USER'S PERCEIVED SERVICE QUALITY AND SATISFACTION WITH INTERNET BANKING: EXPERIENCE FROM UNITED BANK S.C.

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF MASTERS OF ARTS DEGREE IN MARKETING MANAGEMENT EDUCATUION

BY:

NESIBU TEMESGEN

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APPROVED By Board of Examiners

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Nesibu Temesgen

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Abstract

In the world of banking, the development in information technology has an enormous effect on development of more flexible payment methods and more-user friendly banking services. Internet banking services are new, and the development and diffusion of these technologies by financial institutions is expected to result in a more efficient banking system. In recent years two Ethiopian banks started to offer Internet banking services to their customers. The purpose of this research was to identify the relationship between perceived service quality and satisfaction from the side of customers of United bank S.C. The author of this thesis has developed a theoretical model (instrument) for measuring the quality of Internet banking services. Using quantitative research method including the design and distribution of a questionnaire, empirical data was collected on which statistical analysis has been performed. As a result of the conducted analysis, new model (instrument) for measuring quality of Internet banking services having seven quality dimensions with total of 42 items was developed. These dimensions are Reliability & Service Performance, Website Characteristic and Customization, Fulfillment, Efficiency, Responsiveness, Organizational Issues, and Privacy. Furthermore, based on the developed theoretical model, customer satisfaction with different aspects of the Internet banking services quality dimensions and overall service quality as well as service quality dimensions with overall service quality has been evaluated. Such evaluation resulted in the development of graphical representation of relationship between Internet banking service quality dimensions with overall service quality and the relationship between both Internet banking service quality dimensions and overall service quality with overall customer satisfaction. Based on the results of the Analysis of the Empirical Data, managerial recommendations are given. Suggestions for further research on quality of Internet banking services are also offered.

Chapter One

Introduction

This chapter is designed to introduce the study area- online banking and service quality. Further, research problem and objectives, research questions, significance, scope and limitations of the study are addressed. Finally, definitions of terms and concepts used in the study are provided with an outline of the thesis.

1.1 Background

The recent developments in information technology have led major changes in the way services are delivered to customers (Fredrinksson, 2003). Now-a-days, customers are using more and more self-service options, which are convenient and fast. In addition, the advent and use of the Internet has changed considerably the daily activities of most people, such as shopping and banking. As a result, the popularity of banking services delivered over the Internet (Internet banking) is increasing in recent years.

Online services, including Internet banking, are becoming an attractive alternative to visiting service outlets or phoning call centers for increasing number of customers. Some of the reasons for customers to prefer Internet services include: convenience (Szymanski & Hise, 2000), feeling more in control of the service process (Bateson, 2000), and avoiding human contact and saving time (Meuter et al., 2000). As far as online services are concerned, it is quite easier for customers to evaluate and compare the benefits of competing services (Santos, 2003). Additionally, the switching costs are very low, that is why retaining the customer in

the Internet space is of vital importance (Reichheld & Schefter, 2000). For service providers to retain their e-customers, better understanding of how the customers perceive and evaluate the quality of electronically offered services is required.

Businesses that have been experienced and successful in offering e-services are starting to apprehend that besides website presence and low price, important success or failure factors also include the electronic service quality (Zeithaml, 2002). Although the literature on service quality is abundant (Carman, 1990), very little research has been conducted on the evaluation of the quality of services delivered over the Internet (Cox & Dale, 2001).

As far as banking operations are concerned, during the second half of 1990s, the way of operating in the industry has undergone a fundamental change due to the advent of the Internet (Gunasekaran & Love, 1999). Taking into consideration the huge investments banks make in Internet infrastructure, customer satisfaction and retention are turning into the crucial factors for success in Internet banking (Bauer et al., 2005). In today's world, where customers have very high demands, the financial service providers are trying to become more customer-focused (Gonzales, et al., 2004).

Therefore, for the Internet banking to be profitable, banks should focus not only on acquiring new customers but also on the retention of existing ones (Reichheld & Schefter, 2000). Mols (2000) reported that the introduction of e-banking services may change the way banks build and maintain their relationships with customers. Further, the increased use of the Internet in future will heighten the expectations and perceptions of customers, while making e-service

quality an increasingly important issue. Thus, understanding service quality issues within the new delivery channel becomes crucial.

In addition, delivering high quality services is the way companies manage to improve their customer relationships. Delivering high quality services is a pre-requisite for achieving customer satisfaction and only through customer satisfaction can the company gain loyal customers (Grönroos, 2000). Because of the highly undifferentiated products and services that financial organizations (specifically banks) offer, service quality becomes main tool for competing in the marketplace (Stafford, 1996). In general, because of the higher profits and higher customer retention to which they lead, high-quality services are believed to be providing the banks with competitive edge (Bennett & Higgins, 1988).

As a result, it becomes obvious that high service quality is essential for surviving in the highly competitive banking environment (Wang et al., 2003). This leads to the fact, that a good understanding of the attributes that customers use to judge service quality is necessary in order for the company to be able to monitor and enhance its service performance and improve overall service quality.

According to Fekadu (2009), Ethiopian banking system is still underdeveloped compared to the rest of the world. In Ethiopia Cash is still the most dominant medium of exchange and electronic payment systems are at an embryonic stage. Commercial Bank of Ethiopia (CBE), despite, being the pioneer in introducing ATM based payment system; it lagged behind private commercial bank, Dashen Bank, which worked aggressively to maintain its lead in

electronic payment systems. At the end of June 2009, Dashen bank has installed more than 40 ATMs in its area branches, university compounds, shopping malls, restaurants and hotels and has maintained its leadership in introducing and expanding e-banking in Ethiopia. Low level of infrastructural development, lack of suitable legal and regulatory framework, high rates of illiteracy, frequent power interruption and security issues are the main challenges for developing e-banking in Ethiopia. All banks in Ethiopia are too late to move with technological advancement.

The organization under study, United Bank S.C., is one of the initiators of providing Internet banking services to Ethiopian customers. To increase customer satisfaction with the service, while reducing waiting times and improving service performance, the bank has to judge all its operations in this regard carefully. Also, in order to take appropriate measures and build up adequate Internet banking product/service options, the current performance of the service, in terms of quality and customer satisfaction, is essential to study by the bank. Due to this, the researcher is inspired to assess the Internet banking service quality and the level of service users' satisfaction at United Bank S.C.

1.2 Statement of the Problem

When judging the quality of e-banking services offered by any bank, customers consider a lot of factors which influence their judgment. For some customers the response and efficiency of the service providers would be of greatest importance, while for others, the security and privacy issues might be more important, and still for others what matters most may be the website design and ease of use. In reality, customers have different expectations and

requirements. They deem different aspects of the service delivery process, essentially, in order to be satisfied with the service.

As the service delivery process on the Internet differs significantly from that in the traditional brick-and-mortar banks' environment, mainly because of the lack of direct contact between the employees and the customers, the attributes for defining a high-quality service delivery are expected to differ in the two contexts. According to Li et al. (2002), because of the existing difference between online and traditional services, there exist real challenges in measuring the quality of online services. Although there is a lot of research made on evaluation of traditional banking services quality (Johnston, 1995), the research on online services quality, is in its infancy (Santos, 2003). As the use of online banking steadily increases over the years (Fredriksson, 2003), knowledge about defining high-quality service delivery over the Internet becomes crucial for banks, which want to stay competitive in the industry- both nationally and internationally. If banks have knowledge about the quality attributes they can use to measure the quality of their online services and the level of satisfaction of customers with service, it would be much easier for them to plan and deploy scarce resources strategically/appropriately to take a lead in the sector.

For example, if the efficiency of the service provider is deemed very important for the quality of the delivered online service, and customers turn out to be dissatisfied with this aspect, it means that the bank management should consider the issue carefully and try to improve the situation. Additionally, this knowledge will also help banks allocate their resources in a way that the superior levels of service quality will be achieved. Eventually, this will lead to

gaining competitive advantage, which further helps the organization to retain customers, thus be profitable (Bennett & Higgins, 1988).

Finally, looking at the Ethiopian context in general, and the United bank in particular, the issues as stated above seems to be very important and relevant, as Internet banking is in the commencement stage in the country and among United Bank's operations/services. The bank introduces Internet banking service in 2000 E.C. Taking the fact into consideration and looking at the problem of measuring service quality of Internet banking and associated users' satisfaction, the study was designed in Ethiopian perspective, by considering the United bank's Internet service provisions. Based on problem area discussions the research problem is formulated as to identify the relationship between Internet banking service quality and satisfaction from the side of the users at United bank S.C.

The research questions thus developed are as follows:

1. What are the Internet banking service quality dimensions of the bank?
2. What are the customer perceptions of the service quality offered by the bank?
3. How service quality dimensions affect customer satisfaction in Internet banking?
4. How can the relative importance of the service quality dimensions be described in Internet banking in relation with the satisfaction?

1.3. Objectives of the Study

Consumers have a key role in defining and evaluating service elements and it is imperative that service providers have a clear understanding of consumer expectation and perception.

Parasuraman et al (1983) argued that perceived service quality is best seen as the degree and direction of the discrepancy between consumers' perception and expectation.

A research topic 'User's perceived service quality and satisfaction with Internet banking: Experience from United Bank' is confirmed with the aim of investigating the relationship between customer satisfaction and Internet banking service quality in United Bank. Therefore, the main objective of the research is to study the user's perceived quality and customer satisfaction with Internet banking in United Bank in this context. More over the research has the following specific objectives:

1. To identify the Internet banking service quality dimensions of United Bank S.C.
2. To assess customer perceptions of Internet banking service quality at United Bank S.C.
3. To examine the relationship between Internet banking quality and customer satisfaction at the bank.
4. To describe the role of Internet banking service quality dimensions in estimating overall customer satisfaction.

1.4. Significance of the Study

Managers, in virtually all industries, understand that providing quality customer service is a key strategic component in firm profitability. The importance of service delivery and its impact on improving satisfaction and retention of customers, improving sales and market share, and improving corporate image cannot be overstated (Lewis et al., 1994). Banks have largely implemented service delivery technology as a way of augmenting the services

traditionally provided by bank personnel. Implementation results both from the need to reduce the cost of delivering service primarily through personnel, and the corresponding need to meet the challenge posed by technologically innovative competitors. Thus, the investigator believes that the study is immensely significant in diverse ways to business/marketing practitioners, policy makers and stakeholders. However, specific orientation of the study is in the premises of Internet banking services, and helps to identify the conditions to be met for successful delivery of the idea.

To the management of United Bank S.C., the findings and results that are reported in the study, provide a reliable scientific evaluation describing the level of Internet banking quality and customer satisfaction associated with the service. This further brings to the attention some of the prominent reasons/causes of slow adoption rate to Internet banking by the customers, and will be helpful for the management to plan and direct their communication, appropriately.

To stakeholders like investors, employees etc., the study provides invaluable information that allow them to further analyze and suggest to improve the Internet banking service delivery mechanism of the bank. Additionally, for academia, the findings of the research study suggests the approach to examine Internet banking service quality while identifying dimensions in Ethiopian perspective, and adding to the existing literature in the area.

1.5. Delimitation of the Study

Delimitation narrows down the scope of the study. The scope can be focused on specific variables for a central phenomena or phenomenon (Creswell, 2003:148). By this framework it is sound to set the limits of the boundary by subjects or variables.

Since the aspects of the chosen research problem are many, the researcher has tried to narrow down the focus. The aim of the research is to gain a better understanding of the relationship between the Internet banking service quality dimensions and customer satisfaction. The literature part contain several theories related to service quality and satisfaction and give a clear idea about the specific area to the reader and also explain the proper context of the study

This study is delimitated to gathering empirical data obtained through questionnaires while drawing a sample (representing approximately 25% of the total population) from Internet banking customers of United Bank S.C. within Addis Ababa city, and using the service from last one year.

1.6. Definition of 'Terms' and 'Concepts'

Given below is a short description of the terms that appear throughout the document in order to provide the reader their meanings and a clear understanding.

Online Banking Services (E-banking Services): Banking services delivered over the Internet. These include opening/closing of account, domestic/foreign money transfer, standing orders, direct debit, debit card application, loan application, credit card application, insurance investment, mutual funds investment, foreign/domestic equity investment, deposit account opening, life insurance contract, traffic insurance contract, etc. (Centeno, 2003).

E-Service Quality: *"Consumer's overall evaluation and judgment of the excellence and quality of e-service offerings in the virtual marketplace"* (Santos, 2003:235).

SERVQUAL: A 22-item instrument used for measuring customer expectations and perceptions of a service along five quality dimensions: tangibles, reliability, responsiveness, assurance and empathy (Parassuraman et al., 1991).

1.7. Disposition of the Thesis

The thesis is divided into five chapters. In the first chapter the background of the research area is presented followed by the research problem and study objectives. In chapter two, established theories guiding the research problem and previous studies in the domain of service quality and customer satisfaction are explored. While chapter three developed with a frame of reference for the study and research methodology followed, chapter four presents the empirical data, analysis, and interpretation of the results. Finally, chapter five is designed to draw conclusions from the research findings with implications of the study.

