhem

Sample characteristic	**Welcoming staff (Count)**	**Shop assistance (Count)**	**Less queue (Count)**	**Positioning (shop display) (Count)**
Gender				
Male	24	13	2	13
Female	2	1	1	4
Age				
<=30	16	9	1	8
> 30	10	5	2	9
Customer category				
Student	18	10	2	1
Non-student	8	4	1	6

The above table presents service quality dimension and the sample characteristics for ICA Ålidhem. From the table it could be seen that the various meaning of service quality were not equally distributed among the sample characteristics for ICA. With a sample size of 60, the male sample got higher figures than female for the various meaning of service quality and male figure for `welcoming staff is highest among the other meaning of service quality. Still within the male sample population, `shop assistance` and `positioning` had equal figures and `less queue` was the least. Meanwhile for the female sample population, `positioning` had the highest figures followed by `welcoming staff`, `shop assistance` and `less queue` equal figures and the least. In the age sample, `welcoming staff got highest figures in both <=30 and >30 age group. For the age group of <=30, shop assistance followed, then positioning and less queue had the lowest figure. For the age group of >30, positioning followed and then shop assistance, less queue still had the least figure. In the customer category, `welcoming staff had highest figures for both student and non-student categories. For student category, `shop assistance followed then `less queue, positioning had the least figure as meaning of service quality.

4.2.4. Statistical Test for ICA Ålidhem

Relationship between customer satisfaction and service quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality dimensions.

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality dimensions.

Table 14: Test results for customer satisfaction and service quality dimensions for ICA Ålidhem

	Service quality dimensions	**P-Value**
Customer satisfaction	Welcoming staff	0.001
	Shop assistance	0.000
	Less queue	0.325
	Good Positioning	0.004

The above table shows the fisher exact test result of the relationship between customer satisfaction and service quality dimensions for ICA Ålidhem. Three of the dimensions (Welcoming staff, shop assistance and good positioning) had P-values < 0.05, thus the Ho is rejected for all of the three dimensions. Meaning there is a significant relationship between customer satisfaction and these three service quality dimensions. Meanwhile `less queue` had a p-value > 0.05, thus accepting Ho for this dimension. Meaning there is no significant relationship between customer satisfaction and this dimension.

Relationship between service quality and service quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between service quality and service quality dimension.

Alternative hypothesis = Ha: There is a significant relationship between service quality and service quality dimension.

Table 15: Test results for Service quality and service quality dimensions for ICA Ålidhem

	Service quality dimensions	P-Value
Service quality		
	Welcoming staff	0.000
	Shop assistance	0.12
	Less queue	0.314
	Good Positioning	0.007

The above table shows the fisher exact test result of the relationship between service quality and service quality dimensions for ICA. Two of the dimensions `welcoming staff` and `good positioning` had P-value of < 0.05, thus the Ho is rejected for the two dimensions. Meaning there is a significant relationship between service quality and these two service quality dimensions. Meanwhile the other two dimensions `less queue` and `shop assistance` had p-value > 0.05, thus accepting Ho for these two dimensions. Meaning there is no significant relationship between service quality and these two dimensions.

Relationship between customer satisfaction and service quality for ICA

Hypothesis

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality

Table 16: Test results for customer satisfaction and service quality for ICA Ålidhem

Customer satisfaction	Service quality	P-Value = 0.001

The above table shows the fisher exact test result of the relationship between customer satisfaction and service quality. The p-value < 0.05, thus the Ho is rejected, meaning there is a significant relationship between customer satisfaction and the service quality.

4.3. FOREX BANK

4.3.1 Sample Characteristics for Forex

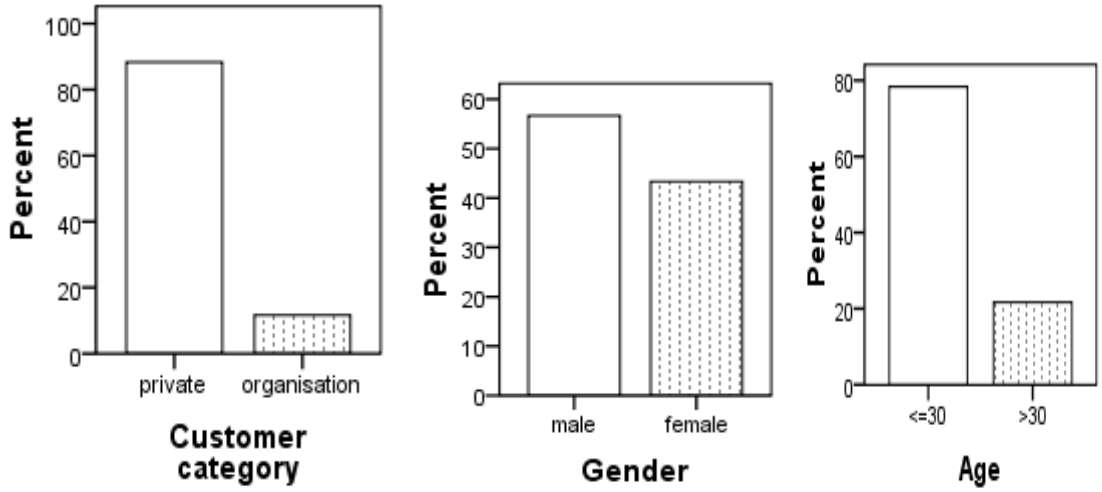


Figure 15: ***Age, Gender and customer category for Forex bank***

The above bar charts present the Sample characteristics of Forex bank . From the charts, it could be seen that the customers were not equally distributed. For age, <= 30 had a higher percentage (78.3%) than > 30 (21.7%). Male made 56.7% of the sample while female made 43.3%. Meanwhile the category of, private had higher percentage (88.3%) than organization (11.7 %.)

4.3.2. Variable presentation for FOREX

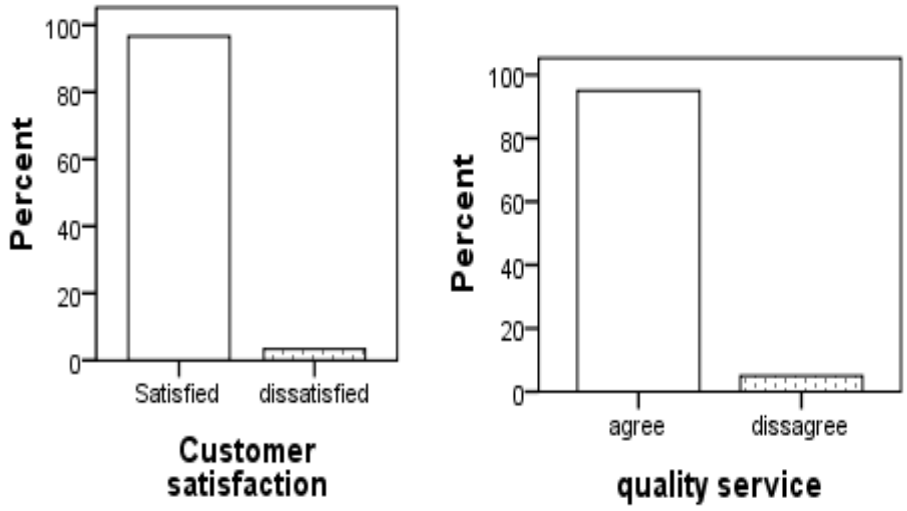


Figure 16: ***Customer satisfaction and quality service for Forex***

The above bar charts present customer satisfaction and service quality of Forex bank. From the charts it could be seen that the sample population were not equally distributed. 83% of the sample customers were satisfied while 17% were dissatisfied and that 94%

of the customers agreed that Forex Bank provides quality service while only 6% disagreed that Forex provides quality service.

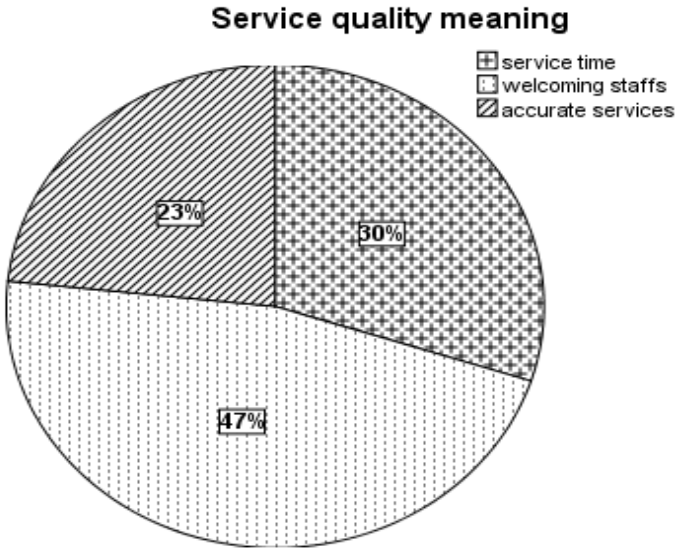


Figure 17: Service Quality Dimension for Forex

The above pie chart presents service quality dimension for Forex bank. From the chart, it could be seen that service quality meaning was not equally distributed. 30% of the sample population said service quality means `Service time`, 47% said service quality means `welcoming staff` and 23% said service quality means `accurate service`

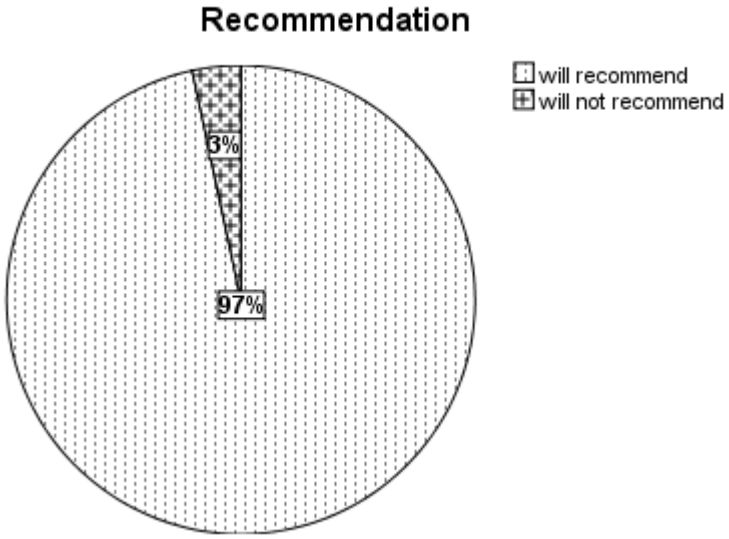


Figure 18: ***Recommendations for Forex bank***

The above pie chart shows recommendation for Forex sample population. From the chart, it could be seen that recommendations too was not equally distributed as 97% of the sample population said they will recommend Forex bank, while only 3% said that they will not recommend Forex. This recommendation came from only the satisfied customers; all of the 58 satisfied customers said they will recommend Forest. Meanwhile all of those who said they will not recommend Forex were dissatisfied customers only 2 of them (Appendix 12)

Figure 19: Service quality rating for Forex Bank

The above pie chart presents the service quality rating by customers of Forex Bank. From the chart, it could be seen that service quality rating was not equally distributed among the sample population. 58% of the customers said service quality was good, 20% said it was poor and 22% had no comment about the rating.
The rating was also unequally distributed among the satisfied and dissatisfied customers and also among the sample characteristics as seen in (Appendix 13)

4.3.3 Variables and sample characteristics for Forex bank

Table 17: ***Customer satisfaction and sample characteristics for Forex***

Sample characteristic	**Satisfaction (Count)**	**Dissatisfaction (Count)**
Gender		
Male	33	1
Female	25	1
Age		
<=30	45	2
> 30	13	0
Customer category		
private	52	1
company	6	1

The above table presents customer satisfaction and sample characteristics for Forex bank. From the figures in the table, it could be seen that customer satisfaction was not equally distributed among the sample characteristics. With a sample size of 60, both male and female had higher figures for satisfaction than dissatisfaction. Male figure was higher than female figure, but both had equal figures for dissatisfaction. Figures for both <=30 and >30 were higher for satisfaction than dissatisfaction, only 2 customers with age <=30 were dissatisfied and no customer of >30 was dissatisfied. Also in the customer category, both private and company had higher figures for satisfaction than dissatisfaction and had equal figures for dissatisfaction.

