**An Internship Report**

**On**

# "CUSTOMER SATISFACTION OF SOUTHEAST BANK LIMITED, DINAJPUR BRANCH."

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This report is submitted to the department of Accounting, Hajee Mohammad Danesh Science and Technology University, Dinajpur for the fulfillment of the degree Master of Business Administration (MBA)

**(MBA Program-2015-2016)**


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**FACULTY OF POST GRADUATE STUDIES**
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**July, 2016**

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**HAJEE MOHAMMAD DANESH SCIENCE AND TECHNOLOGY UNIVERSITY, DINAJPUR-5200**
**July, 2016**

# Dedicated
# To
# My Beloved Parents

2009:037

MASTER'S THESIS

# An Assessment and Analysis of Customer Satisfaction with Service Delivery of Mobile Telecommunication Networks in Ghana

Simon Gyasi Nimako
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Luleå University of Technology

Master Thesis, Continuation Courses
Marketing and e-commerce
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MASTER'S THESIS

# AN ASSESSMENT AND ANALYSIS OF CUSTOMER SATISFACTION WITH SERVICE DELIVERY OF MOBILE TELECOMMUNICATION NETWORKS WITHIN GHANA


**BY**

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**SWEDEN**



**MARCH, 2009**

## ABSTRACT

This Master's thesis sought to assess and analyse customer satisfaction with service delivery of mobile telecommunication networks (MTNs) within Ghana. The main problem of this study was whether customers are satisfied with service delivery of MTNs in Ghana.

The study was basically a survey that used both qualitative and quantitative approaches. A structured questionnaire was developed, pre-tested and personally administered to the target population of individual mobile subscribers. One thousand (1000) respondents were sampled from the target population of seven million, six hundred and four thousand and fifty-three (7, 604053) mobile telecom subscribers through a stratified random sampling. Out of this, nine hundred and thirty-seven (937) questionnaire constituting 93.7% response rate was got for analysis.

The findings indicate that irrespective of mobile telecom network in Ghana, customer satisfaction is low; neither equal to nor better than desire and expectation of the customers. With respect to mobile network, customers are not satisfied with the service delivery of Mobile Network A. Customer satisfaction for company B is better than expected and at least equal to the desire of customers. For Mobile Network C and D, customer satisfaction is at least equal to customer expectation and desire.
Again, this study concludes that overall customer satisfaction is significantly different among MTNs in Ghana, with customers of Company B, C and D rating their satisfaction with service quality higher than customers of Company A.
Furthermore, customer satisfaction is better than expected for thirteen (13) dimension-items of service quality, equal to expectation for fifteen (15) items and worse than expected for eight (8) dimensions of service quality.
The findings also indicate that "Technical quality" is the most important dimension, followed by "empathy", "reliability", "economy", "responsiveness", "image", and "assurance", while "tangibles" is found not significantly important to the customers in Ghana's MTNs. Most of the customer-satisfied dimensions were rated less important, while most of the customer-dissatisfied dimensions were rated more important.
Moreover, the study found that Desire and Expectation Disconfirmations collectively and individually explain overall customer satisfaction significantly in Ghana's MTNs. Customers' switching intention is different among the networks, with the customers of Company A more willing to switch than those of Mobile Networks B, C and D.

Generally the study implies that the National Communication Authority and other policy makers should take workable measures to propel MTNs in Ghana to improve upon their service quality in specific areas. A major limitation of this study is that a relatively smaller sample of the target population was used and limited to literates.
It is recommended that further research should assess and analyse customer satisfaction with specific services across mobile telecom networks in Ghana.

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(From Foresight)

While we share the credit of this Master's thesis with all the above mentioned people, responsibility for any errors, shortcomings or omissions in this project is solely ours.

## DEDICATION

Foresight:

To my dearly cherished wife and children I gracefully dedicate this Master's thesis with all my love, and to all who have inspired and encouraged me.

Simon:

I specially dedicate this Master's thesis to my lovely parents, Mr. Nicholas Gyasi Nimako and Madam Yaa Serwaa, to my precious Alice, and to the University of Education, Winneba.

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# CHAPTER ONE

## 1.0 INTRODUCTION

This chapter presents the reader with an overview of the entire thesis. It covers the Background to the Study, Problem Statement and Purpose of the Study, Research Questions, Significance of the Study, Limitations, Delimitation, and Structure of Thesis.

### 1.1 Background to the Study

Organisations, both private and public, in today's dynamic marketplace and marketspace are increasingly leaving antiquated marketing philosophies and strategies to the adoption of more customer-driven initiatives that seek to understand, attract, retain and build intimate long term relationship with profitable customers (Kotler, 2006; Gronroos, C 1994; Paradise-Tornow, 1991; Narver and Slater, 1990). This paradigm shift has undauntedly led to the growing interest in customer relationship management initiatives that aim at ensuring customer identification and interactions, customisation and personalisation that unreservedly lead to customer satisfaction, retention and profitability, among other things (Thompson, 2004; Gronroos et al., 1996; Xu et al, 2002; Dyche, 2001; Ryals & Knox, 2001; Stone, 2000). Organisations are therefore increasingly being more customer-centric and are much interested not just in acquiring new customers, but more importantly, retaining existing customers. This is perhaps because it costs more to attract new customers than to retain existing ones. It is believed that the average business spends six (6) times more to attract new customers than to retain old customers. Again it is more profitable retaining an old customer who is more likely to re-purchase or re-use a company's products/services and recommend them to others.

Customer retention is, therefore, basically a product of customer loyalty and value which in turn is a function of the level of customer satisfaction or dissatisfaction (Reichheld, 1996).

Customer satisfaction is central to the customer-centric paradigm shift, and has gained much attention from scholars and practitioners as it has become one of the cardinal means for achieving quality improvement programmes, and one of the crucial foci of strategic marketing management in business organisations that have long-term perspective for growth. This is because of the intriguing findings, that satisfied customers are more likely to remain loyal and committed to an organisation which eventually leads to profits as opined by the popular service-profit-chain proponents (Heskett et al., 1994; Heskett et al., 1997; Reichheld and Sasser, 1990). In this regard, it is a fact that a very satisfied customer is nearly six times more likely to be loyal and to re-purchase and/or recommend a product than a customer who is just satisfied. It is again believed that satisfied customers tell five other people about their good treatment, and that five-percent increase in loyalty can increase profits by 25% - 85%. Conversely, the average customer with a problem eventually tells eight (8) to ten (10) other people (SPSS White paper 1996*;* Limayem M., 2007).

Consequently, organisations attempt to adopt measures to ascertain customer satisfaction/dissatisfaction. Some organisations traditionally rely on customer complains to ascertain customer satisfaction. Unfortunately the average business firm never hears from 96% of their unhappy customers and 91% will never come back; they get back; only 4% of dissatisfied customers will complain (*SPSS White paper 1996).* Consequently, the shift toward the recognition of effective customer satisfaction and its measurement has led companies to change their paradigms about satisfying customers. Many organisations no longer use only customer complains; rather they adopt rigorous qualitative and quantitative mechanisms to measure customer satisfaction. In this regard, measuring customer satisfaction

provides the feedback of how successful an organization is at providing products and/or services to the satisfaction of customers at the marketplace and marketspace. This makes it imperative for organisations to take pragmatic and reliable steps towards improving the quality of service delivery, managing customer value and satisfaction more effectively.

The shift to devoting considerable attention and resources to customer acquisition and retention through customer satisfaction is not different with the four mobile telecommunication networks (MTNs) in Ghana, namely MTN[1] of Scancom Ghana Ltd, Tigo of Millicom Ghana Ltd, Kasapa of Kasapa Telecom and Onetouch of Ghana Telecom Ltd. Though competition has been keen in the industry, each of the four mobile networks has been growing in customer acquisition since Ghana deregulated its telecommunication sector in 1994. According to ICT Statistics Newslog, (6th March, 2008), the number of registered mobile phones in Ghana topped the seven million-mark by the end of 2007 with a quarterly net growth of 8.4%. The country recorded a total of 7,604,053 by 31 December 2007. Each of the telecom network companies is continually improving upon the quality of their service delivery in order to survive the high competition in the industry. Since survival and growth or financial outcome is driven by customer loyalty and retention which is in turn is driven by customer satisfaction and value (Rust and Oliver, 1994; Wang and Hing-Po Lo, 2002)), delivering quality service and customer satisfaction have been important goals and pursuit for each of the four expanding Mobile Telecom Networks (MTNs) as well as the regulators of the industry.

[1] MTN as used here is a brand name of one of the mobile telecom companies in Ghana.

## 1.2 Problem Statement and Purpose of the Study

The problem statement, according to Wiersma (1995, p. 404), ‘‘describes the content for the study and it also identifies the general analysis approach’’, or ‘‘is the issue that exists in the literature, theory, or practice that leads to a need for the study’’ (Creswell, 1994, p. 50), and ‘‘when stated effectively should answer the question: ‘Why does this research need to be conducted’’(Pajares F. 2007).

The problem of this study is propelled by the need to empirically measure customer satisfaction with service delivery of mobile telecommunication networks in Ghana. The state of customer satisfaction with service delivery is not clear as there is scanty documentation of the issue. According to a discussion paper on telecom developments and investments in Ghana (Frempong & Henten, February 2004, p.3), the authors noted that “the goals set by government have only partly been met – especially with respect to the development in rural areas – and the quality of service is still low and has even deteriorated on some indicators. There is, therefore, a widespread dissatisfaction with the general telecom development in Ghana among users as well as policy decision makers and administrators.” Since the past decade, the industry has witnessed a tremendous increase in subscriber growth rate for all the mobile telecom operators (ITU 2008; Africa ICT indicators 2007). This growth trend could not be attributed to customer satisfaction; it is fundamentally due to the substantial growth in investment and expansion of network access during the last decade. This seems a success story, and there are high hopes that the service quality delivered by the MTNs meets customer expectations, ideal service, or satisfaction..

However, since 2006, there had been many complaints from customers about the service delivery of the mobile telecom networks in Ghana (BIZ Community.com October, 2007),

notably Scancom Ghana Limited and Ghana Telecom's OneTouch. As a result, a statement released by the National Communications Authority (NCA) in Ghana profusely lamented that in spite of the appreciable growth and expansion recorded in the industry, "the quality of service is anything but good" (BIZ Community.com, October 19, 2007). The NCA further gave some MTNs in Ghana an ultimatum to improve upon their services within thirty-days. Evidently, the growth trend in the mobile telecom industry in Ghana does not provide empirical support for the claim that customers are satisfied with the service delivery of the MTNs in Ghana

In view of the above, the main problem of this study is: Are customers satisfied with the service quality delivered by Mobile Telecom Networks (MTNs) within Ghana?

For the above identified research problem, the main purpose of this study is to assess and analyse customer satisfaction with service delivery in MTNs within Ghana.

### 1.3 Research Questions

For the above problem and purpose, the study seeks to answer the following specific research questions:

1. How can customer satisfaction (CS) with service quality be described in Ghana's MTNs with and without respect to customers' mobile telecom network?
2. Which dimensions of service quality are customers satisfied or dissatisfied with in Ghana's MTNs?
3. Which dimensions of service quality are important to customers of MTNs in Ghana?
4. What is the switching intention among customers of MTNs in Ghana?

## 1.4 Significance of the Study

The study is immensely significant in diverse ways to business/marketing practitioners, policy makers and stakeholders.

To the management of Ghana's mobile telecom networks, the findings and results that will be reported in this study will provide a more reliable scientific measure and perspective for describing and evaluating the level of their customer satisfaction with the services they deliver. It will also serve as an invaluable source of information that brings to lime light the switching intentions of their respective customers. It will essentially uncover dimensions of service quality that customers consider as important as well as customers' intention to switch to other competitor networks. This will provide empirical support for management strategic decisions in several critical areas of their operations, and above all, provide a justifiably valid and reliable guide to designing workable service delivery improvement strategies for creating and delivering customer value, achieving customer satisfaction and loyalty, building long-term mutually beneficial relationship with profitable customers and achieve sustainable business growth in Ghana.

To policy makers like government agencies such as the Ministry of Communications and the National Communications Authority, the finding and results of this study will provide invaluable insights and a more reliable guide to monitoring the impact of the operations of Ghana' MTNs. It will also be a yardstick for measuring partly their respective policy goals and objectives. Particularly, it will facilitate immensely the Ministry of Communications in Ghana in achieving some of its policy goals, which include: enhancing the reliability and efficiency in the provision of communication services. It will also help the NCA among other things to facilitate the availability of quality equipment to consumers and operators, to ensure that communications systems operators achieve the highest level of efficiency in the

provision of communications services, to ensure that these operators are responsive to customer and community needs, and that customers' interest is protected.

To stakeholders like investors, shareholders, employees, pressure groups, consumer associations, etc., the study will provide invaluable information that will allow them to provide useful suggestions to the improvement in service delivery of their respective mobile network operators in Ghana.