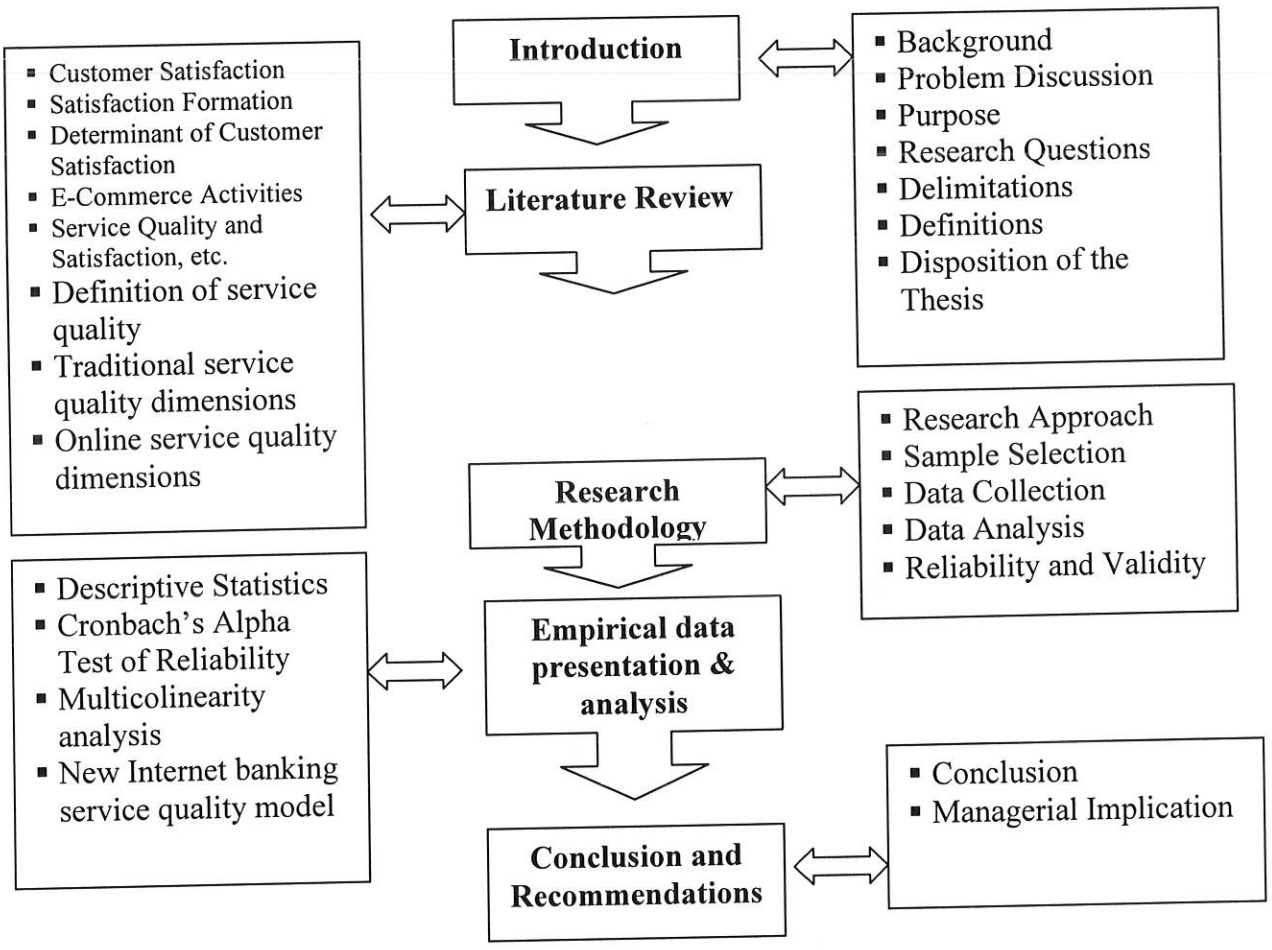


Figure 1: Outline of the Thesis

Chapter Two

Literature Review

This chapter provides an overview of literature and models guiding the research problem. Concept of customer satisfaction, its formation and determinants, e-Commerce activities, service quality, Internet banking, and relationship between service quality and customer satisfaction are explored to enrich the research area.

2.1 Customer Satisfaction

Early concepts of satisfaction research have typically defined satisfaction as a post-choice evaluative judgment concerning a specific purchase decision (Oliver, 1980). Most researchers agree that satisfaction is an attitude or evaluation that is formed by the customer comparing their pre-purchase expectations of what they would receive from the product to their subjective perceptions of the performance they actually did receive (Oliver, 1980).

2.1.1 Defining Customer Satisfaction

Authors define customer satisfaction differently. Following table presents some of the definitions of the concept leading to better understanding and acceptance from thesis perspective.

Table 1: Customer Satisfaction Defined

Definition	Author
"Satisfaction is a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations."	Kotler (2000, p.36)
"Customer satisfaction is a collective outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service."	Yi (1990)

2.2 Satisfaction Formation

Marketing literature (Oliver, 1980) and recent information system studies (McKinney et al., 2002) draw attention to the disconfirmation theory that emerges as the primary foundation for satisfaction model. According to this theory, satisfaction is determined by the discrepancy between perceived performance and cognitive standards such as expectation and desires.

Customer expectation can be defined as customer's pre-trial beliefs about a product (Mckinney et al., 2002). Expectations are viewed as predictions made by consumers about what is likely to happen during impending transaction or exchange (Zethaml, 1988). Perceived performance is defined as customer's perception of how product performance fulfills their needs, wants and desire (Cadotte et al., 1987). Perceived quality is the consumer's judgment about an entity's overall excellence or superiority (Zeithaml, 1988).

Disconfirmation is defined as consumer subjective judgments resulting from comparing their expectations and perceptions of performance received (Mckinney et al., 2002).

Oliver (1980) described the process by which satisfaction judgments are reached in the expectancy-disconfirmation framework. Figure 2 shows how satisfaction judgment is related to expectancy-disconfirmation approach. Buyers form expectations of the specific product or service before purchase and perceived quality level which is influenced by expectations.

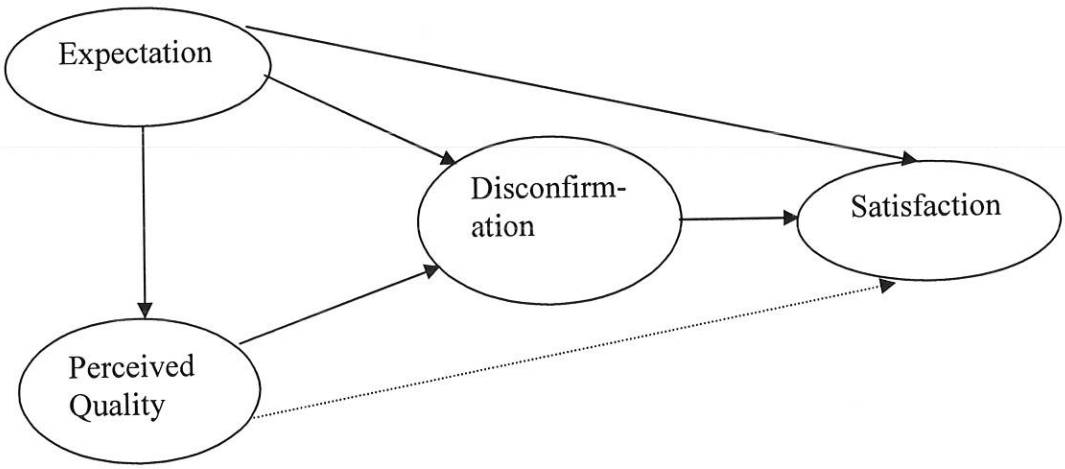


Figure 2: Satisfaction Formation

(Source: Anderson & Sullivan, 1993 p.127)

Figure 2 explains the arrow drawn from expectations to perceived quality that indicate perceived quality may increase or decrease directly through expectations. Perceived quality may either confirm or disconfirm pre-purchase expectation. The determination of the extent to which perceived quality expectations are disconfirmed is depicted by arrow drawn from expectation and perceived quality to disconfirmation. Satisfaction is positively affected by expectations and the perceived level of disconfirmation (Figure 2). As a result,

disconfirmation and perceived quality maintain a stronger impact on determining satisfaction (Oliver, 1980).

2.3 Determinant of Customer Satisfaction

Several authors have developed a number of models showing customer satisfaction and its determinants in electronic (e) environmental settings. A brief picture of the models is discussed below.

2.3.1 Updated DeLone & McLean IS Success Model (2003) for End User Satisfaction

Based on research contributions in Information System (IS) success model and changes in the role and management of IS, DeLone and McLean (2003) have updated their original success model and explained how the updated DeLone & McLean IS Success model can be adapted to the measurement challenges of the new e-Commerce world (Figure 3).

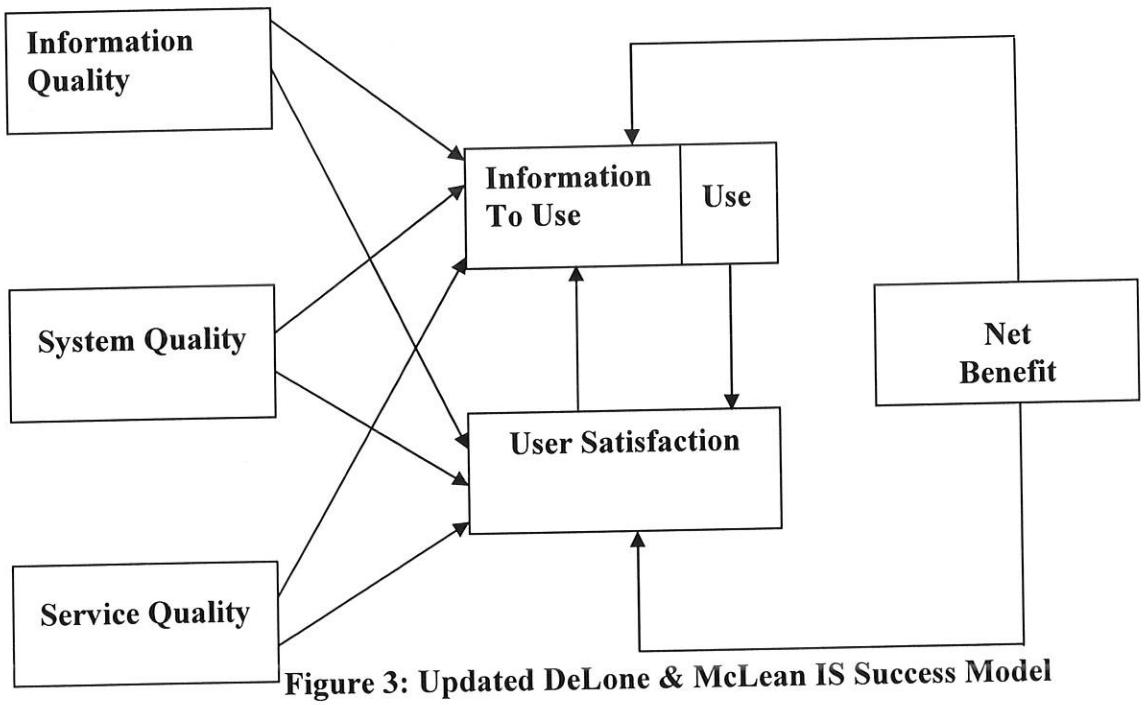


Figure 3: Updated DeLone & McLean IS Success Model

(Source: Delone & McLean 2003, p.24)

Within the e-Commerce context, the primary system users are customers or suppliers rather than internal users. Customers and suppliers use the system to make buying or selling decisions and execute business transactions. These electronic decisions and transactions will then impact individual users, organizations, industries and even national economies. This communication and commerce process fits nicely into updated DeLone & McLean IS Success model (2003) and its six success dimensions (as described below). This model describes system quality, information quality, service quality singularly and jointly affect both use and user satisfaction. Additionally the amount of use can affect the degree of user satisfaction positively or negatively.

System Quality in the internet environment measures the desire characteristics of an E-Commerce system. System qualities that are valued by users of an e-Commerce system are usability, availability, reliability, adaptability, and response time (e.g. download time). *Information Quality* in the Web content should be personalized, complete, relevant, easy to understand, and secure that will be easy for the customers to initiate transactions via the Internet and return to site on a regular basis. *Service Quality* means the overall support delivered by the service provider, applies regardless of whether this support is delivered by the Information system department, a new organizational unit, or outsourced to an Internet service provider (ISP). Its importance is most likely greater than previously since the users are now customers and poor user support will translate into lost customers and lost sales (DeLone and McLean, 2003).

Furthermore, *using* means everything from a visit to a website, to navigation within the site, to information retrieval, to execution of a transaction. *User satisfaction* remains an important means of measuring customers' opinions of e-Commerce system and should cover the entire customer experience cycle from information retrieval through purchase, payment, receipt and service. *Net benefits* are the most important success measure as they capture the balance of positive and negative impacts of the e-Commerce on customers, suppliers, employees, organizations, markets, industries, economies and even societies. *Net benefits* success measures are most important, but that cannot be analyzed and understood without *System Quality*, *Information Quality* and *Service Quality* measurements (ibid).

Additionally, Table 2 demonstrates six dimensions of the updated DeLone & McLean (2003) IS Success model that can be used as e-Commerce success metrics.

Table 2: E-Commerce Success Metrics

Dimensions of Extended IS success model	Measurement Variables
System Quality	Adaptability, availability, reliability, response time, usability.
Information Quality	Completeness, ease of understanding, personalization, relevance, security.
Service Quality	Assurance, empathy, responsiveness.
Use	Nature of use, navigation patterns, number of site visits, number of transactions executed.
User satisfaction	Repeat purchases, repeat visits users surveys.
Net benefits	Cost savings expanded markets, incremental additional sale, reduced search costs, time savings.

(Source: DeLone & MacLean 2003, p.26)

2.3.2 E-Commerce Success Model for Customer Satisfaction

Molla and Licker (2001) proposed an e-Commerce success model based on the DeLone & McLean Information System Success Model (Figure 4).

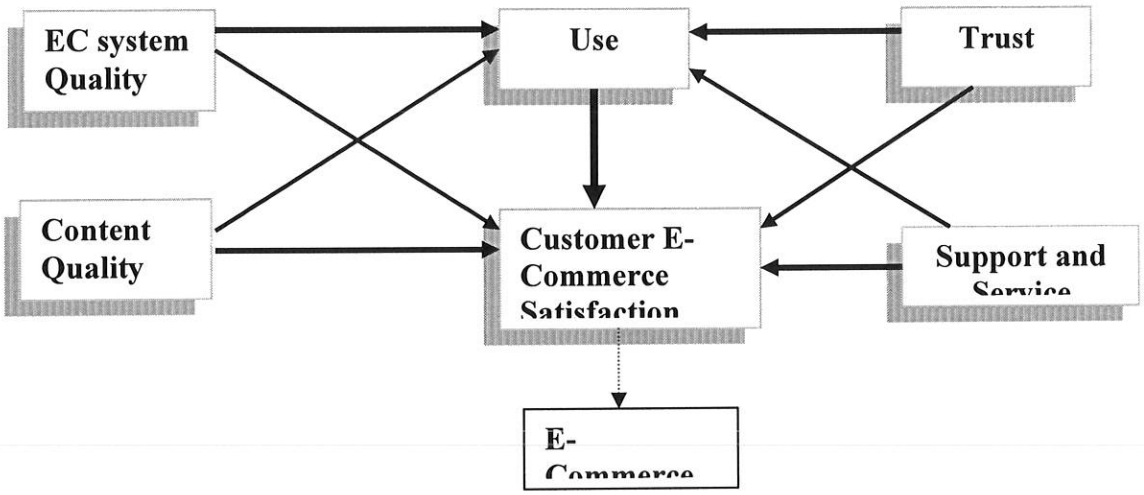


Figure 4: e-Commerce Success Model

(Source: Molla and Licker 2001, p.136)

The main differences between the DeLone & McLean (2003) model and the extension proposed here are:

- The System and Information Quality components in the DeLone & McLean (2003) model are replaced by e-Commerce System and Content Quality respectively.
- E-Commerce systems and content require additional constructs that are not captured by the traditional system quality and information quality measurements.
- User Satisfaction is replaced with Customer e-Commerce Satisfaction.
- Two additional factors- trust and service are needed to capture the transactional and customer support components of e-Commerce systems and understand the relationship between use and customer e-Commerce satisfaction (Molla and Licker 2001).

