



Using the SERVQUAL Model to assess Service Quality and Customer Satisfaction.

An Empirical study of grocery stores in Umea.

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Abstract

Service quality and customer satisfaction are very important concepts that companies must understand in order to remain competitive in business and hence grow. It is very important for companies to know how to measure these constructs from the consumers' perspective in order to better understand their needs and hence satisfy them. Service quality is considered very important because it leads to higher customer satisfaction, profitability, reduced cost, customer loyalty and retention.

Purpose – The main purpose of this study theoretically is finding out how applicable the SERVQUAL model is in the context of grocery stores and empirically, describe how consumers (students) perceive service quality and whether they are satisfied with services offered by these stores in Umea.

Design/methodology/approach – A self-completion questionnaire was developed from the SERVQUAL instrument and distributed using a convenience sampling technique to students in the Umea University campus to determine their perceptions of service quality in grocery stores.

Findings – From the analysis carried out, it was found out that, the SERVQUAL model was not a good instrument to measure service quality because some of the items under the dimensions overlapped and regrouped under different dimensions from the factor analysis carried out. It also showed some items associated to more than one component. Some dimensions showed a reliability scale of less than 0.7 which could have been as result of the wordings used in the questionnaires or the number of items used under each dimension. Also, it was found that the overall service quality perceived by consumers was not satisfactory meaning expectations exceeded perceptions and all the dimensions showed higher expectations than perceptions of services.

Research implications – Theoretically, from the findings, it implies that the SERVQUAL model is not the best tool to use measure service quality in grocery stores because the dimensions do not best measure the construct in that context. Practical implications suggest that grocery stores in Umea are not providing the level of service quality demanded by customers. The findings suggest that grocery stores need to improve all the dimensions of service quality from the gap analysis carried out.

Originality/value – This study contributes to the already existing studies examining service quality in grocery stores using the SERVQUAL model and also provides empirical results that could guide management dealing with retail activities to take corrective actions that lead to growth in the company.

Key words – SERVQUAL, Service quality, customer satisfaction, grocery stores

Summarily, in this research work, the SERVQUAL model is discussed and how it can be applied in the context of grocery stores in assessing service quality. Data was collected from the students in Umea University, Sweden in order to assess their expectations and perceptions of services received. After an extensive literature review, the SERVQUAL model was modified by adding an additional dimension (products) to the five dimensions because products form a core dimension for consumers shopping in grocery stores in order to assess service quality customer satisfaction. The discrepancy

between expectations and perceptions (Perception – Expectation) formed the gap scores that were used to assess service quality and customer satisfaction. Negative gap scores show that service quality is perceived poor and hence no customer satisfaction while positive gap scores show that higher service quality and hence customer satisfaction. From the study, it was found that overall service quality was perceived low (-0.7932) meaning expectations exceeded perceptions of services.

The implications of using this model in assessing service quality and customer satisfaction from the consumer's perspective include knowing about customers' perceptions on service quality, trying to meet and manage customers' expectations, improving quality management by identifying areas that have weaknesses in terms of satisfying customers' needs.

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CHAPTER 1: INTRODUCTION

In this chapter, we will discuss the service quality concept, its importance for practitioners and academicians. We will relate service quality to other quality concepts such as product and image quality. Also, we will discuss how the concept is being measured and outline various models of service quality and introduce the SERVQUAL model in particular. We will discuss about its attributes and gaps, in what contexts has the model been used and the pros and cons when using this model in measuring service quality. Also, we discuss customer satisfaction and how it is been related service quality.

Furthermore, we will introduce our empirical context by highlighting why it is of particular interest to study service quality and customer satisfaction in grocery stores and why we choose to use the SERVQUAL model for our research. These will then lead us to clearly stating our research questions and research purpose in order to have a roadmap for our study.

1.1 General Discussion of Concepts

According to Asubonteng et al., (1996), due to intense competition and the hostility of environmental factors, service quality has become a cornerstone marketing strategy for companies. This highlights how important improving service quality is to organisations for their survival and growth since it could help them tackle these challenges they face in the competitive markets. This means that service-based companies are compelled to provide excellent services to their customers in order to have a sustainable competitive advantage. There is however, a need for these organisations to understand what service quality is in order to attain their objectives.

In service marketing literature, service quality is generally defined as the overall assessment of a service by the customers, (Eshghi et al., 2008, p.121) or the extent to which a service meets customer's needs or expectations, Asubonteng et al., (1996). Parasuraman et al., (1985) define service quality as *"The discrepancy between consumers' perceptions of services offered by a particular firm and their expectations about firms offering such services"*. If what is perceived is below expectation, consumer judges quality as low and if what is perceived is meets or exceeds expectation then consumer sees quality to be high. Critical component of service quality identified are; consumer's expectation which is seen as what they feel service provider should offer and this is influenced by his/her personal needs, past experience, word-of-mouth and service provider's communications, Parasuraman et al., (1985, p.49). However, this meaning of expectation is that of service quality literature which is different from expectation in the customer satisfaction literature which defines expectation as predictions made by consumer about what is likely to happen during an impending transaction. Consumers' perception of performance is what he/she experiences, (Parasuraman et al., 1988, p.17). Generally, it is interesting to study expectations and experiences of consumers in many different contexts. It is of particular interest to study these concepts in the context of grocery stores because grocery stores play an instrumental role in the lives of people and it is primordial for firms to know what

consumers expect and perceive from these stores. Therefore, in this study, we will define consumer's expectation as what consumers think should be offered by the ideal grocery stores while consumer's perception will be defined as what they experienced in the grocery stores and this is assessed after the performance. In addition, service quality is mainly focused on meeting the customer's needs and also how good the service offered meets the customer's expectation of it. It is however difficult according to previous studies to measure service quality because of its intangible nature and also because it deals with expectations and perceptions of consumers which is difficult as well to determine due to the complexity of human behaviour.

According to Douglas & Connor, (2003, p.166), Parasuraman et al., (1985, p.42), and Ladhari, (2008, p.172), the intangible elements of a service (inseparability, heterogeneity and perishability) are the critical determinants influencing service quality perceived by a consumer. This means that a service must be well defined by the provider in terms of its characteristics in order to understand how service quality is perceived by consumers. According to Johns, (1999, p.954), a service could mean an industry, a performance, an output, an offering or a process and it is defined differently in various service industries. The differences in service industries are based on the characteristics of service which include; intangibility, heterogeneity, perishability and inseparability. Intangibility means there is no physical product, nothing to be touched, tasted, smelled or heard before being purchased and this therefore means that it is difficult for consumer to understand the nature of what they receive. An example would be a telecommunication company offering mobile services to consumers; here the consumer makes just calls and does not receive any physical product. In grocery stores, it is very difficult to evaluate intangibility because their activities are centered on the physical products. This means that service providers must try to determine the level of intangibility of services and try to include tangible elements that could aid understanding of expectation from the consumer's perspective (Beamish & Ashford, 2007, p.240). Heterogeneity means that, difference which comes in at the level of delivery of service due the difference in human behaviour of those offering services and the consumer. Example occurs when a salesperson offers assistance to one customer at the counter, that same person cannot offer exactly the same thing to the next customer because of differences in behaviours. This is why it is difficult to determine the quality and level of service provided since consumers and service providers are different, the same consumer could act differently with the same service provider (Beamish & Ashford, 2007, p.241). Perishability means that, since services are produced and consumed at the same time implying they cannot be stored for later usage. If the service is not used then, it cannot be used again. This does not however hold in every service industry (Beamish & Ashford, 2007, p.241). An example occurs when a person books a hotel room for a night and does not use it, no other person can use at that same time. Inseparability means services are consumed as they are purchased. An example is seen when a consumer is making a telephone call, he/she consumes the service while paying the charges. This implies that the consumer is involved in the production and delivery of

the service meaning he/she takes special note of what is actually produced by the service provider (Beamish & Ashford, 2007, p.240).

These above mentioned aspects of service make it very difficult measure service unlike product quality which is measured objectively using factors such as durability and number defects because of its tangible nature quality (Parasuraman et al., 1988, p.13). Gronroos, (1982, p.36-43), developed the first model to measure service quality. He identified three components of service quality; the technical quality is concerned with what is delivered (outcome), the functional quality deals with the process of service delivery (how it is delivered) and the image quality which is identified as corporate image of company resulting from both technical and functional qualities of service components. The technical quality component of products unlike services is easy to assess because they are concerned with tangibility (servicescape) such as physical features that are visible to the consumer. Servicescape is defined as the physical facilities of a service company and this concept is related to the SERVQUAL model in that the tangible aspects of the physical environment are covered in the SERVQUAL model. Servicescape therefore plays a great role in that it influences customers' evaluations of other factors determining perceived service quality like empathy, reliability, responsiveness, and assurances (Reimer & Kuehn, 2004, p.785). William & Dargel, (2004, p.310) further suggest that, servicescape is more in service setting because of the unique characteristics of services (intangibility, perishability, inseparability and heterogeneity). Summarily, servicescape is very important in the delivery of services and affects perceived service quality which further leads either customer satisfaction or not.

Service quality is an important area to academicians because of its relevancy to service companies and therefore many researchers have tried to develop various models to measure it, even though some claim it is hard to measure because of its intangibility which is hard to quantify (Eshghi et al., 2008, p.121); (Douglas & Connor, 2003, p.171). This is why as services are intangible in nature, evaluating the customer's perception of quality can be done through the interaction with the personnel offering services, (Magi & Julander, 1996, p.35). From their suggestion, interaction between consumer and service provider is very important when measuring service quality because through that interaction, the service provider could easily understand the consumer better and identify what he/she exactly wants.

Sureshchander et al, (2002, p.373) state that "*The veritable gains of a quality revolution come only from customer delight, which again to a very great extent depends on the customer's perceptions of overall service quality.*" This is why it is very imperative to understand how consumers perceive service quality and how these perceptions could affect their repurchase behaviour because through this way organisations can be able to identify whether or not gaps exist and do take corrective actions to improve upon their activities. In this way, organisations can implement appropriate quality systems which could result to customer satisfaction. Service quality is an important area for practitioners because according to (Douglas & Connor, 2003, p.167), (Saravanan &

Rao, 2007, p.435) the need for survival and growth in ever increasing competitive markets are main critical factors in the search for providing superior service quality and achieving customer satisfaction. Researchers have proven that providing good service quality to customers retains them, attracts new ones, enhances corporate image, positive word-of-mouth recommendation and above all guarantees survival and profitability, Negi, (2009); Ladhari, (2009).

Various models have been developed to measure service quality following these approaches either attitude-based measures or disconfirmation models. According to (Shahin, p.2), it is very important to measure service quality because it allows for comparisons before and after changes, identifies quality related problems, and helps in developing clear standards for service delivery.

The SERVPERF model developed by Cronin & Taylor, (1992), uses the performance approach method which measures service quality based on customer's overall feeling towards service. This model is good to measure service quality but does not provide information on how customers will prefer service to be in order for service providers to make improvements.

Teas, (1993), developed the Evaluated Performance model which measures the gap between perceived performance and the ideal amount of a dimension of service quality, rather than the customer's expectation. This was to solve some of the criticism of some previous models Gronroos, (1984); Parasuraman et al., (1985, 1988).

Parasuraman et al., (1985), developed a model of service quality after carrying out a study on four service settings: retail banking, credit card services, repair and maintenance of electrical appliances, and long-distance telephone services. The SERVQUAL model represents service quality as the discrepancy between a customer's expectations of service offering and the customer's perceptions of the service received Parasuraman et al., (1985). This makes it an attitude measure. What this model strives to measure exactly is the consumer perception of the service quality which depends on the size of the gap between expected service and perceived service which in turn, depends on the gaps under the control of the service provider such as delivery of service, marketing, (Parasuraman et al., 1985). This measurement of service quality is based on both on how consumer evaluates the service delivery process and the outcome of the service, (Parasuraman et al., 1985, p.42). A good service quality is considered as one which meets or exceeds consumer's expectation of the service (Parasuraman et al., 1985, p.46).

The SERVQUAL model was made of ten dimensions of service quality when created; tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer, and access, Parasuraman et al., (1985, p.47-48) but later on these dimensions were reduced to five because some dimensions were overlapping (communication, credibility, security, competence, courtesy, understanding customers and access) and they included, Tangibles- physical facilities, equipments, and staff appearance. 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, individual attention the firm provides its customers (Parasuraman et al., 1988, p.23).

These dimensions mainly focus on the human aspects of service delivery (responsiveness, reliability, assurance, and empathy) and the tangibles of service. According to study carried out by Ladhari, (2009), it is recommended that the SERVQUAL model is a good scale to use when measuring service quality in various specific industries but that it is appropriate to choose the most important dimensions of this model that fit to that particular service being measured in order to assure reliable and valid results. In this regard, we will use this model because it takes into account customer's expectation of a service as well as perceptions of the service which is best way to measure service quality in service sector (Shahin, 2005, p.3).

Buttle, (1996, p.8) makes mentions of several researchers that have used the SERVQUAL model in various industries (retailing, restaurants, banking, telecommunication industry, airline catering, local government, hotels, hospitals, and education). He further suggests that service quality has become an important topic because of its apparent relationship to costs, profitability, customer satisfaction, customer retention and positive word of mouth and it is widely considered as a driver of corporate marketing and financial performance. In our study, we are more interested in service quality and customer satisfaction by using the SERVQUAL model to assess them in grocery stores.

Service quality and customer satisfaction have received a great deal of attention from both scholars and practitioners because of their relevancy and relationship according to Eshghi et al., (2008) and the main reason for focusing on these issues is improving overall performance of organisations (Magi & Julander, 1996, p.40).

Customer satisfaction has been studied by some researchers using a single item scale Cronin & Taylor, (1992) means customer's overall feeling towards a service is asked to measure satisfaction while others use a multiple item scale Parasuraman et al., (1985, 1988) satisfaction is measured using various dimensions for example the SERVQUAL dimensions. Customer satisfaction is defined as a function of the customer's expectations and perceptions of performance according to the expectancy - disconfirmation paradigm (Tse & Wilton, 1988) and it is a construct closely related to perceived service quality (Magi & Julander, 1996, p.34)

Various studies that focused on a link between satisfaction and quality argued for different views in terms of relationship. Some think that quality leads to satisfaction, McDougall & Levesque, (1996, 2000); Negi, (2009) and others support that satisfaction leads to quality (Cronin & Taylor, 1992). Some researcher propose that quality and satisfaction are determined by the same attributes like Parasurman et al., (1988, p.16) tried to relate customer satisfaction to service quality since what SERVQUAL model struggles to measure is attitude. They see customer satisfaction as transaction specific meaning consumers get satisfied with a specific aspect of service while perceived

service quality is a global judgement or attitude to a service. Negi, (2009) clearly points out that overall service quality is significantly associated with and contributes to the overall satisfaction of mobile subscribers. Customer satisfaction is based on the level of service quality delivered by the service providers (Saravanan & Rao, 2007, p.436) which is determined by the consumer's cumulative experiences at all of the points of contact with company (Cicerone et al., 2009, p.28). This shows that there is some link between service quality and customer satisfaction which highlights that importance of customer satisfaction when defining of quality (Wicks & Roethlein, 2009 p.83). These studies all confirm a relationship between service quality and customer satisfaction but according to (Asubonteng et al., 1996, p.66) there is no agreement on the exact kind of relationship between the two constructs and points of out that most researchers agree that service quality and customer satisfaction have attributes that are measurable. This is why we shall use the SERVQUAL instrument with its dimensions to measure these concepts (service quality and customer satisfaction) and for the fact that service quality leads to customer satisfaction according to Negi (2009), we will make that assumption in our research in order to measure customer satisfaction.

1.2 Need for the Study

Service organisations have begun focusing on the customer perceptions of service quality because it helps in developing strategies that lead to customer satisfaction Saravanan & Rao, (2007, p437). According, to Gummesson, (1994), there has been a shift from the focus on goods without much emphasis on services to a focus on services though paying attention on the goods. This stresses the importance of service marketing to most service industries. This is why retailing, like most services perceived service quality has been of high interest to researchers Magi & Julander, (1996, p.33).