Table 18: Service quality and Sample characteristics for Forex

Sample characteristic	Agree (Count)	Disagree (Count)
Gender		
Male	44	3
Female	13	0
Age		
<=30	32	2
> 30	25	1
Customer category		
private	51	2
company	6	1

The above table presents service quality and sample characteristics of Forex bank. From the figures, it could be seen that service quality was not equally distributed among the sample characteristics for Forex. With a sample size of 60, both private and company had higher figures for agreement than disagreement to the fact that Forex bank provided quality service, but the figures for private customer is higher than that of company; Also both age groups have higher figures for agreement than disagreement to the fact that Forex provided quality service. Age group <= 30 had higher figures than > 30 in both agreement and disagreement. Gender also had higher figure for agreement than disagreement to the fact that Forex provide quality service. Figure for male was higher than figure for female in both cases, while female had no record for disagreement.

Table 19: *Service quality dimensions and Sample characteristics for Forex*

Sample characteristic	Welcoming staff (Count)	Service time (Count)	Accurate service (Count)
Gender			
Male	13	13	8
Female	5	15	6
Age			
<=30	11	25	11
> 30	7	3	3
Customer category			
private	25	17	11
company	3	1	3

The above table presents service quality dimension and the sample characteristics for Forex bank. From the table it could be seen that the various meaning of service quality were not equally distributed among the sample characteristics for Forex. With a sample size of 60, the male sample got higher figures than female for the various meaning of service quality and male figure for `welcoming staff` `service time` were equal and higher than `accurate service`. Meanwhile for the female sample population, `service time` had the highest figures followed by `accurate service`, which is slightly higher than `welcoming staff`. In the age sample, `service time` got highest figures in the age group <=30 while `welcoming staff` got highest figure in the age group >30.
`Welcoming staff` and accurate service` had equal figures in the male sample while `service time` and accurate service` had equal figures in the female sample. In the category characteristics, private got higher figures than female in all the meanings of

service quality; highest figure in `welcoming staff followed by `service time and `accurate service followed with the least. In the company sample, `welcoming staff and accurate service had equal figures higher than that of `service time`.

4.3.4. Statistical Test for Forest Bank

Relationship between customer satisfaction and service quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality dimension.

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality dimension.

Results:

Table 20: Test results for customer satisfaction and service quality dimensions for FOREX

	Service Quality Variables	P-Value
Customer satisfaction	Welcoming staff	0.001
	Service time	0.003
	Accurate service	0.002

The above table shows the fisher exact test result of the relationship between customer satisfaction and service quality dimensions. The p-value < 0.05 for all the dimensions, thus the Ho is rejected for all the three dimensions. Meaning there is a significant relationship between customer satisfaction and the service quality dimensions.

Relationship between service quality and service quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between service quality and service quality dimension.

Alternative hypothesis = Ha: There is a significant relationship between service quality and service quality dimension.

Table 21: Test results for Service quality and service quality dimensions for FOREX

Service Quality	**Service Quality dimensions**	P-value
	Welcoming staff	0.002
	Service time	0.010
	Accurate service	0.005

The above table shows the result of the relationship between service quality and service quality dimensions. The p-value < 0.05 for all the dimensions, thus the Ho is rejected for all the three dimensions. Meaning there is a significant relationship between service quality and the service quality dimensions.

Relationship between customer satisfaction and Service quality

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality.

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality.

Table 22: Test results for Customer satisfaction and Service quality for Forex

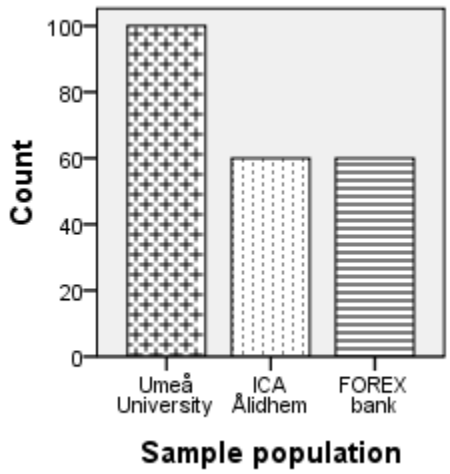
Service Quality	**Service Quality dimensions**	P-value = 0.002

The above table shows the result of the relationship between customer satisfaction and service quality. The p-value < 0.05, thus the Ho is rejected. Meaning there is a significant relationship between customer satisfaction and service quality.

4.4. Group presentation

The group sampled characteristics were made up of 60 customers from ICA, 60 from Forex and 100 from Umeå University, making a total of 220. Thus the Sample characteristics and variables are presented in percentage of the total sample in this section.

4.4.1. Group Sample population and Characteristics



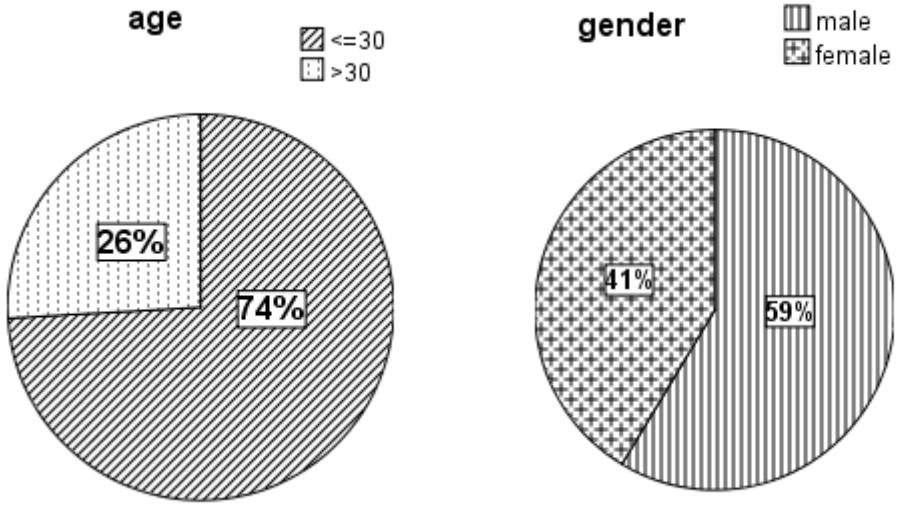


Figure 20: ***Group sample presentation of the study***

The above pie charts present the sample characteristics of the study. With the sample size of 220, Umeå University had 100 customers while ICA and Forex had 60 each. Also, 26% of the sample population were of ages 30 and below while 74% of the sampled population were of ages above 30. Meanwhile, 41% of the sampled population were female and 59% were male.

4.4.2. Group Variables presentation

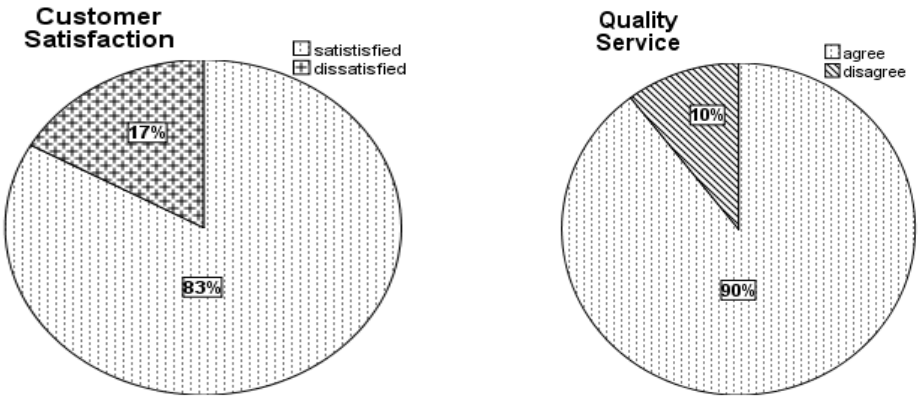


Figure 21: Group Customer satisfaction and Service Quality

The above pie charts show the customer satisfaction for this study. With the sample size of 220, 83% of the total sampled population were satisfied while 17 of them were dissatisfied. Quality service agreement was 90% while disagreement was 10%.

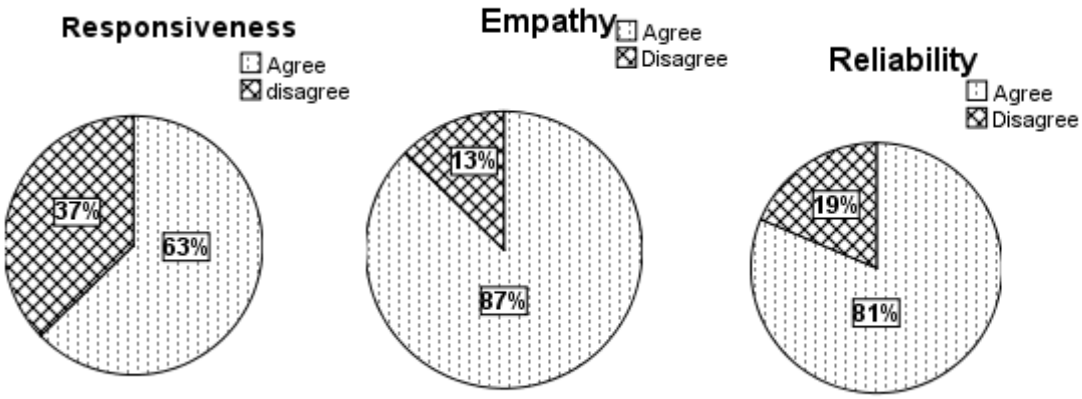


Figure 22: Group Service Quality dimension

The above pie charts present the various dimension of service quality for the group for this study. With a total sample size of 220, 63% of the sampled population agreed while 37% disagreed that the service sector had responsiveness as an attribute. 87% agreed while 13% disagreed that the service sectors had empathy as an attribute. Also 81% agreed while 19% disagreed that the service sector had reliability as an attribute.