## 1.5 Limitations of the Study

The main limitations of this study are constraints of resources, access, and time. The finance and material resource needed for a larger sample size for this study is inadequate. It is also not likely the researchers would have access to every locality of Ghana and its suburbs for respondents to fill questionnaire. Language is another access limitation as it is difficult translating some questions and statements into the local dialects perfectly because of the limited vocabulary of the local dialects. This limitation, in particular, accounted for delimiting the study to literate individuals/participants, notably students and industrial workers. This study is also constrained by time. It is conducted within very limited academic time frame, approximately two months instead of the proposed four months. Unfortunately that did not also allow us to use a larger sample which is a pre-requisite for reliability of surveys that aim at generalising findings and making inferences from a sample about the population of study.

## 1.6 Delimitations of the Study

The study was delimited to only Ghanaian mobile telecom networks and their operations within Ghana. Again only subscribers who use the services of these networks within Ghana are used in this study for analysis. Moreover 'Customers' in this study is limited to only individual, and not institutions who are also customers of significance in considering overall customer satisfaction with service delivery. Furthermore, this study did not attempt to measure and analyse customer satisfaction with specific services delivered by each of the MTNs in Ghana. Finally, the sample for this study is delimited to a sizeable one thousand (1000) respondents or customers.

## 1.7 Structure of Thesis

The study is organised into six chapters (Figure 1.7). Chapter one is the introductory chapter that covers the Background to the study, Problem statement and Purpose of the study, Research questions Significance of the study, Limitations of the study, Delimitations, and structure of thesis.

Chapter two is review of relevant literature. It covers mobile telecommunication and its role, state of telecommunication in Ghana, mobile telecommunication, Concepts and Theoretical Framework: customer, customer satisfaction, significance of customer satisfaction, customer satisfaction models, service and service quality; significance of service quality; service quality models, the objectives of the study and chapter summary. Chapter three is the Operationalisation. It identifies the hypotheses and explains in detail the main constructs and concepts as well as their indicators and measurement in this study.

Chapter four is the methodology section. It focuses on the research perspectives, data collection: population, sampling, research instruments, data collection, access strategies and credibility of the study. Chapter five is presentation of data and analysis of results and findings. Chapter six is the summary, conclusion and implications.

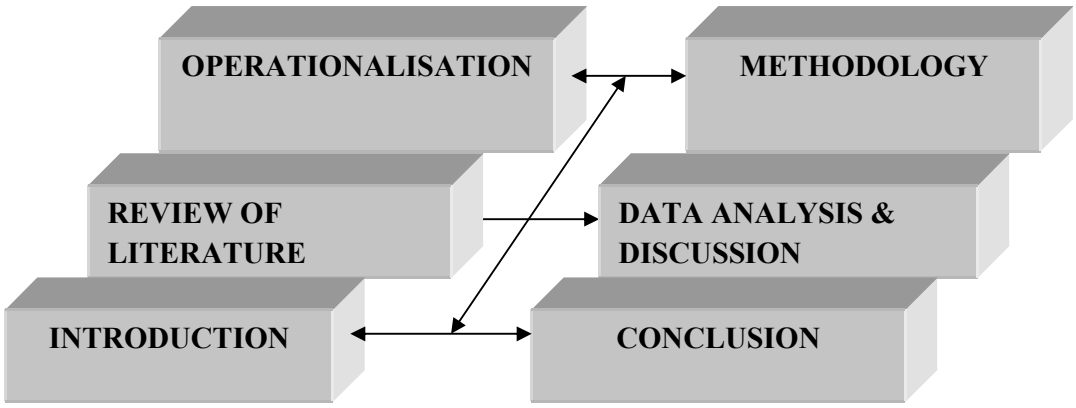



**Figure 1.7 Structure of Thesis**

# CHAPTER TWO

## 2.0 LITERATURE REVIEW

In this research, effort has been made to review relevant literature on the tenets required to find answers and connect to the research questions. This chapter covers Development of Telecommunications, State of Telecom in Ghana, Market Share of Ghana Mobile Telecom Industry, Concepts and Theoretical Framework: Customer and Customer Satisfaction, Importance and Models of Customer Satisfaction Measurement, Service and Service Quality, Significance of Service Quality, Service Quality Models, Prioritising Service Quality Dimensions, Objectives of the Study and Chapter Summary.

### 2.1 Development of Mobile Telecommunication

#### 2.1.1 Definition and Brief Historical Perspective

Mobile Telecommunication refers to the exchange of information, ideas and thoughts through the medium of a mobile phone, telephone or wireless network. According to the World International Property Organisation (n.d), ‘‘a mobile communications system/network refers generally to any telecommunications system which enables wireless communication when users are moving within the service area of the system. A typical mobile communications system is a Public Land Mobile Network (PLMN).’’

Until the invention of modern technology, the use of semaphore, flags, heliograph, relay runners; riders and criers, smoke signals, drum, and light signals; message-carrying pigeons, and even the postal system were the traditional long-distance communication media (http://en.wikipedia.org/wiki/Telecommunication, downloaded on 10th August 2008).

According to Balasubramanian et al., (2002, p. 349), ‘‘the first transmission involving a single mobile platform occurred in June 1898, when Marconi transmitted a radio signal over

42 miles between a French naval vessel and the Wimereux shore station. The first transmission between a mobile transmitter and a mobile receiver occurred in July 1898 when aboard the Royal Navy warship *Juno*, Marconi received messages from the warships *Alexandra* and *Europa* at ranges of up to 45 miles. The first mobile telephone call occurred in June 1946, when a truck driver in St. Louis, Missouri, placed a telephone call using a handset from under his vehicle's dashboard. Utilities, truckers, and news reporters rapidly adopted this technology and nearly 100 cities and highway corridors and access to mobile telephone service by 1948. The technologies were very expensive then. The cellular phone concept that currently supports the bulk of mobile communication was developed in 1947 at Bell Laboratories.''

Today there are many different types and kinds of mobile phones that are used with supporting network for communication. These mobiles have different features and powerful capabilities. Apart from the basic use of making and receiving calls and messages; some can be used to play music, video, games, store considerable amount of personal data, access banking services with internet capabilities (e-mails, e-order/procurement etc), among other uses.

Mobile communications systems have been developed because of the increasing need to free users to move away from fixed telephone terminals without impairing availability of users. Mobile technology has rapidly developed from first generation (1G), second generation (2G), third generation (3G) to beyond third generation (3.5G and 4G) mobile technology that uses digital wireless technology that supports faster display of multimedia and global roaming.

### 2.1.2 Players and Role of Mobile Telecommunication

Mobile communication network providers, in delivering services to customers, operate in an environment that involves purposeful relationships and interactions between several actors in

many activities and with different resources. Some of the players in mobile telecom industry providing services to the customers at their various locations are: the mobile operator who provides the location positioning infrastructure that tells where the customer is; the content provider that delivers the information; the supplier that combines the information with the location information and makes it location relevant; and the platforms through which the customers can access the services (Harter 2000). Therefore it appears that any mobile telecom network needs to have several key players along its value chain in delivering services to its customers (Pura M. 2005).

Mobile telecommunication plays a major role in today's information technology-driven world of business. Nigel Scott et al., (2004, p 14 &15) observe that ''one might expect most calls to be related to economic issues; research confirms that at present in Africa, it is social uses that drive phone use amongst the poor. "Chatting" and "keeping in touch" are the most common use of phones. This is of value because it strengthens social capital through improved networking with friends and family. Other social calls concerning urgent matters (e.g. funerals and festivals) and financial matters (e.g. call to family members working in cities to ask for money) rank highly and business and official/government matters currently rank the lowest. Calls enable people to save time, increase production (business), diversify (e.g. crops, goods in shops), and to get news. Together this means that phones have a positive impact on improved incomes, reduced risk, and an improved sense of well-being.''

Some of the roles played by mobile telecommunication are:

- It is an enabler of Mobile commerce and promotes dissemination of useful information to entrepreneurs and enhancing business creation (Adjei Boadi R. & Gause Shaik A. 2006; Sahlfeld M. 2007; Nodh & Nodh 2007).

- It is a source of employment for many people whose jobs are created and/or facilitated directly or indirectly by the existence of mobile telecommunication (Adjei Boadi R. & Gause Shaik A. 2006).

- It is a significant source of revenue not only for its business operators but also to governments through taxes paid by income earners in the mobile telecom industry (Adjei Boadi R. & Gause S. A. 2006).

- It is a cheap means of communication and therefore cost-effective since it reduces the cost of travel. (Nodh & Nodh 2007)

- It enhances the convenience of instantaneous communication. Mobile phones were introduced so we could communicate when "on the move" and the capabilities have now expanded beyond their initial function for talk: you can now use mobile phones to access/receive a range of information wherever you are. A mobile phone allows you to be accessible at all times, wherever you are. It can help improve communication between staff and customers, particularly business to business customers that may involve travelling (Adjei Boadi R. & Gause Shaik A. 2006).

Some of the arguments raised against the use of mobile phones are that:

- It elicits more unwanted calls as a result of being accessible from anywhere in the country.

- There is a potential cost of using a mobile phone for business, and the costs will be so high as to damage their business. This is a potential danger, particularly when employees are using business mobiles, as there is a risk that some employees could misuse the phone raising bills massively.

- It is hazardous to the human health in that it causes difficulty in concentration when driving, fatigue, and headache; cancer, increase reaction time in a time-dependent manner, infertility in man, and many other diseases. The use of mobile phones increases the risk of road accidents that could have never happened without phones. (http://www.controlyourimpact.com/2008/03/disadvantages-of-mobile-phones/)

### 2.1.3 World Telecommunication Trends

A careful study of the trends in world telecommunication reveals that there is an increasing growth rate for global mobile network subscribers, revenue and expenditure for the last decade. Available statistics published by the ITU on Key Global Telecom Indicators for the World Telecommunication Service Sector (ITU, 2007) shows that while total telecom market revenue at current prices and exchange rate increased from $885 US in 1996 to $1,492 US in 2006, total service capital expenditure increased from $147 US in 1996 to $215 in 2006 as displayed in Figures 2.1.3a, and b. Out of this, global mobile telecom service revenue was second to telephone service revenue as of 2004 with a leading number of subscribers 2, 685 million subscribers compared with main telephone lines and other wireless services.

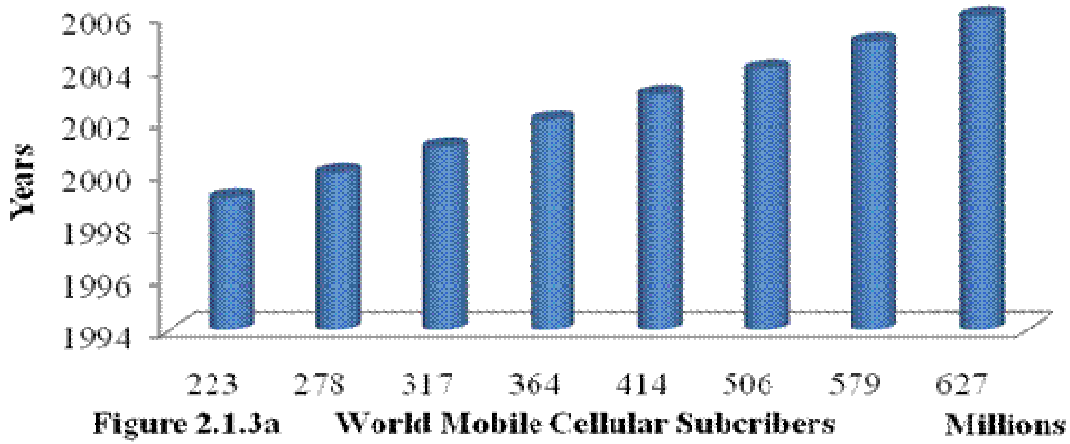



**Figure 2.1.3a World Mobile Cellular Subcribers**

**Source: Based on ITU, 2007 data**

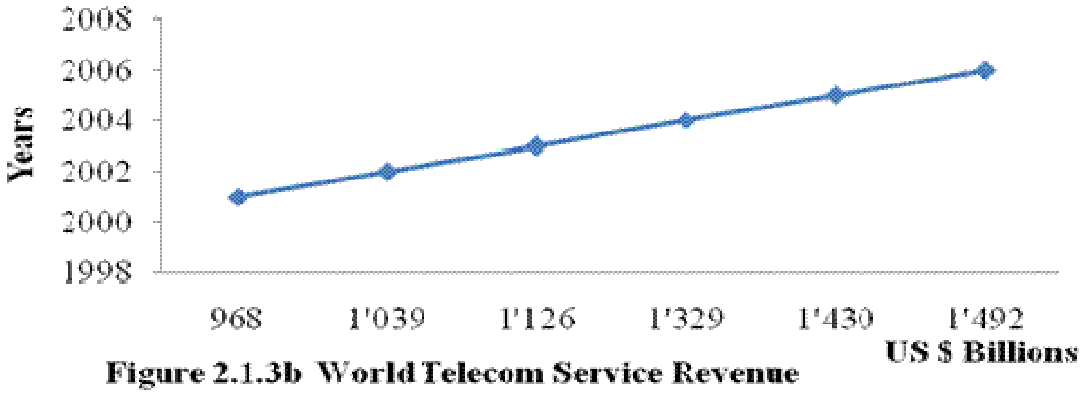



**Figure 2.1.3b World Telecom Service Revenue**
(Current prices and exchange rate)
**Source: Based on ITU, 2007**

This significant growth in both expenditure and revenue for the world mobile telecommunication in general and mobile telecommunication in particular, is an indication that the global mobile telecom industry is expanding rapidly, becoming more and more lucrative and worth investing in. As more and more is spent on investment in this sector, it becomes important that organisations devote much attention to capturing and sustaining their market share by delivering service quality effectively that leads to customer satisfaction.