Our study focuses on grocery stores which are stores that carry out retailing activities since they deal with the sales of goods and also offer services to their customers in the event of selling goods. Services offered by retailers are facilitating services which could include; sales assistance and direct selling of goods. The grocery stores play a vital role in the lives of every individual because they provide goods and services of various categories in order to satisfy their needs. There has been a huge concentration on grocery sales in the Nordic countries (Sweden, Norway, Denmark and Finland) compared to other European countries because four main biggest retail chains control the entire grocery market, Einarsson, (2008). The Swedish food retailing sector has been experiencing increasing growth from 1991 to present date (Statistics Sweden, 2010). It consisted of small and medium-sized independent and local stores in the early days but now dominated by big companies like ICA and Coop having their retail chains in most parts of Sweden. The retail food industry is considered highly competitive and challenging Huddleston et al., (2009, p.63); Brown, (2001, p.53) in this light, we think the grocery stores in Sweden are facing intense competition which could be associated with the fact that they offer similar products and services to their customers. Due to the competition faced by these grocery stores, it is crucial for retailers to gain a better understanding of the grocery consumer (Carpenter & Moore, 2006, p.435) in order to

attract and maintain them (Brown, 2001, p.53). This competition faced by these retail businesses has led them in seeking ways to be profitable through differentiating themselves in their activities. This is why there is a need for these retailers to measure service quality because some consumers consider quality aspects of goods and service when doing their purchasing. This also will enable service providers to identify the key items of service quality by assessing the perceptions of consumers and finding out which items or dimensions need improvements in case of any weaknesses.

After carefully analysing various research studies conducted so far using the SERVQUAL model, we realise that many research works have been carried in different service industries such as telecommunication, education, restaurants, banking, health care, etc, but limited empirical study has been conducted using the SERVQUAL model to assess service quality in grocery stores. We consider grocery stores as part of the service industry because they deal with retailing of goods to consumers and in the course of retailing these goods they offer services in order to facilitate the shopping experience of consumers. According to Abu, (2004, p.634), very limited research has been carried to adopt the SERVQUAL model in the retail setting and points out just Dabholkar et al., (1996) who attempted but did not succeed. He thinks service quality in the retail sector should include measure of both service quality and product quality as retail stores offer a mix of services and products. In the case of Sweden, (Magi & Julander, 2009, p.33-41) carried a study on grocery stores to find out the relationship between perceived service quality, customer satisfaction and customer loyalty. From this study, it was proven that perceived service quality had a positive relationship with customer satisfaction and we think this supports our argument of linking service quality and customer satisfaction. They did not use the SERVQUAL model but rather the performance only scale to assess service quality. We therefore think using the SERVQUAL model would be a contribution to existing research on grocery store context. This is our research gap and in order to fill the gap, we will try to measure service quality and customer satisfaction using the SERVQUAL model from the consumer's perspective in order to know their perceptions.

1.3 Research Questions

The main issues we are addressing in this research are service quality and customer satisfaction using the SERVQUAL model in grocery store context. We are interested in the dimensions of service quality from the consumer's perspective through assessing their expectations and perceptions of service quality. We therefore will like to answer the following questions in our study;

- *How do consumers perceive service quality in grocery stores?*
- *Are consumers satisfied with service quality offered by grocery stores?*

1.4 Research Purpose

The main purpose of this study is to test the SERVQUAL model in the context of the grocery stores in order to know its applicability the measurement of service quality and customer satisfaction. This is will be done by investigating the reliability and validity of

the SERVQUAL model in grocery store environment. This will be a theoretical contribution for better understanding the SERVQUAL model.

This study is also aimed at determining the overall service quality perceived by consumers in grocery stores and identify those dimensions that bring satisfaction to consumers. This will enable grocery retailers to identify the most effective ways of closing service quality gaps and choose which gaps to focus on. This will be achieved by measuring the customer expectations and performance on the various SERVQUAL dimensions hence evaluating the gap scores obtained between the consumer's expectations and perception of service experienced. This will also enable us to identify strengths and weaknesses in service quality of grocery stores.

Summarily, our goal is to understand both the expectations and perceptions of customers and also measure them from their perspective in order to identify gaps in delivering service quality in order to ensure customer satisfaction.

1.5 Delimitation of study

We have to define our scope of research in order to make things clear. We are focusing our study on grocery stores in Umeå. Grocery stores will include those of all sizes be it small or big. We are interested in evaluating how consumers perceive service quality in these grocery stores in general. Even though size of grocery store matters in choice of grocery stores, we assume that most of these stores offer similar retailing assistance to their customers. We are focusing solely on grocery stores and not on retail outlets that offer similar support as grocery stores. This study is limited to grocery stores in Umeå because our sample is drawn from those living in Umeå and do have experiences with grocery stores in the town. In this study, the word consumers' will refer to students in Umeå University who can be considered customers as well.

1.6 Disposition of thesis

This is an outline of the thesis. This gives a summary of each chapter of the thesis.

Chapter 1: Introduction

The aim of this chapter is to introduce our topic to the read. In this chapter, we are discussing and defining the relevant concepts related to our topic like service quality, SERVQUAL model, expectations and perceptions, customer satisfaction. Also, the need for our study is introduced in order to get a clear idea of our study and what it is focused on. Here, we identified our research gap and thereby setting our research questions and purpose as the road map of our study. We are interested in using the SERVQUAL model to assess service quality and customer satisfaction on grocery stores. The research questions raised are; how do consumers perceive service quality in grocery stores and are they satisfied with the services offered by these stores? By answering these questions, we will attain our objectives which theoretically trying to find out if the SERVQUAL is applicable in the context of grocery stores and also identifying what dimensions of service quality are consumers satisfied with in grocery stores and hence finding out the overall perceived service quality and customer satisfaction.

Chapter 2: Methodology

The purpose of this chapter is to present, discuss and argue for our choices made in designing the research framework of this study. We are carrying a quantitative study and our research design is cross-sectional design in which we will collect data from our respondents using self-completion questionnaires in order to make our study very objective. We are not interested in comparing grocery stores but rather trying to measure service quality and customer satisfaction from the customers' perspective. In this regard, we will be able to answer our research questions using this approach. We are basing our study on a model which has been designed already and this model called the SERVQUAL model will enable obtain answers from consumers about their perceptions and we assume the phenomena, service quality and customer satisfaction we are studying already exist out there and the consumers are aware of them.

Our choice of respondents is students from the University of Umeå and we choose those who have enough experience with grocery stores in Umeå. Data collected from these respondents will be analysed using SPSS software and thereafter, we will be able to answer our research questions.

Chapter 3: Theory

In this chapter, we present all the concepts that are important to our study. Concepts such as service, quality, product quality, service quality, customer satisfaction, customer's expectations and perceptions are discussed. Also, a proper explanation of the SERVQUAL model is outlined in this chapter. The various dimensions (tangibles, reliability, responsiveness, assurance, empathy) of the SERVQUAL model are discussed. Models measuring service quality and customer satisfaction are discussed as well. We try to bring out the relationship between service quality and customer satisfaction. The main reason for covering this chapter is to enhance our understanding of the main theories involved in our study and to answer our research questions.

Chapter 4: Empirical observation

This chapter sheds more light to the methodology chapter. In this chapter, we mainly discuss how we carried our study, also talked about the measurement of the constructs, the way we coded our data collected.

Chapter 5: Empirical results and analysis

This chapter discusses the data collected from the field that would enable us answer our research questions. The data collected was mainly based on respondents' expectations and perceptions of the various items under the SERVQUAL model. Also, some demographic description of the respondents was collected. A general description of the consumers' expectations and perceptions of the various dimensions was done using descriptive statistics. Also, gap score analysis was carried based on the difference between the expectations and perceptions ($P - E$) in order to assess service quality and customer satisfaction. The use of theory was necessary in this chapter in order to answer

our research questions. Factor analysis was done in order to find out if the SERVQUAL model is good for measuring service quality in grocery stores.

Chapter 6: Conclusions

In the final chapter, a summary of the findings are outlined and thereby providing answers to our research questions. We also, discuss about theoretical and managerial implications and possible recommendations from our findings. The limitations and suggestions for further research are mentioned in this chapter.

CHAPTER 2: METHODOLOGY

This chapter involves presenting and motivating the choice of method of collecting and analyzing data, from both a theoretical and practical point of view, compared to the relative advantages and disadvantages of other alternative methods that may be more or less appropriate to the context of the study.

2.1 Choice of Study

Grocery stores cater for everybody's needs because they retail food items and other consumer goods which individuals cannot do without. This pinpoints the importance of grocery stores and the role they play in the economies of countries. These grocery stores have undergone many changes over years with the evolution of technology and changing characteristics of consumers. Consumers' needs do change constantly and so there is a need for retail stores offering grocery items to constantly study their consumers and identify their needs and satisfy them.

Due to innovative technology and other global challenges, these grocery stores are now striving hard to offer better goods and services to their customers in a profitable way. Grocery stores face competition among themselves because of the similar products and services they offer. This why there is a need for these retailers to focus in delivering superior service quality to achieve high levels of customer satisfaction.

Competing services often become similar in design and, as buyers become more aware of service quality dimensions, they also become more price sensitive and value oriented (Bojanic & Rosen, 1994, p.3). This clearly highlights the impact of service quality in grocery stores dealing with retailing activities. It is very vital to measure service quality and find out how consumers perceive it in order know dimensions that need improvement in case weaknesses are found. In order to do this, firms must know what service quality is and how it is measured so that data can be used for quality management.

This is why we chose to use the SERVQUAL instrument to enable us to assess service quality in grocery stores. This model seeks to know the difference between consumers' expectations of how grocery stores should be like and their perceptions in terms of performance in grocery stores visited using various dimensions (tangibles, reliability, responsiveness, assurance and empathy). Trying to meet or exceed consumer expectations helps grocery stores to maintain a high quality image. This shows the relevance of knowing much about the consumers' perceptions by grocery stores in order to survive in a competitive environment.

We chose to focus our study on service quality because it plays an important role in most service firms and it is antecedent to other constructs customer satisfaction, profitability, customer loyalty and repurchase. All these concepts help companies have a competitive advantage in case they have a proper understanding of service quality and how it is measured.

2.2 Research Philosophy

The decision to use quantitative or qualitative methods is dependent upon the assumptions concerning the nature of knowledge and reality, how one understands knowledge and reality, and the process of acquiring knowledge and knowledge about reality. We make certain assumptions concerning knowledge and reality, which enables us to choose a particular research approach and these assumptions shape the research process, from the methodology employed to the type of questions asked (Hathaway, 1995). Considering our subject matter, we need to clarify what our epistemological and ontological assumptions are so that we can be able to decide on the exact method to approach our research work.

2.1.1 Ontological Assumptions

Ontology refers to assumptions held about the nature of social reality that is, whether reality is objective and external to the individual, or whether it is subjective and cognitively constructed on an individual basis (Long et al., 2000). It involves what exists in the world. These positions are frequently referred to respectively as objectivism and constructivism.

Objectivism is an ontological position which states that, social phenomena confront us as external facts that are beyond our reach or influence. This means that social phenomena and the categories that we use in everyday discourse have an existence that is independent or separate from actors (Bryman & Bell, 2007, p.22).

Constructivism is an alternative ontological position which asserts that social phenomena and their meanings are continually being accompanied by social actors. Realities are constructed by the social actors (Bryman & Bell, 2007, p.23). According to Bryman & Bell, (2007, p.24), categories that people employ in helping them understand the world are considered social products, in which are meanings are constructed in and through interaction.

In relation to our study, we believe that there is a reality that can be apprehended or perceived; customer satisfaction and service quality do exist out there and are external to the consumers that perceive these realities. This tilts our study towards an objectivist way of looking at social phenomena. It is a clear fact that companies strive hard to improve service quality and customer satisfaction. We are convinced that satisfaction could be one of the imminent effects of good service quality. These realities of service quality and customer satisfaction can be captured out there by trying to find out how consumers perceive service quality thus resulting to customer satisfaction. We will use structured questions developed from the SERVQUAL model in which respondents will choose their answers from. Through this method, we will be very objective in our study and thereby answer our research questions and attain our objectives. We are not seeking to understand each respondent's perceptions but rather get a general answer on consumers' perceptions and expectations by using an already designed model. We are going to classify perceptions into levels where each respondent identifies the range where he/she belongs by using the likert scale.

2.2.2 Epistemological Assumptions

Epistemology can be defined in a broad sense as the study of knowledge (Bryman & Bell, 2007, p.16). In the extremes, knowledge can be viewed as objective and theoretically accessible to all, or else subjective and dependent on individual experience (Long et al., 2000). The conflicting issue with epistemology is whether or not the social world should be studied according to the same principles, procedures and ethos as the natural science (Bryman & Bell, 2007, p.16). Positivism advocates the application of the methods of natural science to the study of social reality and beyond. According to Bryman & Bell, (2007, p.16) positivism can entail the following principles;

- The principle of phenomenalism which states that only phenomena and hence knowledge confirmed by the senses can 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.

According to Bryman & Bell, (2007, p.17) some writers influenced by different intellectual traditions think that interpretivism which contrasts positivism shares a view that the subject matter of the social sciences – people and their institutions is fundamentally different from that of the natural science. This implies that studies of the social world require an approach that differentiates humans against the natural order.

In a nutshell, interpretivism is concerned with the empathic understanding of human action rather than the forces that act on it while positivism lays emphasis on the explanation and understanding of human behavior (Bryman & Bell, 2007, p.18).

In this study, we will follow a positivist view of epistemology. We are going to assess customer satisfaction in grocery stores using the SERVQUAL model basing on previous studies from where we obtain more knowledge. This topic is dealing with social phenomena, which are service quality and customer satisfaction from the customers' point of view. This knowledge will be developed through an objective measurement using the measurable dimensions of service quality as proposed by Parasuraman et al., (1988). Service quality and customers' satisfaction are realities that exist outside the researcher's mind and we are trying to study these using methods of natural science. There is connection between theory and research in our study implying that we will collect observations in a manner that is influenced by pre-existing theories. However, we have to take an epistemological stand because some pre-existing theories are not genuinely scientific and must be applied in observations. We are interested in finding out if the SERVQUAL model is applicable in the grocery store context and identifying

what dimensions of service quality consumers are satisfied with. Taking a positivist view will enable us attain our objectives mentioned earlier.

From our positivist view, we the researchers and the objects of investigation (respondents) are independent from each other and they will be investigated without being influenced by the researcher. We will limit interaction with the respondents to mere handing of the questionnaires to respondents in order to make the findings fully dependent on the respondents.

2.3 Research Approach

Research approaches that involve the relationship between theory and data are deductive and inductive approaches (Bryman & Bell, 2007, p.11). We are going to carry out a deductive study which represents the commonest view of the nature of the relationship between theory and research. Here the researcher deduces a hypothesis (problem) on the basis of what is known about a particular domain and of theoretical consideration that must be subjected to empirical scrutiny (Bryman & Bell, 2007, p.11). Hypothesis are deduced (or problems) are identified from concepts and then translated into operational terms implying researcher must specify how data can be collected in relation to the concepts that make up the hypothesis (Bryman & Bell, 2007, p.11).

In our case, the theory and the problem derived from it come first and this leads to the process of collecting data. We use the deductive approach between our research problem comes from existing theories. The theory used is from the SERVQUAL model which measures the gap between expected service and perceived service and our problem is finding out if it is applicable in measuring service quality in grocery stores, from this model, we are able to collect data on the expectations and perceptions of consumers that will give results to our research questions on how consumers perceive service quality and what dimensions consumers are satisfied with. There after, we obtain solutions to the problem and make necessary improvements.

The SERVQUAL model is used as main concept to assess service quality and customer satisfaction. This means that customer satisfaction could be measured using the various service quality dimensions. This is because it is important to be aware of how customers perceive service quality in grocery stores and the factors that affect these perceptions. The SERVQUAL model has apparently not been used to measure service quality and customer satisfaction in the grocery stores in Umeå, it is necessary for us to close this research gap. This will also enable us to assess the applicability of the SERVQUAL model in this context. We will also like to identify what dimensions of service quality the grocery customers in Umeå they are satisfied with from the established dimensions by Parasuraman et al., (1988). These questions will be answered using quantifiable data collected from respondents and will enable us come out with findings and conclusions on how customers perceive service quality and what dimensions bring satisfaction to them.

2.4 Research Strategy

Quantitative and qualitative strategies are the two main strategies used in research. Quantitative strategy emphasizes quantification in the collection and analysis of data and it entails a deductive approach to the relationship between theory and research, in which theory is tested. It assumes a natural scientific model of positivism in particular and involves a view of social reality as an external, objective reality (Bryman & Bell, 2007, p.29).