4.4.3. Group Variables and Sample characteristics

Table 23: Group Customer satisfaction and sample characteristics

Customer satisfaction	Satisfied%	Dissatisfied %
Gender		
Male	50	8
Female	33	9
Age		
<=30	58	16
> 30	25	1

The above table presents customer satisfaction and sample characteristics of the study. From the figures in the table, it could be seen that customer satisfaction was not equally distributed in the sample characteristic. In the gender characteristics, both male and female had higher percentages of satisfaction than dissatisfaction. Also, the age characteristics shows higher percentages under satisfaction than dissatisfaction for both <=30 and >30 years.

Table 24: Group Service Quality and Sample characteristics

Service Quality	Agreed %	Disagreed %
Gender		
Male	54	5
Female	36	6
Age		
<=30	65	9
> 30	25	1

The above table presents service quality and sample characteristics for the study. From the figures in the table, it could be seen that service quality was not equally distributed in the sample characteristic. In the gender characteristics, both male and female had higher percentages of agreement than disagreement to the fact that the service sectors provided quality service. Also, the age characteristics shows higher percentages under agreement than disagreement to the fact that the service sectors provided quality services for both <=30 and >30 years.

Table 25: Group *Service quality dimensions and sample characteristics*

Service Quality dimension	**Reliability**		**Responsiveness**		**Empathy**	
	Agreed %	**Disagreed %**	**Agreed %**	**Disagreed %**	**Agreed %**	**Disagreed %**
Gender						
Male	48	11	39	20	54	4
Female	33	8	24	17	34	8
Age						
<=30	59	15	51	23	65	9
> 30	23	3	12	14	23	3

The above table shows the service quality dimensions and sample characteristics for this study. From the figures in the table, it could be seen that the service quality dimensions were not equally distributed among the sample characteristics. In the gender characteristics, both male and female had higher percentages for agreement than disagreement to the fact that the service sectors had reliability, responsiveness and empathy as attributes. Also in the age characteristics, both <=30 and >30 had higher percentages for agreement than disagreement to the fact that the service sectors had reliability and empathy as attributes. Meanwhile <=30 had higher percentage for agreement than disagreement to the fact that the service sectors had responsibility as an attribute but >30 had higher percentage for disagreement than agreement to this attribute.

4.4.4. Statistical Test for Group data

Relationship between customer satisfaction and Service Quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality dimensions

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality dimensions

Table 26: Group Test results for customer satisfaction and service quality dimensions

Dependent variable	**Independent Variable Service quality dimensions**	**P-Value**
Customer satisfaction	Responsiveness	0.232
	Empathy	0.000
	Reliability	0.000

The above table 26 shows the test result of the relationship between customer satisfaction and service quality dimensions. The p-value of two of the dimensions; `empathy``, and `reliability` < 0.05, thus the Ho is rejected for these two dimensions and Ha is kept. Meaning there is a significant relationship between customer satisfaction and these two service quality dimensions. Meanwhile the p-value of `responsiveness` > 0.05, thus accepting Ho for this dimension and Ha is rejected. Meaning there is no significant relationship between customer satisfaction and this dimension.

Relationship between service quality and service quality dimensions

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between service quality and service quality dimensions

Alternative hypothesis = Ha: There is a significant relationship between service quality and service quality dimensions

Results:

Table 8: Group Test results for service quality and service quality dimensions

Dependent variable	**Independent Variable Service quality dimensions**	**P-Value**
Service quality	Responsiveness	0.013
	Empathy	0.000
	Reliability	0.000

The above table shows the test result of the relationship between service quality and service quality dimensions. The p-value of the three dimensions; `responsiveness` `empathy`, and `reliability` < 0.05, thus the Ho is rejected for these dimensions and Ha is kept. Meaning there is a significant relationship between service quality and these two service quality dimensions.

Relationship between customer satisfaction and service quality: Group

Hypothesis:

Null hypothesis = Ho: There is no significant relationship between customer satisfaction and service quality

Alternative hypothesis = Ha: There is a significant relationship between customer satisfaction and service quality

Results:

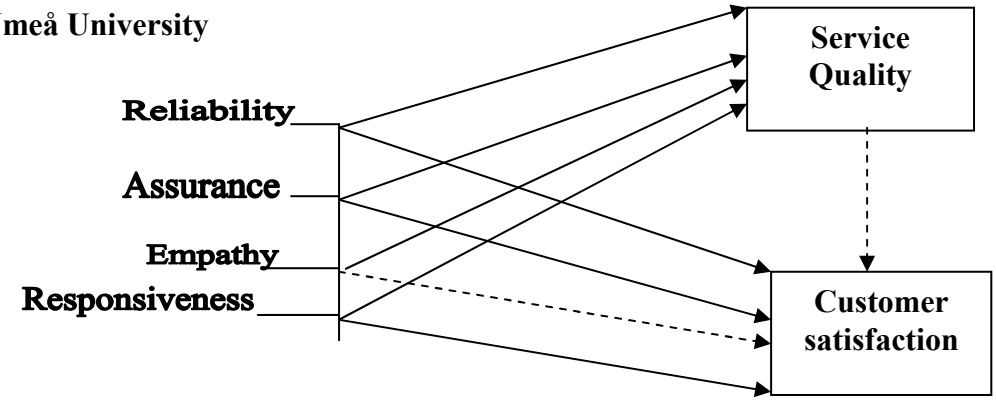
Table 27: Group Test results for customer satisfaction and service quality

Customer Satisfaction	Service quality	P-Value = 0.000

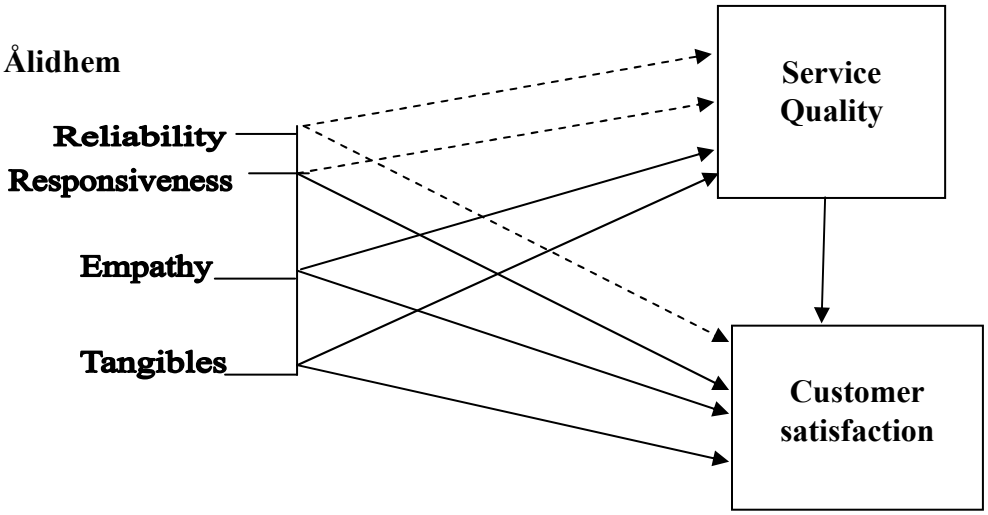
The above table shows the test result of the relationship between customer satisfaction and service quality. The p-value < 0.05, thus Ho is accepted and Ha is rejected. Meaning there is a significant relationship between customer satisfaction and service quality

4.5. Summary of results from the study

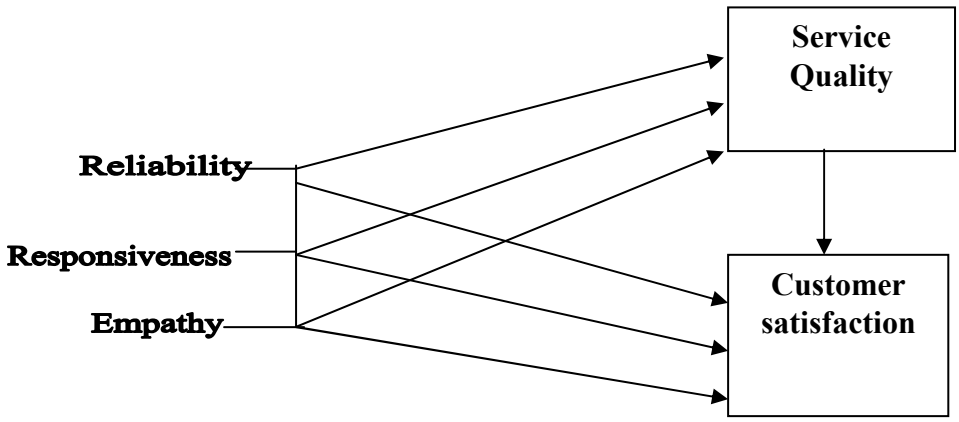
Umeå University



ICA Ålidhem



Forex Bank



Group

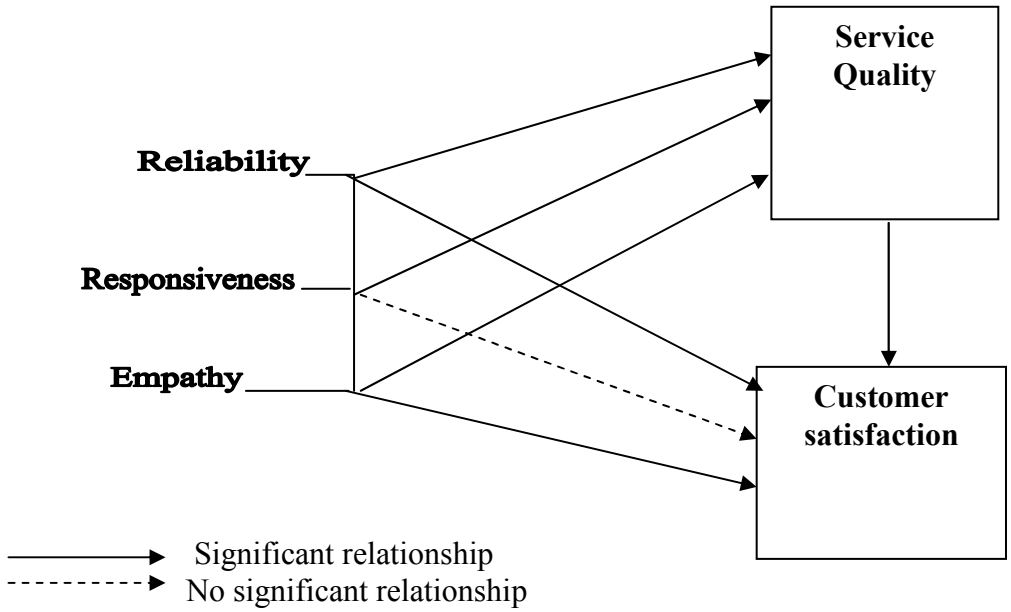


Figure 23: summary of results from the study

The above diagrams represent summary of results from this study. From the diagrams, it could be seen from Umeå University's result that: reliability, responsiveness and assurance, had significant relationships with service quality and customer satisfaction; empathy had a significant relationship with service quality but no significant relationship with customer satisfaction. Meanwhile, customer satisfaction had no significant relationship with service quality. The result from ICA Ålidhem shows that empathy, responsiveness and tangible had significant relationships with service quality and customer satisfaction; reliability had no significant relationship with customer satisfaction and service quality. Meanwhile, there was a significant relationship between customer satisfaction and service quality. The result from Forex bank showed that: reliability, responsiveness and empathy had significant relationships with customer satisfaction and service quality; also, customer satisfaction had a significant relationship with service quality. Moreover, it could be seen from the group result that; ´responsiveness`, empathy´ and ´reliability´ were significantly related to service quality; ´reliability` and `empathy` were significantly related to customer satisfaction but `responsiveness` was not significantly related to customer satisfaction; meanwhile customer satisfaction was significantly related to service quality.