## 2.2 State of Mobile Telecommunication in Ghana

Since the study took place in the economy of Ghana, it was expedient to have a fair knowledge of important facts about Ghana as of the time of this study.

### 2.2.1 GHANA– Important Facts

**Coat of Arms** **Ghana's flag** **Map of Ghana**


''Ghana is located on the West Coast of Africa, 750 km north of the equator on the Gulf of Guinea, between Cote d'Ivoire and Togo. The capital, Accra, lies on the Greenwich Meridian. The coastal area consists of plains and numerous lagoons near the estuaries of rivers and the land is relatively flat. The climate is tropical, characterized by moderate temperatures for most of the year (21-32°C), constant breezes and sunshine, with two rainy seasons, between March to July and September to October'' (Addy-Nayo, C., 2001, pg. 24).

| Capital | Regions | Location | Land Area | Official Language | Time Zone | Currency | Exchange Rate (mean) |
|---|---|---|---|---|---|---|---|
| Accra | Ten | West Africa | 630000sqkm | English | GMT | Cedi ¢ | 1 = 1.9 |

| Legal System | population | Labour force by occupation | Literacy rate: Age 15+ | Per capita Income | Political Status |
|---|---|---|---|---|---|
| Hybrid system – British-Ghanaian Customary Law | 23,382,848 | ***Agriculture:* 56%** ***industry:* 15%** ***services:* 29%** **(2005 est.)** | 57.9% *male:* 66.4% *female:* 49.8% (2000 census) | $1, 400 US | Executive, presidential, democracy |

**Table 2.2.1: Relevant facts about Ghana**
**Sources: World Facts Book, Ghana; 2007/08 estimates in most cases available at** http://www.ghanaweb.com/GhanaHomePage/general/

### 2.2.2 Brief Historical Overview of Ghana's Telecom Industry

Until 1994, Ghana's telecommunication industry was monopolised by the incumbent-government corporation, Ghana Post, Telephone and Telegraph (PTT). Between 1994 and 2000, Ghana moved from a government controlled PTT to a competitive telecom environment that allowed strong internet and mobile telecom network providers to operate. This was as a result of the deregulation of Ghana's telecommunications sector in 1994 under the Accelerated Development Program 1994-2000 (ADP 2000) when the Government announced a five-year comprehensive restructuring of the industry. The main policy objectives of the program were formulated with the assistance of the World Bank, consultants and other stakeholders, and aim to:

- Achieve a density between 1.5 and 2.5 lines per 100 people;
- Improve public access in rural and urban areas, through the provision of payphone facilities (public and private);
- Expand the coverage of mobile services;
- Promote Ghanaian ownership and control of telecommunications companies; and
- Retain an overall public regulatory control of the sector through the creation of a single agency: the National Communications Authority (NCA).

The ADP adopted the following strategies to achieve the above-stated policy objectives:

- The authorisation of two national network operators: Ghana Telecom and a new independent operator;
- Support of new financing: arrangements which promote investment in new telecommunications infrastructure throughout the country; and

- Privatisation of Ghana Telecom through the sale of a strategic stake to an international operating company combined with measures to broaden share ownership in Ghana (Addy-Nayo, C. 2001; Frempong G. and Henten A. 2004).

### 2.2.3 Regulatory Bodies in Ghana's Telecom

The main regulatory bodies in Ghana's telecommunication industry are the National Communication Authority (NCA) and the Ministry of Communications in Ghana. The NCA was established by Parliamentary Act 1996 as a central regulatory body to regulate the telecommunications sector and to promote a stable operating environment for all participants, while also promoting fair competition and efficiency. The objectives of the NCA includes the licensing and regulation of telecommunications system operators and assigning or allocating systems frequencies, The NCA Act, Act 524, stipulates the following objectives for the Authority:

- To ensure that there are provided throughout Ghana as far as practicable such communications services as are reasonably necessary to satisfy demand for the services;
- To ensure that communications systems operators achieve the highest level of efficiency in the provision of communications services and are responsive to customers and community needs;
- To protect the interest of the consumers; to facilitate the availability of quality equipment to consumers and operators;
- To research into and the development of technologies and use of new technologies in collaboration with such other government departments and agencies as the Authority considers appropriate (Addy-Nayo, C. 2001; Frempong G. and Henten A. 2004).

The Ministry of Communications was created in July 2003 by an Executive Instrument No. 6. It has a long history dating back to 1958, when it was known as the Ministry of Communications and Works. In the 1970s it was merged with transport to become Ministry of Transport & Communications. In March 1997 a new Ministry was created out of the former Ministry of Information and the Communications Division of the erstwhile, Ministry of Transport and Communications. This change did not last long as it reverts to its former name of Ministry of Transport and Communications in January 2001 and later Ministry of Communications and Technology. The Ministry has since been renamed Ministry of Communications in Executive Instrument No. E.I.6 dated 4th July, 2003. The Ministry of Communications was created to facilitate the strategic development and application of the use of the various communications resources - human, material and technological - for effective communications throughout the country (http://www.moc.gov.gh/).

### 2.2.4 Fixed Telephone networks

According to the International Telecommunications Union (2005), ‘‘a main line or fixed telephone network refers ‘‘a telephone line connecting the subscriber's terminal equipment to the public switched network and which has a dedicated port in the telephone exchange equipment. This term is synonymous with the term *main station* or *Direct Exchange Line (DEL)* that are commonly used in telecommunication documents. It may not be the same as an access line or a subscriber. It includes fixed wireless subscribers.’’

As of August 2008, there were two fixed network operators in Ghana namely: Ghana Telecom, and WESTEL (info@ghanatel.net; http://www.moc.gov.gh/).


#### 2.2.4.1 Ghana Telecom Company

Ghana Telecom (GT) is the incumbent provider of telecommunication services in Ghana. GT provides fixed-line, GSM mobile phone and payphone services. As part of the ADP (1994-2000) reform program, Ghana Telecom was incorporated on June 16, 1995 as a successor to the telecommunications division of Ghana Posts and Telecommunications Corporation (GPTC). This was to enable the telecommunications division to function as a commercially viable entity. The GPTC was established as a public corporation in 1974, and until October 1995, had been responsible for operating the nation's telecommunications and licensing of telecom services. On 20th February 1997, Ghana Telecom was officially privatized to Telecom Malaysia Berhard with full management control. Subsequently the government handed operations of the company to Telenor Management Partner (TMP) till 2007. On July 3, 2008, the Government of Ghana announced the sale of 70% share to Vodafone for the purpose of making the company more profitable. Ghana Telecom's operating license allows it to render the following communications services: Voice telephony, Cellular communication, Telex, Telegraph, Satellite communications, Value added services, Paging, the sale, lease and maintenance of subscriber premise wiring, and Internet connectivity.

#### 2.2.4.2 WESTEL

The second national operator, WESTEL, was licensed in 1998 to provide 50,000 fixed lines over a 5-year period in direct competition to Ghana Telecom. In 2008 WESTEL was acquired by CelTell a subsidiary of Kuwait's Mobile Telecommunications Co. (Zain), the second-largest Arab telecom firm by market value, with 25% of holding by the Ghana government.

### 2.2.5 Cellular (mobile) Phone Network

According to the ITU, ‘‘a mobile telephone net work refers to an automatic public mobile telephone service that provides access to the Public Switched Telephone Network (PSTN) using cellular technology or portable telephone to subscribe. This can include analogue and digital cellular systems but should not include non-cellular systems.’’

There are four mobile telecom network companies in Ghana, each operating its own mobile telecommunication network and brand name. These networks are MTN of Scancom Ghana Ltd, tiGo of Millicom Ghana Ltd, Kasapa of Kasapa telecom and Onetouch of Ghana Telecom.

#### 2.2.5.1 Millicom Ghana Ltd

Millicom Ghana Limited, operators of Tigo cellular, is a subsidiary of Millicom International Cellular S.A. (“MIC”) UK/Luxembourg, a leading global operator of cellular telephony services with several investments across the world. The company started its operations in 1991 and was the first cellular network operator. Millicom Ghana uses the ETAC System, and it had over 22 000 subscribers in 1998 with a market share of above 70 per cent of the mobile market. The company expanded and in 2002 Millicom Ghana introduced its GSM service under the brand name MOBITEL/Buzz GSM. Buzz GSM with its trendy lifestyle image offered very exciting services to its numerous clientele. Mobitel has, over the years, been able to maintain a fast rate of subscriber and revenue growth and a very high quality of service, acclaimed by most users as being second to none. In 2006, Tigo was launched in

Ghana to replace the old national brand *MOBITEL* with a new international brand. Currently Tigo network coverage reaches all the ten regions in ghana and it is fast expanding to rural areas.

Some of the services provided by tigo include:

- TiGo basic service such as credit sharing, caller line identification, call waiting, call holding, voice mail, SMS, per second billing, ring tones, call divert/forwarding, call barring, balance enquiry, free itemized billing and conference call.

- TiGo colouring: customised ring tones; My tiGo: ring tones, real tones, wall paper, videos, games, etc.

- My messages: Your web portal for all things SMS! Web SMS, SMS plus , message alerts, **LiveScore.**
- My Discussions: Topic Portal is your SMS to web tool for engaging in live feedback discussions, SMS-based survey, SMS or text polls.
- Extreme value for unlimited text messaging and talking from 6am to 6pm for GHc 1 or 24 hours for GHc 2.
- Free night calls and extra hour on free night calls starting from 11.30pm till 5am with a minimum balance of 70p.
- Latest movies at The Accra Mall food court: Friday – 7.30pm, Saturday – 7.30pm, Sunday – 6.30pm
- BE ALIVE is a permanent service on Tigo, which enables you to gain information, advice, daily inspiration and lot's more.. all in your text message inbox!


### 2.2.5.2 Onetouch GSM Services - Ghana

Onetouch is the cellular arm of Ghana Telecom. It started its operations in 2000 providing nation-wide cellular services. It plans to attract more subscribers across the country using GSM technology. Some of the services provided by Onetouch GSM include:

- Onetouch Prepaid include: Call Divert, Call Holding & Waiting, Call Me Back, Caller Line Identity Presentation (CLIP), Community Chat, Conference Call, Family & Friends, Infoshop, International Direct Dial (IDD), i-share Credit Transfer, Onechat, Onetouch GPRS, Prepaid Roaming
- Postpaid: Onetouch Postpaid is the right deal for business executives who make lots of calls and yet do not have the time to always recharge their account.
- Others include: onetouch ogo, onetouch4all, wake-up call, call waiting, call transfer, password, itemised billing, last number redial, and phonebook for customers personal data and easy SIM replacement.


#### 2.2.5.3 MTN Ghana – Scancom Ghana Ltd

Scancom Ghana Ltd started operating in October 1996 using GSM 900 technology as spacefone, with 15 sites and equipment from Ericsson. The network provides new services and coverage in Greater Accra, Kumasi and Obuasi, with ongoing developments in other regional capitals. The company operated as areeba and in 2006 it was taken over by Mobile Telecommunication Network Group (MTN) and now its name is MTN Ghana; it has expanded greatly its network coverage. Some of the services of MTN include:

- MTN Zone: Y'ello and welcome to MTN Zone, a service that allows users to enjoy discounts up to 100% on MTN-to-MTN calls, all day and all night. With MTN Zone you are automatically moved to a different price plan upon subscription.

- MTN Wireless Office: allows users to browse and use the Internet on your laptop or PC at reduced rates using a GPRS modem and a special Data SIM Card, giving users the freedom to work and have fun everywhere you GO.

- MTN GoLive: uses GPRS (General Packet Radio Service) technology and provides users with a data connection on your mobile phone, and linking it to your laptop. Send and receive e-mail get latest news and information, surf the web, MMS, etc.

- Convenient chip replacement: with SIM SWAP kit wherever users are without visiting an MTN Customer Care Centre.

- BlackBerry®solution from MTN supports push e-mail, mobile, telephone, text messaging, internet faxing, web browsing and other wireless information services. It delivers information over the wireless data networks of mobile phone service companies like MTN. It includes the PIM applications (address book, calendar, to-do list, etc.) as well as telephone capabilities for people on the move.

- Call management services: basic call services like Call Line Identification Presentation, Call Line Identification Restriction, call barring, call waiting and call divert; Call answering services like voicemail, and smartclip.

- Messaging services: MMS, SMS, call back, TX-2-Email, and other services like selfservice, you choose (segmented tariff), SG-SSB Sikatext, Phone Banking, DUAL IMSI allowing the use of two MTN numbers on one phone.

- International roaming services and entertainment services to the general public as well as specialised services for different customers such as MTN extraconnect, MTN xtracool, MTN xtraspecial, MTN VIP.