Our research strategy is quantitative in nature. We use this strategy because it is appropriate to answer our research questions. This strategy will permit measure our variables derived from the SERVQUAL model adequately and come out with fine differences between people in terms of assessing their perceptions about service quality. This will also give us a yardstick for making these distinctions and also provide the basis for more precise estimates of degree of relationship between variables. This gives the research findings high reliability and validity. We use this strategy not only to describe the various attributes of the SERVQUAL model and their importance to customers but also why they consider these attributes to be important to them. Quantitative strategy is used because our findings could be generalized to the particular context in which our study is conducted. Quantitative strategy is mainly scientific which means we will consider our biases and values in order to make our findings replicable.

2.5 Research Design

A research design provides a framework for the collection and analysis of data. A choice of research design reflects decisions about the priority being given to the following; expressing causal connections between variables, generalizing to larger groups of individuals than those actually forming part of the investigation, understanding behavior and meaning of that behaviour in its specific social context and having a temporal (i.e. over time) appreciation of social phenomena and their interconnections (Bryman & Bell, 2007, p.40).

There are five different types of research designs: experimental design; cross-sectional or social survey design; longitudinal design; case study design; and comparative design (Bryman & Bell, 2007).

Cross-sectional design which we are using for our study, entails the collection of data on more than one case (usually quite a lot more than one) and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables (usually many more than two), which are then examined to detect patterns of association (Bryman & Bell, 2007, p.55).

This design considers more than one case because it is interested in the association between cases, at a single point in time meaning data are collected on variables simultaneously. Data must be quantifiable in order to establish variation between cases. This design also allows examination of relationship between variables and no causal inference can be established because data is collected simultaneously and the researcher cannot manipulate any variables (Bryman & Bell, 2007, p.55).

We choose this design because a lot of research works have been done on subjects that relate to our topic, service quality and customer satisfaction. This has been a problem for us to be able to delimit our work uniquely but this will be useful to us in designing questionnaires. It enables us to be able to identify and categorize our variables which eases our design of questionnaires such that they can capture all the data we need from the respondents. We are studying grocery stores in Umea, and we will be approaching the respondents to find out their perceptions of service quality in grocery store experiences based on the dimensions of the SERVQUAL model. This enables us to assess how the respondents perceive service quality in grocery stores in a quantitative way and thereby make conclusions by evaluating their gap score means.

The dimensions of the SERVQUAL model used for measuring service quality (Parasuraman et al., 1988) are efficiently exploited when we carry out surveys, since it deals with expectations and perceptions of individuals about services offered by retailers. For us to know how customers perceive service quality, it is appropriate to use self completed questionnaires which give the respondents a chance to independently and anonymously give answers that reflect their expectations and perceptions. This questionnaire is developed from the SERVQUAL model and this makes it objective and not bias.

In business research, it is hardly possible to control or manipulate a variable which is a good reason to count on social survey. Variables like gender, age, and social background are given and cannot be amended (Bryman & Bell, 2007, p.58). This makes it totally unfeasible to use the experimental design and we resort to the social survey.

2.6 Data Collection Method

Both primary and secondary data sources will be used to answer research questions. Primary data will mainly be obtained through the administering of questionnaires while secondary sources like past studies and archives will be accessed from various databases like Emerald, Business source Premier, and Umeå University database in order to obtain some reliable literature and empirical findings that can be applied in order to have a better understanding the service quality construct and how the SERVQUAL model can be used to measure it.

2.6.1 Selection of Sample

Our study is being carried out in Umeå and we are interested to find out about how students from the University perceive service quality in grocery stores. This means our sample is from the students of the Umea University. Umea University has a population of approximately 33 000 students of which of which more than 9000 of these are taking courses through distance education or off-campus (Umeå University, 2009) giving a total of about 27 000 students studying on campus. We are going to sample 180 students from this population coming from any nationality around the world. This is because the examination of cases will enable us to identify distinctive features through the exploration of the similarities and contrasts between these cases (Daymon & Holloway, 2002, P. 108). Also we think that using the students will produce valuable knowledge to grocery businesses in Umeå because of the 114 075 (Umeå University, 2009)

inhabitants, 27 000 are students in the Umeå University not considering other institutions of learning. This is a good market force that is worth researching on because they form a segment that grocery stores could target.

2.6.2 Choice of respondents

As mentioned earlier our study is focused on the students of the Umeå University. We are going to use a convenience sampling technique to select our respondents. By convenience sampling technique we refer to a technique that goes for the sample that is available in the light of easy access (Bryman & Bell, 2007, p.197). We have chosen this technique because it is actually impossible for us to carry on a probability sampling because there is no point in time during which all the students are around due to variation in programs during which could collect data without bias. Also, it is not possible to contact everyone who may be sampled and expect a respondent rate of up to 50%. Considering the time, accessibility and effort it will be needed to put in place to do a probability sample it is not going to be possible for us to use a probability sampling technique.

We are going to situate ourselves in front of the main library of the University so as to be able to access a large number of students. We are going to approach any person for the completion of the questionnaire who should have had some shopping experience in a particular by asking first. Also, while sharing the questionnaires we will not be bias, we are going to give it to any student who is willing and ready to answer instantly. This is also in a bid to maximize the use of time. Since all our respondents are students from Umeå University, we think the best place appropriate to administer our questionnaires will be in the University Campus and the criteria we use to identify respondents is by asking verbally and politely if you are student at the Umeå University.

2.6.3 Primary data – Self Completion Questionnaires.

Self completion questionnaires are a useful way of collecting data. Bryman & Bell, (2007), hails the self completion questionnaires for a couple of reasons among which are:

- 1) They are cheaper to administer especially when the sample is widely dispersed then one uses postal services.
- 2) They are quicker to administer since many people can be filling them at the same time.
- 3) Respondents have some autonomy to respond to questions which avoids biases the come in when you have to talk to a particular individual.

The main drawbacks of self completions questionnaires include,

- 1) Low response rate from respondents
- 2) Some questionnaires are not completely answered.
- 3) Responses could be bias.

However, in our case, we will endeavour to overcome these drawbacks by making sure our respondents complete the questionnaires by verifying when they submit. In this way, our response rate will be high. Also, we will try to explain to the respondents the questionnaire in brief in order not to make them confuse since most of the questions in section 1 and 2 look very similar.

The questions will be structured in order to get the respondents' desires about grocery stores in Umeå (expectations) and their experiences (perceptions) in the grocery stores. Prior to general questions on the grocery stores there are questions that seek to find out customers preferences for the individual attributes of the SERVQUAL model in order to get an understanding of which attributes actually matter to the customers. Then we try to find out if they are actually satisfied with the individual attributes.

2.7 Design of Questionnaire:

We first of all had to revisit our research objectives and determine what information we need to collect the data. Our questionnaire for the survey will comprise of three parts; The first and the second part of the questions are the main parts of the questionnaire that comprises of 24 questions each aimed at finding the respondents' opinions pertaining to the expectations and perceptions of service quality in grocery stores.

The first part is aimed at measuring the expectations of the customers. These are statements that seek to describe how the state of services in the grocery stores should look like. The statements are coined in such a way that they express a desire of the respondents for a particular attribute of service quality.

The second part seeks to measure perceptions. These are also statements that are a description of particular service attributes in the grocery stores for which respondents are expected to rank these statements according to how far they think these statements apply to the grocery stores in Umea from their experience.

In this study, we will be looking forward to an average score of all the grocery stores visited by the respondents in Umea. This is because we are not doing a particular case and we do not intend to carry out a comparative study between grocery stores. We intend to know what students in Umeå expect from the grocery stores and their perceptions of the service quality in the grocery stores in Umeå. We have chosen to bring the statements that measure expectations first. We think that for some people, when they have to reflect deeply on their experiences in the grocery stores, they could go too emotional which is going to be good in responding to the statements that measure experience because when their feelings are triggered they are better able to picture their moments in the grocery stores and can best rate their experiences. These feelings are however not very important in measuring their expectations. We therefore agreed that if we place the expectations first it will be easier for them to express their wishes objectively unlike if we place them after their perceptions of performance since emotions from remembering past experiences could greatly deter the objectivity with which they express their desires.

These statements were developed by Parasuraman et al., (1988). We have not changed the original SERVQUAL instrument but we have however rephrased the statements to be context relevant so as to maintain validity as elaborated below. To ensure content validity we have added a sixth dimension, products. We have employed two statements to measure this dimension; statement 23 and 24. Statements 1 to 4 seeks to measure the tangibility aspect of the grocery stores. The reliability dimension is measured in statements 5 to 9, while the responsiveness dimension is measured in statement 10 to 13. The assurance and empathy dimensions are measured in statements 14 to 17 and 18 to 22 respectively. The last part of the questionnaire seeks to measure demographic variables.

All the questions are multiple-choice and close-ended questions. Because of being closed- ended and multiple-choice in nature the results of the questions are easy to compare, tabulate and analyze easier. Closed questions offer efficiencies to researchers. They are certainly easier to analyze and are usually quicker to administer and ask. Thus, they are often used in large samples and in self-completion interviews. The consistency in the response categories allows trends to be tracked over time if the same questions are used.

In the questions we used 7-point Likert-scale where the respondents are asked to select the most appropriate number that corresponds to extent to which they agree with a statement. The scales in our survey questions is 1 to 7 with “1” denoting “strongly disagree” and “7” denoting “strongly agree”. The original scale of Likert-type scale was developed by Rensis Likert. He reported very satisfactory reliability data for the scales. The third part of the questionnaire is the demographic part where the respondents are asked about their gender, age, level of education, frequency of shopping and average monthly expenditures in grocery stores.

2.8 Testing of the questionnaire:

The questionnaire is tested to identify whether the questionnaire is able to capture the required data as expected by the researchers. The test was conducted mainly to find out whether our questionnaire was easily-understandable as well as whether there were any vague and confusing questions in the questionnaire. Five students were approached to answer the questionnaire in the presence of the researchers. All the respondents reported that they had no difficulty in answering the questions. However, we received one general comment from two students that some of the questions were a bit wordy and long. Accordingly, the authors made necessary changes.

2.9 Data Analysis Method

We are carrying out a quantitative research and this will involve some quantitative analyses with the use of statistical tools (descriptive and inferential). There are several software packages for the analysis of quantitative data some of which are broader in scope and user friendly like the SPSS. SPSS may obviously not be the best but its user friendly nature and the mastery we have of SPSS automatically makes it better for us.

There may be spreadsheet packages that are better than the SPSS but SPSS is widely in use now also.

We have unanimously agreed to use the SPSS package for the analysis of our data. We use descriptive statistics mainly involving the mean, standard deviation, skewness and kurtosis in the data analysis. The mean simply put is the average of the sum of all values (Salking, 2009, p.2) which is representative of a distribution with several discrete or continuous variables that cannot be employed wholly. Standard deviation seeks to measure the average amount of variability in a set of scores (Salking, 2009, p.37) between values and measures. Skewness on its part is used to explain how asymmetrical a probability distribution is and the asymmetry may be to the right or to the left or it may just be asymmetrical about a value. When a distribution has values that are heavily concentrated around the mean the distribution will have a high peak and when the values are dispersed from the mean there will be a low peak of the graph and this is often referred to as kurtosis (Salking, 2009, p.62). Generally in a normal distribution the kurtosis is 3.

We are also going to try to verify if there are some variables in the SERVQUAL model that are related using factor analysis. This factor analysis will enable us find out if the SERVQUAL model is good to assess service quality in grocery store context. Factor analysis will regroup similar items under the same dimension and in case items under the same dimension according to original SERVQUAL instrument regroup under same factor, then it is appropriate to use in measuring service quality.

2.10 Ethical Considerations

We are going to treat any information we get from any individual confidentially without disclosing the respondents identity, and we are going to be as open minded as possible and express opinions as they are given. We will not modify anything and we are going to be very appreciative of all literature that has contributed in any way to our research.

CHAPTER 3: THEORY

In this chapter, we review relevant literature connected to our topic. This will involve bringing up the theories that we are using our study. We discuss issues on service quality and customer satisfaction and define relevant concepts in order to enhance our understanding of the topic and provide answers to our research questions. Summarily, this theoretical framework will enable us build a conceptual model that will be the road map for our empirical observations.

3.1 Choice of Theories

Our topic which is mainly focused on service quality, customer satisfaction and the SERVQUAL model in particular are all phenomena in reality implying the theories are based on observations perceived through a person's senses. We our research questions are how customers perceive service quality and what dimensions of service quality they are satisfied or dissatisfied with. In this regard, we prefer to use the SERVQUAL model in order to assess their expectations and perception of services. This model measures service quality by evaluating the gap between expected service and perceived service. We therefore, will discuss relevant concepts such as services, quality, customer satisfaction, models of service quality, customer satisfaction, relationship between satisfaction and service quality and measurement of service quality and customer satisfaction.

Also, we review literature on the applicability of the SERVQUAL model in various industries and thereby try to identify the relevant dimensions and items that will relate to our study. In order to obtain a better understand of service quality and customer satisfaction, we will acknowledge previous studies carried out on these constructs.

3.2 Service Concept

A study carried out by Johns, (1998, p.954) points out that the word 'service' has many meanings which lead to some confusion in the way the concept is defined in management literature, service could mean an industry, a performance, an output or offering or a process. He further argues that services are mostly described as 'intangible' and their output viewed as an activity rather than a tangible object which is not clear because some service outputs have some substantial tangible components like physical facilities, equipments and personnel.

An example is the services offered by the grocery stores, which involve mostly retailing goods to customers do have tangibles such as sales assistances, computers, self-service equipments. We consider the tangible components (servicescape) when assessing retail activities offered by grocery stores in order to better understand service activities. This is because, according to Gummesson, (1994, p.77-96), a service design which details a service, service system and the service delivery process must consider customers, staff, technology, the physical environment, and the consumption goods. In summary, it is eminent for service firms to consider the physical aspects of quality in order to offer high service quality.

In a study carried out by Gummesson, (1994, p.77-96), he identified three management paradigms; manufacturing paradigm which focuses on goods and mainly concerned with productivity technical standards, the bureaucratic-legal paradigm used mainly in the public sector is more concerned with regulations and rituals before end results. Thirdly, the service paradigm mainly focuses on service management particularly in the marketing area and stresses the importance of customer interaction with service provider in delivering service and creating value.

In his study, he lays emphasis on the service paradigm pointing out that, there has been a shift from the goods-focused to service-focused management due to automation of manufacturing and the introduction of electronics and technology. He sees service marketing moving from a normal marketing mix (focused on solely on price, product, promo and place) to relationship marketing where people, process and physical evidence adding to the 4 'P' (product, price, promotion and place) play a role in increasing an interactive relationship between service provider and consumer and long term profitability and customer satisfaction. We support this argument because, the customer is considered very important and it is very primordial for companies to improve their relationship with customers by knowing their needs and creating more value by trying innovative processes that will lead to customer satisfaction and retention. This is why it is necessary for firms to measure service quality because it enables them know more about consumers' expectations and perceptions.

Edvardsson, (1998, p.142) thinks that the concept of service should be approached from the customer's perspective because it is the customer's total perception of the outcome which is the 'service' and customer outcome is created in a process meaning service is generated through that process. He points out the participation of the customer in the service process since he/she is a co-producer of service and the customer's outcome evaluated in terms of value added and quality meaning the customer will prefer service offered to be of high value and quality. Service process is that which consists of either, delivery of service, interpersonal interaction, performance or customer's experience of service.

According to a study carried out by Johns, (1998, p.968-970), service is viewed differently by both the provider and the consumer; for the provider, service is seen as a process which contains elements of core delivery, service operation, personal attentiveness and interpersonal performance which are managed differently in various industries. While customer views it as a phenomenon meaning he/she sees it as part of an experience of life which consists of elements of core need, choice, and emotional content which are present in different service outputs and encounters and affect each individual's experience differently. However, factors that are common for both parties include; value (benefit at the expense of cost), service quality and interaction. From his study, he used supermarkets as an example of service industry and found out that supermarkets have high tangibility or visibility of output, the provider carries out a performance, level of interpersonal attentiveness is low, service staff are not core

providers, customer undertakes a transaction, level of choice is high and service environment is a key component.

As concerns our study which looks at services in grocery stores from the consumer's perspective, we consider the tangible and measurable aspects of service in grocery stores such as equipments, products, computers, personnel in order to access the intangible qualities of these services through the consumer's perception. We think from the consumer's perspective that service can be considered as an experience whereby the consumer is expected to make choice to satisfy needs in an emotional way through the interaction with service provider.