4.6. Validity, Reliability and Replicability for the study

In trying to keep precision for this study as discussed in the methodology section, I used both validity and reliability. In addition the possibilities or impossibilities of replicability were explained in this section.

Reliability: As for reliability I checked on the internal reliability and used Cronbach's alpha as planned in the methodology. I had to check reliability for the individual organization and also in the group to actually dictate the invalid variable that might be causing problems. The result is seen in table 27 and 28

Table 28: Internal reliability for the individual organizations

Organizations	Number of items	Cronbach's Alpha	Variables	Cronbach's alpha if item deleted
Umeå University	7	.813	Quality service	.781
			Good library	.767
			Welcoming staff	.779
			Good computer facility	.786
			Well qualified staffs	.767
			Time conscious staff	.806
			Customer satisfaction	.829
ICA Ålidhem	6	.723	Quality Service	.671
			Customer Satisfaction	.633
			shop assistance	.813
			Less queue	.657
			Welcoming staffs	.645
			Goods positioning	.662
Forex bank	5	.922	quality Service	.911
			Good service time	.939
			Accurate services	.911
			Welcoming staffs	.882
			Customer satisfaction	.882

The above table shows reliability scales for the three organisations distinctively. The reliability for the study ranges from 0.723 to 0.922. Following the classifications of cronbach's Alpha coefficient by George and Mallery, (2003) Umeå University had a *good reliability* with Cronbach's alpha coefficient of *0.813*, ICA had an acceptable reliability with Cronbach's alpha coefficient of 0.723 and Forex had an *excellent reliability* with Cronbach's alpha coefficient of 0.922. (George and Mallery, 2003, p. 231

The table also shows the reliability scale for each organization calculated when each item is deleted from the organization's list, to see whether the deleted item is valid or not. When Cronbach's alpha for a variable increases when an item is deleted it shows that item is not valid in that organization's measurement of test. From the table, it could be seen that with Umeå University, the entire variable showed a lower value of reliability when deleted except for `customer satisfaction`. With ICA, the entire variables showed lower values of reliability when deleted except for `shop assistance`; with Forex the entire variables showed lower values when deleted except for `Good service time`. It means `customer satisfaction` for Umeå University, `shop assistance` for ICA and `service times` for Forex bank were not valid variables under these organizations' tests.

Table 29: Internal Reliability for Grouped data

Item-Total Statistics

Cronbach's Alpha	Cronbach's alpha based on standardise items	N o f Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
0.64	0.68	5					
Reliability			.77	.962	.529	.290	.528
Empathy			.83	1.145	.367	.217	.609
Responsiveness			.59	1.084	.198	.074	.720
Quality Service			.85	1.056	.584	.415	.526
Customer Satisfaction			.79	1.043	.438	.313	.575

The above table shows the result of the internal reliability for the group, that is the three organizations. The Cronbach's Alpha coefficient was 0.646. Following the classifications of Cronbach's Alpha coefficient by George and Mallery, (2003) the internal reliability for this study is questionable because it is greater than 6 (George and Mallery, 2003, p. 231) The entire variables showed lower values when deleted except for ´responsiveness` which showed higher Alpha when deleted, meaning it is not a valid variables under this study test.

Validity: Because the study was a descriptive study; I made used of the significant level during the testing of the hypotheses. The research significant level for the tests made was 0.05, i.e. 95% confidence interval which I used to decide on rejecting or accepting the null hypothesis, although more likely to make type 1 error (a risk of 1 out of 20), and low chances to make type two error (when risk is 1 out of 10) (Bryman & Bell, 2003, p. 252). The choice of the significant level is a good one because I could have great confidence when the risk of falsely inferring that there is a significant relationship between two variables is 1 in 20, as against 1 in 10. (Bryman & Bell, 2003, p. 253). Moreover, the data analysis method followed strict statistical roles on choosing the tests to be used such as looking at the variables types and sample sizes before choosing the statistical test for inferences. I think this way was as well a good view for precision of the study in terms of validity.

Replicability: Whether a study is replicable or not will depend on the explanation given about the procedures of the study. Because I was able to spell out the procedures associated with the study in great details (Bryman & Bell, 2003. p. 33) therefore, it shows that this study could be replicable.

4.7. Discussion

The main issue addressed in this present study is the relationship among customer satisfaction, service quality and service quality dimensions. The result of this study was presented in two ways; the service sectors were presented separately and then the common variables were grouped and presented. The results of the two ways turned out to be distinctive. (Figure 23). This analysis style could be good for a research because it

shows that service quality dimensions can be different within organizations of the same industry.

From the summary of the results, it shows that, the present study has a lot to be discussed. Customers of the organizations were satisfied more because of service quality except for ICA where service quality took a second place. The customers gave distinctive meaning for service quality in the various organizations (Figures 7, 12 and 17), which were linked to the SERVQUAL dimensions (Table 3) confirming the theory that service quality is a focused evaluation that reflects the customer's perception of reliability, assurance, responsiveness, empathy, and tangibles" Zeithaml (2006, p. 106-107).

The present study also goes to add some value to the study of Wang & Hing-Po (2002), who used SERVQUAL model in measuring service quality by testing hypothesis for the relationship between the service quality dimensions and service quality. If they could be good measures of evaluation then they could have a direct relationship and this was viewed. Moreover, the study complies with the study of (Bennett & Barkensjo, 2005, p. 101), who had a result in their studies where "the hypothesis elements of SERVQUAL model were scientifically associated with the service quality construct". This present study in the general group test had reliability, responsiveness and empathy which were significantly related to service quality and even went to relate the three dimensions with customer satisfaction, where reliability and empathy were significantly related to customer satisfaction and responsiveness was not. Meanwhile in the individual testing, Forex bank had three of the SERVQUAL dimensions while Umeå University and ICA Ålidhem had four of the dimensions tested. (Figure 23)

Reliability was an attribute that was applicable in the three organizations for this study. Reliability was found a valid variable for this study with the Cronbach's Alpha confidents for both the individual test results and the group test result. (Tables 28 & 29) Reliability had a significant relationship with service quality and customer satisfaction at Umeå University, Forex bank and the grouped results but it had no significant relationship with service quality and customer satisfaction at ICA. Going back to the definition of reliability i.e. "the ability to perform the promised service dependably and accurately", (Parasuraman et al., 1988. p.23), then to the attributes that were substituted for reliability in the various service sectors; *`time conscious staff`*` for Umeå University, *`accurate service`* for Forex bank, and *`less queue´* for ICA. This alone could explain why reliability according to this study design could neither be significantly related to service quality nor customer satisfaction for ICA. This could mean that even if it is a valid variable, customers see it as a compulsory attribute and not an essential attribute to make them shop at ICA.

Responsiveness was also an attribute that was applicable to the three service sectors for this study. Responsiveness was found a valid variable only for Umeå University; meanwhile it was found an invalid variable for ICA, FOREX and the group result (tables 27 and 28). Responsiveness had a significant relationship with customer satisfaction for ICA, FOREX and Umeå University but had no significant relationship with customer satisfaction when the variables where grouped (Figure 23). Also it had a significant relationship with service quality with the group result, FOREX and Umeå University but not with ICA. When referred to the definition of responsiveness i.e. "willingness to help customers and provide prompt service" (Parasuraman et al., 1988,

p. 23) then to the various attributes that were substituted for responsibility from the different organization: `*service time*` for Forex, `*shop assistance*` for ICA and `*good library and* `*computer facilities*` for Umeå University. This alone can explain why responsiveness was neither a valid variable nor had no significant relationship with either service quality or customer satisfaction in any of the situations. As for ICA, it is very easy for customers to get the items they need because it has good positioning as confirmed by the result in Appendix 6. Thus it could neither be valid nor had a significant relationship with service quality even though it had a significant relationship with customer satisfaction. ` This could mean that even if it is not a compulsory attribute, customers see it as an essential attribute to make them shop at ICA. As for FOREX; `*service times*` could be an invalid attribute because `*service time*` is not the most important reason for satisfaction according to the customers even though it had a significant relationship with customer satisfaction. Within Umeå University, the reason for its positive responsiveness is simple, `*good library*` *and* ` *computer facilities*` are the basic keys to support students education within Umeå University. Moreover, when responsiveness is grouped for the three service sectors the view changed, it becomes an invalid variable and had no significant relationship with customer satisfaction but related with service quality. This might be because of the number of ICA and FOREX customers (120) compared to Umeå University (100) for the invalid `responsiveness variable, the number of FOREX and Umeå University (160) compared to ICA (60) for the significant relationship with service quality.

Empathy also, was an attribute that was applied to the three service sectors for this study. Empathy was found valid for both the individual service sectors and the grouped results. It also had a significant relationship with customer satisfaction and service quality at ICA, Forex and the group result. With Umeå University, Empathy had a significant relationship with service quality and had no significant relationship with customer satisfaction. Recalling back to the definition of empathy i.e. "caring, individual attention, the firm provides to its customers" (Parasuraman et al., 1988, p. 23) then to the common attributes that were substituted to empathy "welcoming staff`. The reason for the result is simple, whether the staffs are welcoming or not, the students once enrolled to study at the University, have to meet his or her objective by completing the program, so the staff cannot be an obstacle or a factor to stop the student from attending school. Meanwhile with ICA or FOREX, `welcoming staff` is very compulsory and essential because if the customers are not well treated, or if the customers have any negative feelings about the staff, when they live ICA or FOREX there is a possibility that they will not come there next time. They can shop elsewhere like Willys, Coop etc in the case of ICA or do money transaction with Western Union in the case of Forex Bank.

Assurance was a dimension that was applied just on Umeå University for this study. Assurance was found valid variable for Umeå University and had a significant relationship with customer satisfaction and service quality. Going back to the definition of assurance, "knowledge and courtesy of employees and their ability to inspire trust and confidence" (Parasuraman et al. 1988, p 23). The attribute that was substituted for assurance was *`Qualified staff`*. If the staffs are not knowledgeable and considerable, they would not be able to transfer knowledge to the students; this alone explains the reason for the results of empathy for Umeå University.

Tangibility was a dimension that was applied just on ICA for this study. Tangible was found a valid variable for ICA and had a significant relationship with customer satisfaction and service quality. Going back to the definition of Tangible; "physical facilities, equipments and staff appearance" (Parasuraman et al. 1988, p. 23). The attribute that was substituted for tangible was `*Positioning*` for ICA. The appearance of the shop depends on the shop display which was the `positioning` in this respect. An attractive display which makes it convenient for customers to move around and get the things they need, will make them happy; moreover, the highest percentage given as reason for satisfaction came from `positioning` (Appendix 6) this explains the nature of the result for `tangible` for ICA.