2.3.3 The Model for Expectation-Disconfirmation Effects on Web-Customer Satisfaction (EDEWS)

Based on the nature of Website development for online shopping and the proposed models by DeLone and McLean (1992) and Spreng et al. (1996), McKinney et al. (2002) posit that Web-customer satisfaction has two distinctive sources-satisfaction with the quality of a Website's information content and satisfaction with the Website's system performance in delivering information (Figure 5). Web-customers' satisfaction with a Website's Information Quality (IQ) and System Quality (SQ) is in turn affected by their prior expectations, possible discrepancies (e.g. disconfirmation) between such expectations, and the perceived performance of the Website. This concept is captured in the expectancy disconfirmation paradigm, which has been the popular approach for measuring customer satisfaction in marketing. They developed a measurement instrument for web-customer satisfaction with the information search phase of online shopping. In their study they specified information and system quality as the determinants of satisfaction and measure expectation disconfirmation at each specific dimension of these determinants.

Based on this paradigm, customer satisfaction has three main antecedents: expectation, disconfirmation, and perceived performance. When applied to Web-customer satisfaction, Web-Information Quality satisfaction has three antecedents: Information Quality expectation, Information Quality disconfirmation, and Information Quality-perceived performance. Similarly, Web-System Quality satisfaction has three antecedents: System Quality

expectation, System Quality disconfirmation, and System Quality-perceived performance (McKinney et al., 2002).

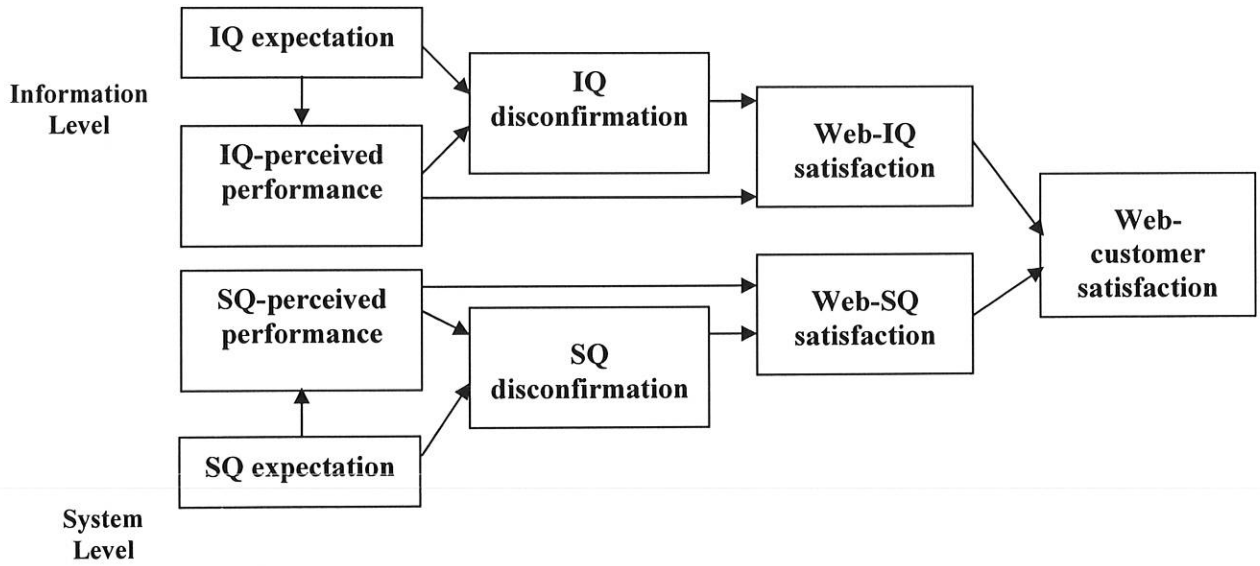


Figure 5: The Model for Expectation-Disconfirmation Effects on Web-Customer Satisfaction (EDEWS)

(Source: McKinney et al., 2002, p. 298)

McKinney et al. (2002) identified five information quality (IQ) dimensions: (1) relevance, (2) timeliness, (3) reliability, (4) scope, and (5) perceived usefulness. Relevance is concerned with the issues such as relevancy; clearness and goodness of the information and subscale for relevance are applicable, related and clear. Timeliness is concerned with the currency of the information and subscales for timeliness are current and continuously updated. Reliability is concerned with the degree of accuracy, dependability and consistency of the information and subscales for reliability are believable, accurate and consistent. Scope evaluates the context of information, range of information and level of detail provided by the website and subscales

for scope are sufficient, complete, covers a wide range, and detailed. Perceived usefulness is concerned with users assessment of the likelihood that the information will enhance their purchasing decision and subscale for perceived usefulness are informative, valuable, and instrumental (McKinney et al. 2002).

Additionally, McKinney et al. (2002) identified four system Quality (SQ) dimensions: (1) access, (2) usability, (3) navigation, and (4) interactivity. Access refers to the speed of access and the availability of the web site at all time and subscales for access are responsive, loads quickly. Usability is concerned with the extent to which the website is visually appealing, consistent, fun and easy to use and subscales for usability are simple layout, easy to use, well organizes, visually attractive, fun and clear design. Navigation evaluates the link to needed information and subscales for navigation are adequate links, clear description for links, easy to locate, easy to go back and forth and a few clicks. Interactivity evaluates the search engine and the personal design, i.e. the shopping cart feature, of the web site. Subscales for interactivity are customized product, search engine, create list of items, change list of items, finding related items.

Furthermore web information quality is defined as the customer's perception of the quality of information presented on a website, and web system quality represents the customer's perception of a web site's performance in information retrieval and delivery (McKinney et al., 2002).

2.4 e-Commerce Activities:

Eastin (2002) presented a model (Figure 6) demonstrating the adoption of four e-Commerce activities currently available to Internet users: (1) online shopping, (2) online banking, (3) online investing, and (4) electronic payment for an Internet service (i.e. access to exclusive sites).

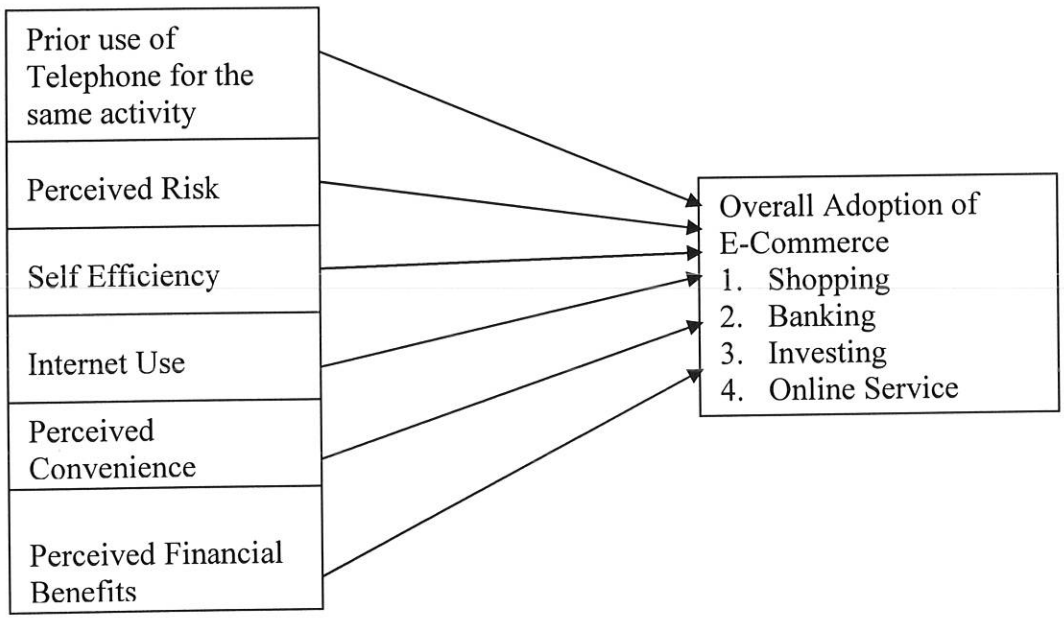


Figure 6: A Model of Overall Adoption of Four E-Commerce Activities

(Source: Eastin 2002, p.256)

Moreover, Eastin (2002) also explained six attributes common to the model- perceived convenience and financial benefits, risk, previous use of the telephone for a similar purpose, self-efficacy, and Internet use and all six attributes play a significant role in the adoption processes.

Figure 6 showed, overall adoption of a similar innovation, perceived risk, self-efficiency, Internet use and perceived convenience and financial benefits will predict the combined adoption of online shopping, banking, investing and Internet services.

2.5 Service Quality and Satisfaction

Service quality has been the subject of considerable interest by both practitioners and researchers in recent years (Parasuraman et al. 1985). An important reason for the interest in service quality by practitioners results from the beliefs that this has a beneficial effect on bottom line performance for the firm. However, practitioners often tend to use the terms service quality and customer satisfaction inter changeably. Among academics the satisfaction construct is recognized as being distinct and has developed along fairly independent lines from service quality (Oliver, 1980). Most experts agree that customer satisfaction is a short-term, transaction specific measure, where service quality is an attitude formed by a long-term, overall evaluation of a performance (Hoffman and Bateson 1997).

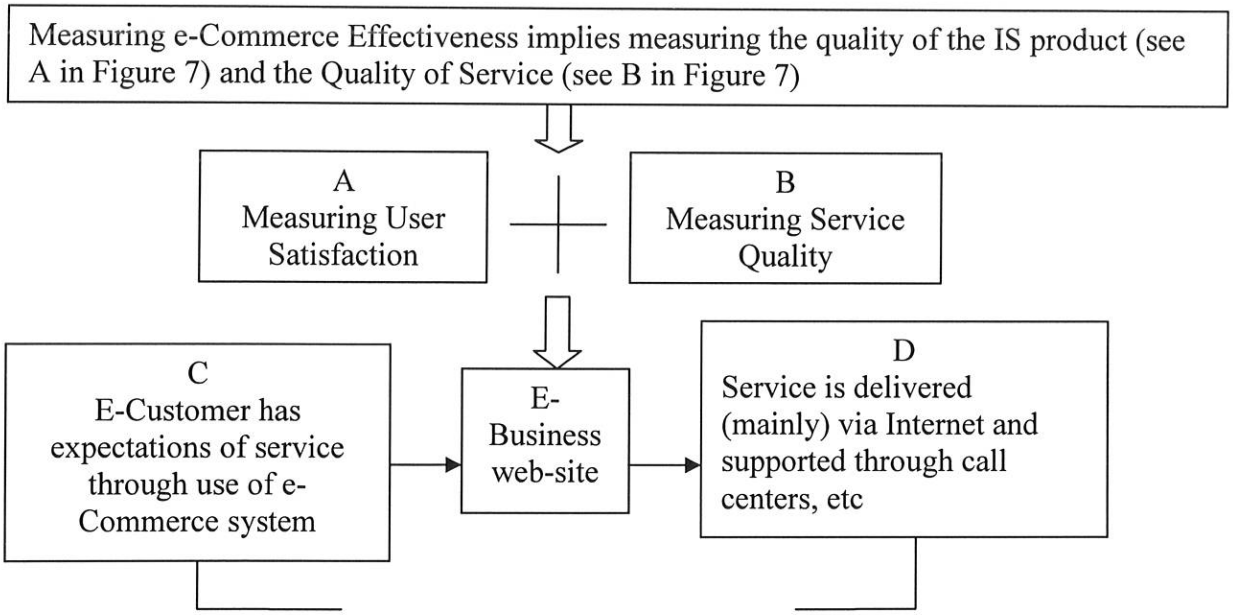
As a process in time, service quality takes place before, and leads to overall customer satisfaction. Service quality has been found to be an important input to customer satisfaction (Caruana & Malta 2002). Cronin and Taylor (1992) originally hypothesized that satisfaction is an antecedent of service quality, their research with a multi industry sample showed, in a LISREL analysis, an opposite relationship. Service quality appears to be only one of the service factors contributing to customers' satisfaction judgments (Cronin and Taylor, 1992; Ruyter et al., 1997; spreng and Mackoy, 1996). A number of academics such as Parasuraman et al. (1985, 1988); Gronross (1984); Johnston (1995) and others have tired to identify key

determinants by which a customer assesses service quality and consequently results in satisfaction or not. Jayawardhena & Foley (2000) suggested that service quality feature in Internet banking web sites are critical to enhance customer satisfaction. In Internet banking unlimited access to variety of financial transaction and quality levels of bank products are becoming a key driving force in attracting new customers and enhancing customer satisfaction (Molss, 2000).

Lassar et al. (2000) examined the effects of service quality on customer satisfaction in private banking by using two well-known measures, the SERVQUAL and the technical /financial quality. They compared and contrasted empirically the SERVQUAL and the technical or functional quality model. They tried to compare the various dimensions of the two service quality models and their effects on satisfaction. In their study they mentioned customer satisfaction is a multidimensional construct, and that these dimensions will be differentially impacted by the various components of service quality. Result of this study suggested that functional quality is not only more important that once thought, but also complex. In contrast to the other quality dimensions, the functional dimension influenced significantly each of the satisfaction measure even the technically oriented measure.

2.5.1. Models Showing the Link between Service Quality and Satisfaction

Patherm Erwin, and Remenyi (2003) have proposed the following model (see figure 7) to measure the quality of the information systems product.



Measure GAP indicating level of Service Quality through satisfaction of use (C-D)
Figure 7: Measuring E-Commerce Effectiveness Using a Combination of User Satisfaction and Service Quality Theories (Source: Pather et al., 2003, p.149)

The model incorporates both measurement of user satisfaction and measurement of the service quality in trying assessing the effectiveness and quality of the information system product. The relationship lies in that in delivering an online service, the customer is essentially being delivered an Information System product.

According to the authors, the model provides an appropriate basis to investigate a relevant scale to measure effectiveness in the e-Commerce environment by providing a basis for an evaluation of how relevant the dimensions of traditional service quality scale are e.g. the five dimensions used in the SERVQUAL scale (Parasuraman et al. 1988) are Tangibles, Reliability, Responsiveness, Assurance, and Empathy; and secondly, other independent variables identified in exploratory e-Commerce studies (Molla and Licker 2001) such as Trust , Content-quality etc.

2.6. Definition of Service Quality

Following table presents some of the definitions of service quality to make clear the concept.