Service experience is defined by John, (1998, p.966) as the balance between choice and perceived control which depends upon the relative competences of customer and service provider (that is to make the choice or to exert control). Aspects of service experience include core benefit, performance, approaching the service, departing from it, interacting with other customers and the environment in which the service transaction takes place (servicescape),

Service interaction involves interpersonal attentiveness from the service personnel who are to provide core services and this contributes to customer satisfaction with the service offered, John, (1998, p.963).

3.3 Understanding Quality Concept

According to Hardie & Walsh, (1993, p.75); Sower and Fair, (2005, p.8); Wicks & Roethlein, (2009, p.82), quality has many different definitions and there is no universally acceptable definition of quality. They claim it is because of the elusive nature of the concept from different perspectives and orientations and the measures applied in a particular context by the person defining it. In our study, quality must be well defined in the context of grocery stores and must focus on various dimensions of both product and service. This therefore means the definition of quality varies between manufacturing and services industries and between academicians and practitioners. These variations are caused by the intangible nature of its components since it makes it very difficult to evaluate quality which cannot be assessed physical implying other ways must be outlined in order to measure this quality.

Quality has been considered as being an attribute of an entity (as in property and character), a peculiar and essential character of a product or a person (as in nature and capacity), a degree of excellence (as in grade) and as a social status (as in rank and aristocracy) and in order to control and improve its dimensions it must first be defined and measured (Ghylin et al., 2008, p.75).

Some definitions of quality pointed out by Hardie & Walsh (1994, p.53) include;

“Quality is product performance which results in customer satisfaction freedom from product deficiencies, which avoids customer dissatisfaction” – (Juran, 1985, p.5)

“Quality is the extent to which the customers or users believe the product or service surpasses their needs and expectations” – (Gitlow *et al.* 1989)

“Quality: the totality of features and characteristics of a product that bear on its ability to satisfy stated or implied needs” – International Standards Organization (ISO).

“Quality is the total composite product and service characteristics of marketing, engineering, manufacture and maintenance through which the product in use will meet the expectations of the customer” – (Feigenbaum, 1986)

“Quality is anything which can be improved” – (Imai, 1986, p. xxiii.)

“Quality is the loss a product causes to society after being shipped” – (Taguchi, 1986, p.1)

“We must define quality as “conformance to requirement” – (Crosby, 1979, p.17).

“Quality is the degree or grade of excellence etc. possessed by a thing” – (Oxford English Dictionary).

“Quality is defined as the summation of the affective evaluations by each customer of each attitude object that creates customer satisfaction”- (Wicks & Roethlein, 2009, p.90).

“Quality is the totality of features and characteristics in a product or service that bear upon its ability to satisfy needs” (Haider, 2001, p.8).

The above definitions of quality shed light in understand quality concept and point out that quality has many views. As concerns our study, quality is seen both in terms of product quality and service quality because we are dealing with grocery stores that retail goods and carry out other sales assistance services to customers. Therefore, most of the definitions are relevant to our study because they make mention of both products and services and how customers will like to become satisfied when quality is high.

Some definitions focus on the development of a set of categories of quality in multidimensional terms. An example provided by Wicks & Roethlein (2009, p.85) is that of Garvin (1988), who outlined quality into five categories: (1) Transcendent definitions. These definitions are subjective and personal. They are eternal but go beyond measurement and logical description. They are related to concepts such as beauty and love. (2) Product-based definitions. Quality is seen as a measurable variable. The bases for measurement are objective attributes of the product. (3) User-based definitions.

Quality is a means for customer satisfaction. This makes these definitions individual and partly subjective. (4) Manufacturing-based definitions. Quality is seen as conformance to requirements and specifications. (5) Value-based definitions. These definitions define quality in relation to costs. Quality is seen as providing good value in relation to cost. In this article, Garvin combines all three approaches (excellence, conformance to specifications, and customer focus) into his five definitions of quality.

According to Ghylis et al., (2008) since company managers believe that the power of quality guarantees high profits in business, companies try to understand how to keep the quality level high at every point within production, manufacturing, and even providing services. Thus, they see the product-based, user-based and manufacturing based approaches have been the most popular in reported research. We will apply the user-based approach because we are interested in finding out what dimensions of service quality in grocery stores are customers satisfied with and how they perceive this service quality.

From the above discussion, we can highlight two forms of quality; product quality and service quality which are have to be discussed in order to clearly get their differences.

3.3.1 Product Quality

Garvin (1987) suggested eight dimensions of product quality which are very important to consumers since they lay much emphasis on quality when buying among many similar products and they include; *Performance*- primary operating characteristics of a product, *Features*- 'bells and whistles' of a product, *Reliability*- probability of a product failing within a specified period of time; *Durability*- measure of a product life; *Conformance*- degree that a product's design matches established standards; *Serviceability*- speed and competency of repair; *Aesthetics*- subjective measure of how a product looks, feels, sounds, smells or tastes; *Perceived quality*- subjective measure of how the product measures up against a similar product. In the case of grocery stores, these factors play a very important role in knowing how consumers perceive service quality and therefore support in the measurement of service quality.

Technical quality refers to what the customer receives as a result of his/her interaction with the service firm and functional quality refers to how the technical components are delivered to the customer (Gronroos, 1984, p.38-39).

The importance of focusing on both technical and functional aspects of quality are being developed because there is no longer a clear distinction between a service and product since both include each other in their process according to Wicks & Roethlein, (2009, p.87). However, we will be focusing on both the functional dimension of quality and the technical aspect as well. However, the technical or physical aspect of quality for any service is hard to evaluate by the customer according to Asubonteng et al., (1996, p.64) but regard our study which focuses on grocery stores, technical quality is important since these stores deal with tangibles which are a core component in the retailing activity. This therefore means that, in order to know how consumers perceive service quality in grocery stores, we must focus on both the technical and functional aspects of quality.

Wicks & Roethlein, (2009 p.87) highlight that the definition of quality is evolving, but that the common factor throughout the evolution process is a focus on both the technical and functional aspects of quality and that in order to become world-class, organizations need a user-based definition that is more important to the customer, and a process-based definition that is more important to the manufacturer or service provider.

For this study, the definition of quality used is the user-based definition because quality is eventually evaluated by human and it is the most appropriate method to examine dimensions of quality according to Ghylis et al., (2008, p.78). This definition of quality considers quality as subjective meaning it is determined by the customer through his/her perceptions. This is also supported by the view of Muffatto & Panizzolo, (1995, p.156), who believe that the most accepted definition of quality is, defining quality as the extent to which a product and/or service meets and/or exceeds customer's expectation.

The relevance of this definition to our study is that quality is more important to the customer and this therefore means that manufacturer or service provide must consider the needs, wants and desires of customers in order to design products and services that satisfy them. This makes it possible for us to identify factors of service quality which are important to customers and not those that are merely based on management's judgement. The user-based view of quality has been particularly useful in trying to define quality in the domain of service (Schneider & White, 2004, p.10). This approach is good for services of the nature of service delivery. Our study concerns services and we think this is the best approach about quality to consider since it is used in the domain of service also because the customer's perceptive is increasingly becoming more important in determining quality (Sebastianelli & Tamimi, 2002, p.442-453).

In a nutshell, from the above definitions, it is clear that quality definition must take both an objective (measured according to specifications) and a subjective (evaluated by customer) approach.

3.3.2 Service quality Concept

Service quality is considered an important tool for a firm's struggle to differentiate itself from its competitors (Ladhari, 2008, p.172). The relevance of service quality to companies is emphasized here especially the fact that it offers a competitive advantage to companies that strive to improve it and hence bring customer satisfaction.

Service quality has received a great deal of attention from both academicians and practitioners (Negi, 2009) and services marketing literature service quality is defined as the overall assessment of a service by the customer (Eshghi et al., 2008, p.121). Ghylis et al., (2008, p.76) points out that, by defining service quality, companies will be able to deliver services with higher quality level presumably resulting in increased customer satisfaction. Understanding service quality must involve acknowledging the characteristics of service which are intangibility, heterogeneity and inseparability, (Parasuraman et al., 1985, p.42); (Ladhari, 2008, p.172). In that way, service quality would be easily measured.

In this study, service quality can be defined as the difference between customer's expectation for service performance prior to the service encounter and their perception of the service received. Customer's expectation serves as a foundation for evaluating service quality because, quality is high when performance exceeds expectation and quality is low when performance does not meet their expectation (Asubonteng et al., (1996, p.64). Expectation is viewed in service quality literature as desires or wants of

consumer i.e., what they feel a service provider should offer rather than would offer (Parasuraman et al., 1988, p.17). Perceived service is the outcome of the consumer's view of the service dimensions, which are both technical and functional in nature (Gronroos, 1984, p.39).

The customer's total perception of a service is based on his/her perception of the outcome and the process; the outcome is either value added or quality and the process is the role undertaken by the customer (Edvardsson, 1998, p.143).

Parasuraman et al, (1988, p.15) define perceived quality as a form of attitude, related but not equal to satisfaction, and results from a consumption of expectations with perceptions of performance. Therefore, having a better understanding of consumers attitudes will help know how they perceive service quality in grocery stores.

Negi (2009, p.32-33) suggests that customer-perceived service quality has been given increased attention in recent years, due to its specific contribution to business competitiveness and developing satisfied customers. This makes service quality a very important construct to understand by firms by knowing how to measure it and making necessary improvements in its dimensions where appropriate especially in areas where gaps between expectations and perceptions are wide.

In the context of grocery stores, we are not only interested in learning more about the factors associated to service quality perceived by customers and how service quality is measured but also provide a direction for improvement of service quality in order to bring customer satisfaction.

Douglas & Connor (2003, p.165-166), emphasis that the consumer who has developed heightened perception of quality has become more demanding and less tolerant of assumed shortfalls in service or product quality and identify the intangible elements (inseparability, heterogeneity and perishability) of a service as the critical determinants of service quality perceived by a customer. It is very vital to note here that, service quality is not only assessed as the end results but also on how it is delivered during service process and its ultimate effect on consumer's perceptions (Douglas & Connor, 2003, p.166).

In grocery stores, consumers regard tangible products as been very important when purchasing but the intangible elements of service quality in these stores also accounts greatly for customer satisfaction or dissatisfaction. This means there is a need to understand customer's expectation regarding service quality. Different researchers have developed models in order to get a better understanding of service quality.

3.4 Customers' Expectations compared to Perceptions

Gronroos, (1982); Parasuraman et al., (1985) have proposed that customer's perception of service quality is based on the comparison of their expectations (what they feel service providers should offer) with their perceptions of the performance of the service provider.

Parasuraman et al., (1988, p.17) point out that expectation is viewed differently in both satisfaction literature and service quality literature. In satisfaction literature, expectations are considered as 'predictions' by customers about what is likely to happen during a particular transaction while in service quality literature, they are viewed as desires or wants of consumers, that is, what they feels a service provider 'should' offer rather than 'would' offer.

For our study, we will define expectations as desires or wants of customers because this allows us to know exactly what service providers show offer and this is based on based past experience and information received (Douglas & Connor, 2003, p.167). It is important to understand and measure customer's expectations in order to identify any gaps in delivering services with quality that could ensure satisfaction, Negi, (2009). Perceptions of customers are based solely on what they receive from the service encounter (Douglas & Connor, 2003, p.167).

Our study is mainly based on this discrepancy of expected service and perceived service from the customer's perspective. This is in order to obtain a better knowledge of how customers perceive service quality in grocery stores. We are not focusing on the 1st four gaps because they are mainly focused on the company's perspective even though they have an impact on the way customers perceive service quality in grocery stores and thus help in closing the gap which arises from the difference between customer's expectation and perception of service quality dimensions.

Parasuraman et al., (1985, p.47) identified 10 determinants used in evaluating service quality; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer, and tangibles. Most of these determinants of service quality require the consumer to have had some experience in order to evaluate their level of service quality ranging from ideal quality to completely unacceptable quality. They further linked service quality to satisfaction by pointing out that when expected service is greater than perceive service, perceived quality is less than satisfactory and will tend towards totally unacceptable quality; when expected service equals perceived service, perceived quality is satisfactory; when expected service is less than perceived service, perceived quality is more than satisfactory and will tend towards ideal quality (Parasuraman et al., 1985, p.48).

3.5 Customer satisfaction

Customer satisfaction is conceptualised as been transaction-specific meaning it is based on the customer's experience on a particular service encounter, (Cronin & Taylor, 1992) and also some think customer satisfaction is cumulative based on the overall evaluation of service experience (Jones & Suh, 2000). These highlight the fact that customer satisfaction is based on experience with service provider and also the outcome of service.

Customer satisfaction is considered an attitude, Yi, (1990). In the case of grocery stores, there is some relationship between the customer and the service provider and customer satisfaction will be based on the evaluation of several interactions between both parties.

Therefore we will consider satisfaction as a part of overall customer attitudes towards the service provider that makes up a number of measures (Levesque et McDougall, 1996, p.14).

Giese & Cote, (2000, p.15) clearly state that there is not generic definition of customer satisfaction and after carrying a study on various definitions on satisfaction they came up with the following definition, “*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)*”. From this definition, is it clear that the consumer’s satisfaction is determined for his/her shopping experience in the grocery store and this is supported by Cicerone et al., (2009, p.28) and Sureshchander et al., (2002, p.364) who believe customers’ level of satisfaction is determined by their cumulative experiences at all of their points of contact with a supplier organization.

According to Huddleston et al., (2008, p.65) if the shopping experience provides qualities that are valued by the consumer then satisfaction is likely to result. This clearly pinpoints the importance quality when carrying out purchase and this relates to grocery stores that offer variety of products with different quality. Fornell, (1992, p.11) clearly defines customer satisfaction as an overall post-purchase evaluation by the consumer and this is similar to that of Tse & Wilton, (1988, p.204) who defined customer satisfaction 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. These definitions consider satisfaction as a post-purchase response and in the case of grocery stores, shopping experience is important in evaluating customer satisfaction.

According to Wicks & Roethlein, (2009, p.89), customer satisfaction can be formed through an affective evaluation process and this affective evaluation is done following the purchase experience by the consumer.

Organisations that consistently satisfy their customers enjoy higher retention levels and greater profitability due to increased customers’ loyalty, Wicks & Roethlein, (2009, p.83). This is why it is vital to keep consumers satisfied and this can be done in different ways and one way is by trying to know their expectations and perceptions of services offered by service providers. In this way, service quality could be assessed and thereby evaluating customer satisfaction.

In our study, we use customers to evaluate service quality by considering several important quality attributes in grocery stores and we think firms must take improvement actions on the attributes that have a lower satisfaction level. This means customer satisfaction will be considered on specific dimensions of service quality in order to identify which aspects customers are satisfied with.

3.6 Factors that Affect Customer Satisfaction

Satisfaction which is vaguely defined as fulfilling the needs for which a good or service was made (Merriam websters Dictionary), is viewed differently in various industries,

over various demographic backgrounds, as well as for individuals and institutions (Center for the study of Social Policy, 2007, p.6-7). Moreover, it has a totally different approach when it comes to services and products (Center for the study of Social Policy, 2007, p.6-7). All along we have been trying to understand quality of services, quality of products, and satisfaction both in the arena of comfort and in terms of utility that is, the product or service fulfilling the actual purpose for which it was made and bought. This is however very important but the fore mentioned intricacies about satisfaction cannot be under looked.

Sahim et al., (2006) in an effort to find out whether customers were satisfied with the food services in the military hospital in Turkey realized that specific demographic characteristics were not of significance in determining the satisfaction of the patients but the appearance and taste of food. Their emphasis on demographic characteristics gives the reader the impression that they thought it was going to be an important factor.

Another study in Jiangsu province, China seeking to find out the differences in food preferences between students of different socio-demographic backgrounds and characteristics stated in their literature that societal and cultural factors as well as environmental and indigenous factors shape children's food choices, Shi et al., (2005 p.1440). This makes them appreciate food quality differently and often because they are not used to it, or they do not like it at all or because of some traditional beliefs associated with the different demographic characteristics. It is however a little contradiction but it is a depiction of the complexities in the concept of satisfaction that some researchers seek to explain.

Bailey et al., (1983, p.532) identified 38 factors that affected the satisfaction of consumers of computers which are customized for computer users some of which were quality of the product, flexibility, reliability, priorities determination, security and expectations. In online education structure, transparency and communication potentials influence the satisfaction of students and enhance the learning process, (Karen, 2001, p.306).

It has however been identified that human needs, quality of services and products, the user friendly nature of product and services, and comfort assurance (Bailey et al., 1983, p.532); (Karen, 2001, p.306); (Shi et al., 2005, p.1440) are some of the important determinants of customer satisfaction. Even though different customers will require different levels and combinations of these variables, they generally are important factors that affect customer satisfaction.