#### 2.2.5.4 Kasapa Telecom Limited

Kasapa Telecom Limited - a subsidiary of Hutchison Whampoa Group –was established in 1998, "Hutchison Whampoa Group acquired 80% of Celltel Limited in 1998, and in 2003, changed the brand to Kasapa and the company name to Kasapa Telecom Limited. In January 2005, Kasapa became a wholly-owned subsidiary of Hutchison Telecom. Kasapa means ‘good talk’ in Twi, the most widely-spoken local language in Ghana."

(Retrieved on 14 February 2008 - http://www.htil.com/eng/business/ghana_history.htm). The company offers mobile, home, and business voice and data service on its 800 MHz CDMA2000 1X network, expanding throughout Ghana.

### 2.2.6 Market Share of Ghana's Mobile Telecom Industry

Currently, in Ghana, the mobile communication industry is one of the most profitable industries delivering services to customers through-out the country. The industry has four companies, each operating its own mobile telecommunication network and brand name. Mobile telecommunication services have increased tremendously over the years in Ghana and competition has been keen. Available statistics (www.nca.org retrieved on Monday, 25 February 2008) show that ''the number of registered mobile phones in Ghana topped the seven million-mark by the end of 2007 according to new data published by the regulator, the National Communication Authority (NCA). The watchdog's figures show that the country recorded quarterly net growth of 8.4% in the last three months of the year, boosting the country's total to 7,604,053 by 31st December 2007. Local industry watchers predict, however, that the sector could soon reach saturation levels, leaving the four main cellular operators to slug it out for market share. The NCA reported that MTN Ghana was the market leader by the start of 2008 with 4,016,132 subscribers, ahead of Millicom Ghana (Tigo) with 2,023,091, while GT-OneTouch and Kasapa Telecom took third and fourth place with 1,275,764 and 289,066 subscribers respectively. Tigo topped the list in terms of net subscriber additions in 4$^{th}$ Quarter 2007, however, signing up a net 426,640 new users compared with 143,743 for MTN and 21,456 for Kasapa Telecom.''

Industry experts predict that over the next five years, there will be phenomenal growth in the ICT sector led by mobile industry and backed closely by the Internet Sector. ''The fix line network would not be extinct that quickly but it would have a very slow growth path whiles

fix wireless would be phenomenal. It is expected that the digital divide would be bridged further because a lot of investment is being made in ICT infrastructure.'' (Info.internetresearch.com.gh).

## 2.3 Concepts and Theoretical Framework

### 2.3.1 Defining Customers

The term 'customer' is commonly used to refer to end-users of a product. Hayes (1997, p. 16) opines that "Customers' is a generic term referring to anybody who receives a service or product from some other person or group of people." Broadly, there are internal and external customers, where internal customers refer to the staff or employees and external customers refer to stakeholders of an organisation. Within the external customer group there are several customer categories: clients, compliers, consumers, and constituents.

It is important to identify the types of customer surveyed when reporting customer satisfaction results. In this study the customers of concern are the individual consumers/users who subscribe to the services of any of the mobile telecommunication networks in Ghana.

### 2.3.2 Customer Purchasing Process

Researches suggest that customers go through a five-stage decision-making process in most purchase situations, namely: Need recognition & problem awareness, Information search, Evaluation of alternatives, Purchase and Post-purchase evaluation (Kotler & Keller 2006; Lovelock and Wirtz, 2007). Lovelock and Wirtz (2007) propose a three-stage model of service consumption. In this model they conveniently grouped the decision making process of service consumption into three: Pre-purchase service, encounter stage and post-enter stage. They further explained them as follows:

- **Pre-purchase:** This stage has three main components. It includes the awareness of need, information search in which needs are clarified, solutions explored and suppliers and alternative service products are identified by consumers, and finally an evaluation of alternative solutions and suppliers for a decision on service purchase. This stage is affected by the consumer's search for certain service attributes, and the perceived risk and expectation of consumer regarding desired service, predicted service, adequate service levels as well as the tolerance zone.

- **Service-encounter**: This stage involves a request from chosen supplier or initiate self-service of which payment may be upfront or billed latter. It also includes service delivery by personnel or self-service. It is the moment of truth as the service is encountered through a service delivery system of an organisation.

- **Post-encounter**: This stage involves an evaluation of the performance of the service encountered and its effect on future intentions. It is this stage that satisfaction and dissatisfaction occur and decisions to remain loyal are taken by customers.

In the mobile telecom market, immediately a customer buys a SIM card and activates it, he/she becomes a subscriber to the network and a customer to the network operator. The customer's decision to purchase and the decision making process are very significant to consider since they imply trade offs in cost and benefits (value) and have significant effect on customer satisfaction, re-purchase, likelihood to recommend and switching intentions. This value exchange process continues as customers continually receive or consume services from the mobile network and even take part in the services production and delivery process. In the process, customers' decision to remain loyal to the organisation or switch altogether to other networks takes place depending on several factors prominent among them is their satisfaction level of the services quality delivered to them.

### 2.3.3 Concept of customer satisfaction

Customer satisfaction (CS) is a term that has received much attention and interest among scholars and practitioners perhaps because of its importance as a key element of business strategy, and goal for all business activities especially in today's competitive market (Anderson et al, 1994). It is therefore important to understand this terminology in detail as conceptualised in this study. Some of the definitions given by scholars for customer satisfaction are as follows:

- Customer satisfaction is a ''psychological concept that involves the feeling of well-being and pleasure that results from obtaining what one hopes for and expects from an appealing product and/or service'' (WTO, 1985);
- CS "as an attitude-like judgement following a purchase act or a series of consumer product interactions." Youjae Yi, (1990 cited in Lovelock & Wirtz 2007);
- CS is ''a consumer's post-purchase evaluation and affective response to the overall product or service experience.'' (Oliver, 1992);
- ''Satisfaction is merely the result of things not going wrong; satisfying the needs and desires of consumers.''(Besterfield 1994);
- Satisfaction as pleasure; satisfaction as delight (Kanji and E Sa Moura, 2002);
- CS is ''an experience-based assessment made by the customer of how far his own expectations about the individual characteristics or the overall functionality of the services obtained from the provider have been fulfilled.'' (Bruhn, 2003);
- ''Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product's performance (outcome) in relation to his or her expectation.'' (Kotler P. & Kevin L. K., 2006 p. 144).

Some definitions of Customer Satisfaction on the Web are:

- "Customers' evaluation of the quality of goods and services (www.theacsu.org).

- Providing good service in a pleasant manner and meeting the customer's expectations" (retailindustry.about.com/od/abouttheretailindustry/l/blterm_c.htm)

- "Comparison of expectations versus perception of experience." (www.booksites.net/download/chadwickbeech/Glossary.htm)

- "This is a state of mind that a customer has about a company in which their expectations have been met or exceeded over the lifetime of the product. This leads to company loyalty and product repurchase." www.mcgarahan.com/images/S17/Documents/Contact%20Center%20Glossary%20of%20Terms.htm

- Customer satisfaction, a business term, is a measure of how products and services supplied by a company meet or surpass customer expectation. It is seen as a key performance indicator within business and is part of the four perspectives of a Balanced Scorecard. (en.wikipedia.org/wiki/Customer satisfaction)

- A measure of the degree to which a product or service meets the customer's expectations. (strategis.ic.gc.ca/epic/site/stco-levc.nsf/en/h_qw00037e.html)

Admittedly, satisfaction itself is a complex concept and difficult to universally define and accurately measure. This is supported by Oliver (1997) when he states, "everyone knows what [satisfaction] is until asked to give a definition. Then it seems, nobody knows". However, critical reviews from marketing perspectives of definitions of customer satisfaction given by many scholars and practitioners bring to lime-light several relevant dimensions of the concept as follows:

- **Multi-dimensionality of Satisfaction Object:** The object of customer satisfaction is varied and can be related to different dimensions of multiple experiences with

product/service provider (Surenshchandar et al. 2002 cited in Satari S. (2007). Most definitions relate customer satisfaction to quality of a product or service offering ((Bruhn, 2003; Kotler & Keller, 2006; www.theacsu.org). However satisfaction can as well be related to other non-quality dimensions (Singh 1991; Garland and Westbrook. 1989). For example we can refer to satisfaction with an on-going business relationship or with price-performance, satisfaction with the time or service delivery or the service experience, service context and satisfaction with entire reputation and outlook of an organisation. Even with the product or service quality there can be several dimensions (Gronroos, 2000, 2001; Bo Edvardsson 2005), such as *what* product offers, product or service reliability, timeliness, friendliness of the service providers, etc. Therefore depending on the purpose one wants to achieve, one can relate satisfaction to any object of interest. In this study customer satisfaction is defined in relation to only dimensions connected to the service quality delivered by mobile telecom network.

- **Satisfaction with Attribute-specific and overall Performance:** Satisfaction can be related to a specific attribute of a product or service (Cronin & Taylor 1992). For example, with mobile telecommunication, satisfaction can be related to a specific attribute of Multimedia Messaging Service, Mobile TV or Mobile Internet Service such as satisfaction with the voice quality, picture quality, speed, and the like. On the other hand, customer satisfaction can be related to the overall performance of a product/service or the overall performance of an organisation's products/services. (Cronin & Taylor, 1992). Viewing satisfaction as attribute specific or overall performance depends on what one is interested in. If the interest is more of achieving marketing value, then attribute-specific would provide more useful insights to

practitioners as to the extent to which a specific attribute of a service meets customer expectations or desires. Conversely, if the interest is focused more on achieving academic value, then overall performance measure would provide more academic value as it gives more useful information to academics and other stakeholders for the purpose of generalisations that call for attention to further research. In this study customer satisfaction is related to the overall performance of services delivered by mobile telecom networks in Ghana because we want to treat it basically from academic perspective with managerial implications.

- **Magnitude of Satisfaction:** To say that satisfaction is ‘‘...merely the result of things not going wrong; satisfying the needs and desires of consumers.’’(Besterfield 1994) is to limit the scope of the concept. Customer satisfaction does not only prevent customer complaints but more importantly it is meeting and even exceeding customers’ expectations (Kotler & Keller, 2006). The point is that ‘no complaints’ or ‘dissatisfaction’ is not synonymous with ‘customer satisfaction’. This view has its roots in motivation theory of Herzberg Fredrick (1968). The mere fact that things do not go wrong and customers do not complain does not mean that they are satisfied with the product or service received. Conversely, customers can be dissatisfied with some things about an organisation, but satisfied with the organisation’s product or service offerings Satisfaction is therefore holistic/total (Kotler & Keller 2006, p.144) and can be in different magnitudes since customers can be extremely/very highly satisfied or delighted to just satisfied, and extremely dissatisfied to dissatisfied. In this study satisfaction is defined in both negative and positive magnitudes, from very satisfied to very dissatisfied.

- **CS as a Process and an Outcome:** One area that has received considerable debate in customer satisfaction literature is whether customer satisfaction should be defined as an outcome or a process. Many early definitions conceptualised satisfaction as a process which is currently the dominant view held by most scholars (Oliver, 1980, Parasuraman et al., 1988). The process perspective presupposes that customer satisfaction is a feeling of satisfaction that results from the process of comparing perceived performance and one or more predictive standards, such as expectations or desires (Khalifa & Liu 2002). This perspective is grounded in the expectancy disconfirmation theory proposed by Richard Oliver (Oliver 1980). The customer is satisfied if the performance of product/service is equal to his/her expectations (positive disconfirmation) and he/she is dissatisfied if the product/service performance is perceived to be below his/her expectation (negative disconfirmation). If expectation exceeds perceived performance, the customer is highly satisfied. By taking satisfaction as a process these definitions do not focus on satisfaction itself but things that cause satisfaction, the antecedents to satisfaction, which occur primarily during the service delivery process (Vavra 1997).

  More recent studies view satisfaction as an outcome or end result during the process of the consumption of a service; it is viewed as a post-purchase experience (Vavra 1997). This view has its roots in motivation theories that postulate that people are driven by the desire to satisfy their needs (Maslow, 1954) or that their behaviour is directed at the achievement of relevant goals (Vroom, 1964). In this way satisfaction is perceived as a goal to be achieved and can be described as consumer fulfilment response (Rust & Oliver, 1994). In the context of this study, customer satisfaction is defined from process perspective because we believe that in Ghana's mobile telecom

market, customers' evaluation of mobile telecom services takes place primarily during the service delivery process and continues, but not just an outcome that customers strive to achieve.

- **CS as Cognitive and Affective responses:** Another controversial issue in customer satisfaction literature is whether satisfaction is cognitive or affective**.** Although most scholars, notably proponents of disconfirmation theories, view satisfaction as a process the nature of satisfaction process remains unclear. While some authors maintain that satisfaction is a cognitive assessment involving a comparison of product/service offerings from a provider against expectations, other scholars opine that the feeling of satisfaction represent an emotional or affective state of mind that is formed through the process of service delivery where customers encounter service experiences that affect their emotions. More recent researches have found that satisfaction is both cognitive and affective (Oliver, R.L., 1993a; Gronroos, C., 2001; Wong A., 2004; Edvardsson et al., 2005; Martin D., et al., 2008). This view holds that customers do not only consume an offering for which they cognitively evaluate, but their involvement in the service production and delivery process allows them to emotionally evaluate the service quality. They argue that ". . . satisfaction is naturally tied to cognitive judgments and to affective reactions elicited in consumption" (Mano and Oliver, 1993, p. 451). This study conceptualises customer satisfaction as cognitive and affective since we believe customers express their satisfaction with the service quality cognitively and emotionally.