In relation to some past study, this study also made use of the advised given by Negi (2009) that Empathy, assurance and tangibles should not be neglected in evaluating service quality and some of the results complied with this that "reliability is important to service quality. Empathy which was used was found significantly related to both customer satisfaction and service quality. This study also is in contrast to that of Laroche et al. (2004) because they did not use SERVQUAL dimensions to evaluate service quality and came up with a relationship with customer satisfaction while this study had used SERVQUAL model.

This present study also demonstrates some reasons for satisfaction which complies with the determinants of customer satisfaction stated by Wilson et el. (2006, p. 79-80). He stated that "some determinants of customer satisfaction are product and service quality, price, personal and situational factors." (Wilson et el., 2006, p. 79-80). With this study service quality, price, and other personal and situational factors like `service time`, `world wide service` from FOREX, `positioning`, `goods variety` from ICA; and `school reputation`, `campus infrastructure` etc from Umeå University were chosen as reasons for satisfaction. (Appendix 2, 6, 10)

The results of customer satisfaction and service quality of this present study for ICA, FOREX and the Grouped result, confirm the theory that "higher levels of quality leads to higher levels of customer satisfaction" (Kotler & Keller, 2009, p. 169) because the customers provided higher percentages of satisfaction and higher percentages of agreement that the service sectors provided quality services, thus finalising the confirmation to the fact that, relationship between customer satisfaction and service quality was positive from ICA, Forex and the grouped results. These results also complied with the theory that "perceived service quality is a component of customer satisfaction" (Zeithaml et al., 2006, p. 106-107) and the definition of customer satisfaction that "*definitions of consumer satisfaction relate to a specific transaction (the difference between predicted service and perceived service) in contrast with 'attitudes*…"(Lewis 1993, p. 4-12); because service quality had highest percentage as reason for satisfaction at FOREX. (Appendix 9) Although positioning had highest percentage for reason for satisfaction at ICA, service quality still had the second place in terms of high percentage but ICA is also not having service quality as reason for dissatisfaction (Appendix 5, 6). Thus the results of ICA, FOREX and the group result, also confirmed to the results of (Kuo-YF, 2003; Gera, 2011, p. 2-20; Sureshchandar, et al., 2002, p. 363-379; Sivadas & Baker-Prewitt, 2000 p. 73-82; Liang & Zhang, 2009 p. 113-124) that there is a relationship between customer satisfaction and service quality. They also comply with the suggestion of Parasuraman et al., (1985) that "when perceived service quality is high, then it will lead to increase in customer satisfaction

and the acknowledgement of (Saravana & Rao (2007) and Lee et al. (2000) that "Customer satisfaction is based upon the level of service quality that is provided by the service providers" (Saravana & Rao, 2007, p. 436; Lee et al., 2000, p.226). In contrast to these explanations, the results of the relationship between customer satisfaction and service quality for Umeå University did not confirms to the results of (Kuo-YF, 2003; Gera, 2011, p. 2-20; Sureshchandar, et al., 2002, p. 363.379, Sivadas & Baker-Prewitt, 2000 p. 73-82,; Liang & Zhang, 2009, p. 113-124) that there exist a relationship between customer satisfaction and service quality. Thus neither did it comply with the suggestion of Parasuraman et al., (1985) nor the acknowledgement of (Saravana & Rao (2007) and Lee et al. (2000). The doubt here is that, Umeå University had higher percentage of satisfaction than dissatisfaction, (Figure 6) it also had highest percentage for service quality as reasons for satisfaction (Appendix 2) it also had highest percentage for customer rating service quality to be `good` (appendix 4) but why is customer satisfaction not a valid variable for the test? Or why is it not significantly related to service quality? Maybe there are other factors behind the measurement that deprived them from being related or the reason could be that, because once enrolled the student only get away after the completion of programme, so, customer satisfaction could be evaluated by the student only after completion of the program, moreover, they can not switch once enrolled, thus they do not find customer satisfaction very important as customers of ICA or FOREX could check, meaning the students could be satisfied but this satisfaction must not necessarily be related to the service quality provided by the organization.

Some of the outcome of the study went to support the stance for customer satisfaction. For instance, recommendation played great role in confirming the result of satisfaction since those who said they will recommend the organizations had higher percentages than those who said they will not recommend the organization. This complies with the idea that recommendation is a sign of satisfaction. (Sivadas & Baker Prewitt, 2000, p. 75) because all the organizations results presented higher levels of satisfaction than dissatisfaction and all of them presented higher percentages for "will recommend" than "will not recommend" (Appendix 3, 7, 11) confirming the results of (Bennett & Barkensjo (2005) that: "relationship quality and actual service quality induced beneficiaries to want to recommend a charity to other people and to engage in positive word-of-mouth." (Bennett & Barkensjo, 2005, p. 101).

Also service quality rating was viewed to confirm the result of service quality. Customers of all the three service sectors had highest percentage for ´good` as service quality rating (figures 10, 15 and 20). Service quality rating with the sample characteristics for ICA and FOREX still recording highest percentage for `good` in all the categories (Appendix 8 and 12) while at Umeå University, service quality rating with the sample characteristics had `poor` with highest percentage at student level: graduate and at region; Africa and Asia. Maybe this could add to why there was no significant relationship between customer satisfaction and service quality for Umeå while there was in ICA and FOREX.

In a general view of the situation, it could be seen that the SERVQUAL dimensions vary in the different service sectors and service quality was identified differently within; the educational sector (Umeå University); the financial sector (FOREX) and the Shop (ICA). Because the study was tested in these different service sectors, the meaning of service quality which represented the service quality dimensions were distinguished

(Figures 7, 12 and 17) This confirms the idea presented by Wilson et al. (2008) that “in the case of pure service like financial (FOREX) and educational (Umeå University) sectors, service quality will be the dominant element in customers’ evaluations and in the case where customer service or services are offered in combination with a physical product (ICA) service quality may also be very critical in determining customer satisfaction” (Wilson et al., 2008, p. 83).

CHAPTER 5: CONCLUSIONS, IMPLICATION AND SUGGESTIONS

The aim of this section is to check if the research questions were answered; the objective was met and if the study has contributions. Thus the chapter begins with a conclusion, then to the implication, followed by limitations. A suggestion for future research ends the chapter.

5.1. Conclusion

The objective of this study was to examine the relationship between customer satisfaction and service quality with respect to service quality dimensions. The research questions were "Is there a significant relationship between customer satisfaction and service quality dimension?"; "Is there a significant relationship between service quality and service quality dimensions?" "Is there a significant relationship between customer satisfaction and service quality?" The unique design of this research gave strange but interesting results because of the grouped and ungrouped presentation of the data. The results appeared to be different in the two ways of analysis. Thus, whether the research questions were answered or the objective was met depend on the out comes of the study. From the summary of the results it could be seen that the research questions where answered either distinctively by the individual service sectors or jointly in a group analysis of the common variables.

From the result section; the individual results showed that the research questions were answered by each of the organizations distinctively. Umeå University used four of the service quality dimensions (reliability, empathy, responsiveness, and assurance); ICA used four of the service quality dimensions (reliability, empathy, responsiveness and tangible); while FOREX used three of the service quality dimensions (reliability, empathy, and responsiveness) to answer the research questions in order to meet the objective.

With regards to Umeå University; reliability, responsiveness and assurance had significant relationships with both customer satisfaction and service quality while empathy was significantly related to service quality and not customer satisfaction. But customer satisfaction and service quality had no significant relationship. This could mean that service quality dimensions are independent factors to the relationship between customer satisfaction and service quality for Umeå University

With regards to ICA, empathy and tangible had significant relationship with customer satisfaction and service quality while responsiveness was significantly related to customer satisfaction and not to service quality. Reliability had no significant relationship with both customer satisfaction and service quality; but there was a significant relationship between customer satisfaction and service quality. This could mean that the relationship between customer satisfaction and service quality could be depending on the service dimensions.

With regards to FROEX, reliability, responsiveness and empathy had significant relationship with both customer satisfaction and service quality. Also customer satisfaction and service quality had a significant relationship. This could mean that service quality dimensions are dependent factors to the relationship between customer satisfaction and service quality for FOREX.

The grouped analysis showed a different view of the outcome. There were significant relationships between service quality and service quality dimensions, all the common SERVQUAL dimensions (reliability, empathy and responsiveness) within the three organizations had a significant relationship each with service quality. Meanwhile there was significant relationship between two of the service quality dimensions (reliability and empathy) and customer satisfaction while there was no significant relationship between responsiveness and customer satisfaction. In all, the research was able to expose service quality dimensions with the relationship between service quality and customer satisfaction because there was a significant relationship between service quality and customer satisfaction, this could mean that, relationship between customer satisfaction and service quality might be depending on service quality dimensions. Thus, there could be relationships among service quality dimensions, customer satisfaction and service quality, but customers of service sectors might be satisfied because of reasons other than service quality.

5.2. Implication

This research seems to have contributed to the topic both on academic and business. The objective of this study was to examine the relationship between customer satisfaction and service quality with respect to service quality dimensions (the SERVQUAL model) Therefore I aimed at placing theoretical foundations for further research on customer satisfaction, service quality and employee satisfaction. Using the SERVQUAL dimension to examine the relationship between customer satisfaction and service quality will help the management to better understand what these dimensions mean to the customers and to the organization. This present study tested the relationship among service quality dimensions, customer satisfaction and service quality and found out that they had significant relationships some how. Some of the SERVQUAL dimensions were significantly related to customer satisfaction and/or service quality; also some of the dimensions were not valid variables for a test in trying to relate customer satisfaction and service quality with service quality dimensions. `Empathy`, from the group test; `customer satisfaction` from Umeå University and `responsiveness` from ICA and FOREX were proven invalid for the test. The findings show that relationship between SERVQUAL dimension and service quality and/or customer satisfaction doesn't matter in the relationship between customer satisfaction and service quality in a service sector because whether or not some dimensions were related with customer satisfaction and/or service quality, the relationship between customer satisfaction and service quality were still significant in certain cases like ICA, and the grouped service sectors. (Figure 23). The implications could be different with financial institutions like FOREX. It shows that the SERVQUAL model has an impact in the relationship between customer satisfaction and service quality because all of the dimensions were significantly related to service quality and customer satisfaction. It also implies that; service quality is not the only factor affecting customer satisfaction in service sectors because other factors were given by customers for reasons that lead to their satisfaction. Thus the outcome in this case, suggests that to provide quality service in order to satisfy customers with this aspect, the organization in this kind of service sectors need to improve on the dimensions of service quality. Also, to provide total satisfaction to customers, the service sectors need to improve on the other factors that were given as reasons for satisfaction

Hence the result of this research can be useful to managers in business organisations with respect to how to deal with customers, in order to maintain the organization's main objective of profit maximization and cost minimization. It provides results that could be useful to managers in business organisations for strategic planning. Management of organizations could examine those other factors apart of service quality that the customers selected as reasons for satisfaction or dissatisfaction. In this case, the management could always adjust on those other factors to provide its customers with the best values and also dictate the important dimension(s) to lay more emphasis on in order to improve service quality and/or customer satisfaction.