Matzler et al., (2002), went a step forward to classify factors that affect customers' satisfaction into three factor structures;

1. **Basic factors:** these are the minimum requirements that are required in a product to prevent the customer from being dissatisfied. They do not necessarily cause satisfaction but lead to dissatisfaction if absent. These are those factors that lead to the fulfilment of the basic requirement for which the product is produced. These constitute the basic attributes of the product or service. They thus have a low

impact on satisfaction even though they are a prerequisite for satisfaction. In a nutshell competence and accessibility

2. **Performance factors:** these are the factors that lead to satisfaction if fulfilled and can lead to dissatisfaction if not fulfilled. These include reliability and friendliness.
3. **Excitement factors:** these are factors that increase customers' satisfaction if fulfilled but does not cause dissatisfaction if not fulfilled which include project management.

3.7 Relationship between service quality and customer satisfaction

According to Sureshchandar et al., (2002, p. 363), customer satisfaction should be seen as a multi dimensional construct just as service quality meaning it can occur at multi levels in an organisation and that it should be operationalized along the same factors on which service quality is operationalized.

Parasuraman et al., (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. He supports that fact that service quality leads to customer satisfaction and this is in line with Saravana & Rao, (2007, p.436) and Lee et al., (2000, p.226) who acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider.

According to Negi, (2009, p.33), the idea of linking service quality and customer satisfaction has existed for a long time. He carried a study to investigate the relevance of customer-perceived service quality in determining customer overall satisfaction in the context of mobile services (telecommunication) and he found out that reliability and network quality (an additional factor) are the key factors in evaluating overall service quality but also highlighted that tangibles, empathy and assurance should not be neglected when evaluating perceived service quality and customer satisfaction. This study was based only on a specific service industry (mobile service) and we think it is very important to identify and evaluate those factors which contribute significantly to determination of customer-perceived service quality and overall satisfaction.

Fen & Lian, (2005, p.59-60) found that both service quality and customer satisfaction have a positive effect on customer's re-patronage intentions showing that both service quality and customer satisfaction have a crucial role to play in the success and survival of any business in the competitive market. This study proved a close link between service quality and customer satisfaction.

Su et al., (2002, p.372) carried a study to find out the link between service quality and customer satisfaction, from their study, they came up with the conclusion that, there exist a great dependency between both constructs and that an increase in one is likely to lead to an increase in another. Also, they pointed out that service quality is more abstract than customer satisfaction because, customer satisfaction reflects the customer's feelings about many encounters and experiences with service firm while service quality may be affected by perceptions of value (benefit relative to cost) or by the experiences of others that may not be as good.

A study carried out by Magi & Julander, (2009, p.33-41), among grocery stores in Sweden showed a positive relationship between perceived service quality, customer satisfaction and customer loyalty. It was proven that customer satisfaction results from high perceived service quality and this makes the customer loyal. However, it could be possible that a satisfied customer must not necessarily become a loyal customer.

3.8 Service Quality Models

As stated earlier service quality has been defined differently by different people and there is no consensus as to what the actual definition is. We have adopted the definition by Parasuraman et al., (1988, p.5), which defines service quality as the discrepancy between a customers' expectation of a service and the customers' perception of the service offering.

Measuring service quality has been one of the most recurrent topics in management literature, Parasuraman et al., (1988), Gronroos, (1984), Cronin et al., (1992). This is because of the need to develop valid instruments for the systematic evaluation of firms' performance from the customer point of view; and the association between perceived service quality and other key organizational outcomes, Cronin et al., (2010, p.93), which has led to the development of models for measuring service quality. Gilbert et al., (2004, p.372-273) reviewed the various ways service quality can be measured. They include; 1) the expectancy-disconfirmation approach which is associated with the identifying of customer expectation versus what they actually experienced. It focuses on the comparison of the service performance with the customer's expectations. The customer's expectations could be assessed after the service encounter by asking him/her to recall them. 2) Performance-only approach merely assesses service quality by merely asking customers about their level of satisfaction with various service features following a service encounter. 3) Technical and functional dichotomy approaches identify two service components that lead to customer satisfaction namely, the technical quality of the product which is based on product characteristics such as durability, security, physical features while functional quality is concerned with the relationships between service provider and customer such as courtesy, speed of delivery, helpfulness. 4) Service quality versus service satisfaction approach which mainly focuses on two service components that are interrelated; the transition-specific assessment which evaluates specific features of quality and the overall assessment which evaluates overall quality. This approach links perceived quality at the time of the service encounter or immediately after it and overall satisfaction with the service. Perceived quality is based on attributes of the service over which the company has control and it is a measure of the consumer's assessments of the service's value without comparison to consumer's expectation. 5) Attribute importance approach focuses on the relative weight on the importance the consumer places on attributes found to be linked with service satisfaction.

Parasuraman et al., 1985, (p.41-50) developed a conceptual model of service quality where they identified five gaps that could impact the consumer's evaluation of service

quality in four different industries (retail banking, credit card, securities brokerage and product repair and maintenance). These gaps were;

Gap 1: Consumer expectation - management perception gap

Service firms may not always understand what features a service must have in order to meet consumer needs and what levels of performance on those features are needed to bring deliver high quality service. This results to affecting the way consumers evaluate service quality.

Gap 2: Management perception - service quality specification gap

This gap arises when the company identifies what the consumers want but the means to deliver to expectation does not exist. Some factors that affect this gap could be resource constraints, market conditions and management indifference. These could affect service quality perception of the consumer.

Gap 3: Service quality specifications – service delivery gap

Companies could have guidelines for performing service well and treating consumers correctly but these do not mean high service quality performance is assured. Employees play an important role in assuring good service quality perception and their performance cannot be standardised. This affects the delivery of service which has an impact on the way consumers perceive service quality.

Gap 4: Service delivery – external communications gap

External communications can affect not only consumer expectations of service but also consumer perceptions of the delivered service. Companies can neglect to inform consumers of special efforts to assure quality that are not visible to them and this could influence service quality perceptions by consumers.

Gap 5: Expected Service – perceived service gap

From their study, it showed that the key to ensuring good service quality is meeting or exceeding what consumers expect from the service and that judgement of high and low service quality depend on how consumers perceive the actual performance in the context of what they expected.

Parasuraman et al., (1988), later developed the SERVQUAL model which is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses. The scale decomposes the notion of service quality into five constructs as follows: Tangibles, Reliability, Responsiveness, Assurance and empathy. It bases on capturing the gap between customers expectations and experience which could be negative or positive if the expectation is higher than experience or expectation is less than or equal to experience respectively.

The SERVPERF model developed by Cronin & Taylor, (1992), was derived from the SERVQUAL model by dropping the expectations and measuring service quality

perceptions just by evaluating the customer's the overall feeling towards the service. In their study, they identified four important equations:

$$\text{SERVQUAL} = \text{Performance} - \text{Expectations}$$

$$\text{Weighted SERVQUAL} = \text{importance} \times (\text{performance} - \text{expectations})$$

$$\text{SERVPERF} = \text{performance}$$

$$\text{Weighted SERFPERF} = \text{importance} \times (\text{performance})$$

Implicitly the SERVPERF model assesses customers experience based on the same attributes as the SERVQUAL and conforms more closely on the implications of satisfaction and attitude literature, Cronin et al., (1992 p.64).

Later, Teas, (1993, p.23) developed the evaluated performance model (EP) in order to overcome some of the problems associated with the gap in conceptualization of service quality (Grönroos, 1984; Parasuraman et al., 1985, 1988). This model measures the gap between perceived performance and the ideal amount of a feature not customers expectation. He argues that an examination indicates that the P-E (perception – expectation) framework is of questionable validity because of conceptual and definitional problems involving the conceptual definition of expectations, theoretical justification of the expectations component of the P-E framework, and measurement validity of the expectation. He then revised expectation measures specified in the published service quality literature to ideal amounts of the service attributes (Teas, 1993, p.18)

Brady & Cronin, (2001), proposed a multidimensional and hierarchical construct, in which service quality is explained by three primary dimensions; interaction quality, physical environment quality and outcome quality. Each of these dimensions consists of three corresponding sub-dimensions. Interaction quality made up of attitude, behavior and expertise; physical environment quality consisting of ambient conditions, design and social factors while the outcome quality consists of waiting time, tangibles and valence. According to these authors, hierarchical and multidimensional model improves the understanding of three basic issues about service quality: (1) what defines service quality perceptions; (2) how service quality perceptions are formed; and (3) how important it is where the service experience takes place and this framework can help managers as they try to improve customers' service experiences Brady & Cronin, (2001, p.44).

Saravanan & Rao, (2007, p.440), outlined six critical factors that customer-perceived service quality is measured from after extensively reviewing literature and they include;

- (1) Human aspects of service delivery (reliability, responsiveness, assurance, empathy)
- (2) Core service (content, features)
- (3) Social responsibility (improving corporate image)
- (4) Systematization of service delivery (processes, procedures, systems and technology)

(5) Tangibles of service (equipments, machinery, signage, employee appearance)

(6) Service marketing

From their study, they found out that these factors all lead to improved perceived service quality, customer satisfaction and loyalty from the customer's perspective.

According to Brady & Cronin, (2001, p.36), based on various studies, service quality is defined by either or all of a customer's perception regarding 1) an organisations' technical and functional quality; 2) the service product, service delivery and service environment; or 3) the reliability, responsiveness, empathy, assurances, and tangibles associated with a service experience.

Mittal and Lassar's SERVQUAL-P model reduces the original five dimensions down to four; Reliability, Responsiveness, Personalization and Tangibles. Importantly, SERVQUAL-P includes the Personalization dimension, which refers to the social content of interaction between service employees and their customers (Bougoure & Lee, 2009, p.73)

3.9 The Development and Evolution of the SERVQUAL Model

"Parasuraman et al. (1985) identified 97 attributes which were found to have an impact on service quality. These 97 attributes were the criteria that are important in assessing customer's expectations and perceptions on delivered service" (Kumar et al., 2009, p.214). These attributes were categorized into ten dimensions (Parasuraman et al., 1985) and later subjected the proposed 97 item instruments for assessing service quality through two stages in order to purify the instruments and select those with significant influences (Parasuraman et al., 1988, p.13). The first purification stage came up with ten dimensions for assessing service quality which were; tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding, knowing, customers, and access. They went into the second purification stage and in this stage they concentrated on condensing scale dimensionality and reliability. They further reduced the ten dimensions to five which were;

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

Assurance and empathy involve some of the dimensions that have been done away with like communication, credibility, security, competence, courtesy, understanding/knowing customers and access. This is because these variables did not remain distinct after the two stages of scale purification, (Parasuraman et al., 1988, p.23). These original five dimensions are subject to 22 statements derived from Parasuraman et al, (1985, p.41-50)

This scale was further tested for reliability with the use of five independent samples in five different service industries. These are the same as the ones used in the purification stages. The variables proved to be very reliable and displayed very low levels of correlation between each other in the five independent samples. This qualified them as independent or linear factors that can be used to assess service quality (Parasuraman et al., 1988, p.24)

Further a validity test was carried out on this scale and using the same samples. Normally reliability is a first criterion for validity. To be able to determine content validity they analyzed the thoroughness with which the construct to be scaled were explicated and then the extent to which the scales items represent the construct domain. However the procedures used in developing the SERVQUAL satisfied these conditions assuring the content validity (Parasuraman et al., 1988, p.24).

In order to assess the scale validity they did an empirical assessment by examining the convergent validity. This was by looking at the association of the SERVQUAL scores and the question that was asked to respondents to provide to provide an overall quality rating for the companies they were evaluating which was valid (Parasuraman et al., p.25).

Primarily the SERVQUAL model was developed for service and retail businesses and its objective is to know how customers of a business rate the services offered to them (Parasuraman et al., 1988). This is very crucial for growth and profitability. Parasuraman et al., (1988), propose that this model be used on a company three to four times a year to measure the quality of its service over different times, to know the discrepancies between perceived and actual services so as to know what reaction is possible. They also recommend that the model should be used in conjuncture with other models like in a retail business another model could be used to rate the perception of service quality by the employees, and try to find out from these employees what they recommend to improve on the quality of their services. They equally require that in applying the model we should try to measure the relative importance of each dimension. This can be considered as weighted SERVQUAL model (Cronin & Taylor, 1992, p.64). The SERVQUAL model is important in grouping customers of a company into different quality ranks by determining their SERVQUAL score which is of course very important to know how to target the various ranks.

3.9.1 Functioning of the SERVQUAL

SERVQUAL represents service quality as the discrepancy between a customer's expectations for a service offering and the customer's perceptions of the service received, requiring respondents to answer questions about both their expectations and their perceptions Parasuraman et al., (1988). The use of perceived as opposed to actual service received makes the SERVQUAL measure an attitude measure that is related to, but not the same as, satisfaction (Parasuraman et. al., 1988). The difference between expectations and perceptions is called the gap which is the determinant of customers' perception of service quality as shown on figure 1 below

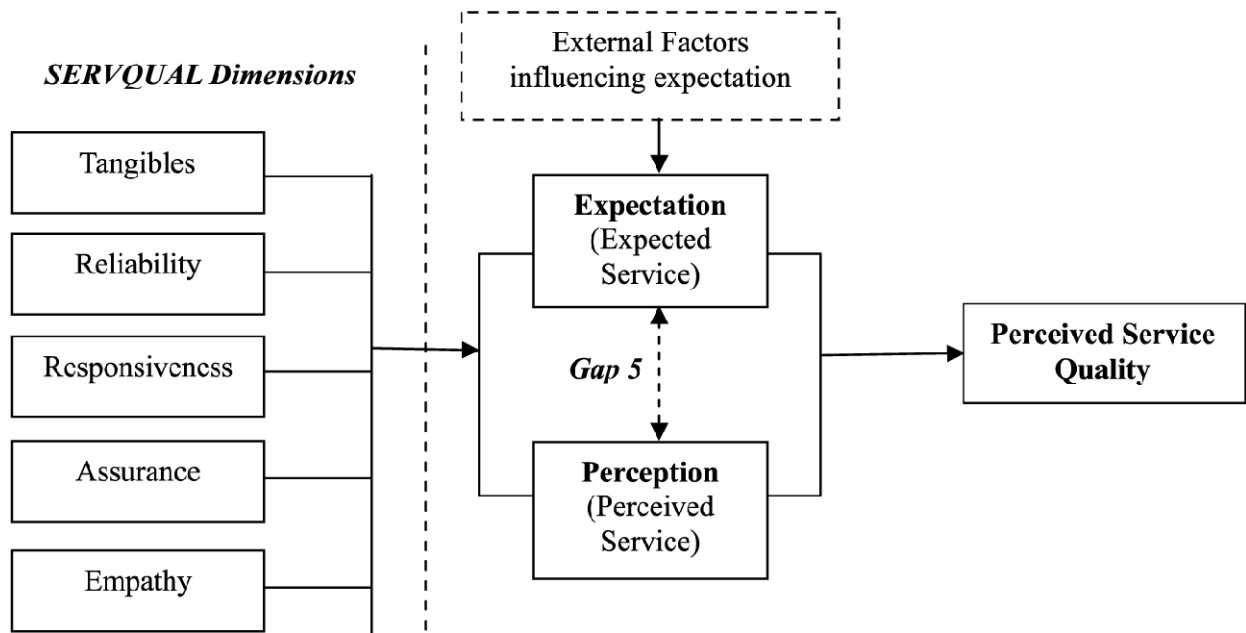


Figure 1 Measuring service quality using SERVQUAL model (Kumar et al, 2009)

The expectations of customers are subject to external factors which are under the control of the service provider as shown on the diagram. The gap 5 on the diagram represents the difference between customers' expectations and customers' perceptions which is referred to as the perceived service quality (kumar et al., 2009, p.214). This study focuses on this gap, the difference between grocery store customers' expectations and perceptions of service.

3.9.2 Criticisms of SERVQUAL Model (Buttle, 1996, p.10-11)

Notwithstanding its growing popularity and widespread application, SERVQUAL has been subjected to a number of theoretical and operational criticisms which are detailed below:

3.9.2.1 Theoretical criticisms

- **Paradigmatic objections:** SERVQUAL is based on a disconfirmation paradigm rather than an attitudinal paradigm; and SERVQUAL fails to draw on established economic, statistical and psychological theory.
- **Gaps model:** there is little evidence that customers assess service quality in terms of P – E gaps.
- **Process orientation:** SERVQUAL focuses on the process of service delivery, not the outcomes of the service encounter.
- **Dimensionality:** SERVQUAL's five dimensions are not universal; the number of dimensions comprising service quality is contextualized; items do not always load on to the factors which one would a priori expect; and there is a high degree of inter-correlation between the five dimensions (Reliability, assurance, tangible, empathy and responsiveness).