Table 3: Defining Service Quality

Definition	Author
Service quality can be defined as "the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received".	Asuonteng et al. (1996)
Service quality as the subjective comparison that customers make between the qualities of the service that they want to received and what they actually get.	Gefan (2002)
Service quality is determined by the differences between customer's expectations of services provider's performance and their evaluation of the services they received.	Parasuraman et al., (1985, 1988)

2.7. Traditional Service Quality Dimensions

Service quality has been the subject of considerable interest by both practitioners and researchers in recent years. Definitions of service quality hold that this is the result of the comparison that customers make between their expectations about a service and their

perception of the way the service has been performed (Caruana & Malta 2002; Gronroos, 1984; Parasuraman et al., 1985, 1988, 1994).

Online customers still demand many services available through traditional channels even if they choose pure internet-based suppliers with basic customer services (Yang and Fang 2004). Several studies have been conducted to identify traditional service quality dimensions that contribute most significantly to relevant quality assessments in the traditional service environment (e.g. Parasuraman et al., 1985, 1988; Johnston 1995; pitt et al., 1999; Berry et al., 1985). Identification of the determinants of service quality is necessary in order to be able to specify measure, control and improve customer perceived service quality (Johnston 1995).

Parasuraman et al.'s (1985) identified ten detailed determinant of service quality through focus group studies: tangibles, reliability, responsiveness, communcaiton, access, competence, courtesy, credibility, security, understanding/ knowledge of customer. Later these ten dimensions were further purified and developed five dimensions- tangibles, reliability, responsiveness, assurance and empathy to measure service quality, SERVQUAL (Parasuraman et al, 1988).

Tangibles refer to physical facilities, equipment, and appearance of personnel. Reliability means ability to perform the promised service dependably and accurately. Responsiveness means willingness to help customers and provide prompt service. Assurance indicates knowledge and courtesy of employees and their ability to inspire trust confidence. Empathy refers to caring, individualized attention the firm provides its customers. (ibid)

Walker (1990) suggested that the key determinants are product reliability, a quality environment and delivery systems that work together with good personal service- staff attitude, knowledge and skills. Gronroos (1990) postulated six criteria of perceived good service quality: professionalism and skills; attitude and behavior; accessibility and flexibility; reliability and dimensions – Attentiveness/ helpfulness, Responsiveness, Care, Availability, Reliability, Integrity, Friendliness, Courtesy, Communication, Competence, Functionality, Commitment, Access, Flexibility, Aesthetics, Cleanlines/tidiness, Comfort and security.

From the focus group interviews, Berry et al. (1985) identified ten determinant of service quality. Virtually all comments consumers made in these interviews about service expectations, priorities and experiences fall into one of these ten categories. These are – reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding and tangibles.

Reliability involves consistency of performance and dependability. It means that the firm performs the service right the first time. It also means the firm honors its promises. Specially it involves: accuracy in billing, keeping records correctly, performing the service at the designated time. Responsiveness concerns the willingness or readiness of employees to provide service. It involves timelines of services that means – mailing a transaction slip immediately, calling the customer back quickly and giving prompt service. Competence means possession of the required skills and knowledge to perform the service. It involves: knowledge and skill of the contact personnel, knowledge and skill of operational support

personnel, research capability of the organization. Access involves approach, ability and ease of contact. It means: he service is easily accessible by telephone, waiting time to receive service is not extensive, hours of operation are convenient and location of service facility is convenient. Courtesy involves politeness, respect, consideration, and friendliness of contact personnel. It includes – consideration for the consumer's property, clean and near appearance of public contact personnel. (ibid)

Communication means keeping customers informed in language they can understand. It also means listening to customers. It may mean that the company has to adjust its language for different consumers – increasing the level of sophistication with a well-education customer and speaking simply and plainly with a novice. It involves: explaining the service itself, explaining how much the service will cost, assuring the customer that a problem will handled. Credibility involves trust worthiness, believability, honesty; it involves having the customer's best interests at heart. Contributing to credibility are: company name, company reputation, personal characteristics of the contact personnel, the degree of hard sell involved in interaction with the customer. Security is the freedom from danger, risk or doubt. It involves: physical safety, financial security and confidentiality. Understanding the customer means making the effort to understand the customer's need. It includes: learning the customer's specific requirements, providing individualized attention, recognizing the regular custom. Tangible includes the physical evidence of the service: physical facilities, appearance of personnel, tools or equipment used to provide the service, physical representations of the service, such as a plastic credit card or bank statement, other customers in the service facilities. (ibid)

Variens (2000) developed an application for measuring retail banking service quality, which consists of 28 attributes including four service quality dimensions such as: accessibility; competence; accuracy and friendliness; and tangibles. The accuracy and friendliness dimension turned out to be the most important factors out of four determining banking preference, followed by competence, tangibles, and accessibility. Nantel (2000) proposed an alternative measure of perceived service quality in retail banking that comprises 31 items with six underlying key dimensions. These dimensions are: effectiveness and assurance, access, price, tangibles, service portfolio and reliability.

2.8. Online Service Quality Dimensions

The SERVQUAL scales (Parasuraman et al. 1991) can evidently not be applied as such to e-services, but dimensions that closely resemble them can be constructed. Noetheless, additional dimensions may be needed to fully capture the construct of e-service quality (Zeithaml et al.2002). Kaynama and Black (2000) and Zeithaml et al. (2000) have recently proposed a number of e-quality dimensions.

Zeithaml et al. (2000) have developed e-SERVQUAL for measuring e-service quality. Through the focus group interview they have identified seven dimensions of online service quality: efficiency, reliability, fulfillment, privacy, responsiveness, compensation and contact. They identified four dimensions-efficiency, reliability, fulfillment and privacy-form the core e-SERVQUAL scale that is used to measure the customer's perceptions of service quality delivered by online retailers.

Efficiency refers to the ability of the customers to get to the website, find their desire product and information associated with it, and check out with minimal effort. Fulfillment incorporates accuracy of service promises, having product in stock, and delivering the product in the promised time. Reliability is associated with the technical functioning of the site, particularly the extent to which it is available and functioning properly. The privacy dimension includes assurance that shopping behavior data are not shared and that credit card information is secure (Zethaml et al., 2002).

They also found that three dimensions become salient only when the online customers have questions or run into problem –responsiveness, compensation and contact. Responsiveness measures the ability of e-tailers to provide appropriate information to customers when a problem occurs, have mechanisms for handling returns, and provide online guarantees. Compensation is the dimension that involves receiving money back and returning shipping and handling costs. The contact dimensions of the recovery e-SERVQUAL scale point to the need of customers to be able to speak to a live customer's agent online or through the phone. It means requiring seamless multiple channel capabilities on the part of e-tailers. (Zethaml et al. 2002)

In a first attempt to adapt the SERVQUAL dimensions to e-service, Kaynama and Black (2000) subjectively evaluated the online services of 23 travel agencies and seven dimensions derived from SERQUAL: responsiveness, content and purpose (derived from reliability), accessibility, navigation, design and presentation (all derived from tangibles), background (assurance), and personalization and customization (derived from empathy).

Madu and Madu (2002) proposed 15 dimensions of online service quality dimensions based on literature review: performance, features, structure, aesthetics, reliability, storage capacity, serviceability, security and system integrity, trust, responsiveness, product/service differentiation and customization, web store policies, reputation, assurance and empathy. Wolfinbarger and Gilly (2002) have found four online retailing service quality dimensions through focus group interviews and an online survey. These are web site design, reliability, privacy/security and customer service. They found that reliability and fulfillment are the strongest predictor of customer satisfaction.

Yang & Fang (2004) identified online serve quality dimension and then relationship with satisfaction. These service quality dimensions are Reliability, responsiveness, ease of use, competence. Yang and Jun (2002) have uncovered six prominent factors to evaluate e-tailer's service quality- reliability, access, ease of use, personalization, security and credibility. Liu & Arnett (2000) identified measurement of website success in the context of electronic commerce Quick responsiveness, assurance, reliability, empathy, and follow-up service. First, quality of information consists of relevant, accuracy, timely, customized and complete information presentation. Second important factor is the service includes quick response, assurance, empathy, and follow-up. Third, easy of use includes security, correct transaction, customer control on transaction, order-tracking facilities and privacy.

Yang & Fang (2004) identified five online service quality dimensions and several items within these dimensions are critical for customers to evaluate service quality and satisfaction.

The first important attribute is prompt order execution and confirmation which requires adequate system capacity as well as staff support. The second important aspect is accuracy of the online trading system, including accurate order fulfillment, accurate record keeping. The third important aspect is the accessibility of the web site. The fourth important aspects is e-mail response, besides traditional communication means such as phone call, online customers are particularly longing for prompt response to their inquires and prompt confirmation through e-mail. Finally, transaction security and personal information privacy are major concerns for online customers (Yang & Fang 2004).

Griffth and Kramf referred by Zeithaml (2002) found that access and responsiveness of the website are the key indicators of service quality delivered through the web. In their study access was operationalized as the provision of a hot-link e-mail address and telephone number of customer service agents. Responsiveness was measured by the promptness of the e-tailer responded to e-mails.

Yang, Peterson and Huang (2001) identified and measured six dimensions of consumer perceptions of service quality:

- Ease of use means user friendliness, loading/ transaction speed, search capability, and easy navigation.
- Content contained on the website, particularly information that matches the needs of the consumer.
- Accuracy of content
- Timeliness of response
- Aesthetics, involving attractiveness of the site and catalog pictures

Riel et al. (2001) suggest that five service quality dimensions identified by Parasuraman et al. (1988) can be applied in e-Commerce by replacing tangibility with the user interface, since it, to some extent, describes how the services is offered to customers. Responsiveness could refer to the speed of the company's response to the customers, reliability could relate to timely delivery of ordered goods, accurate in formation and correct links. Assurance could be interpreted as the safety of online transactions and the policy for using personal information by the company, while empathy could refer to the degree of customization of communications based on customers' personal needs.

Wang and Huarng (2002) identified nine e-service quality aspects through content analysis of online customer comments in their research that affect customer satisfaction. These are general feedback on the website design, competitive price of the product, merchandise availability, merchandise condition, on-time delivery, merchandise return policy, customer support, e-mail confirmation on customer order, promotion activities. Lociaconon, Watson and Goodhue (2000) established a scale called WEBQUAL with twelve dimensions: information fit to task, interaction, trust, response time, design, intuitiveness, visual appeal, innovativeness, flow, integrated communication, business process and substitutability. Joseph et al. (1999) investigated the influence of technology, such as the ATM, telephone, and Internet, on the delivery of banking service. Their study identified six underlying dimensions of electronic banking service quality: convenience/ accuracy, feedback/ complaint management; efficiency; queue management; accessibility, and customization. Latimore et al. (2000) mentioned in their study 87 percent of Internet banking customers want to use variety

of financial transaction including paying their bills electronically and automatically viewing the monthly bank statement, purchasing stocks, and insurance.

Previous studies (Jun & Cai, 2001) found that in order to determining customer's perceptions of the overall banking service quality, banking service product quality plays an important role. In measuring Internet banking service quality, ten dimensions e.g. reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration and continuous improvement, were found to be contributing (Parasuraman et al., 1985), while Jun and Cai (2001) added with the other two dimensions: collaboration and continuous improvement to their research. Reliability refers correct service, keep service promise, accurate records and keep promises as advertised. Responsiveness refers prompt service quickly solve problems, convenient service. Competence means ability to solve problem, knowledge to answer questions,, courtesy includes address complains friendly, consistently courteous. Credibility means confidence in the bank's service good reputation. Access includes availability for help, ATM access, phone access. E-mail access, account access information, availability of status of transaction. Understanding of customers means personal attention. Collaboration includes external collaboration and internal collaboration. Continuous improvement includes continuous improvement on online systems, continuous improvement on banking products, continuous improvement on customer services (Jan & Cai, 2001).

Based on the above discussion, following table presents a summary of different service quality dimensions (both traditional and online) researchers used in their respective researches.

Several businesses have developed their own methodology to measure service quality provided by online retailers. BizRate.com used a scale that is most widely cited in popular literature, and maintains 10 dimensions: ease of ordering, product selection, product information, price, website performance, on-time delivery, product representation, customer support, privacy policies and shipping and handling (Zeithaml et al., 2000).

Similarly, Gomez.com provides an alternative evaluation system while using the factors as: Ease of use, Efficient access to information, Customer confidence, Reliability, On-site resources, Relationship services, overall cost. While, ease of use means functionality of the web site, consistency of design and navigation and smoothness of interactions, reliability covers loading times and security. On-site resources apply to availability of online response to requests, detailed information on each product line and availability of the products. Relationship services include online help, recommendations, personalization of information, customer information to facilitate future interactions, incentive programs. Finally, overall costs means total cost of ownership of typical offering baskets, added fees for shipping and handling, minimum balances and interest rates for financial services companies (ibid).

To measure the quality of service provided by e-tailers on the web, CIO.com Cyber Behavior center has also conducted as survey. These measures include the problems experienced while

placing an order, problem experienced after placing an order, ability to contact customer service representative online while placing an order, and ability to contact customer service after placing the order (ibid).

2.8.1. Service Quality Model of Internet Banking

One of the key challenges of the Internet as a service delivery channel is how service firm can manage service quality (Broderick & Vachirapornpuk, 2002). They presented service quality model (see figure 8) of Internet banking based on insights gained from existing knowledge and understanding of the characteristics of the service formed. This model focusing on the quality perception process and it draws on many of the service quality elements that identified by the previous study.