The findings from this research are relevant to academic categories of consumer, employee and marketing research. Additional knowledge on consumer research on satisfaction is becoming very relevant because organizations are trying to make it possible of gaining more customers by keeping the old customers and attracting new customers. This could be done by providing the values that the customers' desire, and when this is done, the customers will be satisfied. Satisfying the customers by making sure they obtain good quality services is the latest strategy for organizations in today's business environment. That is why companies are going in for total quality management to improve the quality because quality has a great impact on customer satisfaction (Kotler, et al., 2002, p. 8). My study contributes to this area by confirming or adding value to the relationships that are involved among customer satisfaction, service quality and some of the service quality dimensions by SERVQUAL model. The present study institutes basis for assuming that service quality is not the only factor determining customer satisfaction in a service sector and also that service quality dimension is an important tool of evaluating service quality by the customers.

5.3. Limitations

The study used a convenience sample, although an advantage of this kind of sampling technique is that the study could provide springboard for future research or allow links to be forged with an existing finding, there is a limitation in that the study can not be generalized. (Bryman & Bell, 2003, pg 105). Some of the limitations of the study were that; although service quality also involves employees, the study did not consider the employees. Also, the study could only test the service quality dimensions separable which it could have combined them as one variable also and test to know which the most important dimension is. Moreover, all the five service quality dimensions (the SERVQUAL model) were neither applied to the test for the individual organizations nor the group test.

Time and money have always been the main constraints in almost all research studies. Since this is an academic research with limited time, I targeted only a few service sectors due to time period I had to conduct the research. If I had the time I would have preferred to target as many companies and different business sectors as possible, to actually be able to see how this holds with them and to draw a better conclusion and generalization. I would even have tested and compared the situation in other countries, as well as to investigate how this relationship works in other organizations, like manufacturing-oriented companies.

Another constraint I had, which is not so common was the language. This came due to the fact that in Sweden where I had collected my data, English is a second language.

The majority of them could communicate very well in Swedish and not in English; thus collecting data was a problem for me. Moreover I faced this problem at ICA and Forex bank and not the university. Although I managed to gather some data after translating my questionnaire to Swedish, this wasted a lot of time and money again because I had to send the questionnaires to a translator and wait for her to do her job and send the questionnaires back to me, of course I had to print questionnaire in both English and Swedish that was an additional cost on me.

5.4 Suggestions for future research

The topic was a good one but because of its limitations and/or outcome, there is a need for further research. Because the study did not consider employees who provide the services to customers; further research could be to study relationship among customer satisfaction, service quality and job satisfaction with the use of all the five SERVQUAL dimensions at once, to see if satisfaction level of employees is related to their services and/or customer satisfaction. Another further study could be to test among the dimensions with the use of another statistical method to see which of them will be more important to service quality and/or customer satisfaction. Also future study could be to test these same variables in a manufacturing sector.

REFERENCES

Books and Articles

Agresti, A & Finlay, B (2009) *Statistical Methods for the Social Sciences.* 4th edition. New Jersey, Pearson Education, Inc.

Anderson, E.W., Fornell, C., & Lehmann, D.R. (1994), customer satisfaction, market share and profitability: findings from Sweden, Journal of Marketing, 58(3), 53-66

Barbara R. Lewis (1993) Marketing Intelligence & Planning, *MCB University Press,* 11(4), 4-12. 0263-4503

Bennett. R and Barkensio A. (2005) Relationship quality, relationship marketing, and client perceptions of the levels of service quality of charitable organisations, *International Journal of Service Industry Management* , 16(1) 81-106

Boulding, William, Ajay Kalra, Richard Staelin, and Valarie A. Zeithaml (1993) , A Dynamic Process Model of Service Quality: From Expectations to Behavioural Intentions, *Joumal of Marketing Research,* 30, , 7-27

Bowen and David E. (2005) Service Quality *Blackwell encyclopaedic Dictionary of Human Resource management,* Pl 341, 340P

Brown, T.J., Churchill, G.A. and Peter, J.P. (1993) research note: Improving the measurement of service quality, *Journal of retailing*, 69(1) 126-139

Bryman, A. & Bell, E. (2003), *Business research method*, New York: Oxford University Press.

Cronin, J. J., & Taylor, S. A. (1992) Measuring service quality; a re-examination and Extension. *The Journal of Marketing*, 56, (3), 55-68.

Eshghi, A., Roy, S. K., & Ganguli, S. (2008). Service quality and customer satisfaction: An empirical investigation in Indian mobile Telecommunications services, *Marketing Management Journal*, 18(2) 119-144.

Fornell, C. (1992). "A National Customer Satisfaction Barometer: The Swedish Experience." *Journal of Marketing,* Vol. 56, p.6-21.

Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J. and Bryant, B.E. (1996), The American customer satisfaction index: nature, purpose and findings, *Journal of Business Research,* 60(4), 7-18

Giese, J. L., & Cote, J. A. (2002). Defining Consumer Satisfaction, *Academy of Marketing Science*, Vol. 2000, Number 1, p.1-24.

Gilbert, A Churchill, Jr. and Lacobucci, D. (2005) *Marketing research, Research: ethological Foundations*, 9th edition. USA: Stratford publishing service.

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th Ed.). Boston: Allyn & Bacon.

Gronroos, C. (1982). A service quality model and its marketing implications, *European Journal of Marketing,* 18(4) 36-44.

Haywood-Farmer, J. (1988). A Conceptual Model of Service Quality, *International Journal of Operations & Production Management*, 8(6), 9-29.

Jain, Sanjay K. and Gupta, Garima, (2004) measuring service quality: ServQual Vs Serperf scales *The journal for decision makers*; 29 (2), 25-37

Kotler P., Armstrong G., Saunders J. Wong V. (2002) *Principle of Marketing*, 3rd edition, Pretence Hall $Europe.

Kotler, P. and Keller, K. L. (2009) *Marketing management* (13th end). New Jersey: Pearson Education Inc, Upper Saddle River,

Kumar, M., Kee, F. T. & Manshor, A. T. (2009). Determining the relative importance of

critical factors in delivering service quality of banks; An application of dominance analysis in SERVQUAL model, *Managing Service Quality,* 19(2), 211-228.

Kuo. YF (2003) A study on service quality of virtual community websites, *Total Quality Management & Business Excellence,* 13 (4), 461-473

Larreche, als (1998) Markstrat 3: The strategic Marketing Simulation. South-Western College Publishing

Lee, J. K. & Ritzman, L. P. (2005) *Operations Management; Process and value Chains.* (7th edition) New Jersey: Person education

Lee, H., Lee, Y. & Yoo, D. (2000). The determinants of perceived service quality and its relationship with satisfaction, *Journal of Service Marketing*, 14(3), 217-231.

Laroche. M,, Kalamas. M., Cheikhrouhou. S., Cezard A., (2004) *Canadian Journal Of Administrative Sciences-Revue Canadienne Des Sciences De L Administration* , 21(4), 361-375

Micheal.R Solomon (2009). *Consumer behaviour, Buying, Having and Being*, 8th edition, Pearson education, inc.

Magi, A. & Julander, C. R. (1996). Perceived service quality and customer satisfaction in a store performance framework. An empirical study of Swedish grocery retailers, *Journal of Retailing and consumer services*, Vol. 3, Number 1 p.33-41.

Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users, *International Journal of Mobile Marketing;* 4(1),31-38.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research, *Journal of Marketing*, 49, 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality, *Journal of Retailing*, 64 (1), p.12-40.

Ahmed, I., Nawaz, MM., Usman, A., Shaukat, MZ., Ahmed, N., Wasin-ul- R., (2010) Does service quality affect students' performance? Evidence from institutes of higher learning, *African Journal Of Business Management, 4 (16), 3457.3462*

Ray, Kent. (2007) *Marketing Research,* method and Application in Europe, Thomson Learning.

Saunders, M., Lewis P. and Thornhill A. (2009) *Research Methods for business students* 4th edition Pearson education limited

Saravanan, R. & Rao, K. S. P. (2007). Measurement of service quality from the customer's perspective – An empirical study, *Total Quality Management,* 18(4) p.435-449.

Schiffman, L. G. and LazarKanuk, L. (2004) *Consumer Behaviour.* 8th edition. New Jersey Pearson Education Inc, Upper Saddle RiverTitus

Sivadas, Eugene; Baker-Prewitt, Jamie L (2000) An examination of the relationship between service quality, customer satisfaction, and store loyalty, *Journal of Retail & Distribution Management,* 28(2)73-82

Spreng, R.A., Mackenzie, S.B. and Olshavsky, R.W. (1996) A re-examination of the determinant of customer satisfaction, *journal of Marketing*, 60(3), 15-32

Sureshchandar G.S., Rajendran C, & Anantharaman R.N. (2002) the relationship between service quality and customer satisfaction – a factor specific approach, Journal of Services Marketing, 16(4), 363 – 379.

Tse, David K. & Peter, C. Wilton. (1988). Models of Consumer Satisfaction: An Extension, *Journal of Marketing Research*, 25 204-212.

Wang Y. & Hing-Po L. (2002.) Service quality, customer satisfaction and behaviour intentions: *Evidence from China's telecommunication industry,* 4(6), 50-60.

Wen-Yi S. Keng-Boon O., Binshan L., & Chong. A. Y. (2009) TQM and *customer satisfaction* in Malaysia's service sector. *Industrial Management & Data Systems*; 109(7) 957-975

Wicks, A. M., & Roethlein, C. J. (2009). A Satisfaction-Based Definition of Quality *Journal of Business & Economic Studies,* 15(1) 82-97.

Wilson A., Zeithaml V.A., Bitner M.J., Gremler D.D. (2008) Services Marketing, McGraw-Hill Education

Xi Liang & Shuai Zhang (2009) Investigation of customer satisfaction in student food service: An example of student cafeteria in NHH, International *Journal of Quality and service Sciences,* 1(1), 113-124

Yi, Y. (1990). A critical review of consumer satisfaction, in Zeithaml, V.(Eds), *Review of Marketing, American Marketing Association, Chicago,* IL, p.68-123.

Zeithaml V. A., Bitner M. J., Gremler D. D. (2006) *Services marketing*, 4th edition, McGraw-Hill.