3.9.2.2 Operational criticisms

- **Expectations:** the term expectation is polysemic meaning it has different definitions; consumers use standards other than expectations to evaluate service quality; and SERVQUAL fails to measure absolute service quality expectations.
- **Item composition:** four or five items cannot capture the variability within each service quality dimension.
- **Moments of truth (MOT):** customers' assessments of service quality may vary from MOT to MOT.
- **Polarity:** the reversed polarity of items in the scale causes respondent error.
- **Scale points:** the seven-point Likert scale is flawed.
- **Two administrations:** two administrations of the instrument (expectations and perceptions) cause boredom and confusion.
- **Variance extracted:** the over SERVQUAL score accounts for a disappointing proportion of item variances.

3.9.3 Application of the SERVQUAL Model in Different Contexts

Kumar et al, (2009) used the SERVQUAL model in a research to determine the relative importance of critical factors in delivering service quality of banks in Malaysia (Kumar et al., 2009, p.211). In this article they modified the SERVQUAL model and considered six dimensions; tangibility, reliability, responsiveness, assurance empathy and convenience and these consist of 26 statements. They considered convenience because it is an important determinant of satisfaction for banking customers in Malaysia and contributes very highly in the customers' appreciation of the quality of services offered by the bank (Kumar et al, 2009, p. 214). The respondents are asked questions based on the 26 statements and they seek to know about their expectations and experience. They carried this study on banking customers regardless neither of which bank you use nor how you do your transactions, could be domestically, internationally among others (Kumar et al, 2009, p.215).

After they carried out their study they realized that there are four critical factors; tangibility, reliability, convenience and competence. These variables had significant differences between expectations and perceptions with tangibility having the smallest gap and convenience has the largest gap. They end up with the recommendation that banks need to be more competent in delivering their services and fulfilling the assurance of customers and providing the banking services more conveniently (Kumar et al, 2009, p.211).

Curry et al., (2002, p.197) in an attempt to assess the quality of physiotherapy services used the SERVQUAL model and three physiotherapy services in Dundee, Scotland. They considered the ten original criteria for evaluation and combined them into five; tangibles, reliability, responsiveness, assurance (including competence, courtesy, credibility, and security) and empathy (including access, communication, and

understanding). The quality gap is measured with these five dimensions with the application of an adaptable 22 item survey instruments. The survey involves questions relating to customers expectations and perceptions. They sought to measure five gaps developed by Parasuraman et al., (1985).

They found out that the services were highly appreciated by customers even though they realised that the perception gaps were slightly negative and the services could be improved. Their studies proved that assurance and empathy were very important in their research. In spite of the criticisms of the SERVQUAL model they confirm its potential applicability in measuring service quality in the public sector to determine consumer priorities and measure performance.

Badri et al., (2003) made an assessment and application of the SERVQUAL model in measuring service quality in information technology centre. For their research gap they used a larger sample which also differs from other studies that addressed the dimensionality problem of the IT centre-adapted SERVQUAL instruments. The second gap was to identify the gaps in service quality in the IT centres in the three institutions of higher education in the United Arab Emirates. Their findings showed that there was an inadequacy of dimensions for a perfect fit. On the other hand, based on their feedback, respondents felt that SERVQUAL is a useful indicator for IT center service quality in institutions of higher education. SERVQUAL identified gaps in service quality for the three institutions. Empirical results of SERVQUAL scores for the IT centers in the three institutions are also presented.

Negi, (2009, p.31-38) used the model to determine customer satisfaction through perceived quality in the Telecommunication industry and found out that reliability, empathy and network quality proved to significantly effective in contributing to overall service quality and overall customer satisfaction with mobile services.

Akan, (1995, p.39-43) used the SERVQUAL model in the four stars hotels and found out that competence and courtesy combined with assurance where most important attributes influencing the perception of quality.

In a nutshell, we try to apply this instrument in the context of grocery stores and find if its dimensions do measure service quality and customer satisfaction, hence are adequate for a perfect measure of the constructs. This will also enable us to identify gaps in service quality and find out what dimensions consumers are satisfied with.

3.10 Our case

In spite of the criticisms in the applicability of the SERVQUAL model by some researchers (Buttle, 1994; Cronin & Taylor, 1992) we think it is good for our context of the grocery store even though it has its weaknesses due to the abstract and elusive nature of service quality concept which is resultant from the fact that services are intangible, heterogeneous and inseparable from production and consumption (Parasuraman et al., 1988, p.13). Buttle, (1994) and Cronin & Taylor, (1992) however support the fact that this model is good for retailers to understand the service

expectations and perceptions of customers and make improvements because of its good reliability and validity.

We are going to use this model to assess customers' satisfaction in grocery stores in Umea. This means that we are going to measure service quality from the customer's perspective in grocery stores in Umeå using the main service quality dimensions since we think satisfaction can result from perceived service quality (Negi, 2009). We believe that customer satisfaction and service quality can be measured along the same dimensions as proposed by Parasuraman et al., (1988, p.18).

Regarding our particular situation and to ensure validity of our work we are going to consider an additional variable; 'products'. We are going to be looking at products in the light of variety and quality. This is because it is the *raison d'être* for people coming to the grocery stores and cannot be left out because they affect significantly by our judgment the way customers perceive the quality of the services in this store. We are not going to treat it as product in terms of individual products but generally and the objective is to find out the gap between expectations and experience concerning the product variety and product quality in the grocery stores. That is, are the product types enough in terms of variety for the locality in which the store is? Do the products have sufficient quality? We are therefore going to treat these two attributes under the additional dimension 'products'.

We are therefore adopting a modified SERVQUAL model with six dimensions; Tangibles, Reliability, Responsiveness, Assurance, empathy and products. The service quality gap is going to be measured with these six dimensions with the application of an adaptable 24 item survey instruments statements (see appendix 1).

3.11 Conceptual Framework

The conceptual framework (Figure 2) explains the underlying process, which is applied to guide this study. As discussed above, the SERVQUAL model is suitable for measuring service quality and customer satisfaction in grocery stores offering retailing services using the service quality dimensions which are modified with the addition of products. This is because we cannot use a generic SERVQUAL model in this context since it may not be adequate to assess service quality in grocery stores and will not provide a good measure of customers' perceptions. We think 'products' form the primary motive why people go to make purchases in grocery stores and so cannot be neglected when measuring service quality. This is line with Gronroos, (1982), technical quality dimension which is used to measure service quality.

We use the same dimensions to measure both service quality and customer satisfaction because we assume both are related (Parasuraman et al., 1988) and customer satisfaction is an antecedent of service quality (Negi, 2009). The SERVQUAL approach integrates the two constructs and suggests that perceived service quality is an antecedent to satisfaction (Negi, 2009, p.33).

Therefore, in this research, the initial 22 items of SERVQUAL model are modified and additional items are included to measure the perceived service quality and customer

satisfaction in grocery stores. The model is a summary for the 24-items and we want to find out the overall service quality perceived by customers and which dimensions customers are satisfied with.

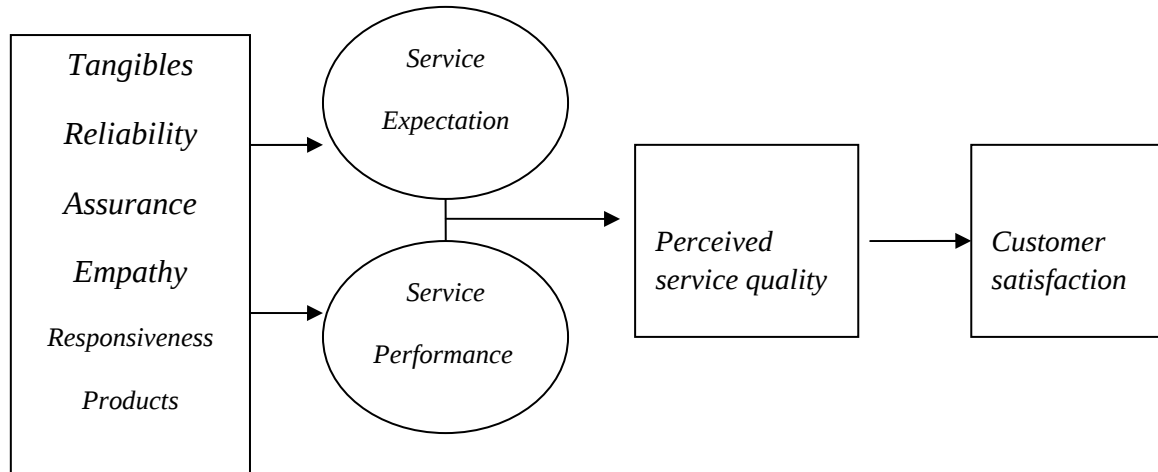


Figure 2 Conceptual Framework

Based on the revision made by Parasuraman, (2004) on the SERVQUAL model, we have adopted the 22-items to our study in order to identify the most important dimensions that matter most to customers and that bring them satisfaction. These items are outlined in the questionnaire below with the addition of the product dimension which we believe is very important for customers with the grocery store experiences.

CHAPTER 4: EMPIRICAL DESCRIPTIONS

This chapter is designed in a way that leads easily to the points that we wish to make regarding our research questions and objectives of study and that are best aligned with the methodological choices discussed earlier in the study. This means that, we will discuss how data was collected, what sample we took, the way the questionnaire was designed, the measurement of variables, coding of data.

The SERVQUAL model proposed by Parasuraman et al., (1988), was used as the main guide for our structured questionnaire where data was collected accurately on the customers' expectations and perceptions of service quality. This guide provided information on the following research purposes; to test the applicability of the SERVQUAL model in the grocery store context and also to know how consumers perceive service quality in grocery stores and identify which attributes bring satisfaction.

4.1 The Questionnaire

We used the SERVQUAL 5 dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) which are subdivided into 22 statements, which were directed to measuring service quality in the grocery stores in our case. We added one dimension, product which is subdivided into two statements variety and quality of products. This dimension is in line the technical quality dimension proposed by Gronroos, (1982) which could be used to measure service quality and this is very relevant in the case of grocery stores that mostly deal with goods.

As stipulated by the SERVQUAL model, the statements are divided into two parts, the first part seeks to measure the expectations of customers and the second part seeks to measure their perceptions. There is also a demographic part that provides general information about respondents on age, gender, frequency of shopping and average monthly expenditures. This is to enable us get a better understanding of the type respondents and relate it to how they perceive service quality in grocery stores.

This questionnaire was discussed with the supervisor and then tested. From the testing, respondents were quite comfortable with the questionnaire unless for some statements like "do grocery stores keep their records well" (statement 9). Some respondents were of the opinion that we cannot expect them to know it but some thought that it is possible to know it. We however considered the statement in the final questionnaire because it is actually possible for the customer to know this. This is because there are customers who have had the need to have the purchase history in the grocery stores revisited in case of faulty products that may need reimbursement or other abnormalities and we think it is a good means to determine if grocery stores actually keep their records correctly.

We used the SERVQUAL model as the basis for the structured questionnaire because it provides information on our research questions in which we are trying to know how consumers perceive service quality in grocery stores by assessing the difference between the expectation and perception of services experienced by consumers in

grocery stores. This will enable know over perceived service quality by customers and identity what items of the SERVQUAL dimensions consumers are satisfied with.

4.2 Administering of questionnaires

As mentioned earlier in this study, we are using a convenience sampling technique. It was a little challenging experience but it was fun all the same. We had 175 questionnaires to administer and it took us two days to administer these 175 questionnaires but unfortunately we only received 151 questionnaires that were complete. This is because some people got the questionnaires and went away with them and others did not completely answer the questions and so we considered them invalid. This however was taken care of by trying to verify if the respondents completed the questionnaire in order to increase the number of completed questionnaires.

We located ourselves in front of the University's main library. We approached any person whom we judged available and proposed to him/her to help us fill a questionnaire. We explained to all our respondents that we were seeking to measure the gap between what they want from grocery stores in terms of service quality and what they perceive in terms of service quality offered by grocery stores in Umeå. We did this because we think it was important to keep them focus so that they do not go astray since some people could possibly ignore reading the instructions and it could render the work null and void.

4.3 Measurement

The SERVQUAL model is used to assess consumers' expectations and perceptions regarding service quality in grocery stores. Both expectations and perceptions are measured using a 7-point scale to rate their level of agreement or disagreement (1-strongly disagree and 7- strongly agree), on which the higher numbers indicate higher level of expectation or perceptions. Perceptions are based on the actual service they receive in grocery stores in Umea while expectations are based on past experiences and information received about grocery stores. Service quality scores are the difference between the perception and expectation scores (P-E) with a possible range of values from -6 to +6 (-6 stands for very dissatisfied and +6 means very satisfied). The quality score measures the service gap or the degree to which expectations exceed perceptions. The more positive the P-E scores, the higher the level of service quality leading to a higher level of customer satisfaction. Satisfaction and service quality are both treated together as functions of a customer's perceptions and expectations. In most cases, when expectation and perception are equal, service quality is satisfactory.

In this study, we use the disconfirmation paradigm which is based on the discrepancy theories. According to this paradigm, consumer's satisfaction judgements are the result of consumer's perceptions of the difference between their perception of performance and their expectations. Positive disconfirmation leads to increased satisfaction while negative disconfirmation leads to decreased satisfaction. This theory has been used to develop questionnaire.

4.4 Coding

The SERVQUAL dimensions/items are main variables used in this study and we coded these dimensions/items in order to ease our analysis of data collected. Also, demographic information was collected from respondents and these variables have to be coded as well for analysis. Here is the coding of the variables for analysis.

SERVQUAL Dimensions/Items

Tangibles (TA)

TA1 Grocery stores have up-to-date equipments.

TA2 Physical facilities are virtually appealing.

TA3 Employees are well dressed and appear neat.

TA4 Physical environment of the grocery store is clean.

Reliability (RL)

RL1 When they promise to do something by a certain time, they do it.

RL2 When customer has a problem, they should show sincere interest in solving the problem.

RL3 Grocery stores perform the service right the first time.

RL4 They provide their services at the time they promise to do so.

RL5 Grocery stores keep their records accurately.

Responsiveness (RN)

RN1 Employees make information easily obtainable by customers.

RN2 Employees give prompt services to customers.

RN3 Employees are always willing to help customers.

RN4 Employees are never too busy to respond to customers requests.

Assurance (AS)

AS1 The behaviour of employees instil confidence in customers

AS2 Customers feel safe in their transactions with the employees

AS3 Employees are polite to customers.

AS4 Employees of grocery stores have knowledge to answer customers' questions.

Empathy (EM)

EM1 Grocery stores give customers individual attention.

EM2 Operating hours of grocery stores are convenient to customers.

EM3 Employees of grocery stores give customers personal service.

EM4 Grocery stores have their customers' interest at heart.

EM5 Employees of grocery stores understand the specific needs of their customers.

Product (PR)

PR1 Grocery stores have enough variety of products.

PR2 Grocery stores have good quality products.

Respondents were to provide answers on their expectations and perceptions based on the 7-point Likert scale 1- strongly disagree and 7-strongly agree.

Demographics (DM)

DM1 Gender (0=male, 1=female)

DM2 Level of Education (0=undergraduate, 1=masters, 2=others)

DM3 Grocery store spending per month (0=0 to 1000kr, 1=1001to 2000kr, 2=2001 to 3000kr, 3=above 3000kr)

4.5 Recoding

TA- Average gap score for tangible items = $(TA1+TA2+TA3+TA4)/4$

RL- Average gap score for reliability items = $(RL1+RL2+RL3+RL4+RL5)/5$

RN- Average gap score for responsiveness items = $(RN1+RN2+RN3+RN4)/4$

AS- Average gap score for assurance items = $(AS1+AS2+AS3+AS4)/4$

EM- Average gap score for empathy items = $(EM1+EM2+EM3+EM4+EM5)/5$

PR- Average gap score for product items = $(PR1+PR2)/2$

OSQ- Overall service quality = $(TA+RL+RN+AS+EM+PR)/6$

CHAPTER 5: EMPIRICAL RESULTS AND ANALYSIS

The objective of the analysis of primary data collected from survey as presented in the previous chapter is to answer our research questions which include finding out how consumers perceive service quality in grocery stores and whether they are satisfied with service quality in grocery stores. This will enable us attain the objectives of our study which are mainly describing empirical phenomena which are service quality and customer satisfaction.