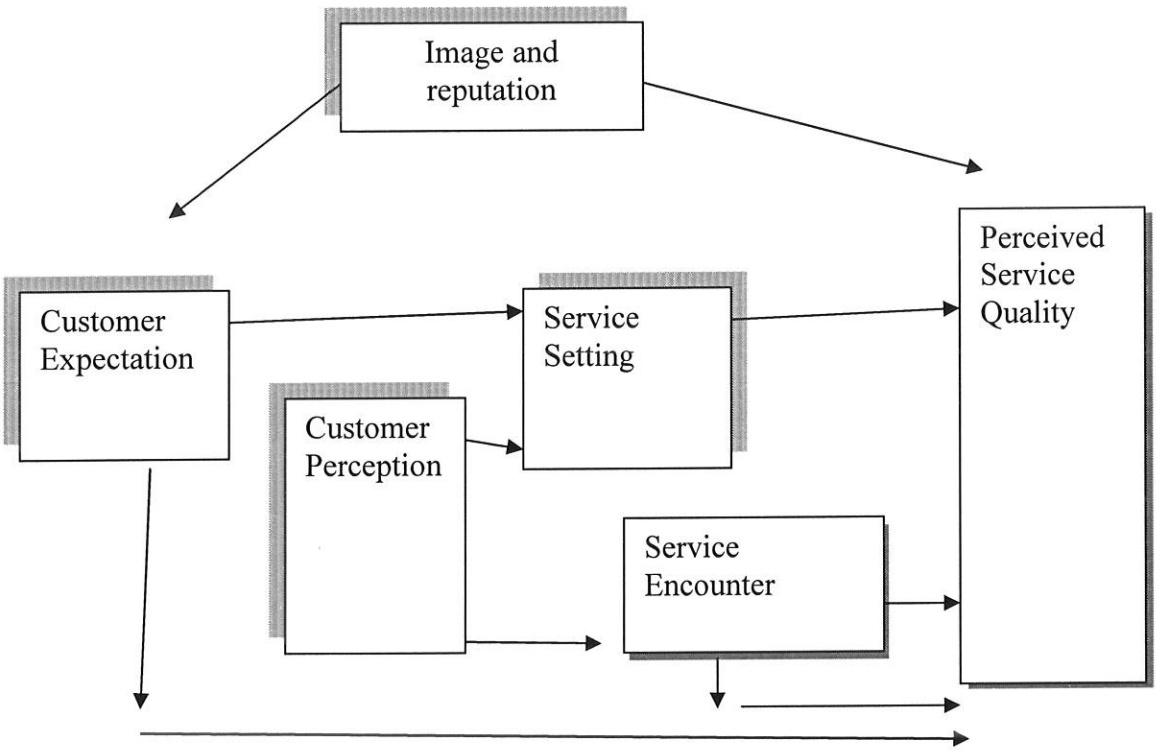


Figure 8: Preliminary Model of Perceived Service Quality in Internet Banking

(Source: Broderick & Vachirapornpul, 2003, p. 328)

The model showed that in the context of the Internet banking, five key elements are treated as central influences on perceived quality showed indicating by arrows. These are:

1. Customers expectations of the service
2. The image and reputation of the service organization
3. Aspects of the service setting
4. The actual service encounter and
5. Customer's participation.

Chapter Three

Frame of Reference & Research Methodology

This chapter provides the research framework based on literature review and the methodology adopted by the researcher for sampling, data collection, and analysis.

3.1. Frame of Reference

This section provides the conceptual framework for the study as developed based on literature review. It explains the key factors, variables and relationships among theories or models and provides a theoretical overview. The conceptualization helps to answer the research questions, and guides the data collection to accomplish defined objectives.

The purpose of the study is to gain a better understanding of the relationship between service quality and customer satisfaction in Internet banking sector. Based on the objectives of the study, the first research question focuses on what are the dimensions determining quality of Internet banking The other research questions focuses on how the relative importance of the service quality dimensions can be described in Internet banking in relation to the customer satisfaction and how do these affect associated customer satisfaction..

3.1.1. Service Quality Dimensions

Based on literature review we are taking the online service quality dimensions identified by different authors to test in Internet banking sector in order to find the relationship between service quality dimensions and customer satisfaction. Zeithaml et al. (2002) have identified seven dimensions of online service quality: efficiency, reliability, fulfillment, privacy,

responsiveness, compensation and contact. They identified four dimensions- efficiency, reliability, fulfillment and privacy-form the core e-SERVQUAL scale that is used to measure the customer's perceptions of service quality delivered by online retailers.

Efficiency refers to the ability of the customers to get the website, find their desire product and information associated with it, and check out with minimal effort. Fulfillment incorporates accuracy of service promises, having product in stock, and delivering the product in the promised time. Reliability is associated with the technical functioning of the site, particularly the extent to which it is available and functioning properly. The privacy dimension includes assurance that shopping behavior data are not shared and that credit card information is secure. Responsiveness measures the ability of e-tailers to provide appropriate information to customers when a problem occurs, have mechanisms for handling returns, and provide online guarantees. Compensation dimension includes receiving money back and returning shipping and handling costs. Contact dimension includes customers to be able to speak to a live customer service agent online or through the phone (Zethaml et al, 2002).

Jan and Cai (2001) identified ten service quality dimensions in Internet banking. These are reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration and continuous improvement. Reliability refers correct service, keep service promise, accurate records and keep promise as advertised. Responsiveness refers prompt service quickly solve problems, convenient service. Competence means ability to solve problem, knowledge to answer questions, courtesy includes address complains friendly, consistently courteous. Credibility means confidence in

the bank's service good reputation. Access includes availability for help, ATM access, phone access, E-mail access, and account access when abroad. Communication means clear answer, informing customer of important information and availability of status of transactions. Understanding of customer means personal attention. Collaboration includes external collaboration and internal collaboration. Continuous improvement includes continuous improvement on online system, continuous improvement on banking products, continuous improvement on customer services.

Berry et al. (1985) identified ten determinant of service quality. These are - reliability responsiveness, competence, access, courtesy, communication, credibility, security, understanding and tangibles.

Reliability involves consistency of performance and dependability. It means that the firm performs the service right the first time. It also means the first honors its promises. Specially, it involves: accuracy in billing, keeping records correctly, performing the service at the designated time. *Responsiveness* concerns the willingness or readiness of employees to provide service. It involves timelines of services that means - mailing a transaction slip immediately, calling the customer back quickly and giving prompt service. *Competence* means possession of the required skills and knowledge to perform the services and involves knowledge and skills of the contact personnel, knowledge and skills of operational support personnel, and research capability of the organization.

Access involves approach, ability and ease of contact. It means: the service is easily accessible by telephone, waiting time to receive service is not extensive, hours of operation are convenient and location of service facility is convenient. *Courtesy* involves politeness, respect, consideration, and friendliness of contact personnel. It includes- consideration for the consumer's property, clean and neat appearance of public contact personnel (Berry et al. 1985).

Communication means keeping customers informed in language they can understand. It also means listening to customers. It may mean that the company has to adjust its language for different consumers-increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice. It involves: explaining the service itself, explaining how much the service will cost and assuring the customer that a problem will be handled. *Credibility* involves trusts worthiness, believability, honesty, it involves having the customer's best interests at heart. Contributing to credibility are: company name, company reputation, personal characteristics of the contact personnel, the degree of hard sell involved in interaction with the customer. *Security* is the freedom from danger, risk of doubt. It involves: physical safety, financial security and confidentiality. *Understanding the customer* means making the effort to understand the customer's need. It includes: learning the customer's specific requirements, providing individualized attention and recognizing the regular custom. *Tangibles* includes the physical evidence of the service: physical facilities, appearance of personnel, tools or equipment used to provide the service, physical representations of the service, such as a plastic credit card or bank statement, other customers in the service facilities (ibid).

3.1.2. Online Service Quality and Customer Satisfaction

Service quality has been found to be an important input to customer satisfaction (Caruana & Malta 2002). Cronin and Taylor (1992) originally hypothesized that satisfaction is an antecedent of service quality. Yang and Fang (2004) identified online service quality dimension and their relationship with satisfaction. These service quality dimensions are reliability, responsiveness, ease of use, competence. Jayawardhena and Foley (2000) mentioned some service quality of Internet banking website are important to increase customer satisfaction. These are download speed, content, design, interactivity, navigation, security. A number of academics such as Parasuraman et al. (1985); Gronroos (1990); Johnston (1995) and other have tried to identify key determinants by which a customer assesses service quality and consequently results in satisfaction or not.

Yang and Fang (2004) identified five online service quality dimensions include responsiveness, reliability, competence, access and security and their relationships with satisfaction. Several items within these dimensions are critical for customers to evaluate service quality and satisfaction. The first important attribute is prompt order execution and confirmation which requires adequate system capacity as well as staff support. The second important aspect is accuracy of the online trading system, including accurate order fulfillment, accurate record keeping. The third important aspect is the accessibility of the web site. The fourth important aspect is e-mail response, besides traditional communication means such as phone call, online customers are particularly longing for prompt response to their inquiries

and prompt confirmation through e-mail. Finally, transaction security and personal information privacy are major concerns for online customers (Yang & Fang 2004).

Wolfinbarger and Gilly (2002) found that different dimensions of their measure of e-service quality have varying affects on the consequences. They found reliability and fulfillment as significant predictors of customer satisfaction. Griffith and Krampf cited by Zeithaml (2002) found that access and responsiveness of the website are the key indicators of service quality delivered through the web. In their study, access was operationalized through the provisions of a hot-link e-mail address and telephone numbers of customer service agents. Responsiveness was measured by the promptness of the e-tailer responding to e-mail.

Liu and Arnett (2000) identified five key dimensions critical to web site success with customers. First, quality of information consists of relevant, accuracy, timely, customized and complete information presentation. Second important factor is the service includes quick response, assurance, empathy, and follow-up. Third, system use includes security, correct transaction, customer control on transaction, order-tracking facilities and privacy.

3.1.3. Conceptual Framework

Based on the narrowed down scope of literature review above, the relationship between service quality variables and customer satisfaction can be shown in figure 9 below. The five service quality dimensions have been selected form the studied done by Zethaml et al (2002). These dimensions are also mentioned by different authors (Jun & Cai (2001); Yang & Fang

(2004); Liu & Arnett (2000);) in their studies to determine online service quality dimensions. This is the main reasons behind select these five dimensions.

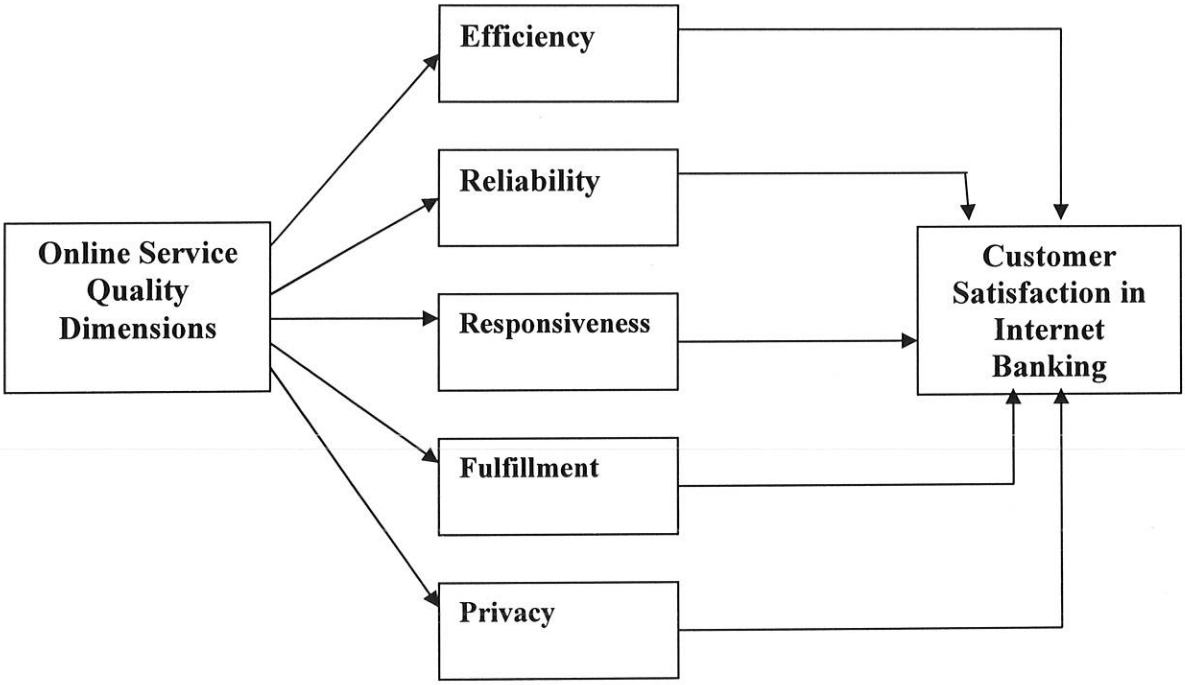


Figure 9: Conceptual Framework of the Study

In this conceptual model, According to Yi (1990) customer satisfaction is defined as "Customer satisfaction is a collection outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service." According to Zeithaml et al., (2002) service quality is defined as "the extent to which a web site facilitates and effective shopping, purchasing, and delivery of product and services" (p.363).

Table 4: Online Service Quality Dimensions Considered for This Study

Online Service Quality Dimensions	Supporting articles
Efficiency	Zeithaml et al., 2002;
Reliability	Zeithaml et al., 2002; Madu and Madu, 2002; Wolfinbarger and Gilly, 2002; Yang & Fang (2004)
Responsiveness	Zeithaml et al., 2002; Yang & Fang (2004)
Fulfillment	Zeithaml et al., 2002;
Privacy	Zeithaml et al., 2002; 2002; Wolfinbarger and Gilly, (2002) Parasuraman et al. (1985);

3.2. Methodology

This section describes different research methods and gives explanation of the chosen method of this study and the reasons for this choice. Furthermore, this chapter describes the chosen sampling technique, the way the data for the study has been collected and the statistical techniques used to analyze the data. In addition, the issue of the reliability and validity of the presented study is discussed.

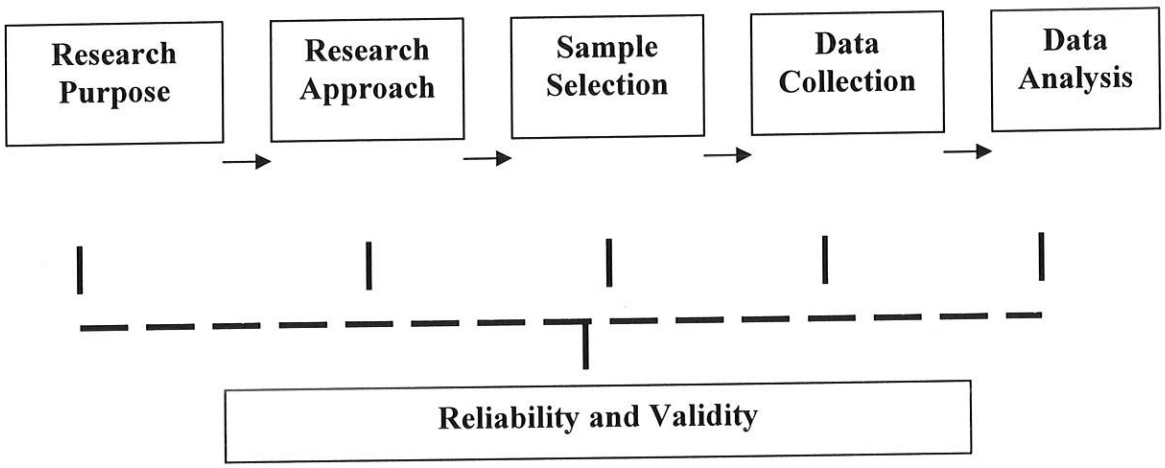


Figure 10: Presentation of the Methodology

3.2.1. Research Purpose

The purpose of the research is mainly descriptive and explanatory. It is descriptive because descriptive data has been collected through detailed interviews and it is also explanatory since it will explain the relationship between the service quality variables and customer satisfaction and how these dimensions affect customer satisfaction.