Web sites

David Armano (April 2009)Logic+Emotion:
Available via:
http://darmano.typepad.com/
[Retrieved: October 09, 2009]

DeLayne Stroud J. (2000-2010) isixsigma.com
Available via:
http://www.isixsigma.com/library/content/c000709a.asp)
[Retrieved: January 26, 2010]

NBRI (2009) Customer Survey White paper:
Available via:
http://www.nbrii.com/Customer_Surveys/Measure_Satisfaction.html
[Retrieved: October 27th, 2009]

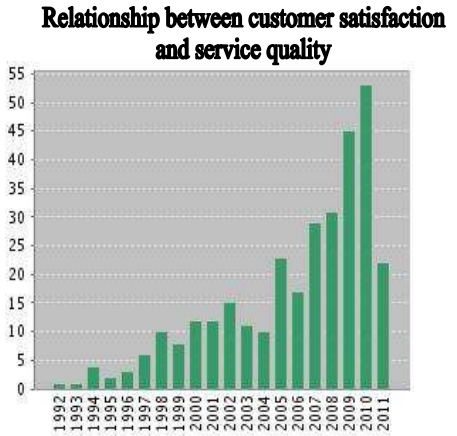
Piet Levy, (2009, p. 6),
Available via:
http://web.ebscohost.com/ehost/pdf?vid=5&hid=12&sid=3e223a11-3ffe-4951-b082-735c8449be46%40sessionmgr11 ,
[Retrieved: November 2, 2009]

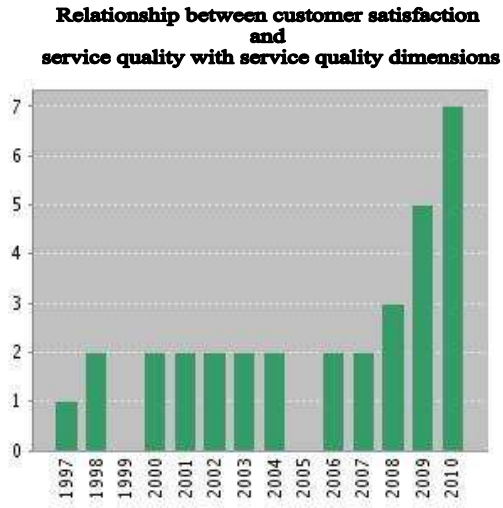
Will G Hopkins Sportscience 4(1), (2002)
Available via:
sportsci.org/jour/0001/wghdesign.html, 2000 (4318
[Retrieved: 3rd March 2011]

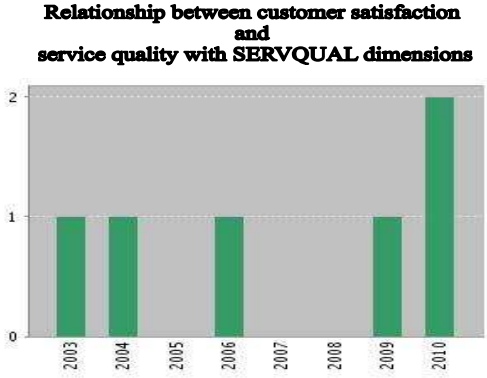
Web of Science
Available via:
http://www.ub.umu.se/en/search/articles-databases
[Retrieved: 2nd September 2011]

APPENDIX

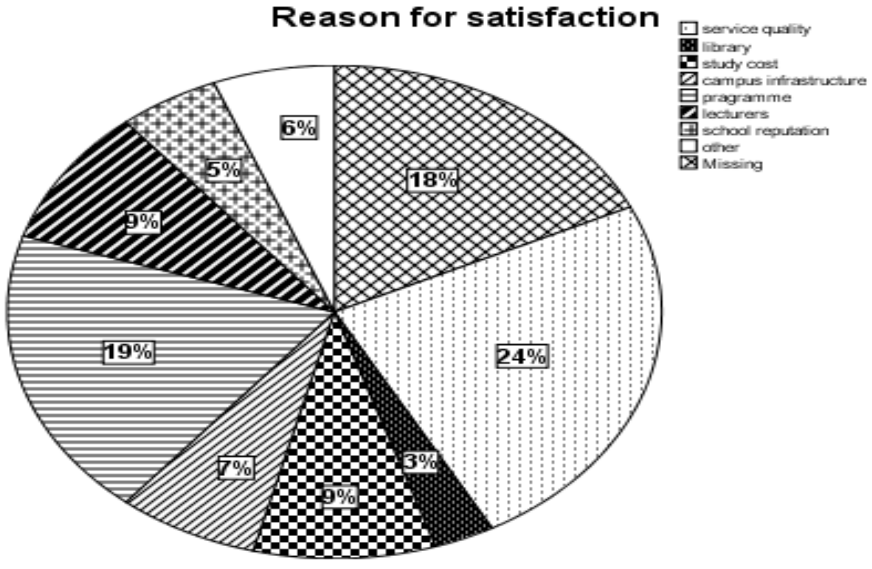
Appendix 1: Statistics on past articles on customer satisfaction, service quality and service quality dimensions.



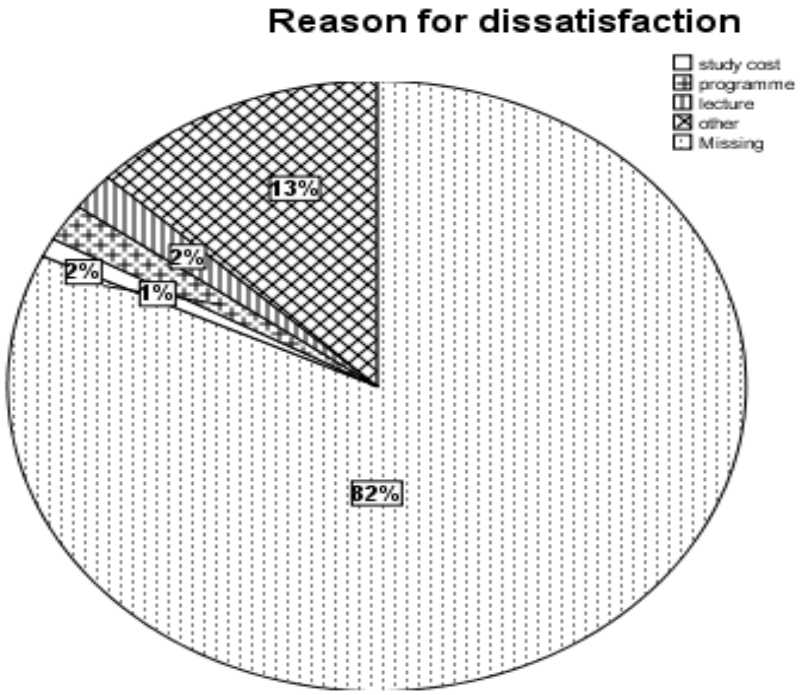




Appendix 2: Reason for customer satisfaction for Umeå University



Appendix 3: Reasons for dissatisfaction for Umeå University



Appendix 4: Recommendation and customer satisfaction for Umeå University.

Customer Satisfaction * Recommendation Crosstabulation

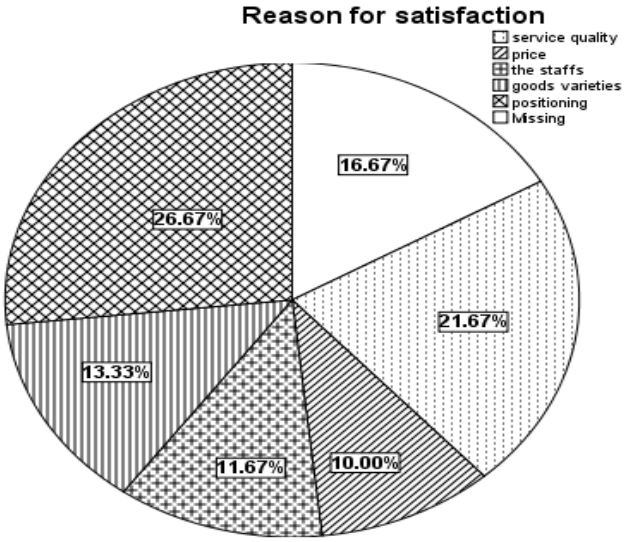
			Recommendation		
			will recommend	will not recommend	Total
Customer Satisfaction	satisfied	Count	81	2	83
		% within Customer Satisfaction	97.6%	2.4%	100.0%
		% within Recommendation	95.3%	13.3%	83.0%
	dissatisfied	Count	4	13	17
		% within Customer Satisfaction	23.5%	76.5%	100.0%
		% within Recommendation	4.7%	86.7%	17.0%
Total		Count	85	15	100
		% within Customer Satisfaction	85.0%	15.0%	100.0%
		% within Recommendation	100.0%	100.0%	100.0%

Appendix 5: Service Quality rating and Sample characteristics for Umeå University

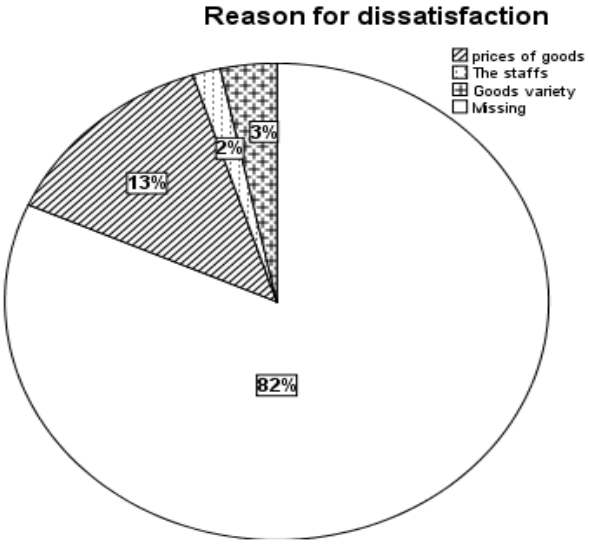
Sample characteristic for sample size of 100	**Good %**	**Poor %**	**No comment %**
Region			
Europe	32	13	6
America	2	2	4
Africa	7	13	1
Asia	6	12	2

Gender			
Male	27	27	7
Female	20	13	6
Age			
<=30	43	30	10
> 30	4	10	3
Student level			
Graduate	26	30	8
Undergraduate	21	10	5
Customer Satisfaction			
Satisfied	39	32	12
Dissatisfied	8	8	1

Appendix 6: Reasons for customer satisfaction for ICA



Appendix 7: Reasons for dissatisfaction for ICA



Appendix 8: Recommendations and customer satisfaction for ICA

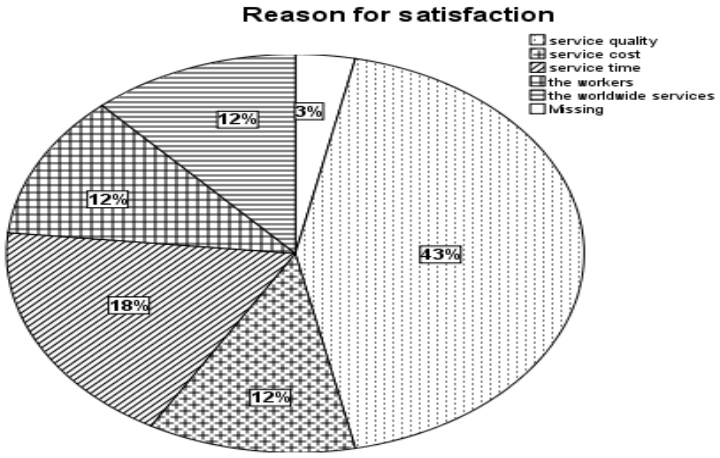
Customer Satisfaction * Recommendation Crosstabulation