- **CS as Subjective or Objective:** An equally debatable element in clarifying customer satisfaction concept is whether it is subjective or objective in nature. Pizam A. & Ellis T. (1999) noted that "a minority of researchers perceive the satisfaction process to be

subjective in expectations but objective in the perceptions of the product attributes, or outcome." In this light Klaus (1985, p. 21) defines satisfaction as "the customer's subjective evaluation of a consumption experience, based on some relationship between the customer's perceptions and objective attributes of the product". Expectation and perceived performance are constructs that are in themselves subject to external influences to some extent (Maister D. H., 1985). Others point out that both what is perceived (outcome) and what is expected are subjective and psychological phenomena - not reality. The importance of the subjective nature of the process cannot be overlooked. The reason is that both expectations and perceptions are psychological phenomena and are susceptible to external influences and manipulation. To say that customers' evaluation of a product or service is objective implies that the evaluation is not biased in any way. This is not realistic because it is a common knowledge that customers are different and the way they perceive a service like MMS, SMS, and Voice mail of a mobile network may vary considerably. However, we believe that each customer can be objective in their own subjective cognitive and affective states.

Therefore in this study, customer satisfaction in itself is defined as a subjective evaluation, but its measurement is approached objectively; thus, customers are supposed to be objective - expressing whatever subjective response they have about a product objectively without bias (subjective objectivity).

- **CS as Transactional or Cumulative:** Another element that has attracted divergent views from scholars is whether CS should be conceptualised as cumulative or transactional. On the one hand from a transactional-specific perspective, CS is based on a one time, specific post-purchase evaluative judgement of a service encounter

(Hunt 1977; Oliver 1977, 1980, 1993 cited in Yonggui Wang & Hing-Po Lo 2002). On the other hand, in the cumulative CS perspective, CS is conceptualised as an overall customer evaluation of a product or service based on purchase and consumption experiences over a time period (Fornell, 1992; Johnson and Fornell 1991; Anderson et al., 1994a, b; cited in Yonggui Wang & Hing-Po Lo 2002). In terms of the diagnostic and predictive value of customer satisfaction measurement, cumulative satisfaction is more useful and reliable than transaction-specific in that it is based on series of purchase and consumption occasions rather than just one occasion of transaction. In this study, customer satisfaction is measured from the last twelve months (approximately between June 2007 and June, 2008). Therefore our conceptual framework for this study treats customer satisfaction as cumulative.

From the above review we give an operational definition of customer satisfaction as conceptualised for this study as, *"The process of customer overall subjective evaluation of the product/service quality against his/her expectation or desires over a time period."*

### 2.3.4 Significance of Customer Satisfaction and its Measurement

Customer satisfaction measurement (CSM) is not an end in self; it is a useful means to achieving several objectives of business organisations (Parasuraman et al., 1988; Gronroos, 1991; Reichheld 1996 and Kotler & Keller 2006). CSM is both diagnostic and predictive tool.

- CSM enables organisations to evaluate their abilities and capabilities to meet customers' expectation, desires and needs effectively.

- CSM process is one of the projective ways of getting into the minds of customers and obtaining certain hidden, but valuable continuous feedback from customers; this is a basic element in Total Quality Management (Zairi, 1994).

- CSM enables organisations to analyse the performance of an offering to customers to identify areas of improvements as well as customers' priorities, which can serve as the bases for customer segmentation.

- CSM can be used to compare the performance of separate business units of an organisation in various times and locations (Jones & Gryna, 1988 in Mehdi B. M, 2007).

- CSM can be used by suppliers to demonstrate their customer-centric philosophy to win customers' attention and concerns so that customers talk favourably about the company and its products or services (Kotler & Keller 2006).

- Customer retention: Many researches suggest that CS is a key determinant of customer retention (Bolton, 1998; Rust and Zahorik, 1993; Zeithaml et al., 1996). According to Reichheld (1996), satisfaction measures have accounted for up to 40 percent of the variance in models of customer retention. Customer retention is regarded as essential factor in Customer Relationship Management (Reichheld, 1996; Kotler & Keller 2006).

- Customer loyalty and profitability: CS is regarded as a necessary antecedent of customer loyalty, which in turn is a driver of profitability and performance (Heskett et al., 1997; Reichheld, 1993).

- Driver of behaviour intentions: Increasing CS and customer retention leads to improved profits, positive word-of-mouth, and lower marketing expenditures (Reichheld, 1996).

- Customer satisfaction survey can provide the following benefits: Improve customer, client or employee loyalty, react quickly to changes in the market, Identify and capitalize on opportunities, beat the competition, retain or gain market share, increase revenue, reduce costs (e.g., turnover or hiring), maximize investment in changes by knowing which has biggest payoff (SPSS White Paper, 1996).

- Managerial value*:* One of the benefits that management see in customer satisfaction surveys is in providing information on how best to proceed with a quality improvement programme (Rust *et al.*, 1994).

### 2.3.5 Customer Satisfaction in Mobile Telecom Networks in Ghana

The state of customer satisfaction with service delivery is not clear as there is scanty documentation of the issue. According to a discussion paper on telecom developments and investments in Ghana (Frempong & Henten, February 2004, p.3), the authors noted that "the goals set by government have only partly been met – especially with respect to the development in rural areas – and the quality of service is still low and has even deteriorated on some indicators. There is, therefore, a widespread dissatisfaction with the general telecom development in Ghana among users as well as policy decision makers and administrators." However, the industry has witnessed tremendous developments in the last decade as a result of the substantial growth in investment that has generated incredible increase in subscriber growth rate for all the mobile telecom operators in the industry by December 2007 (ITU

2008; Africa ICT indicators 2007). This seems a success story, and there are high hopes that the service quality delivered by the MTNs meets customer expectations, ideal service, or satisfaction.

However, no study so far has been conducted to empirically support the claim that customers are satisfied or not with service delivery of MTNs in Ghana. In the light of this, our study hypothesises that:

H1a: Customers are not satisfied with service delivery of MTN.

H1b: Customers are not satisfied with service delivery of Tigo.

H1c: Customers are not satisfied with service delivery of Kasapa.

H1d: Customers are not satisfied with service delivery of OneTouch.

H1e: Overall CS between MTNs in Ghana is not the same.

### 2.3.6 Determinants of Customer Satisfaction

A lot of factors that drive customer satisfaction need to be examined in order to reliably measure it. In the work of many scholars and practitioners, CS is found to be driven by the quality of service and the customer service experiences (Oliver, R.L., 1980; 1993a; Parasuraman, A., et al., 1988, Lovelock, 1991, 1992, 2001, 2000; Lovelock C. & Wirtz J., 2007; Gronroos, C., 1994, 2000, 2001; Yonggui Wang & Hing-Po Lo 2002; Kotler P.& Keller K. L., 2006). ‘‘A service experience is defined as the service encounter and/or service process that creates the customer’s cognitive, emotional and behavioural responses which result in a mental mark, a memory” (Gronroos 2005 in Bo Edvardsson, 2005). It is generally accepted by most scholars that service quality basically relates to what the customer perceives of the product/service performance. Recent empirical studies have shown that customer satisfaction is not only driven by cognitive dimensions of customer perceptions of

service quality but also by affective dimensions which have positive impact on post-purchase behaviour like repeated purchase, customers loyalty, switching intention, and likelihood to recommend (Erevelles S., 1998; Oliver R. L., 1980; Oliver, R.L. 1993a). This is consistent with the work of two perceived service quality guru's, Gronroos C. and Edvardsson (Gronroos, C., 2001; Edvardsson 2005; Edvardsson et al., 2005), who postulate that perceived service quality is an important determinant of customer satisfaction that have both cognitive and affective dimensions beyond just cognitive assessment of customers of the offering of service providers. These SERVQUAL gurus further maintain that perceived quality is formed by customers during their ongoing interactions with product/service providers. This is realised when customers are factored in as co-producers and involved in the process of production, delivery and consumption of service/products.

Another important determinant of CS is customer expectations. It has been found out that expectation plays a major role in determining satisfaction. This view was herald by the proponents of popular expectancy disconfirmation theory (Oliver 1980; 1993; Parasuraman, A., et al., 1988,). According to this theory, the customer is satisfied if the performance of product/service is equal to his/her expectations (positive disconfirmation) and he/she is dissatisfied if the product/service performance is perceived to be below his/her expectation (negative disconfirmation). If expectation exceeds perceived performance, the customer is highly satisfied. Another perspective of the disconfirmation is that customer satisfaction relates to a comparison of customer perceive quality with perceived performance, rather than comparing expectation with perceived performance (Gronroos 2001).

Again, customer satisfaction is driven by perceived value. Though the concept of value is relative and has several dimensions to it, Zeithaml (1988) considers customers value as the overall assessment of the utility of a product based on perception of what is received and

what is given. Dodds et al (1991), controverted that customers perceptions of value represent a trade-off between the quality or benefit they receive in the product relative to the sacrifice they perceived by paying the price. The perceived value process involves a trade-off between what the customer gives such as price/money, sacrifices, perceived risk, opportunity cost, and learning cost in exchange for what he/she gets such as quality, benefits, utilities (Yonggui Wang & Hing-Po Lo, 2002; Ravald & Gronroos 1996; Zeithaml 1988). One of the most recent research in the work of Hume & Mort (2008), confirm that value is a positive predictor of satisfaction. This is consistent with the findings of Rust and Oliver (1994) who suggested that value had a direct and encounter-specific input to satisfaction.

Conceptually, since what the customer gets for what he/she gives is based on the performance of the product/service, what he/she gives become a standard for comparison. In this, a sort of disconfirmation occurs in that the customer becomes satisfied if the performance of product/service is equal to what he/she gives (positive disconfirmation); he/she is dissatisfied if the product/service performance is perceived to be below what he/she gives (negative disconfirmation). If what he/she gives exceeds perceived product/service performance, the customer is highly satisfied. Therefore we coin the term *value-disconfirmation.* A number of researches attest to the fact that there is some kind of intertwine relationships among all the antecedents of customer satisfaction (Yonggui Wang & Hing-Po Lo, 2002).

In conclusion, it is established empirically that customers overall cognitive or affective evaluation is based on basically the service quality, but the customer's perception of the performance of the service quality encountered is compared with some cognitive or affective standard like his/her expected quality, perceived quality or value quality.

The implications of the antecedents of customer satisfaction is that managers must take effective strategies to manage customer perceived quality, customer expectations, customer

perceived value in order to reap the full benefits of customer satisfaction measurement (Gronroos, C., 1990; Kauppinen-Raisanen H. et al., (2007).

### 2.3.7 Customer Satisfaction and Behaviour Intentions

CS impacts the behaviour of customers in a number of ways. First CS is found to be a key determinant of customer retention (Rust and Zahorik, 1993; Zeithaml et al., 1996). Again, according to Reichheld (1996) CS is regarded as a necessary antecedent of customer loyalty, which in turns drives profitability and performance (Heskett et al., 1997; Reichheld, 1993). Also, Increasing CS and customer retention leads to improved profits, positive word-of-mouth, and lower marketing expenditures (Reichheld, 1996). In many studies, customer satisfaction is positively correlated with customer re-purchase, likelihood to recommend, positive word-of-mouth, customer loyal and retention. But, CS is negatively correlated, to a large extent, with customer complaints and switching intention (Yonggui Wang & Hing-Po Lo, 2002).

It must be pointed out that customer loyalty and retention are not always attributable to customer satisfaction. It is because a customer may not be satisfied with the services/products but may find it difficult to switch to a competitor simple because of the circumstances he/she is faced with. This is usually common in most services context. For example with mobile telecommunication services, a customer may be reluctant to change his/her mobile phone number because he/she has given it to a number of key persons in his/her business or social life. Such a customer may be dissatisfied but will be forced to remain loyal to an organisation; this is referred to as the network-effect, it is a forced loyalty by implication. Loyalty is therefore affected by situational factors and switching cost.

It becomes deceptive and misleading to assess or use customer loyalty trends to conclude that customers of an organisation are satisfied. Instead it is better a company examines, as part of its customer satisfaction study, the switching intention and likelihood to recommend. These two behaviour intentions are more reliable factors to track customer satisfaction because they are directly and strongly linked to customer satisfaction (Yonggui Wang & Hing-Po Lo (2002). Satisfied customers are more likely to recommend services to family and friends and are less likely to switch. It is a fact that customers who are dissatisfied will bad-mouth a company and spread the news to eight to ten other people (SPSS white paper, 1996). Though switching intention is also influenced by several factors, when known it triggers management action to find out appropriate actions to take to satisfy customers.

In view of the above, one of the objectives of this study is to examine the relationships that exist between customer satisfaction, likelihood to recommend and switching intention in Ghana Mobile Telecom Industry. We hypothesise that:

H3: Switching intention of subscribers among MTNs in Ghana is not the same.

### 2.3.8 Approaches to Determining Customer Satisfaction

A well defined conceptualisation of CS is not enough; there must be a clearly workable approach to determining it. Various approaches have been suggested as effective but a meaning choice of any is contingent on several factors. CS determination can be approached from three broad types of methods: Observational methods, database methods, and subjective methods (Sinclair 1995). Observational methods can be classified into observational studies and experimental studies.