Data analysis for this study was done in two steps, the preliminary analysis and the main analysis. For preliminary analysis which involves mainly descriptive statistics to summarize data, the demographic characteristics of the respondents were outlined in order to simplify the understanding of the data.

The main analysis involved factor analysis whose purpose to find out if the SERVQUAL is applicable in the context of grocery stores and the gap score analysis whereby descriptive statistics were applied to summarize means of perceptions and expectations of consumers. We calculate the perception minus expectation scores for each item and dimension in order to identify the service quality gaps.

Checking the reliability and validity of the modified SERVQUAL model made up of six dimensions, cronbach's alpha was computed for each dimension of the SERVQUAL model and factor analysis carried out to test validity. The Cronbach's alpha ranges between 0 (denoting no internal reliability) and 1 (denoting perfect internal reliability). The first part of the data analysis was to check the internal reliability of results in order to determine the credibility of findings results from the study since we are dealing with multiple-item measure that is the modified SERVQUAL model made up of 6 dimensions measuring service quality. In other words reliability checks whether or not respondents' scores on any one indicator tend to be related to their scores on the other indicators (Bryman & Bell, 2007, p.163).

Table 1 Personal Profile of respondents (151)

Characteristics		Percentage (%)
Gender	Male	46.4
	Female	53.6
Level of Education	Bachelors	53.6
	Masters	33.1
	Others	13.4

Grocery store spending per month	0 to 1000	25.8
	1001 to 2000	52.3
	2001 to 3000	17.2
	3001 and above	4.7

5.1 Demographic characteristics of the respondents:

The demographic profile of the respondents is described as follows; males were 46.4% while females were 53.6% slightly higher than males. A majority of the respondents were Undergraduate students forming 53.6%, followed by Master students, 33.1% and other levels formed 13.3%.

Most of the respondents 52.3% claimed they spend between 1001 to 2000 Swedish Kr of their income on grocery stuffs, followed by 25.8% who spend 0 to 1000 Swedish Kr, 17.2% spend 2001 to 3000 Swedish Kr and 4.7% spend above 3000 Swedish Kr on grocery stuffs.

Table 2 Reliability Coefficient (Cronbach's alphas)

Dimension	Number of items	Cronbach alpha for dimensions	Cronbach alpha if item deleted	items
Tangibles	4	0,636	0,603	TA1
			0,544	TA2
			0,513	TA3
			0,592	TA4
Reliability	5	0,831	0,783	RL1
			0,805	RL2
			0,802	RL3
			0,778	RL4
Responsiveness	4	0,694	0,815	RL5
			0,705	RN1
			0,573	RN2
			0,587	RN3
Assurance	4	0,760	0,638	RN4
			0,678	AS1
			0,717	AS2
			0,674	AS3
Empathy	5	0,755	0,738	AS4
			0,688	EM1
			0,808	EM2
			0,661	EM3
			0,734	EM4

			0,648	EM5
Products	2	0,434	-	PR1
			-	PR2

5.2 Reliability Coefficient Discussion

The internal consistency of the modified SERVQUAL items was assessed by computing the total reliability scale. The total reliability scale for the study is 0.91, indicating an overall reliability factor slightly same to that of Parasuraman et al., (1988) study which was 0.92. This reliability value for our study is substantial considering the fact that the highest reliability that can be obtained is 1.0 and this is an indication that the items of the six dimensions of SERVQUAL model are accepted for analysis.

Table 2 above shows the reliability scale for all six dimensions and also, the reliability scale for each dimension calculated when each item is deleted from the dimension in order to see if the deleted item is genuine or not. In case cronbach's alpha for a dimension increases when an item is deleted it shows that item is not genuine in that dimension. From table 2 above, it can be realized almost all the items showed a lower value of reliability when deleted except EM2 and had a higher value showing it is not a true measure under that dimension.

Looking at the reliability coefficients of all six dimensions on table 2, some dimensions have coefficients slightly below 0.7, tangibles (0.636) and responsiveness (0.694). This could as a result that some items under each dimension seemed too similar.

The dimension, products had a very low reliability coefficient, 0.434 and this could have been because of the small number of items (2) used in that dimension.

Other dimensions, reliability, assurance and empathy showed coefficients higher than 0.7, meaning these dimensions comprising of various items show a true measure of service quality.

Table 3 Summary of means of customer' expectations and gap scores

Dimension	Statement	Expectation Score	Perception Score	Gap Score
Tangibles	TA1	5.4834	5.2318	-0.2517
	TA2	5.5298	4.9801	-0.5497
	TA3	5.4238	5.1126	-0.3113
	TA4	6.6225	5.2252	-1.3973
Reliability	RL1	6.2450	4.9735	-1.2715
	RL2	6.3576	4.9669	-1.3907
	RL3	5.6358	4.7550	-0.8808

	RL4	6.1656	5.0331	-1.1325
	RL5	5.8278	5.0530	-0.7748
Responsiveness	RS1	5.9801	4.9470	-1.0331
	RS2	5.9603	5.0199	-0.9404
	RS3	6.0199	5.1457	-0.8742
	RS4	5.5695	4.4040	-1.1656
Assurance	AS1	5.6093	4.7285	-0.8808
	AS2	6.3046	5.6556	-0.6490
	AS3	6.2914	5.3311	-0.9603
	AS4	5.8013	4.8212	-0.9801
Empathy	EM1	4.8874	4.1987	-0.6887
	EM2	5.2185	4.9603	-0.2583
	EM3	5.1258	4.4304	-0.6954
	EM4	5.5364	4.4702	-1.0662
	EM5	5.1325	4.4034	-0.7285
Product	PR1	5.9934	5.7364	-0.2517
	PR2	6.4768	5.7616	-0.7152
Overall average gap score for all 6 dimensions= -0,7932				

5.3 Expectations and perceptions discussed

Expectations and perceptions were both measured using the 7-point likert scale whereby the higher numbers indicate higher level of expectation or perception. In general, consumer expectation exceeded the perceived level of service shown by the perception scores. This resulted in a negative gap score (Perception – Expectation). According to Parasuraman et al., (1988, p.30) it is however common for consumer's expectation to exceed the actual service perceived and this signifies that there is always need for improvement.

The items with the highest expectation scores were clean physical environment (6.6225), good quality products (6.4768), sincere interest in solving customer's problem (6.3576) and customer feels safe in transactions with employees (6.3046). However,

these scores are not very different from scores of other items and this implies generally, consumers expect very high from grocery stores.

The items rated highest for actual service perceived were, good quality products (5.7616), enough variety of products (5.7364), customer feels safe in transactions with employees (5.6556) and possession of modern equipments (5.2318). There is no so much difference between the scores of perceptions but are generally lower than expectations.

The gap scores are the difference between the perception and expectation scores with a range of values from -6 to +6 and these gap scores measure service quality and hence customer satisfaction. The more perceptions are close to expectations, the higher the perceived level of quality. The largest gaps scores were, clean physical environment (-1.3973), sincere interest in solving customer's problem (-1.3907), fulfilling their promise they make to consumers (-1.2715) and employees never too busy to respond to customers' requests (-1.1656).

5.4 Factor analysis for the difference between perceptions and expectations (Gap scores)

Factor analysis is used mostly for data reduction reasons and is performed by examining the pattern of correlations between the observed measures. Measures that are highly correlated, either positively or negatively are likely influenced by the same factors, while those that are relatively uncorrelated are likely influenced by different factors (DeCoster, 1998, p.1)

Factor analysis are of two forms; Exploratory factor analysis which tries to find the nature of the constructs influencing a set of responses and Confirmatory factor analysis which tests whether a specified set of constructs is influencing responses in a predicted way (DeCoster, 1998, p.1). In our study, we are using the confirmatory factor analysis because we know already the number of dimensions.

The KMO's test varies between 0 and 1 and a value of 0 shows that the sum of partial correlations is large relative to the sum of correlations meaning factor analysis is likely to be irrelevant while a value close to 1, shows that patterns of correlations are relatively compact and factor analysis yield distinct and reliable factors (Field, 2005). For our case, the value is 0.822, which indicates that factor analysis is relevant for our study.

This analysis is based on the Common Factor Model, which proposes that each observed response (24 items of SERVQUAL model) is influenced by underlying common factors (factor 1, 2, 3, 4, 5). This factor is defined as the natural affinity of an item for a group (Wal et al., 2002, p.329). The strength of the link between each factor and each measure varies in that a factor could influence some dimensions more than others (DeCoster, 1998, p.1). Score below 0.45 indicate a weak loading and are therefore of little or no significance.

Factor loadings are the weights and correlations between each variable and the factor. The higher the load, the more important it is in defining the factor's dimensionality. A negative value indicates an inverse impact on the factor.

Table 4 Factor Analysis (Rotated Component Matrix)

items	components					
	1	2	3	4	5	6
EM3	,859					
PR2	,856					
EM5	,684					
EM1	,683					
EM4	,532					,474
AS4	,477					
RL1		,791				
RL4		,753				
RL3		,670				
AS2		,580				
RL5		,568				
RL2		,525				
RN3			,710			
AS3			,669			
AS1			,652			
RN4	,463		,640			
RN2			,506			
EM2				,965		
PR1				,964		
TA2					,760	

TA1					,698	
TA3					,636	
TA4					,454	
RN1						,770

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 4 shows the factor loadings for each item in relation to the various factors. These values in the table show the weight and correlation each item has to a factor or component. All values below 0.45 are cut off from this table because they are not significant for analysis. From table 4, it can be realized that items from different dimensions are regrouped under the same factor and some items from one dimension are found to fall in more than factor like EM4 and RN4. This factor analysis proves that SERVQUAL model is not a good measure of service quality in grocery stores because we expect to see similar items fall under the same factor showing that they measure the same thing. In this case, just the items under the tangible dimension fall under the same factor.

Table 5 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8,437	35,154	35,154	8,437	35,154	35,154	5,460
2	2,109	8,786	43,939	2,109	8,786	43,939	2,455
3	1,768	7,368	51,308	1,768	7,368	51,308	2,537
4	1,560	6,502	57,809	1,560	6,502	57,809	4,757
5	1,153	4,806	62,615	1,153	4,806	62,615	2,342
6	1,018	4,243	66,858	1,018	4,243	66,858	5,889
7	,869	3,622	70,480				
8	,835	3,481	73,961				

9	,695	2,894	76,854			
10	,622	2,591	79,445			
11	,599	2,497	81,943			
12	,584	2,431	84,374			
13	,539	2,247	86,621			
14	,506	2,110	88,731			
15	,491	2,045	90,776			
16	,436	1,816	92,592			
17	,370	1,543	94,135			
18	,356	1,484	95,619			
19	,313	1,303	96,922			
20	,289	1,204	98,126			
21	,273	1,139	99,265			
22	,170	,708	99,974			
23	,006	,024	99,997			
24	,001	,003	100,000			

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table denotes how much of the total data fit into the six factors and this is carried using variance. The total variance percentage accumulated in the six factors is 66.858% and the factor 1 carries 35.154% of data indicating that most of the data fits into that factor. The other five factors carry below 10% each and show relatively low fit of data in the factors.

5.5 Gap scores analysis:

The gap score analysis is to enable us find out how consumers perceive service quality in grocery stores and try to identify what dimensions of service quality they are satisfied with.

According to Parasuraman et al., (1985, p.48) the higher (more positive) the perception (P) minus expectation (E) score, the higher the perceived service quality and thereby

leading to a higher level of customer satisfaction. In this regard, the gap scores were calculated based on the difference between the consumers' perceptions and expectations of services offered by grocery stores.

In general, it was found that, customers' perceptions of service quality offered by grocery stores did not meet their expectations (all gaps scores the dimensions are negative). Dimensions that reported larger mean gaps were reliability (-1,0901), responsiveness (-1,0033) and assurance (-0,8675) while smaller mean gaps obtained were products (-0,4834), tangibles (-0,6275) and empathy (-0,6874). These values show that the perception of performance in grocery stores is less than the expected level of service quality.

According to Parasuraman et al., (1988), overall service quality is measured by obtaining an average gap score of the SERVQUAL dimensions. In this regard, to evaluate overall service quality as perceived by grocery store consumers, we had an additional dimension, 'products' to the five dimensions. This is in line with Gronroos, (1982) who proposed two main dimensions of service quality, technical and functional quality and product dimension added to the modified SERVQUAL model shows that technical dimension of service quality. This is vital in measuring service quality in grocery stores regarding the fact that products form the key reason to why consumers shop in these stores.

Table 6 Descriptive statistics for the six dimensions

	TA—average gap score for tangibles	RL-- average gap score for reliability	RN-- average gap score for responsiveness	AS-- average gap score for assurance	EM-- average gap score for empathy	PR-- average gap score for products
Mean	-,6275	-1,0901	-1,0033	-,8675	-,6874	-,4834
Median	-,5000	-1,0000	-,7500	-,7500	-,6000	-,5000
Mode	-,25	-,20	-,75	-,50 ^a	-1,00	-,50
Std. Deviation	1,05785	1,12941	1,18743	1,11834	1,22650	1,38494
Skewness	-,136	-,676	-1,009	-,740	-,958	-,729
Std. Error of Skewness	,197	,197	,197	,197	,197	,197
Kurtosis	,226	,891	,986	,846	1,267	1,458
Std. Error of Kurtosis	,392	,392	,392	,392	,392	,392

From Table 6, it can be seen that standard deviation scores are fairly consistent for all six dimensions and suggested a wide range of opinion on service quality among the respondents surveyed.

5.6 Description of dimensions

TA-Tangibles

Tangibles have an average score of -0.6275 and the median gap is -0.5. The modal score is -0.25. The standard deviation is 1.05785 indicating the spread of gaps away from the mean. The distribution is positively skewed with a skewness of -0.136 which indicates that the figures are deviated more to the right. The kurtosis value is 0.226 which mean that there is clustering somewhere away from the mean.

RL- Reliability

The mean is -1.0901 which means that students are not satisfied with the quality of services as depicted by the reliability dimension. The standard deviation is 1.12941 which means that the gaps are spread away from the mean. The modal gap is however different from the mean and it is -0.20 and the median gap is -0.75. The distribution is positively skewed with a value of -0.676 indicating the gaps are deviated to the right of the mean and the gaps are clustered away from the mean with a kurtosis value of 0.891.

RN- Responsibility

Averagely students are unsatisfied with the level of services offered by grocery stores in Umea as they have a gap of -1.0033 for this dimension. The median and the mode are higher than the mean with gaps of -0.75 and -0.5 respectively. The standard deviation of the responsibility dimension is 1.18743 which indicates that the gaps are not very widely deviated from the mean. The deviation is to the right with a positive skewness of -1.009. The gaps are also clustered at a point different from the mean of the distribution because the kurtosis value is 0.986.

AS- Assurance

The average gap for this dimension is -0.8675 depicting dissatisfaction. The modal gap for this dimension is -0.5. This dimension has more than one modal classes but -0.5 is the least and it is higher than the mean. The median gap is -0.75. The standard deviation is 1.11834 showing little deviation from the mean which is spread towards the right as the distribution is positively skewed with a value of -0.74 and the gaps cluster at some point away from the mean with a kurtosis value of 0.846.

EM- Empathy

The average gap score for the empathy dimension is -0.6874. The median gap for this distribution is -0.6 and the modal gap is -1. It has a standard deviation of 1.22650 which means that the gaps are deviated from the mean but not very much. They are deviated to the right because the distribution is positively skewed with a value of -0.958 and clustered at a value away from the mean with a kurtosis value of 1.267.

PR- Products

This dimension has the least gap of -0.4834 showing that it is the highest dimension the students are satisfied with. The modal gap and median gap are -0.5 for both median and

the modal gap. The standard deviation is 1.38494 which is the dimension with the highest deviation which however does show great deviation from the mean. The deviation is to the right because the distribution is positively skewed with a value of -0.729 and clustered around a value other than the mean. The kurtosis value is 1.458.

Table 7 Descriptive statistics for Overall service quality

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
OSQ--overall service quality	151	-3,88	,84	-,7932	,91035	-,852	,197	,620	,392
Valid N (listwise)	151								

5.7 Overall perceived service quality

From table 7, it shows that all the students expect more from grocery stores in Umea than the grocery stores actually offer. This is evident from the negative mean of -0.7932 showing that expectations exceed perceptions in grocery stores. Of all the responses we got from the respondents, the median gap calculated is -0.6917 and the highest number of students had a gap of -1.62. The standard deviation here is however much lower than when we try to work with the individual dimensions showing that there is some homogeneity among the population. The deviation of the gaps is more to the right because the distribution is positively skewed with a value of -0.852 and the gaps are clustered at some point away from the mean.