			Recommendation		
			will recommend	will not recommend	Total
Customer Satisfaction	satisfied	Count	46	4	50
		% within Customer Satisfaction	92.0%	8.0%	100.0%
		% within Recommendation	85.2%	66.7%	83.3%
		% of Total	76.7%	6.7%	83.3%
	dissatisfied	Count	8	2	10
		% within Customer Satisfaction	80.0%	20.0%	100.0%
		% within Recommendation	14.8%	33.3%	16.7%
		% of Total	13.3%	3.3%	16.7%
Total		Count	54	6	60
		% within Customer Satisfaction	90.0%	10.0%	100.0%
		% within Recommendation	100.0%	100.0%	100.0%
		% of Total	90.0%	10.0%	100.0%

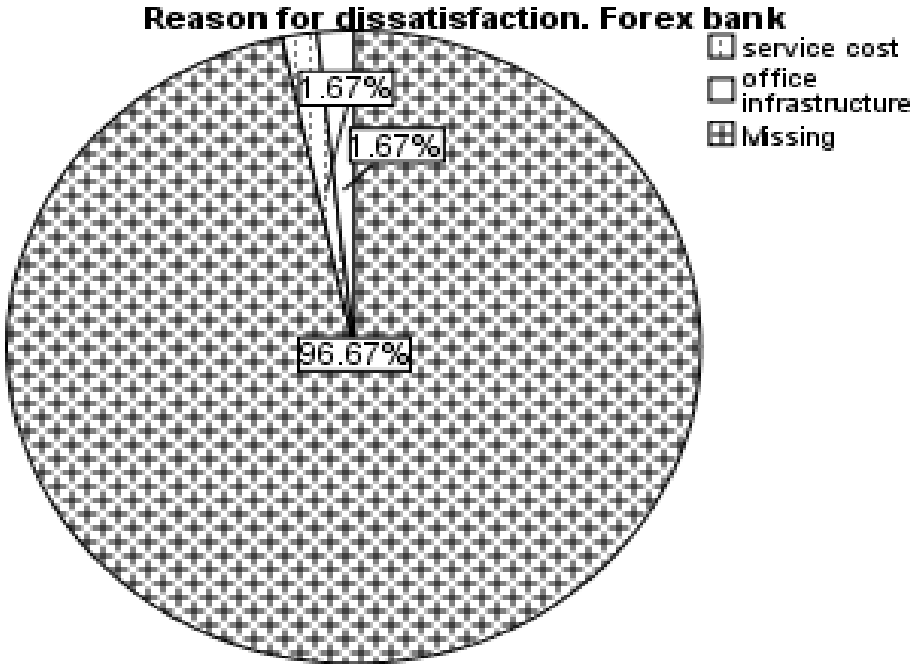
Appendix 9: Service quality rating and sample characteristics for ICA

Sample characteristic for sample size of 60	**Good %**	**Poor %**	**No comment %**
Gender			
Male	32	12	13
Female	18	10	15
Age			
<=30	33	18	15
> 30	17	3	13
Customer category			
student	42	22	23
None students	8	0	5
Customer satisfaction			
Satisfied	45	20	18
Dissatisfied	8	2	7

Appendix 10: Reason for satisfaction Forex Bank



Appendix 11: Reason for dissatisfaction Forex



Appendix 12: Recommendations and customer satisfaction for Forex Bank

Customer satisfaction * Recommendation Crosstabulation for Forex

			Recommendation		
			will recommend	will not recommend	Total
Customer satisfaction	Satisfied	Count	58	0	58
		% within Customer satisfaction	100.0%	.0%	100.0%
		% within Recommendation	100.0%	.0%	96.7%
		% of Total	96.7%	.0%	96.7%
	dissatisfied	Count	0	2	2
		% within Customer satisfaction	.0%	100.0%	100.0%
		% within Recommendation	.0%	100.0%	3.3%
		% of Total	.0%	3.3%	3.3%
Total		Count	58	2	60
		% within Customer satisfaction	96.7%	3.3%	100.0%
		% within Recommendation	100.0%	100.0%	100.0%
		% of Total	96.7%	3.3%	100.0%

Appendix 13: Service quality rating and Sample characteristics for Forex

Sample characteristic for sample size of 60	**Good %**	**Poor %**	**No comment %**
Gender			
Male	27	17	13
Female	32	3	8
Age			
<=30	40	17	22
> 30	18	3	0
Customer category			
Private	50	18	20
company	8	2	2
Customer satisfaction			
Satisfied	58	20	18
Dissatisfied	0	0	3

Appendix:14: **Questionnaire 1: The Educational Sector**

Customer satisfaction for Umeå University customers (students)

Hi, I am a student with USBE, I need your help to answer some questions about the university for my master's project. There are few questions and can take very few minutes of your time.

Perception measures

The lists below are some of the characteristics that could be used to describe Umeå University. Using scale from 1 to 10, with 1 being strongly agree and 10 being strongly disagree. To what extend do you agree or disagree that Umeå University has

1	Quality services	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
2	Good library	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
3	Welcoming staffs	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
4	Good Computer facilities	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
5	Time Conscious staff	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
6	Well Qualified Staffs	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10

Relationship measures

7	On a scale of 1 to 10 where 1 represents "Very Satisfied" and 10 represents "Very Dissatisfied, How satisfied are you with the University?	Very Satisfied ……. Very Dissatisfied, 1 2 3 4 5 6 7 8 9 10
8	If you are satisfied, what gives you maximum satisfaction at the University	1= Service Quality 2= Computer facilities 3= Library 4= studying cost 5= Campus infrastructure 6= The programmes 7= the Lecturers 8= academic reputation 9= other…….
9	If you are dissatisfied, what gives you maximum dissatisfaction at the University	1= Service Quality 2= Computer facilities 3= Library 4= studying cost 5= Campus infrastructure 6= The programmes 7= the Lecturers 8= academic reputation 9= Other……..
10	On a scale of 1 to 10 where 1 represents "Definitely will recommend" and 10 represents "Definitely will not recommend, How likely you to recommend the University to a friend or relative are?	Definitely will Recommend …… Definitely will not Recommend 1 2 3 4 5 6 7 8 9 10

11	How will you rate the service quality of the University?	1= Excellent 2= Very Good 3= Good 4=Fair 5= Poor 6= No comment
12	What does Quality service means to you? (choose more than one if required)	1= Accurate Course Materials 2=Welcoming staffs 3= Qualified staffs 4= Time conscious staffs

Classification Questions

Please indicate the number that classifies you best

13. Level:

1	PHD
2	Masters
3	Undergraduate

14. Region of origin.

1	Europe
2	America
3	Africa
4	Asia

15. Gender:

0	male
1	Female

16. Age.

1	18-30
2	31-45
3	45 and above

Thank you for cooperation

Appendix 15: Questionnaire 2: A Retail Shop

Customer satisfaction for ICA supermarket Ålidhem Centrum shop

Hi, I am a student with USBE, I need your help to answer some questions about ICA supermarket Ålidhem Centrum for my master's project. There are few questions and can take very few minutes of your time.

Perception measures

The lists below are some of the characteristics that could be used to describe ICA supermarket Ålidhem Centrum. Using scale from 1 to 10, with 1 being strongly agree and 10 being strongly disagree. To what extend do you agree or disagree that ICA supermarket Ålidhem Centrum has

1	quality services	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
2	Shop assistance	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
3	Less queue	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
4	Welcoming staffs	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
5	Good positioning	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10

Relationship measures

6	On a scale of 1 to 10 where 1 represents "Very	Very Satisfied ……. Very Dissatisfied, 1 2 3 4 5 6 7 8 9 10

	Satisfied" and 10 represents "Very Dissatisfied, How satisfied are you with ICA supermarket Ålidhem Centrum?	
7	If you are satisfied, what gives you maximum satisfaction at ICA supermarket Ålidhem Centrum	1= Service Quality 2= prices of goods 3= the staffs 4= goods varieties 5= positioning 6= Others
8	If you are dissatisfied what gives you maximum dissatisfaction at ICA supermarket Ålidhem Centrum	1= Service Quality 2= prices of goods 3= the staffs 4= goods varieties 5= positioning 6= Others
9	On a scale of 1 to 10 where 1 represents "Definitely will recommend" and 10 represents "Definitely will not recommend How likely are you to recommend ICA supermarket Ålidhem Centrum to a friend or relative	Definitely will not Recommend Definitely will Recommend 1 2 3 4 5 6 7 8 9 10
10	How will you rate the service quality of ICA supermarket Ålidhem Centrum ?	1= Excellent 2= Very Good 3= Good 4=Fair 5= Poor 6= No comment
11	What does Quality service mean to you? (choose more than one if required)	1= welcoming staffs 2= less Queue 3= Availability of shop assistance 4= Positioning

Classification Questions

Please indicate the number that classifies you best

12. Category

1	Student
2	Non student

13. Gender:

0	male
1	Female

14. Age.

1	Less than 18
2	18-30
3	31-45
4	Above 45

Thank you for cooperation

Appendix 16: Questionnaire 3: A financial sector

Customer satisfaction for Forex customers

Hi, I am a student with USBE, I need your help to answer some questions about Forex Bank for my master's project. There are few questions and can take about some few minutes of your time.

Perception measures

The lists below are some of the characteristics that could be used to describe Forex Bank. Using scale from 1 to 10, with 1 being strongly agree and 10 being strongly disagree. To what extend do you agree or disagree that Forex has

1	quality services	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
2	Welcoming staffs	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
4	Good service time	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10
5	Accurate services	Strongly agree strongly disagree 1 2 3 4 5 6 7 8 9 10

Relationship measures

6	On a scale of 1 to 10 where 1 represents "Very Satisfied" and 10 represents "Very Dissatisfied, How satisfied are you with Forex	Very Satisfied …… Very Dissatisfied, 1 2 3 4 5 6 7 8 9 10
7.	If you are satisfied, what gives you maximum satisfaction with Forex	1= Service Quality 2= Service cost 3= Service time 4= the office infrastructure 5= the workers 6= the world wide servicing 7= Accurate service 8= Other….
8	If you are dissatisfied, what gives you maximum dissatisfaction with Forex	1= Service Quality 2= Service cost 3= Service time 4= the office infrastructure 5= the workers 6= the world wide servicing 7= Accurate service 8= Other……
9	On a scale of 1 to 10 where 1 represents "Definitely will recommend" and 10 represents "Definitely will not recommend, How likely are you to recommend Forex to a friend or relative	Definitely will not Recommend ….. Definitely will Recommend 1 2 3 4 5 6 7 8 9 10
10	How will you rate the	1= Excellent

	service quality of Forex ?	2= Very Good 3= Good 4=Fair 5= Poor 6= No comment
11	What does Quality service mean to you? (choose more than one if required)	1= Service time 2= welcoming staffs 3= accurate services

Classification Questions

Please indicate the number that classifies you best

12. Category:

1	Private
2	Business

13. Gender:

0	male
1	Female

14. Age.

1	Less than 18
2	18-30
3	31-45
4	Above 45

Thank you for cooperation

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