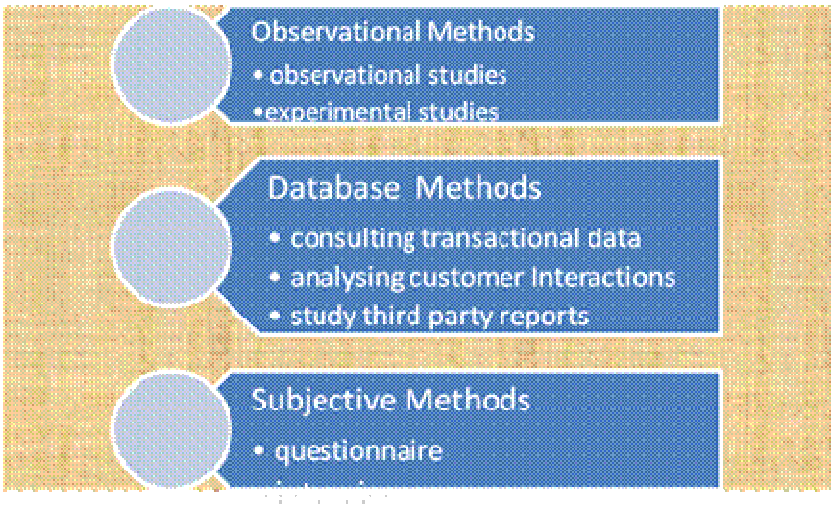



**Figure 2.3.8 Classification of data-gathering methods**
**Source: Adapted from (Sinclair 1995)**

Firstly, observational methods used in natural sciences can also be used to determine CS. It has the strength of objectivity to a large extent as described by Sinclair (1995, p. 71), "...the idea is that you are reaching out to touch 'reality' as direct as possible". This approach has the difficulty of analysing diverse qualitative data using quantitative and qualitative tools. For example, does a certain facial expression reflect customer satisfaction or dissatisfaction? In marketing environment, non-participant and participant observation can be used; mystery shopping could be used as an experimental approach where researchers become customers in order to experience and assess the quality of service delivered (Kotler & Keller, 2006).

Secondly database methods constitute another valuable source of information for determining customer satisfaction or dissatisfaction. Available and effective Customer Relationship Management technology can be used to track customer purchase behaviour and re-purchase history, analyse customer data to determine evidences of satisfaction or dissatisfaction. These methods offer the opportunity to compute key performance indicators such as the proportion of regular customers, time of delivery and interaction, reasons for purchase and non-purchase, switching intention and likelihood to recommend. In addition, complaints and

suggestions made by customers or reports from field sales representatives can be analysed. A critical analysis of these vital pieces of information can help determine customer satisfaction/dissatisfaction. Suggestion box, complaints, loyalty tracking are other methods in this category.

Thirdly, subjective methods have been widely used to determine CS. Included in this group are questionnaire and interviews. The capabilities of the internet in additions to the traditional printed questionnaire widen the scope and use of these methods. In this group, face to face and Telephone interviews, focus group interviews and discussions, electronic questionnaire, and online forums, chats, community provide an invaluable source of customer satisfaction data for analysis.

In this study our conceptual framework approaches customer satisfaction determination by the use of subjective methods mainly questionnaire for several reasons. First it was difficulty gaining access to database of companies used in this study. Again, the use of mystery shopping and other observational methods was not feasible. Finally, it was because we wanted to remain neutral to the companies concerned in studying customer satisfaction for the four mobile telecom networks in Ghana.

### 2.3.9 Customer Satisfaction Measurement Models

However important customer satisfaction is, it must be measurable in order to provide scientific bases for managerial decisions. Many measurement models have been developed and applied to measure customer satisfaction, though not all have been empirically validated. Oh and Parks, (1997) identified nine methods for measuring CS, which are: expectancy disconfirmation, assimilation or cognitive dissonance, contrast, assimilation-contrast, equity, attribution, comparison-level, generalized negativity and value-precept.

Pizam A. & Ellis T. (1999, p.327) in their work comment that "while most of these are based on cognitive psychology, recently numerous researches have attempted to apply CS theories developed by behaviourist in several areas. Out of the many theories the most widely used is the disconfirmation theories and customer satisfaction index." We therefore review satisfaction indices and disconfirmation theories that form the pivot of this study and justify our choice of these methods.

### 2.3.10 Customer Satisfaction Indices

The growing importance of CS in determining profitability and customer behaviour which in turn determine industry and national productivity has necessitated the development of tools that can be used to measure and analyses its impact across firms, industries, sectors and nations. (Fornell et al., 1996). This has warranted the development and use of customer satisfaction indices in several countries like Sweden, the USA, Russia, Switzerland, Norway, Taiwan, Germany, and Turkey. A national customer satisfaction index is a market oriented performance measure. Its main purpose is to "gain a deeper insight into the interaction between the customer and the supplier, in order to provide enough customer satisfaction information as referential data in planning better policy decision making." Te-King Chien et al., (2003). It is used to complement traditional performance measures, such as return on investment, profits and market shares or Kaplan and Norton's balanced score card approach. The Swedish Customer Satisfaction Barometer (SCSB) was the first national customer satisfaction index to be developed and applied for customer satisfaction and evaluation of the quality of products and services. It is based on annual survey data from customers of about 100 leading companies in some 30 industries (Fornell, 1992, p. 6).

The National Quality Research Center in the USA (NQRC) adapted the Swedish index in 1994 and developed the American Customer Satisfaction Index (ACSI)) The American Customer Satisfaction Index (Figure 2.3.10a) uses customer interviews as input to a multi-equation econometric model. It is a cause-and-effect model with indices for antecedents of satisfaction, satisfaction, and outcomes of satisfaction (www.wikipedia.org, Fornell et al., 1996). It uses several questions multivariable components measured by several questions having different industrial weights and reported on a 0 to 100 scale.

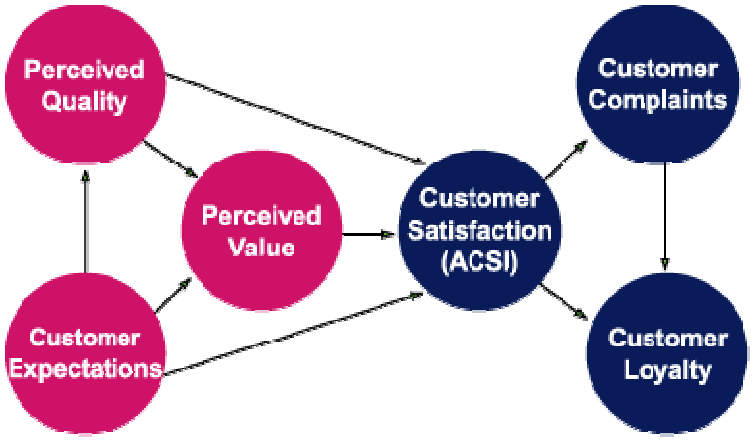



**Figure 2.3.10a Components of ACSI Model**

**Source:**
**http://www.theacsi.org/index.php?Itemid=41&id=48&option=com_content&task=view**

The European Customer Satisfaction Index (Figure 2.3.10b) was developed by the European Organization for Quality (EQO), European Foundation for Quality Management (EFQM), European Academic Network for Customer-Oriented Quality Analysis and the European Commission developed

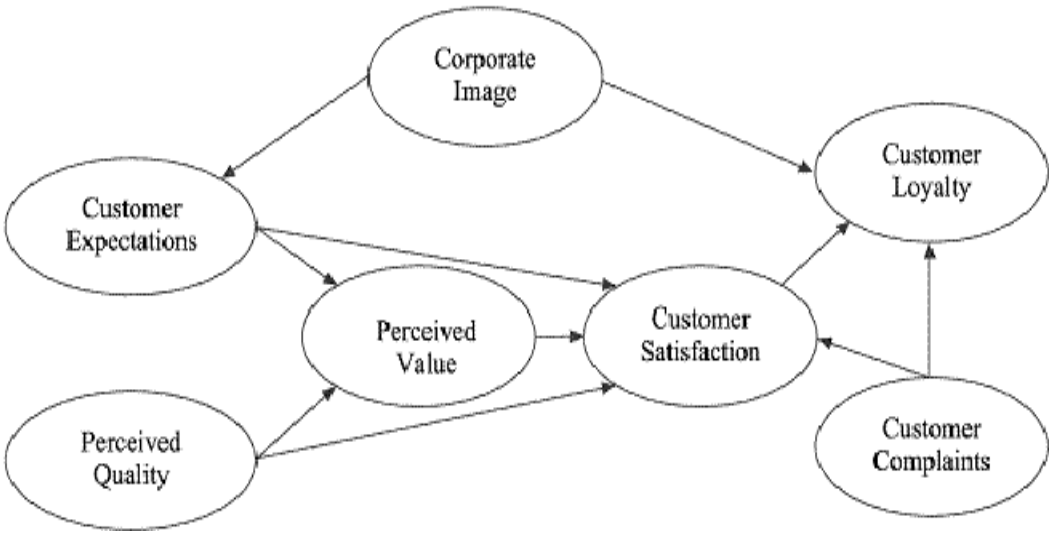



**Figure 2.3.10b Components of ECSI Model**
**Source: adapted from Serkan Aydin and Go¨khan O ¨zer (2005).**

Minnesota Customer Satisfaction Index (MnCSI*)* was developed by the WorkForce Center System and is an index made up of ten (10) responses to three (3) questions that ask about the same idea--total satisfaction in this instance—to estimate overall satisfaction.

1. What is your overall satisfaction with the services?
2. To what extent have the services met your expectations?
3. How well did the services you received compare with the ideal set of services?

These three questions can be conceptualised in a model as shown in Figure 2.3.10c

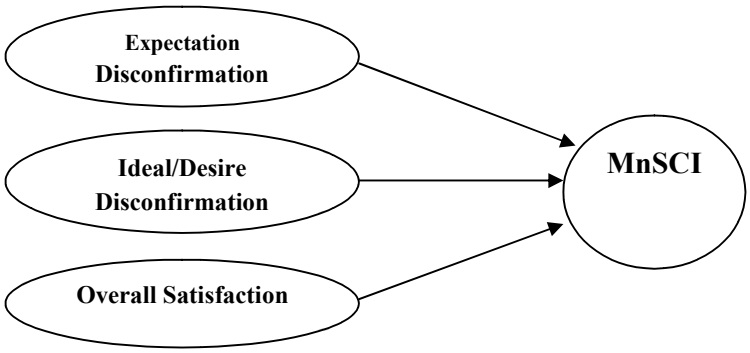



**Figure 2.3.10c MnCSI model**

The MnCSI uses this formula:

$$\text{MnCSI} = \left(\frac{(\text{Question1} - 1)}{9} \times 33.3\right) + \left(\frac{(\text{Question2} - 1)}{9} \times 33.3\right) + \left(\frac{(\text{Question3} - 1)}{9} \times 33.3\right)$$

**Source:** DEED (Minnesota) http://www.deed.state.mn.us/customersurvey/csi.htm
Downloaded on 10th July 2008

The responses to these questions are scaled 1 to 10 which together generates a single number, MnCSI, which varies from 0 to 100.

In this study, we will use the MnCSI to measure overall customer satisfaction with service delivery irrespective of customers' network on one hand and within each network. We chose the MnCSI because it combines responses to three questions that ask about the same idea--total satisfaction. Interestingly the model of MnCSI succinctly captures the tenet variables of disconfirmation models: desire and expectation disconfirmations. This is more stable than simply looking at the responses to a single question, and is less affected when a customer misunderstands one question. Besides, it is relatively easy to apply as the weight of each response can be determined by the researcher irrespective of which industrial context it is used. Furthermore, it is relatively flexible and suitable for any reasonable number of responses deemed appropriate by the researcher.

This index will be modified since customers were given five (5) responses to the three questions to reflect the value or weights of the five-likert scale that were used as shown below; the steps used to calculate the final index is presented in the methodology chapter.

$$\text{MnCSI(modified)} = \frac{\text{Question } 1 - 1}{4} * 33.3 + \frac{\text{Question } 2 - 1}{4} * 33.3 + \frac{\text{Question } 3 - 1}{4} * 33.3$$

### 2.3.11 Disconfirmation Models

Disconfirmation models are models that suggest that customer satisfaction/dissatisfaction is the disparity that exist between the performance of a product/service and some cognitive or emotional standards of the consumer. Oliver (1980) was the first to propose and developed the expectancy disconfirmation theory. This theory has been tested and confirmed in several studies (Oliver and DeSarbo, 1988; Satari, 2007). According to expectation disconfirmation theory, customers after consuming a product/service, compare their perception of product/service performance against their expectations before the service encounter. When outcome or perceived performance is equal to expectations, confirmation occurs. Negative disconfirmation occurs when perceived performance of product/service is less than expected. Positive disconfirmation occurs when product/service performance is better than expected. Customer satisfaction occurs by confirmation or positive disconfirmation of consumer expectations, and dissatisfaction is caused by negative disconfirmation of consumer expectations.