3.2.2 Research Approach

For the underlying study the author of the thesis has chosen quantitative approach for achieving the purpose of the study.

3.2.2.1 Quantitative and Qualitative Research Methods

Taking into consideration the description of the qualitative and quantitative research, and based on the dimension suggested by experienced users of Internet banking, the researcher used quantitative research approach which is used to measure "how much" across settings and allows for statistical analysis on the collected data, the author of the thesis has chosen this method for the purpose of this thesis. First of all, through the use of quantitative research method, the author would like to measure "how much" customers of online banking services are satisfied with the provided online services. Furthermore, this method will allow statistical analysis of the collected data, on the basis of which an instrument for measuring quality of online banking services will be developed. To collect the quantitative data the survey method has been used and eventually the data has been analyzed by using statistical techniques. The combination of the quantitative method with the survey method is found appropriate from the

author, as a large population has been studied and general conclusions have been drawn for the entire population.

3.2.3. Population and Sampling

The population of the study maintains 400 Internet banking service subscribers/customers of the United Bank located in Addis Ababa city of Ethiopia. Surveying the entire Internet banking users of the bank ensuring full representation of the population was found to be non-feasible in terms of time and cost. Therefore, a sample of 100 respondents, representing one-fourth of the total Internet banking service clients of the bank, was drawn by using judgmental sampling.

As the purpose of this research is to gain a better understanding of service quality dimensions affecting customer satisfaction with Internet banking, the sample was drawn from the Addis Ababa city considering the availability of majority of the respondents, convenience of the researcher, and time limit to complete the study. Respondents for the study were selected by using judgmental sampling procedure while using the following criteria:

- Sample should be more familiar with using Internet.
- Should have experience of using Internet banking at least one year.

Therefore, based on the literature review and conceptual framework discussed in chapter two and three, a questionnaire with 42 statements/items were developed and distributed.

3.2.4. Data Collection

For the purpose of the thesis, the author has decided to collect primary and secondary data. Primary data include a survey with customers of online banking services. For that purpose questionnaire has been designed. Secondary data include data from academic literature, books, journals, reports and Internet sources.

Taking into consideration the time- and resource- limits of this study, the author has decided to measure directly the divergence between customers' expectations and perceptions using only one scale. Using this approach makes the questionnaire much easier to construct, administrate and analyze. In addition, it is thought to be easier for the customers to respond to such questionnaire including only one scale. For this purpose, the author has used the five-point Likert-type scale, ranging "1=strongly disagree" to "5=strongly agree".

Before the questionnaire was distributed, it went through a thorough pre-testing. The modified questionnaire was given for to 100 Internet banking users at and the questionnaire amended as it is without modification. The administration of the questionnaire was carried out through distribution of each questionnaire to the convenient place of each user's after taking their phone number from the bank. The bank first asks their willingness before giving their phone address to me. The collection of the questionnaire was made immediately after the users fill all the questions of a single questionnaire by checking their progress via cellular and office telephone. The time gap between questionnaire distribution and collection ranges from two days to ten days.

The questionnaire consists of 42 items and demographic profile of the respondents (gender, age, length of service usage and income per month). For full view of the questionnaire please refer to Appendix I.

3.2.5. Data Analysis

The collected data in the study has been presented and analyzed using Descriptive Statistics, Cronbach's Alpha Test of Reliability and Factor Analysis with Principal Component Analysis as an extraction method, correlation and finally multiple regressions. In order to prove the internal reliability of the instrument used, the author of the thesis performed Cronbach's Alpha Test of Reliability. When performing this test, the author has grouped the different items (questions) pertaining to the different quality dimensions and performed the test on each dimension. Applying this test specifies whether the items pertaining to each dimension are internally consistent and whether they can be used to measure the same construct

Furthermore, using the Principal Component Analysis (PCA) helps the author to decide whether the division and description of the initial dimensions pertaining to the theoretical model are appropriate. With the help of the PCA, some of the items of the initial theoretical model were removed and the number of dimensions was increased to seven. Using the above stated techniques resulted in modification of the initial model

Finally, descriptive statistics, correlation coefficient, and multiple regressions were applied. Descriptive statistics like mean and standard deviation was used to measure the level of customer satisfaction on Internet banking service of the bank. Correlation coefficient was employed to see the relationship between service quality dimensions and overall satisfactions.

Multiple regressions was used to see the extent of effect that each service quality dimensions has on overall customer satisfaction and overall service quality on customer satisfaction.

3.2.6 Reliability and Validity

When developing and evaluating an instrument and when conducting research in general, there are two important issues that have to be examined - the reliability and validity of the study. In this thesis, the face validity and internal reliability have been applied, where the validity of the study has been proven through thorough pre-testing, rewording and reevaluation of the instrument used.

Chapter Four

Data Presentation, Analysis & Discussion

Data collected by adopting the methodology, as presented in the last chapter, were exposed to various statistical analyses to generate the results in line with research objectives. This chapter focuses the techniques that used in computing scale reliabilities, and analyzing data associated with demographics, service quality and customer satisfaction.

4.1 Scale Validity and Reliability

This section contains the test of scale validity and reliability using Cronbatch's Alpha Test of reliability and Factor Analysis.

4.1.1 Factor Analysis

The principal components method of extraction (based on eigenvalue>1) with oblique rotation was employed, considering all the dimensions are conceptually linked (Hair et al, 1998), to perform factor analysis.

In order to test for convergent and discriminant validity of the constructs, factor analysis with varimax rotation was used. According to Hair et al (1998) to determine the minimum loading necessary to include an item in its respective construct, variables with loading greater than 0.3 were considered significant; loading greater than 0.4, more important; and loadings 0.5 or greater were very significant. Thus, this study accepts items with loading of 0.4 or greater. Two rounds of factor analyses were performed. The initial solution suggested that eleven

factors can be extracted. However, four items (Q4*, Q20*, Q28* and Q39*) were loaded below 0.4 and removed from further analysis. After removing these items the second round of factor analysis were performed, varimax rotation with factor loadings was then generated.

A total of seven factors with eigenvalues greater than 1.0 were identified. The seven factors accounted for about 79.154% of the total variance. It suggested that the items/variables in the questionnaire address more than 79% of the problem area raised by the researcher, while the remaining 19% of the problem is contributed by other factors. The items belongs to the identified dimensions are measuring reliability and service performance (1 through 13); Fulfillment (1 through 4); Privacy (1 through 4); website characteristics and customization (1 through 10); organizational issues (1 and 2); responsiveness (1 through 3); and efficiency (1 and 2). Thus, all the scale items were found to be loaded into 7 factors (representing 79.154% of cumulated variance explained), with a factor loading of 0.487 and above, and perceived to be as service quality dimensions in Internet banking service. (See Table 6 for exploratory factor analysis (loading) results)

Table 6: Exploratory Factor Analysis (Loadings)

Items	Reliability &service Performanc	Fulfillment (FULL)	Privacy (PRIV)	Website Characteris & tic Customizati	Organizatio nal Issues (ORGI)	Responsive ness (RESP)	Efficiency (EFFI)
RLSP1	-0.544						
RLSP2	0.735						
RESP3	0.708						
RLSP4	0.753						
RLSP5	0.662						
RLSP6	0.627						
RLSP7	0.594						
RLSP8	0.615						
RLSP9	0.634						
RLSP10	0.721						
RLSP11	0.611						
RLSP12	0.506						
RLSP13	0.556						
FULL1		0.846					
FULL2		0.749					
FULL3		0.668					
FULL4		0.487					
PRIV1			0.538				
PRIV2			0.784				
PRIV3			0.760				
PRIV4			0.667				
WBCU1				-0.508			
WBCU2				0.663			
WBCU3				0.581			
WBCU4				0.572			
WBCU5				0.664			
WBCU6				0.688			
WBCU7				0.717			
WBCU8				0.796			
WBCU9				0.695			
WBCU10				0.632			
ORGI1					0.810		
ORGI2					0.532		
RESP1						0.798	
RESP2						0.575	
RESP3						0.665	
EFFI1							0.552
EFFI2							0.663

4.1.2 Reliability Analysis

Prior to the data analysis, the research instruments were tested for reliability. This is to check the degree to which the observed variable measures the "true" value and whether they are "error free." Thus, the constructs were tested for reliability, using Cronbach alpha test. The generally agreed upon lower limit for Cranach's alpha is 0.7 (Robinson, et al., 1991), although it may decrease to 0.6 in an exploratory research (Hair et al., 1998), suggested that the score for each construct should be greater than 0.6 for it to be reliable. Hence, a score of 0.6 and above were accepted in this study.

Therefore, to review the internal consistency of the modified scale items, Cronbach coefficient (alpha) were computed and found to be 0.932 (Table 7), another indication of acceptability of the items, moreover, all the service quality dimensions were demonstrated internal consistency between 0.670 for 'efficiency' and 0.878 for 'reliability and service performance'. This indicates that all the seven dimensions maintain reasonable reliability. Furthermore, the statistics for "alpha if item deleted" is the Cronbach coefficient for the rest of the scale, after the corresponding item is excluded from the construct. The "alpha if item deleted" should increase only when the first item from 'reliability and service performance' dimensions is deleted. Furthermore, "alpha if item is deleted" were not calculated for both 'organizational issues' and 'efficiency' dimensions as both contain only two dimensions.

Table 7: Scale Reliability (Cronbach Alpha)

Dimensions	Items	Alpha Coefficients for dimensions	Alpha Coefficients if Item deleted
Reliability & Service Performance	RLSP1	0.878	0.919
	RLSP2		0.863
	RESP3		0.859
	RLSP4		0.862
	RLSP5		0.865
	RLSP6		0.862
	RLSP7		0.864
	RLSP8		0.865
	RLSP9		0.864
	RLSP10		0.857
	RLSP11		0.868
	RLSP12		0.874
	RLSP13		0.863
Fulfillment	FULL1	0.827	0.818
	FULL2		0.805
	FULL3		0.743
	FULL4		0.746
Privacy	PRIV1	0.854	0.831
	PRIV2		0.823
	PRIV3		0.797
	PRIV4		0.800
Website Characteristics & Customization	WBCU1	0.803	0.788
	WBCU2		0.773
	WBCU3		0.780
	WBCU4		0.770
	WBCU5		0.795
	WBCU6		0.783
	WBCU7		0.794
	WBCU8		0.792
	WBCU9		0.798
	WBCU10		0.782
Organizational Issues	ORGI1	0.789	
	ORGI2		
Responsiveness	RESP1	0.715	0.596
	RESP2		0.623
	RESP3		0.657
Efficiency	EFFI1	0.670	
	EFFI2		
Reliability of the total scale		0.932	

4.2 Demographic Characteristics of the Respondents

Less than half (44%) of the respondents were found to be with middle age (35-46), followed by over one-third (36%) who claimed to be within 26 to 35 years, and the remaining fell in younger (12%) and senior age groups (8%). On the part of gender, over half (53%) of the respondents were claimed to be as female, while remaining (47%) were male (Table 8).

According to the table below, from all respondents nearly 2/3 (70%) of the respondents were claimed as having first degree followed by college diploma (17%) and the remaining are $10^{th}/12^{th}$ grade complete (7%) and masters and above holders (6%). This is helps the researcher to obtain valid information hence most of the respondents can easily understand the language on the questionnaires. As for the occupation of the respondents, less than half (45%) of the respondents were reported as private organization employees while 34% of the respondents run their own business. The remaining respondents were found as government employees (10%), students (6%), and employed in other sector (5%). This also shows that Internet banking is preferred by employees and business men than students.

When we see the monthly income of the respondents from the above table again, almost less than half (44%) of the respondents get between 5,001 and 10,000 birr, while (17%) get between 2,001 and 5,000 birr. The remaining 10% of the respondents get less than 2,000 birr, and (6%) reported their monthly income between 20,001 and 30,000 birr. Again, from all respondents more than half (59%) have been using Internet banking service for more than one years and one third (33%) of the respondents were using the service between 6 months and 12 months. The remaining respondents 8% have been using online banking services for less than

6 months. This is quite satisfactory as most of the people seem to have been using Internet Banking for more than 12 months, which according to the author shows that they have enough experience to judge the quality of the provided online Internet banking services and their overall satisfaction with those services (Table 8).

Table 8: Personal Profile of the Respondents

Characteristics	Percentage
Age (in years):	
18-25	0.12
26-35	0.36
36-45	0.44
> 45	0.08
Sex:	
Male	0.47
Female	0.53
Education:	
$10^{th}/12^{th}$	0.07
College Diploma	0.17
First Degree	0.70
Masters and above	0.06
Occupation:	
Government Employee	0.10
Private Organization Employee	0.45
Running own business	0.34
Student	0.06
Other	0.05
Income (in ETB):	
<2,000	0.10
2,001-5,000	0.37
5,001-10,000	0.44
10,001-20,000	0.06
20,001-30,000	0.03
Number of years of service usage	
<6 months	0.08
6 months-1 year	0.33
>1 year	0.59

4.3 Mean Scores of Performance Rating

The average service performance, as computed for Internet banking service quality on the seven identified dimensions, together with the overall service quality and satisfaction is presented in Table 9. Mean scores reveal that the Internet banking is poorly performed, as maintaining below average (less than 2.5 on a 5-point scale), on most of service quality dimensions and specific to 'overall service quality' (2.010), and 'overall satisfaction' (2.100). However the service maintain above average performance on 'efficiency' (4040), and 'fulfillment' (2.595) as perceived by the respondents.

Table 9: Descriptive Statistics for Service Quality Dimensions, Overall Service Quality and Satisfaction

Dimensions/ Variables	Mean	Standard Deviation
Reliability & Service Performance	2.397	0.657
Fulfillment	2.595	0.662
Privacy	2.363	0.771
Website Characteristics & Customization	2.241	0.542
Responsiveness	2.253	0.716
Organizational Issues	2.290	0.789
Efficiency	4.040	0.597
Overall Service Quality	2.010	0.893
Overall Satisfaction	2.100	0.859

4.4 Modeling Overall Service Quality and Satisfaction

Before attempting to regression analysis, correlation coefficients between independent Internet banking service quality dimensions and dependant variables (overall service quality and satisfaction) were computed (Table 10), as suggested by Croft (1983). Most of the perceived dimensions of service quality were found to be significantly ($p<0.01$), others perceived dimensions of service quality were found to be significantly ($p< 0.05$), while the rest are not significant at all with each other and overall service quality. Also, strong positive association ($r=0.828$, $p<0.001$) was reported between overall service quality and satisfaction. Similarly, significant associations between the modified service quality dimensions and satisfaction reported ranging from a low with the dimension of 'efficiency' (0.209) to a high with 'website characteristics and customization' (0.732).