The standard deviations of the individual dimensions are varying around a common average making them fairly consistent around the six dimensions and this suggests a range of opinions on the service quality among the students surveyed.

Summarily, overall perceived service quality is low (-0.7932) meaning the level of service they receive is lower than what they expect indicating there is no satisfaction. This could be possibly because of either the under delivering of services to consumers or the over promising of grocery stores to consumers on their services.

5.8 Discussion

We have examined the difference between customers' expectations and customers' perceptions of the service quality in grocery stores. We find that the respondents' overall expectation on a scale of 1 to 7 is 5.7999. This is high and implies that customers expect a lot from the grocery stores. Looking at the individual dimensions we realize that customers expect a lot from the product dimension with a score of 6.2351. Grocery stores therefore have to pay a lot of attention to the quality and the variety of products that they produce. This shows that this dimension is very important when

measuring service quality in grocery stores and this is line with the technical dimension of service quality suggested by Gronroos, (1982).

The reliability and the assurance dimensions also have scores of above 6. Customers are therefore very sensitive to how reliable and assuring a store is in providing good and quality products and services to them. Generally, the expectations are fairly high since they are all above 5. The customers' expectations across the five dimensions are rated at 6.2351 on a scale of 1 to 7 which is an indication that customers expect very high from grocery stores.

Considering customers' perception of service in grocery stores which is more like the SERVPERF model which deals with consumers' perception of service quality in conformity with customers satisfaction (Cronin et al., 1992, p.64), we realize that customers' expectations and their perceptions are more than their perceptions even though the difference is slight. Basing on the individual dimensions, we realize that customers are of the opinion that the quality and variety of products in grocery stores is most satisfactory compared to the other dimensions with an average score of 5.749. The empathy dimension is judged the least by customers with an average score of 4.4926. This is however above the middle of the scale. Generally, all the dimensions have an average perception score of 4.9727. According to the SERVPERF model (Cronin et al., 1992 p.64), it indicates that customers are satisfied with service quality in grocery stores since the average score is above the average of the scale and since satisfaction in services is highly related to quality.

Parasuraman et al., (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. He supports the fact that service quality leads to customer satisfaction and this is in line with Saravana & Rao, (2007, p.436) and Lee et al., (2000, p.226) acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider. This is a good ground for asserting whether customers are satisfied with service quality in grocery stores or not since the average perception score is above the average of the scale. A higher perception also indicates higher satisfaction as service quality and satisfaction are positively related (Fen & Lian, 2005, p.59-60). This means that dimensions with higher perception scores depict higher satisfaction on the part of customers and lower perception scores depict lower satisfaction. Implicitly, customers are barely satisfied since the average perception score is 4.9727 which is 71.04% of the total score and indication that grocery stores need to work hard to cover up the 28.96%. However, we are using the SERVPERF model for our study but rather the SERVQUAL model and so cannot say that customers are satisfied or not.

Parasuraman et al. (1985, 1988) introduced the gap score as a means to measure service quality and they identified quality as a determinant of service quality. They however restricted their inference of satisfaction from service quality to a gap score between perceptions and expectations. We have been able to measure the gap between perception and expectations of our sample. The expectations are higher than the perceptions. This makes us to have negative gaps indicating that customers expect more

than grocery stores actually offer in terms of the quality of services. In its strict sense customers perceive service quality in grocery stores to be poor since it is lower than expectations and hence they are not satisfied. This describes how consumers perceive service quality. As service quality is an antecedent of customer satisfaction, which has been proven by Negi, (2009), it means that since consumers perceive service quality as low or poor, and therefore implies that consumers are not satisfied with services offered in grocery stores. This customer satisfaction which comes as a result of the interaction between the consumer and service provider (Yi, 1990) and from our results, it shows that consumers are not satisfied meaning this could be because of poor interaction between the customer and service provider and also because the consumer is becoming more and more demanding and does not tolerate any shortfalls in the quality of services offered by grocery stores (Douglas & Connor 2003, p.165-166). The shopping experience affects customer satisfaction according to Huddleston et al., (2008, p.65) and since customers are not satisfied with the services offered by grocery stores, it means they did not have a good shopping experience.

In summary, from results obtained, it is seen that consumers perceive service quality as poor in all dimensions meaning their expectations fall short of their experience in grocery stores. In this regard, consumers are not satisfied with any dimension of service quality. All the dimensions show a gap between expected service and perceived service and this therefore means that grocery stores need to make improvements in all dimensions in order to close gaps that could lead to increased customer satisfaction.

6. CONCLUSIONS

In this chapter, we provide answers to our research questions by summarising our findings from the analysis and discussion chapter. This chapter also covers the limitation of the study, implications (managerial and theoretical) and suggestions for further research.

6.1 Summary of findings

From the analysis carried out in order to answer our research questions and hence fulfil the purpose of our study which include; theoretically trying to find out if the SERVQUAL model is used to measure of service quality in grocery stores and empirically finding out how consumers perceive service quality in grocery stores by identifying what dimensions bring satisfaction.

Firstly, the lack of fit of data collected using the modified SERVQUAL model which is shown in the factor analysis was realised. Some items from different dimensions load into one single factor and some split into two separate factors meaning the SERVQUAL model is not valid for our study. However, just the tangible dimension that had all its items fall under the same factor. This means the SERVQUAL's discriminant validity for our study differs from the original study carried out by Parasuraman et al., (1988). This study shows lack of support for the discriminant validity of SERVQUAL which is reflected in the factor analysis.

Also, the SERVQUAL model provided a satisfactory level of overall reliability (0.92) which is almost same to Parasurman et al., (1988) study on SERVQUAL but some dimensions (tangibles, responsiveness and product) did not show enough reliability in this study meaning some items were not cohesive in forming some dimensions.

From the findings mentioned above, it is clear that the SERVQUAL model is not a good instrument to measure service quality in grocery stores.

From the gap score analysis carried out, it was found that, the overall service quality is low as perceived by consumers in grocery stores and hence no customer satisfaction. Consumers have higher expectations than what they actually receive from grocery stores even though the difference is not wide. To answer our research questions which are; how consumers perceive service quality and are consumers satisfied with service offered by grocery stores, the gap scores analysis carried out provided answers to these questions. The overall perceived service quality is low as expectations exceed perceptions meaning consumers desired more than what was offered to them. As a result of this gap, it is clear that consumers are not satisfied. Evaluating the perceptions and expectations of consumers, it can be seen that no dimension of service quality brings customer satisfaction.

Evidence from the study show that, grocery stores have to improve performance on all the dimensions of service quality in order to increase customer satisfaction since consumers expect more than what is been offered by these stores. This will enable them maintain high level of competitiveness.

6.2 Limitations

There are some limitations associated with this study that need to be discussed. Firstly, the results obtained from this study cannot be generalised to a wide range of similar situations concerning grocery stores because of the non-probability sampling technique used even though the methodology used in this study could be applied to these similar situations. Also, the issue of consumers' perceptions could be questioned because the sample size consisted of respondents that come from both developing and developed economies that may differ. Carrying out this study on grocery stores of different sizes could be a limitation because consumers could expect more from bigger grocery stores than smaller ones.

However, the above limitations are less significant compared to the importance of carrying out this type of study. Such a study should be carried out frequently in order to monitor service quality and find out satisfaction levels of customers and hence make necessary adjustments in case of any weaknesses or strengths.

6.3 Implications

The purpose of this study is find how out consumers of grocery stores perceive service quality and see how applicable the SERVQUAL model in the context of grocery stores by using its dimensions to measure service quality.

In conclusion, knowing how consumers perceive service quality and being able to measure service quality can benefit management of service organisations. Measuring service quality can help management provide reliable data that can be used to monitor and maintain improved service quality. Using the SERVQUAL model to assess service quality enables management to better understand the various dimensions and how they affect service quality and customer satisfaction. This will help them to identify those that have strengths and weaknesses and thereby make necessary improvements.

However, in this study, we have been trying to measure service quality and customer satisfaction by using the SERVQUAL model and find out if it is an effective tool in assessing consumers' perceptions of service quality in grocery stores.

From our study the findings show that the SERVQUAL model is not a good tool to measure service quality in grocery stores because some dimensions (tangibles, responsiveness and products) did not prove reliable for measurement and this therefore implies that different methods and models could be used to measure service quality and customer satisfaction in grocery stores. The dimension 'Product' did not show good reliability in the study meaning it is was not a good measure of service quality in grocery stores. This dimension is very important in measuring service quality in grocery stores according to Magi and Julander, (2009, p.33-41).

Findings also show that consumers expected more than what they perceive in these stores and hence no satisfaction and this therefore means grocery stores must strive hard to improve all the dimensions of service quality in order to bring higher perceived service quality and customer satisfaction.

General implication to management of grocery stores is that they should focus on all dimensions of service quality and make efforts to improve them in order to have better performance that would lead to higher perceived service quality and customer satisfaction.

6.4 Suggestions for further research

Further research should be carried out in order to enhance the understanding of the concepts of service quality and customer satisfaction, how they are measured because they are very important for service organisations in terms of profitability and growth. A similar study could be conducted with a larger sample size so that results could be generalised to a larger population.

This study can be carried out in other areas comprised of multiple cultures in order to find out the applicability of the SERVQUAL model in grocery stores. Further studies could be carried out on service quality of grocery stores in Sweden specifically to assess consumers' service quality perceptions of grocery stores with similar sizes.

6.5 Quality criteria

The quality of a business research is based generally on the validity and reliability of the measures. The validity of a research refers to how relevant the research activities are in achieving the goal of the research and reliability is concerned with the consistency of results. Bryman and Bell, (2007 p.162-164). The measure of validity, replicability, and reliability in cross sectional design is viewed externally and internally as well by Bryman & Bell, (2007, p.58) as summarized below.

- The measure of reliability and measurement validity are concerns on the quality of the measures that are employed to tap the concepts in which the researcher is interested. In our study, both validity and reliability are tested. The test for reliability was high overall but some dimensions of the SERVQUAL model did not have significant reliability meaning they were not cohesive in terms of measurement of service quality. However, most of the measures used were good to tap service quality even though some were not. The validity was tested through factor analysis and it was proven that the SERVQUAL model is not a good measure of service quality in grocery stores because the items under most of the dimensions did not group under same factors.
- The replicability of a research which is the likelihood that a similar research on the same population at another time will give the same results is very likely in cross sectional design to the degree that the procedure for carrying out the research were spelled out like respondents, designing measures of concepts, administration of research instruments and analysis of data which are most often specified in quantitative research that bases on cross sectional designs. In our case, we think if this study is carried out again, the same results will be collected because the methodology used was good in terms of collecting trustworthy data from respondents. However, it is still possible that results collected later could change because expectations from consumers are always changing.

➤ In our study, which is using a cross-sectional design, the external validity would be weak because we did not apply a probability sampling technique meaning our results could not be generalised to a larger population.

Our study could be considered credible because we tried at all cost to obtain unbiased answers from our respondents and we analysed exactly what we had as data from them with doing any additional to primary data on our part. This means a high degree of honesty was applied in the study.

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Appendix 1 - Questionnaire

We are Master students in Marketing from the Business school, Umea University. We are carrying out a study on how students perceive service quality in grocery stores. We would be happy if you could help us answer the following questions. Thank you.

The questionnaire is in two parts, expectations and experience.

Expectations: This section deals with your opinion of grocery stores. Please, show the extent to which you think grocery stores 'should' possess the following features. We are interested in knowing your expectations from ideal grocery stores in Umea. You should rank each statement as follows;

Strongly Disagree

Strongly Agree

1

2

3

4

5

6

7

Put a cross (X) on your choice of answer.

Statement	scores						
1. Ideal grocery stores should have modern equipments.	1	2	3	4	5	6	7
2. Their physical facilities (shelves, counters, fridges, computers, lights) should be visually appealing.	1	2	3	4	5	6	7
3. Their employees should be well dressed and appear neat.	1	2	3	4	5	6	7
4. The physical environment of the grocery store should be clean.	1	2	3	4	5	6	7
5. When grocery stores promise to do something by a certain time, they should do so.	1	2	3	4	5	6	7
6. When a customer has a problem, grocery stores should show a sincere interest in solving it.	1	2	3	4	5	6	7
7. Grocery stores should perform the service right the first time.	1	2	3	4	5	6	7
8. They should provide their services at the time they promise to do so.	1	2	3	4	5	6	7
9. They should keep their records accurately.	1	2	3	4	5	6	7
10. Employees should make information easily obtainable by the customers.	1	2	3	4	5	6	7
11. Employees should give prompt service to customers.	1	2	3	4	5	6	7
12. Employees are always willing to help customers.	1	2	3	4	5	6	7
13. Employees in a grocery store should never be too busy to respond to customers' requests.	1	2	3	4	5	6	7
14. The behaviour of employees in grocery stores should instil confidence in customers	1	2	3	4	5	6	7
15. Customers should be able to feel safe in their transactions with employees in the grocery stores.	1	2	3	4	5	6	7
16. Their employees should be polite.	1	2	3	4	5	6	7
17. Employees of grocery stores should have the knowledge to	1	2	3	4	5	6	7

answer customers' questions.	
18. Grocery stores should give customers individual attention.	1 2 3 4 5 6 7
19. Their operating hours should be convenient to all their customers.	1 2 3 4 5 6 7
20. Employees should give customers personal service.	1 2 3 4 5 6 7
21. They should have their customers' best interest at heart.	1 2 3 4 5 6 7
22. The employees should understand the specific needs of their customers.	1 2 3 4 5 6 7
23. Grocery stores should have enough variety of products	1 2 3 4 5 6 7
24. The products in grocery stores should be of good quality	1 2 3 4 5 6 7

Perceptions: The following statements deal with the perceptions of service experienced in grocery stores. Please, show the extent to which these statements reflect your perception of service in grocery stores in Umea.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

Put a cross (X) on your choice of answer.

Statement	scores
1. Grocery stores have up-to-date equipments.	1 2 3 4 5 6 7
2. Physical facilities (like shelves, fridges) are visually appealing.	1 2 3 4 5 6 7
3. Employees are well dressed and appear neat.	1 2 3 4 5 6 7
4. The physical environment of the grocery stores is clean	1 2 3 4 5 6 7
5. When they promise to do something by a certain time, they do.	1 2 3 4 5 6 7
6. When a customer has a problem, they show a sincere interest in solving it.	1 2 3 4 5 6 7
7. Grocery stores perform the service right the first time.	1 2 3 4 5 6 7
8. Grocery stores in Umea provide the service at the time they promised to do so.	1 2 3 4 5 6 7
9. Grocery stores keep their records accurately	1 2 3 4 5 6 7
10. Employees make information easily obtainable by customers	1 2 3 4 5 6 7
11. Employees give prompt service to customers.	1 2 3 4 5 6 7
12. Employees are always willing to help customers.	1 2 3 4 5 6 7
13. Employees are never too busy to respond to customers	1 2 3 4 5 6 7

requests.							
14. The behaviour of employees instil confidence in customers	1	2	3	4	5	6	7
15. Customers feel safe in their transactions with employees in the grocery stores.	1	2	3	4	5	6	7
16. Employees are polite with customers.	1	2	3	4	5	6	7
17. Employees of grocery stores have the knowledge to answer customers' questions.	1	2	3	4	5	6	7
18. Grocery stores give customers individual attention.	1	2	3	4	5	6	7
19. Their operating hours are convenient to all their customers.	1	2	3	4	5	6	7
20. Employees give customers personal service.	1	2	3	4	5	6	7
21. Grocery stores have their customers' best interest at heart.	1	2	3	4	5	6	7
22. The employees understand the specific need of their customer.	1	2	3	4	5	6	7
23. Grocery stores have enough variety of products.	1	2	3	4	5	6	7
24. The products of grocery stores have good quality	1	2	3	4	5	6	7

Demographic questions

- 25) Gender Male ☐ Female ☐
- 26) Level of Education Undergraduate ☐ Masters ☐ Others ☐
- 27) How much do you spend in grocery store monthly?
- 0 – 1000Kr ☐
- 1001 – 2000Kr ☐
- 2001 – 3000Kr ☐
- Above 3000Kr ☐



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