Within the disconfirmation school of thought, more recent researches opine that 'desire' *instead of* 'expectation' in comparison with perceived performance should be used in determining customer satisfaction (Suh et al. 1994 & Spreng et al.1996 in Satari 2007). Expectation disconfirmation model has been challenged as unsuitable since an expectation of a service can be rated as better than expected though it might not necessarily meet consumers desired set of services. Therefore desire disconfirmation has been suggested as a better substitute (ibid). Desire and expectations are both cognitive standards and it is not clear which one provides a better explanation of customer satisfaction. Khalifa and Liu (2002) proposed, in an empirically justified study, a contingency theory that incorporates both expectation and desire disconfirmations. They conclude that both desire and expectation

simultaneously affect overall satisfaction (OCS) significantly. This implies that desire could be used *in addition to* expectation and not *instead of* it. Therefore, in this thesis we intend to verify this view in the context of Ghana's mobile telecom industry. We hypothesise that:

H2a: Expectation disconfirmation positively and significantly impacts OCS

H2b: Desire disconfirmation positively and significantly impacts OCS.

In Ghana's mobile telecom market, the four mobile telecom networks in their attempt to capture more customers make lots of promotional campaigns about their services. These shape and raise customer expectations and influence customers' desire for ideal services. In view of this, this thesis combines desire and expectations disconfirmation simultaneously to measure customer satisfaction. Thus, multiple measures will be used to measure CS for a more valid assessment and analysis.

### 2.3.12 Customer Satisfaction Measurement Scales

In measuring customer satisfaction, which type of measurement scale is appropriate and how many items should such a scale have? According to Danaher and Haddrell (1996), there are three broad categories of measurement scales used in customer satisfaction measurement. They are performance scales, disconfirmation scales and satisfaction scales. Performance scales are those that use scales such as poor, fair, good and excellent; disconfirmation scales are those that use scales such as worse than expected to better than expected; and satisfaction scales are those that use scales such as very dissatisfied to very satisfied.

In Danaher and Haddrell (1996), Devlin *et al.* (1993) and Rust *et al.* (1994, pp. 61-2) have recommended the use of disconfirmation scales instead of the others for three reasons. "First

in one disconfirmation-based single question, it captures succinctly Parasuraman *et al.*'s (1988) two-stage SERVQUAL measurement, i.e. much worse than expected to much better than expected. Second, it is shown mathematically that comparison with expectations will correlate higher with customer retention than either a quality question or a satisfaction question (Rust *et al.*, 1994, p. 61). Lastly, using disconfirmation scale is better because a customer rating service quality highly, for example as good or excellent, may not perceive it as 'better than expected'."

In an empirical study that compared several scales simultaneously on the same respondents, Danaher and Haddrell (1996) confirm that their results agree with the assertions by Devlin *et al.* (1993) and Rust *et al.*,(1994) that the disconfirmation scale is a preferred method in measuring customer satisfaction. They further agree, in particular, with Devlin *et al.* (1993) that a five-point disconfirmation scale would be an improvement over the three-point scale if high predictive validity is essential. However, they pointed out that one drawback of the five-point disconfirmation scale (as noted by Devlin *et al.* 1993) could be its use in telephone surveys, where respondents might have to be continually reminded of five rather than three scale points.

For the above reasons, in this study, our theoretical framework for measuring customer satisfaction with service quality uses disconfirmation scales. Again, since personal contact was to be used and high predictive validity was a major concern, we appropriately adopted five-point disconfirmation scales: from much better expected or desired to much worse than expected or desired.

### 2.3.13 Service and Its Attributes

The service concept has gained much attention from scholars and practitioners since the first three service marketing articles were published by Regan (1963 cited in S. W. Brown et al.1994, pg 23). Service has been variously defined by many authors including the following:

- "A service is the non-material equivalent of a good. A service provision is an economic activity that does not result in ownership, and this is what differentiates it from providing physical goods. It is claimed to be a process that creates benefits by facilitating either a change in customers, a change in their physical possessions, materials\Service (economics)" - Wikipedia, the free encyclopedia.mht Retrieved on 11th August 2008;

- "Services—broadly defined as " acts, deeds, performances, or efforts—have different characteristics from goods—defined as articles, devices, materials, objects or things" (Rathmell 1966;Berry 1980 cited in C. Lovelock 2005);

- Services refer to ''economic activities offered by one party to another, most commonly employing time-based performances to bring about desired results in recipients themselves or in objects or other assets for which purchasers have responsibility.'' Lovelock and Wirtz (2007 p.15);

- Services can be defined ''as changes in the condition of a person or something in the possession of the customer.'' Hill (1977 in Edvardsson et al., 2005, pp 112-113);

- Services "a process or performance rather than a thing." Lovelock (1991);

- ''As part of the wider concept of the product.'' Edvardsson (1997 in Edvardsson et al., 2005, pp 112-113);

- "Services are deeds, processes and performances" Zeithaml and Bitner (2003 in Edvardsson et al., 2005, pp 112-113);

- "The application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself" Vargo and Lusch (2004a p.2, b in Edvardsson et al., 2005, pp 112-113); and

- "A service is a process that leads to an outcome during partly simultaneous production and consumption processes" (Gronroos 2001).

Many scholars such as Gronroos (2000), Kotler & Keller (2006); Lovelock and Wirtz (2007), agree on four attributes that characterise services: inseparability, Heterogeneity, intangibility and perishability. One significant characteristic which Lovelock and Wirtz, 2007 p.15) identified is benefit without ownership. They posit that while customers expects to obtain value from their services purchased in exchange for their money, time, and efforts, this value comes from access to a variety of value-creating elements rather than from transfer of ownership. They further maintain that services involve a form of rental, and that service customers obtain benefits by renting the right to use a physical object, to hire the labour and expertise of personnel, or to pay for access to facilities and networks. In this way customers benefit without owning the property.

However, Edvardsson et al., (2005 pp 115, 117) maintains that the description of the attributes of a service is not useful because ''they do not portray the essence of value creation through service in a meaningful way, and therefore they should be avoided; they do not capture the process and interactive nature of services. These characteristics, however, may be useful in some special situations. The service concept may be replaced by the service perspective on value creation, focusing on value-in-use for the customer.''

### 2.3.14 Service and Services

Edvardsson et al., (2005 pp 112-113) found out that scholars use the term 'services' variously to refer to ''performance, deeds, and process, activities, experiences and value to customers.'' (Solomon et al., 1985; Lovelock, 1991; Zeithaml and Bitner, 2003; Vargo and Lusch, 2004). They identified that scholars' definitions of services and service have different meanings in that, ''[service] involves the whole organization's performance in providing the customer with a good experience, while [services] implies that services are something that can be offered to the customer.'' Thus, on one hand 'services' definitions are outcome-related or directed at the value-created since it is something of value delivered to or a performance to meet customers needs. In a typical mobile telecom company, 'services' may include specific services like: replacement of lost SIM cards, providing MMS, SMS, free call services to customers, etc. These 'services' definitions are supported in the work of Lovelock (1991, 1992); Gronroos (1990); and Normann, (1991)

On the other hand, 'service' definitions are process-related or value creation process in that 'service' is perceived as a set of activities performed by an organisation that aim at creating value, which includes specific services or economic activities, acts or performance to customers as well as other organisational activities that are part of the value creation process such as leadership and management styles, structure of operations, customer relationship initiatives, etc and not services as market offerings only. This 'service' perspective implies that service involves the whole process of interacting with and involving customers before, during and after production, distribution and consumption of an organisation's offering. This view is supported in the work of Edvardsson et al., (2005); Kauppinen-Raisanen H. et al., (2007).

Edvardsson et al., (2005, pp 112-113) in their critical review of definitions of service and services concluded that ‘‘services are as different from each other and from products as products are different from each other, and that ‘‘It has to be determined at a specific time, in a specific company, for a specific service, from a specific perspective.”

### 2.3.15 Services classifications

Based on the benefit without ownership perspective, Lovelock and Wirtz, (2007) identify five broad categories within the non-ownership framework:

- **Rented goods services:** These services enable customers to obtain temporary right to exclusive use of a physical good that they prefer not to own. Examples include boats, power tools, combine harvesters, wedding gowns, etc.

- **Defined space and place rentals:** Here customers obtain use of a defined portion of a larger space in a building, vehicle, or other area, sharing its use with other customers under varying levels of privacy.

- **Labour and expertise rentals:** Customers hire other people to perform work that they either choose not to do for themselves or are unable to do because of lack of the necessary expertise, tools, or skills.

- **Access to shared physical environments:** These environments may be located indoors or outdoors or a combination of both. Examples include museums, theme parks, trade shows, gyms, zoos, ski resorts, golf courses, and toll roads.

- **System and networks: access and usage.** Here customers rent the right to participate in a specified network such as telecommunications, utilities, banking, insurance, or specialise information services.

In this study, the focus is on telecommunication network services which fall in the system and networks services group proposed in Lovelock and Wirtz's classification (Lovelock and Wirtz, 2007).

- **Core services and Supplementary Services:** Lovelock and Wirtz (2007) further describe a firm's markets offering as being divided into core service products and supplementary service elements such as customer services. This has been variously described as auxiliary services by Gronroos (1990), peripheral by Normann (1991) and supplementary services by Lovelock (1992). They draw a distinction between marketing of services - in which a service itself is a core product - and marketing through services i.e. supplementary or customer services which may include logistics services, advice, installation, and upgrades. ''The core service is the basic reason for a firm to be in the market. It represents the firm's basic competency in creating value with and for the client. It represents a complex set of benefits which may be difficult to analyze because some are physical, some are psychological and others are emotional'' (Normann, 1991 p. 46 cited in Ronald James Ferguson, et al., 1999). It relates to the primary benefits that the customer receives from the service. Additionally, Grönroos (1990, p.75 cited in Ronald James Ferguson, et al., 1999) subdivides supplementary or peripheral services into enabling (facilitating) and enhancing (supporting) services. Facilitating services (and goods) are those which are necessary for the core service to take place. Supporting services (and goods) do not facilitate the delivery of the core service but create added value for the client.

Several scholars (Storey and Easingwood 1998; Grönroos 2007; Kauppinen-Raisanen H. et al., 2007) also postulate that there is the augmented service offering which consists of various features, such as the accessibility of the service that is made possible through such things as

skilled employees, suitable office hours etc, the quality of customer's interaction with the organisation and its workers, and customer's involvement in the service or value creation service process.

These distinctions are important because this thesis considers service delivery of mobile networks as 'services' comprising core, supplementary, and augmented services.

### 2.3.16 Service Quality

In measuring customer satisfaction with service quality, it is significant to examine the service quality concept, its importance and the dimensions it has.

Service quality has been a difficult-to-define concept that has aroused considerable interest and debate in the research literature. This is because the meaning of quality can be referred to in many attributes such as the experience of the service encounters, or "moments of truth", the evidence of service; image; price, and so on. These form the customer's overall perceptions of quality, satisfaction and value (Zeithaml and Bitner, 1996). There are a number of different "definitions" as to what is meant by service quality. Since service quality is basically defined from customer perspective and not the manufacturer's, it is usually referred to as customer perceived quality. The concept of consumer-perceived quality (CPQ) was first defined by Gro¨nroos in 1982 as the confirmation (or disconfirmation) of a consumer's expectations of service compared with the customer's perception of the service actually received. One definition that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations (Asubonteng *et al*., 1996). Parasuraman, Zeithaml and Berry support the same view, defining the concept of service quality as ″a form of attitude, related, but not equivalent to satisfaction, that results from a

comparison of expectations with perceptions of performance. Expectations are viewed as desires or wants of customers, i.e. what they feel a service provider *should* offer rather than *would* offer.″(Parasuraman et al., 1988).

Though service quality has been perceived for a long time to be an outcome of customer cognitive assessment, recent studies confirm that service quality involves not only an outcome but emotions of customers. It is argued that "during the consumption experience, various types of emotions can be elicited, and these customer emotions convey important information on how the customer will ultimately assess the service encounter and subsequently, the overall relationship quality" (Wong 2004, p. 369). Edvardsson (2005, p.128) maintains that customer perception of service quality is beyond cognitive assessment as it is formed during the production, delivery and consumption of services and not just at the consumption stage. This is made possible as customers play their role as co-producers by carrying out activities as well as being part of interactions influencing both process quality and outcome quality. Again on the role of service quality Berry et al. (2002) emphasize "managing the total customer experience". Therefore an emotional reaction is part of a quality and favourable experience (Cronin, 2003; Sherry, 1998). This is consistent with the findings of Mano and Oliver's (1993) on utilitarian and hedonic consumption judgments, who argue that "...satisfaction is naturally tied to cognitive judgments and to affective reactions elicited in consumption" (Mano and Oliver, 1993, p. 451). Wong (2004, p. 366) found that negative emotions have a stronger effect on satisfaction with quality than positive emotions.

The concept of service quality from the customer perspective, thus perceived service quality, is not a mistake simply because in the words of the guru "the consumer, of course, perceives *what* he or she receives as the outcome of the process in which the resources are used, i.e. the

technical or outcome quality of the process. But he or she also, and often more importantly, perceives *how* the process itself functions, i.e. the functional or process quality dimension. Thus, the technical quality and functional quality dimensions of perceived service quality emerge." (Gronroos, C., 2001 p.151).