Table 10: Summary of Correlation Coefficient

	RLSP	FULL	PRIV	WBCU	ORGI	RESP	EFFI	ORSQ	ORST
RLSP	1								
FULL	o.521**	1							
PRIV	0.585**	0.496**	1						
WBCU	0.642**	0.653**	0.683**	1					
ORGI	0.418**	0.285**	0.485**	0.502**	1				
RESP	0.500**	0.372**	0.247*	0.412**	-0.123	1			
EFFI	0.033	-0.016	0.097	0.070	0.163	0.252*	1		
ORSQ	0.638**	0.686**	0.548**	0.793**	0.354**	0.533**	0.084	1	
ORST	0.570**	0.583**	0.524**	0.732**	0.404**	0.625**	0.209*	0.828**	1

Note: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

The existence of significantly higher correlation coefficients for overall satisfaction and perceived service quality with all modified Internet banking model dimensions shows that the constructs are both conceptually and empirically distinct from each other and determines strong predictive power in the present study.

Furthermore, the predictive power validity of each scale dimension/item was checked by using regression analysis. For this purpose, the data were exposed to multiple regression analysis; by using SPSS 13.0 the system was given command to perform the analysis by applying hierarchical approach of testing significant interaction effects over and above the simple effects of the independent variables. As suggested by statistician, if a correlation coefficient matrix demonstrates the degree of association between variables about 0.75 or higher, there may be the condition of multicollinearity, and must be rectified before using such variables as predictors in regression analysis. Accordingly, the level of associations in the study, as given in Table 10, was found to be reached to this value, thus multicollinearity analysis was carried out before the regression analysis.

Prior to regression analysis, the data were tested for multicollinearity. Multicollinearity refers to high correlations among the independent variables. According to Gujarati (1995), occurrences of this effect violate some of the basic assumptions for regression analyses. To test for multicollinearity, Kleinbaum et al. (1988) suggests calculating the Variance Inflation Factor (VIF) for each independent variable. According to them, as a rule of thumb, if the VIF value for each independent variable exceeds 10, the variable is said to be highly collinear and will pose a problem to regression analysis. As Table 11 shows, the variables together with

their respective VIF values are between the range of 1.200 and 3.990, well below 10, therefore, the problem of multicollinearity was not presumed.

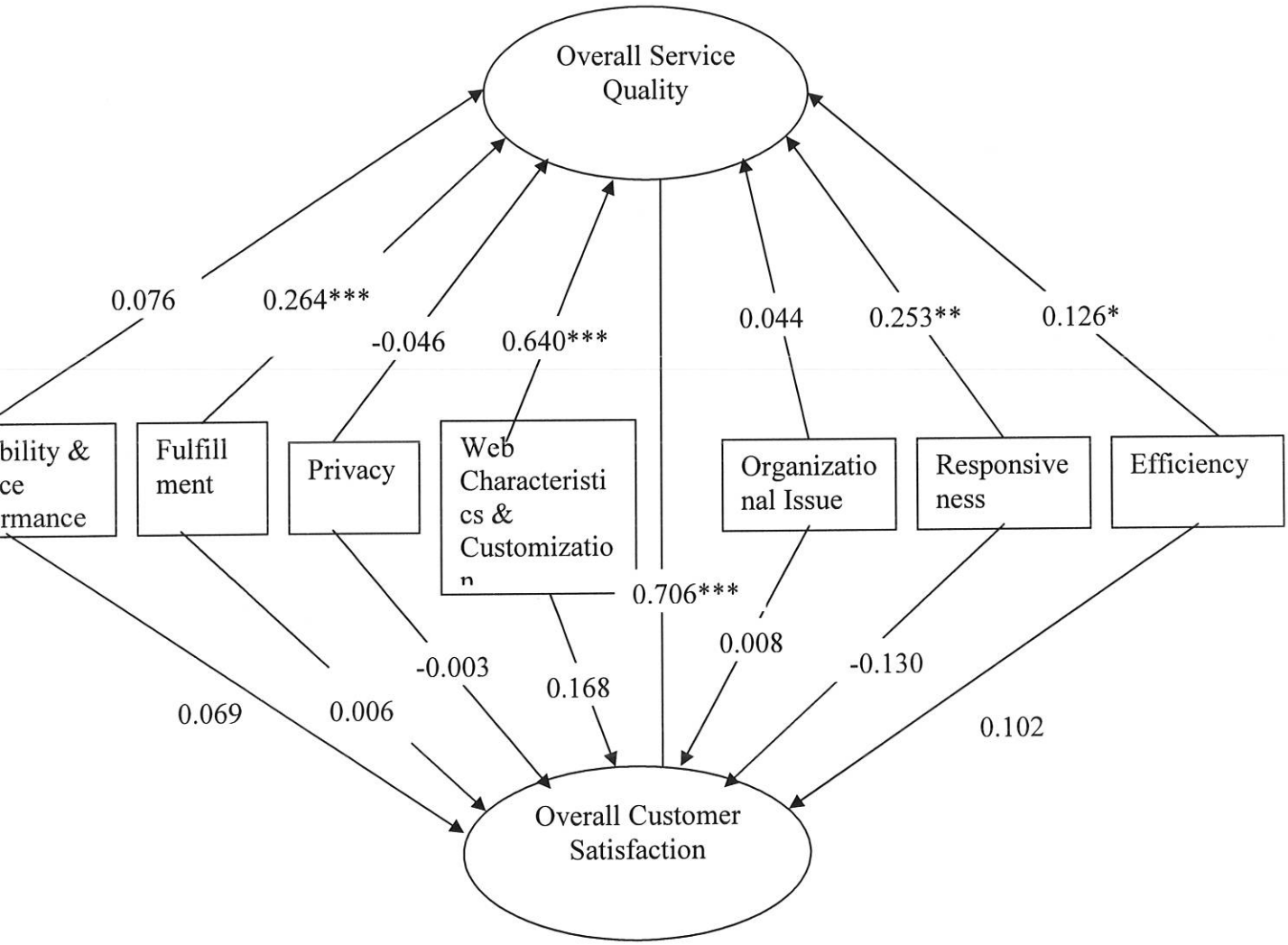
Table 11: Computed VIF value for each independent variable

Overall service quality	VIF (Variance Inflation Factor)
RLSP	3.805
FULL	2.123
PRIV	2.121
WBCU	3.990
ORGI	1.874
RESP	2.231
EFFI	1.200

Note: Dependent Variable- Overall Customer Satisfaction with Internet banking services

All the service quality dimensions, except 'reliability and service performance' (ß=0.076, $p<0.08$), and 'organizational issues' (ß=0.044, $p<0.05$), emerged as significant determinants to overall service quality. From all service quality dimensions, 'website characteristics & customization' (ß=0.640, $p<0.7$), reported to be as the most critical determinant of overall service quality i.e., website sections, links information, appearance, layout, language, service package, updated data, and support maintained by the service provider, and effective customization are the aspects those Internet banking service users used in their assessment of Internet banking service quality. On this behalf, the service recovery process if done well can have positive impact on the development of trusting relationships with customers and can lead to increased customer satisfaction (Grönroos, 2000). Furthermore, the prompt response to

customers' requests by email is becoming more and more important for improving the overall quality of online services (Jun & Cai, 2001).



Note: ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Figure 11: Framework for Overall Service Quality and Satisfaction

Secondly, 'fulfillment' (ß=0.264, p<0.3), was found to be a strong determinant of overall service quality. Items like assistance, quick confirmation, right service, and continuality of the

right service are the second aspects which are used by the users in evaluating the quality of Internet banking service. All these factors are related to the theoretical perspectives of fulfillment, which according to Zeithmal et al. (2002) are accuracy of service promises, and delivering the product in the promise time.

The third significant dimension appeared to be 'responsiveness' (ß=0.253, p<0.3). Responsiveness measures the ability of e-tailers to provide appropriate information to customers when problem occurs (Zeithmal et al., 2002) involves timeliness of service that means mailing a transaction slip immediately, calling the customer back quickly, giving prompt services (Berry et al., 1985), this responsiveness criteria can be comparable to what the respondents selects as important determinants of overall service quality measurement dimensions. As per the users perception of service quality dimensions, 'efficiency' (ß=0.126, p<0.2). That is item related to simple to use and fast logout also contribute to their overall service quality measurement.

Additionally, an attempt was made to identify the contribution of each modified Internet banking model dimensions together with overall service quality in predicting overall customer satisfaction (Figure 11). On the part of the independent dimensions of Internet banking quality model, no item contribute significantly to overall customer satisfaction. However, overall service quality was reported as the most significant determinant of users satisfaction in Internet banking services (ß=0.706, p<0.001).

Chapter Five

Conclusion and Implications

In the following chapter on Conclusion and Managerial Implication, final conclusion and managerial implication of the underlining study were made. Furthermore, the author of the thesis gives his recommendations to banks' managers and gives suggestions for further research in the field.

5.1 Conclusion

The purpose of the present research is to determine customer satisfaction with Internet banking service through customer perceived service quality. Regarding the result, the majority of the findings of the study supported the applied theory indicating that there is strong relationship between overall service quality and satisfaction in Internet banking of United bank, Addis Ababa, Ethiopia.

The study adapted the SERVPERF approach in the context of Internet banking services. By examining factor analysis, dimensional structure of reliability and service performance, fulfillment, responsiveness, privacy, website characteristics and customization, organizational issues, and efficiency were identified. Empirical results show that more than 79% of the variance is explained by the identified seven dimensions of service quality. Also the study suggests that New Internet banking dimensions have major implications in determining overall service quality.

The research results offer important insights. Relating to the overall service quality and satisfaction, as measured using a five point Likert scale, the study revealed that there is a moderately low perceived service quality and users were somehow dissatisfied with the service provided by united bank S.C. as noted by participants of the study, lack of online financial transaction service, password errors, lack of concern in keeping users' interest by the bank, delay in responding to customer problems, absence of ATM, VISA or Master Card service, absences of language options, and the pre3sence of inexperienced staff are some of the factors contributing negatively to users overall satisfaction. Hence service provider need to do a lot with respect to these aspects of service quality in order to improve the overall level of service quality that further may ensure satisfaction on the part of users

In order to study the relationship of overall quality of service with users satisfaction, correlation and regression analysis were undertaken. The standard regression analysis depicted a significant contribution in estimating overall service quality and satisfaction through independent new dimensions of Internet banking model. When all the seven dimensions are allowed to develop a model estimating overall service quality, website characteristics and customization was reported to be the most significant contributor followed by fulfillment, responsiveness, and efficiency respectively. However, the remaining dimensions (reliability and service performance, privacy, and organizational issues) were identified as non-significant contributors to estimate overall service quality.

On the other hand, overall service quality emerged as most significant determinant (ß=0.706, $p<0.001$) to users satisfaction with Internet banking service. Surprisingly, all the dimensions

of service quality were found non-significant to satisfaction. Therefore, the bank should display it's concern on overall service quality such as introducing ATM and VISA card, adding online financial transaction services, prompt response to customer problems, and upgrading the knowledge of it's staff to further ensure both a high quality service and satisfaction with users. Additionally, they should be able to provide the service to the users dependently and accurately, while maintaining sincere interest for solving users' problems.

5.2 Implications

5.2.1 Implications for Practitioners

With Internet and Web technologies development, customers can have unlimited access to the financial information they require and may enjoy a wider range of financial transaction from banking site. Therefore, it is not easy for Internet banking or traditional banking to gain and sustain competitive advantages based only on a cost strategy in Internet banking market. Rather, defining customers' needs and preference, and their related quality dimensions have increasingly become a key driving force in enhancing customers' satisfaction and attract more customers. Identification and measurement of customers, expectations of the Internet banking services provide a frame of reference for banks' assessment of their quality.

This study identified a total of seven service quality dimensions. Obviously, in order to maintain a high level of overall service quality, the banks providing Internet banking services should pay attention to all these dimensions tested in this study. However to strengthen competitiveness in the extremely competitive market, given limited organizational resources, it is recommended that the Internet banking should focus on the main four key dimensions,

website characteristics, efficiency, fulfillment, and responsiveness, in order to achieve high level of service quality, and on *overall service quality* to create customer satisfaction customer satisfaction.

More specifically, the following implications are recommended by the researcher to the banks offering/providing Internet banking services:

- Website characteristics and customization suggests that website characteristics and customization may be the critical determinant of the success of Internet banks. Since the Internet is an open network that avoids personal interaction, Internet banking customers tend to be much more concerned with the content, layout, appearance, service package that is tailored to their respective needs by the banks. Therefore, in order to provide overall service quality that determines the satisfaction of customers, Internet banking should try their best provide all rounded service package as per their customers' personal needs and preferences.
- The fulfillment dimension indicates that Internet banks should provide customers with relevant information, quick confirmation, perform the service right at the first time, and provide all the necessary financial service online.
- The responsiveness implies that Internet banks should pay more attention to customers' emails, phone calls and personal contact face to face when problems occur. Banks should reply customers' e-mails as soon as possible and provide proper information when customers need some advice. Since quick response can increase overall service quality that further increase customer satisfaction. It is recommended that the bank can provide live support over the Internet instead of e-mails. The e-mail responses are not fast enough. So chatting with

the personnel over the Internet may be easier to solve the problem and it will also be a more convenient service for customers.

- The efficiency component suggests that Internet banks should provide customers with understandable content on bank's website. The speed of logout also should be fast as it is the items that contribute to the efficiency dimension.

5.2.2 Implications for Theory

The main purpose of the study is to gain a better understanding of the relationship between service quality and customer satisfaction in Internet banking and aim to describe and explore a phenomenon within this specific research area by answer four research questions. Theoretically this study extends the knowledge body of service quality and customer satisfaction by enriching the content of service quality dimensions applicable for Internet banking sector, and based on existing theories, this study tested seven key service quality dimensions in Internet banking context. The primary contribution has been made to enrich the existing theories.

5.3.3 Implications for Further Research

With the development of e-Commerce and Internet banking, some areas which are not covered in this study are interesting and need to explore. In addition, the limitation and shortcoming of this study also provide implications for future research. Future research could make several extensions of the current study.

Future research could make several extensions of the current study. First, future research needs to verify the service quality dimensions in Internet banking derived in this study. Also this study was conducted to find the linkage between service quality dimensions and satisfactions from the consumer's viewpoint. The study may, in the future, be conducted to explore and include the providers' view. In other words, it could assess the bank and other financial institutions' viewpoints and their stance regarding what they might identify as service quality variables to satisfy their customers. This could further confirm or disconfirm the presence of the seven variables identified in this study. Additionally, the research findings need to be enhanced and validated by using more diversified random samples and employing online survey or content analysis method. Since the main limitation for quantitative data collection that restricts the developments of the new findings is the number of samples, which are only 100. Therefore, a greater number of samples might give a more reliable and different finding. However, since the results obtained through this study were through qualitative methods and quantitative methods were used simply to have a secondary confirmation of our findings, a larger sample size should not effect the conclusions drawn from this research.

Finally, since the time and cost limitation, the study conducted at United bank in Addis Ababa area. Future research can be conducted at different banks. A different picture might be offered.

References

Amaratunga, D., Baldry, D., Sarshar, M. & Newton, R (2002). Quantitative and Qualitative research in the built environment: application of mixed research approach. Work Study, Vol. 51, No. 1, pp. 17-31.

Bateson, J.E.G. (2000). Perceived Control and the Service Experience. Handbook of Service Marketing and Management from Swartz, T.A., & Iacobucci, D., (Eds.). Thousands Oaks, CA, pp. 127-144.

Bauer, H., Hammerschmidt, M & Falk, T. (2005). Measuring the quality of E-banking portals. International Journal of Bank Marketing, Vol. 23, No. 2, pp. 153-175.

Bennett, D., & Higgins, M. (1988). Quality means more than smiles. ABA Banking Journal, Vol. 46.

Berry,L., Parasurma,A. and Zeithmal,V.(1985), "A conceptual model of service quality and its implications for future research", Journal of Marketing, Vol.49, Winter, pp.41-50

Cadotte, E.R., Woodruff, R.B., Jenkins, R.L., (1987). "Expectations and norms in models of consumer satisfaction". Journal of Marketing Research. 24(3) 305-314.

Carman, J.M. (1990). Consumers' perceptions of service quality: an assessment of the SERVQUAL dimensions. Journal of Retailing, Vol. 66, spring, pp. 33-35.

Caruana, A. & Malta, M, (2002) "Service loyalty-The effects of service quality and the mediating role of customer satisfaction". European Journal of Marketing, Vol. 36 No. 7/8, 2002, pp.811-828.

Centeno, C. (2003). Adoption of Internet Services in the Enlarged European Union: Lessons from the Internet Banking case. European Commission Joint Research Centre, Report EUR 20822 EN, June.

Creswell, J.W., (2003), Research Design: Qualitative, Quantitative and Mixed Methods Approach, Second Edition, Sage Publication, Inc.

Chatfield, C., & Collins, A.J., (1980). Introduction to Multivariate Analysis. London: Chapman & Hall.

Cox, J., & Dale, B.G. (2001). Service quality and e-Commerce: an exploratory analysis. Managing Service Quality, Vol. 11, No.2, pp. 121-131.

Cronin, J.J. & Taylor, S.A. (1992) "Measuring Service Quality: A Reexamination and Extension". Journal of Marketing, 56 July, 55-68.

Delone, W.H., and McLean, E.R., (2003), "The Delone and McLean Model of information system Success: A Ten-Year Update" Journal of Management Information Systems/ Spring, Vol. 19, No. 4, pp 9-30.

Eriksson, L.T., & Wiederscheim-Paul, F. (1997). Att Utreda, Forska och Rapportera. Malmö: Liber Ekonomi.

Fredriksson, O. (2003). Internet-based self-services: Relational Aspects of E Banking- a private client survey analysis. IMIT working paper series, 136.

Fekadu, Gardachew Worku (2009), Electronic Banking in Ethiopia: Practices, Opportunites and Challenges

Garson, D. (2002). Guide to writing empirical papers, theses and dissertations. CRC Press.

Gonzales, M., Quesada, G., Picado, F. & Eckelman, C. (2004). Customer satisfaction using QFD: an e-banking case. Managing Service Quality. Vol. 14, No. 4, pp. 317-330.

Grönroos, C. (2000). Service Management and Marketing: a customer Relationship Management Approach, 2nd Ed. England: John Wiley & Sons, ltd.

Grosuch, R.L. (1983). Factor Analysis. Hillsdale, NJ: Erlbaum.

Gujarati, D.N. (1995). Basic Econometrics. New York: McGraw-Hill.

Gunasekaran,A., & Love, P. (1999). Current and future directions of multimedia technology in business. International Journal of Information Management, Vol. 19, No.2, pp 105-120.

Hair, J., Anderson, R., Tatham, R. & Black, W. (1998). Multivariate Data Analysis with Readings. New York : MacMlillan.

Hardy, M., & Bryman, A. (2004). Handbook of Data Analysis. SAGE Publications

HR-Focus (2000). Online recruiting: what works, what doesn't. HR Focus, Vol. 00, No. 3, pp. 1& 11-15.

Jayawardhena, C. & Foley, P. (2000), "Changes in the banking sector - the case of Internet banking in the UK", Internet Research: Electronic Networking Applications and Policy, Vol. 10, No. 1, pp. 13-30.

Johnston, R. (1995). The determinants of service quality: satisfiers and dissatisfiers. International Journal of Service Industry Management, Vol. 6, No. 5, pp. 53-71.

Jun, M., & Cai, S. (2001). The key determinant of internet banking service quality: a content analysis. International Journal of Bank Marketing, Vol. 19, No. 7, pp. 276- 291

Kleinbaum, D., Kupper, L. & Muller. K. (1988). Applied Regression Analysis and Other multivariate Methods. Boston : PWS.

Kolter, P. (2000), Marketing Management, International Edition, Prentice-Hall, Englewood Cliffs, NJ.

Kynama & Black (2000). E-quality Dimensions. International Journal of Information Management, Vol. 10, No.5, pp 100-110.

Lewis, R.B. and Spyrakopoulos, S. (2001), " Service failure and Recovery in retail banking: the customer's perspective",*International Journal of Bank Management*, Vol.19 No.1,pp.37- 47.

Liu, C. and Arnett, K.P., (2000), "Exploring the factors associated with web site success in the context of electronic commerce", Information and management, Vol. 38, No. 1, pp 23-34

Li, Y.N., Tan, K.C. & Xie, M. (2002). Measuring web-based service quality. Total Quality Management, Vol. 13, No. 5, pp. 685-700.

Li, W., Shi, T., Liao, G. & Yang, S. (2003). Feature extraction and classification of gear faults using principal component analysis. Journal of Quality in Maintenance Engineering, Vol.9, No.2, pp.132-143.

McKinney, V., Yoon, K., Zahedi F.M (2002) "The Measurement of Web-Customer Satisfaction. An expectation and Disconfirmation Approach "Information System Research, Vol. 13, No.3, September, pp 296-315

Meuter, M.L., Ostrom, A.L., Roundtree, R.I., & Bitner, M.J. (2000). Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters. Journal of Marketing, Vol. 64, July, pp. 50-64.

Miles, M.B., & Huberman, A.M. (1994). Qualitative Data Analysis. Thousand Oaks, CA: SAGE Publications.

Mols, N.P. (2000). The Internet and banks' strategic distribution channel decisions. International Journal of Bank Marketing, Vol. 17, No. 6, pp. 295-300.

Mola, L. & Linker, P. (2001). E-commerce Success Model. Management Service Quality, Vol. 13, No. 3, pp. 233-46.

Nunnally, J.C., & Bernstein, I.H. (1994). Psychometric Theory. New York: McGraw-Hill.

Oliver, R.L., (1980) "A cognitive model of the antecedents and consequences of satisfaction decisions" Journal of Marketing Research, Vol. XVII, November

Parasuraman, A., Berry, L., & Zeithaml, V. (1991). Refinement and assessment of SERVQUAL scale. Journal of Retailing, Vol. 67, No. 4, pp. 420-450.

Parasuraman, A., Zeithaml V.A., & Berry, L.L, (1985), "A conceptual model of service quality and its implication for future research," Journal of Marketing, Vol. 49, fall.

Reichheld, F.F., & Schefter, P. (2000). E-loyalty: your secret weapon on the Web. Harvard Business Review, July-August, pp. 105-13.

Santos, J. (2003). E-service quality: a model of virtual service quality dimensions. Management Service Quality, Vol. 13, No. 3, pp. 233-46.

Saunders Mark, N.K., Lewis, P. and Thronhill, A., (2000), Research Methods for Business Students, 2nd., Prentice Hall, England.

Spreng, k. & Mackoy, D. (1996). Service Quality Factors that affect Customer Satisfaction. Review of Marketing 1990, American Marketing Association, Chicago, IL.

Spreng, K., Mackony, D., Yang, Z., & Fang X., (1996). Website Development Model for Online Shopping. Journal of Marketing, Vol. 64, July, pp. 50-64.

Stafford, M.R. (1996). Demographic discriminators of service quality in the banking industry. Journal of Services Marketing, Vol. 10, No. 4, pp. 6-22.

Szymanski, D.M., & Hise, R.T. (2000). E-satisfaction: an initial examination. Journal of Retailing, Vol. 76, No. 3, pp. 309-322.

Wang, Y., Lo, H., & Hui, Y. (2003). The antecedents of service quality and their influences on bank reputation: evidence from the banking industry in China. Managing Service Quality, Vol. 13, No.1, pp.72-83

Zeithaml,V.A. (2002). Service excellent in electronic channels. Managing Service Quality, Vol. 12, No. 3, pp.135-138

Zeithaml, V.A. Parasuraman, A & Malhotra, A.,(2002) "Service quality delivery through web sites: a critical review of extant knowledge" Journal of the academy of marketing science, Vol. 30, No. 4

Zikmund, W. G. (2000). Business Research Methods, 6th Ed. Orlando: Dryden Press.

Appendix

Appendix 1: Research Questionnaire

Survey on Customers' Perceptions of Internet Banking Service Quality and Satisfaction

Dear respondent,

My name is Nesibu Temesgen, MA (Marketing) graduating student of **Addis Ababa University**. Given below are the items to evaluate your level of satisfaction and perceptions about Internet banking services of United Bank S.C. This information will be used for academic purpose and the responses will be treated in strict confidentiality. In advance, I thank you very much for active cooperation.

Section I: Internet Banking Service Quality.

Given below are the items focusing on your perceptions about the quality of Internet banking services that you are receiving from United Bank S.C. Please (√) the box describing the extent of your agreement/disagreement with the following statements.

S. N.	Item/Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The bank's website is simple to use					
2.	The bank's website supports fast/quick login to users' account					
3.	The website maintains relevant/important information to assist the users/clients					
4.	The website maintains updated information on Internet banking					
5.	The bank's website is easy to navigate on the Internet banking options					
6.	The website maintains a section dealing in service policy and relevant notices					
7.	Once a user managed to login into account, the bank's website does not ask him to re-login/logout after a while					

8.	The website supports a fast logout mechanism from the user's account					
9.	The bank's website links are reliable as they take me to the place where I want.					
10.	The website supports a 24x7 access to the Internet banking services					
11.	Once secured the information from a user, usually the bank's website doesn't freeze itself					
12.	The website maintains links those are supportive and can be downloaded quickly					
13.	The bank's website provides trust-worthy information					
14.	Information contents such as text messages and pictures on the website are easy to understand					
15.	The website maintained by the bank provides appropriate information/directions to the users when a problem occurs					
16.	The bank helps customers by providing prompt customer support services through website					
17.	The bank compensates for any logical problem that occurs while managing web based/e-accounts					
18.	The bank supports a live call/chatting to be maintained by a user to online customer support executive for clearing any doubts or gathering information on the service					
19.	The bank, promptly, takes care of problems associated with Internet banking services					
20.	The bank's website acknowledges the service being ordered by the user/client					
21.	The website provides quick confirmation messages on all Internet banking services					
22.	The bank's website performs the service right at the first time					
23.	The website correctly performs, every time, all Internet banking					

	related services					
24.	The bank's website assures on the security issues while collecting personal data/information from the client/user					
25.	The bank's website avoids cookies (unwanted software programs) to collect any sort of information					
26.	I believe that all my transactions (financial) through website are secure					
27.	The website assures the users about non-misusage (for the purpose) of the information provided by them					
28.	The bank maintains all personal information (related to clients/users of Internet banking services) in strict confidentiality					
29.	The bank's website maintains updated profiles of currency rates, interest rates, and commission charges to support online clients					
30.	The information provided on the website about banking products/services is solving the purpose what for it is being placed					
31.	The bank's website maintains all relevant contact details (e-mail/physical addresses, telephone numbers etc.) of various authorities, departments and branches					
32.	The website's section on "Frequently asked questions" serves mostly to all the queries placed by the users/clients					
33.	The bank website supports physically disabled/handicapped (blind, deaf etc) clients by providing special services					
34.	The bank's website provides various language options other than English					
35.	The website offered by the bank to perform Internet banking operations, welcomes me with my name					
36.	The bank offers all required products/services (credit card, fund transfer etc.) which a client wants under Internet banking					

37.	Internet banking is attractive as it maintains less interaction with service facilitators (front-desk people)					
38.	The bank maintains experienced staff to carry out Internet banking service related operations					
39.	The bank maintains sufficient infrastructure/facilities to offer Internet banking services smoothly					
40.	The bank supports the customers/clients to be competent in using Internet banking services facilitated by it					
41.	Being a client of the bank, I don't see any risk while maintaining web-based financial transaction					
42.	Internet banking services of the bank are consistent (in terms of significance) with time					

Section II: Overall Service Quality and Customer Satisfaction

1. How do you rate the **overall quality** of Internet banking services provided by United Bank?

Very High Very Low

5 4 3 2 1

2. Overall, how **satisfied** are you with the Internet banking services of the United Bank?

Highly Satisfied Highly Dissatisfied

5 4 3 2 1

Section III: Personal Profile. Please indicate your answer by ticking (√) the appropriate choice.

1) Age: A) 18 – 25yrs B) 26 – 35 C) 36 – 45 D) 46+

2) Sex: A) Male B) Female

3) Education: A) 10^{th}/ 12^{th} B) College Diploma C) First Degree D) Masters & above

4) Occupation: A) Government Employee B) Private Organization Employee C) Running Own Business D) Student E) Others (Please specify).....

5) Monthly Income (in ETB): A) less than 2000 B) 2001-5000 C) 5001-10000 D) 10001-20000 E) 20001-30000 F) Above 30000

6) How long have you been using the Internet banking services of the United Bank S.C.? .....years.

SUBMISSION APPROVAL SHEET

I, the undersigned declare that this thesis is my original work and has not been presented for a degree in any other university and that all source of materials used for the thesis have been duly acknowledged.

Name: Nesibu Temesgen

Signature _____

Date of Submission: February 15, 2010

This thesis has been submitted for examination by my approval as a university advisor

Name: Dr. Rakshit Negi

Signature: _____

Date of Approval: February 15, 2010