### 2.3.17 Significance and Drivers of Service Quality

Delivering excellent service quality is widely recognised as a critical business requirement (Voss et al., 2004a; Vilares and Coehlo, 2003). It is "not just a corporate offering, but a competitive weapon" (Rosen et al., 2003) which is "essential to corporate profitability and survival" (Newman and Cowling, 1996). Many authors agree that in today's dynamic market place and marketspace, organisation no longer compete only on cost but more importantly on service/product quality In a competitive marketplace where businesses compete for customers, delivering quality service is seen as a key differentiator and has increasingly become a key element of business strategy (Heskett, J.L., et al., 1997; Kotler 2006).

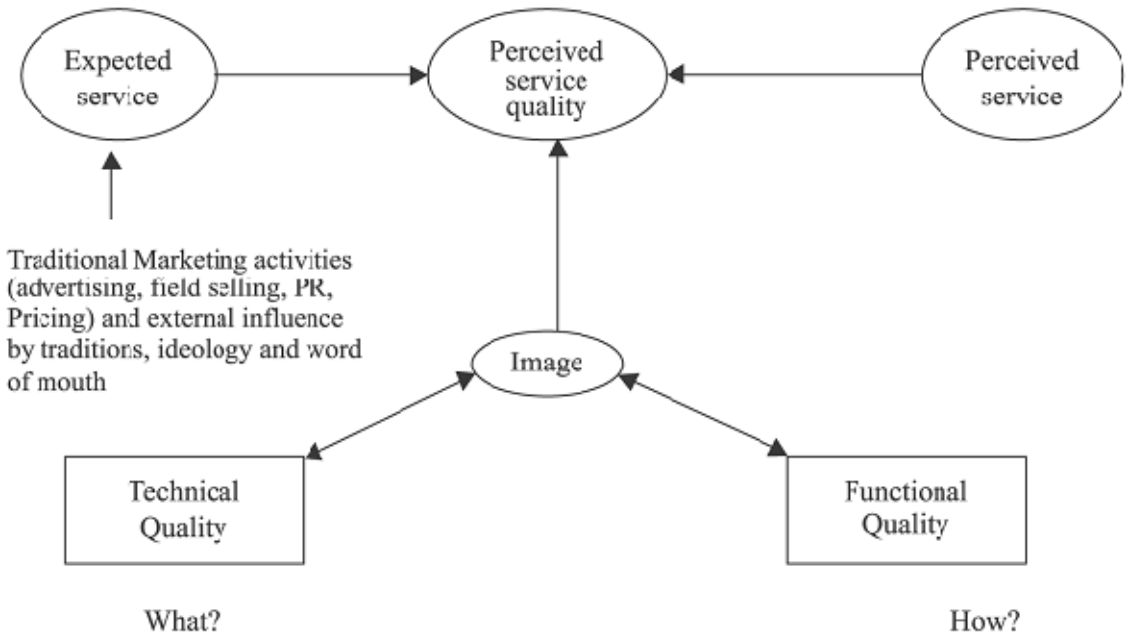
On the drivers of service quality, the most widely used model is the Service-Profit Chain (SPC), first proposed by Heskett et al., (1994). It provides one of the most powerful and widely supported perspectives on this issue. Overall, the SPC sees organisational internal features as driver of employee satisfaction, which drives service quality which is also identified as an antecedent of customer satisfaction which in turn drives customer loyalty and retention that eventually leads to profitability and growth.

### 2.3.18 Service Quality Models

Many different models have been developed to explain and measure service quality in different settings of business operations (Nitin S. et al., 2005). In this thesis, though the focus is not on measuring service quality per se, there is the need to review literature on service quality models since customer satisfaction relates to dimensions of service quality that are conceptualised differently in different service quality models.

#### 2.3.18.1. Technical and functional quality model (Gronroos 1984)

Christian Gronroos developed a service quality model that has three components of service quality, namely: technical quality; functional quality; and image (see Figure 2.3.18.1). He maintains that the customer evaluations of perceived performance of service against his/her perceived service quality result in a measure of service quality.




**Source:** Grönroos (1984)

**Figure 2.3.18.1 Gronroos Model of Service Quality**

1. Technical quality is the quality of what consumer actually receives as a result of his/her interaction with the service firm and is important to him/her and to his/her evaluation of the quality of service.

2. Functional quality is how he/she gets the technical outcome. This is important to him and to his/her views of service he/she has received.

3. Image, which could be referred to as reputational quality, is very important to service firms and this can be expected to build up mainly by technical and functional quality of service including the other factors (tradition, ideology, word of mouth, pricing and public relations).

#### 2.3.18.2 GAP model (Parasuraman et al. 1985)

The GAP model was proposed by Parasuraman, A., Zeithaml, V.A. and Berry, L.L in 1985. The model presupposes that that service quality is the differences between expectation and performance relating to quality dimensions. These differences are referred to as gaps. The gaps model (figure 2.3.18.2a) conceptualises five gaps which are:

Gap 1: Difference between consumers' expectation and management's perceptions of consumers' expectations (not identifying what consumers expect);

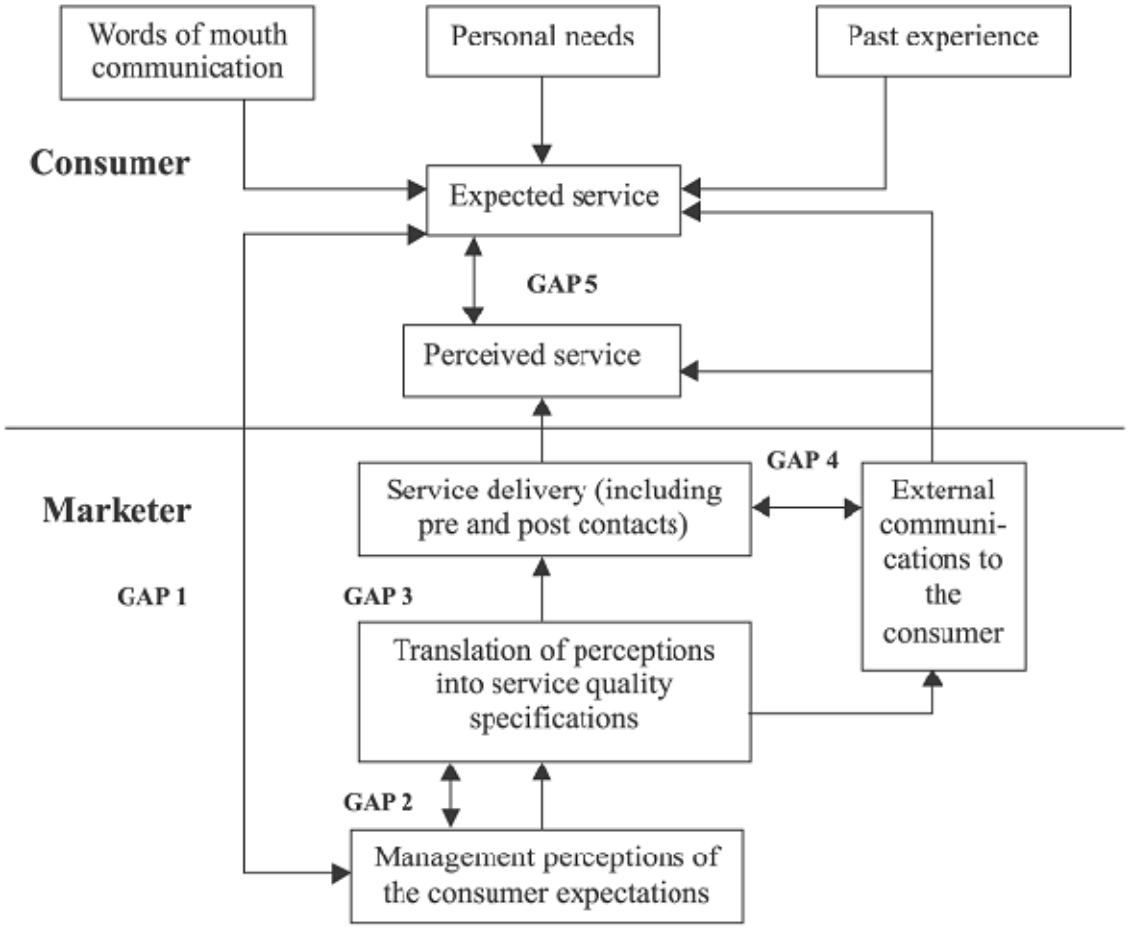
Gap 2: Disparity between management's perceptions of consumer's expectations and service quality specifications (inappropriate service-quality standards);

Gap 3: variations between service quality specifications and service actually delivered (poor delivery of service quality);

Gap 4: Difference between service delivery and the communications to consumers about service delivery (promises mismatch delivery);

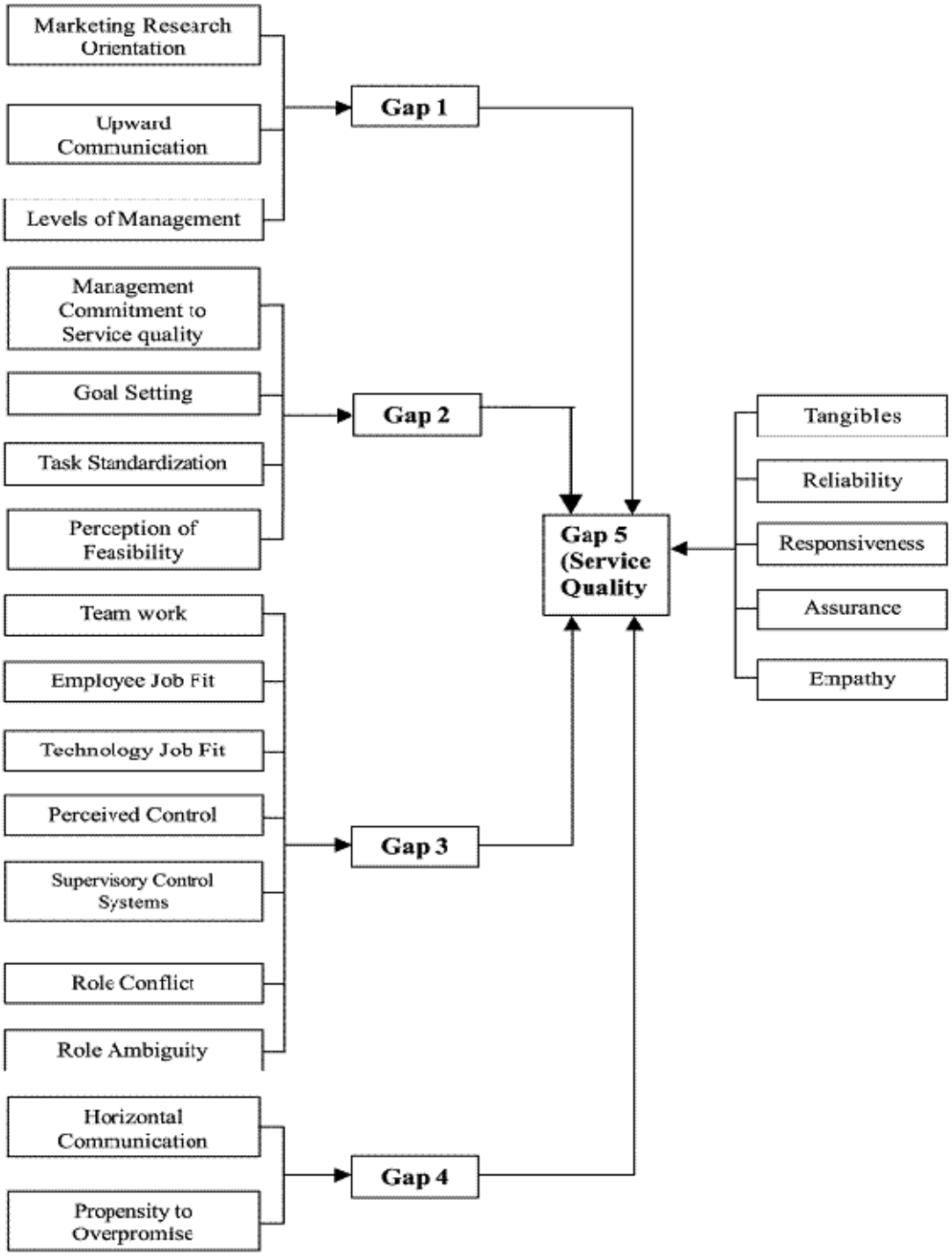
Gap 5: Difference between consumer's expectation and perceived service; this gap depends on size and direction of the four gaps associated with the delivery of service quality on the marketer's side.

Based on this, the SERVQUAL instrument was developed; it initially consisted of ten dimensions (Parasuraman et al., 1988). The ten were later refined into five dimensions: reliability, responsiveness, tangibles, assurance (communication, competence, credibility, courtesy, and security) and empathy which capture access and understanding or knowing the customers. Later in 1991 SERVQUAL was revised by replacing "should" word by "would" and in 1994 by reducing the total number of items to 21, but five dimensional structure remaining the same. In addition to this empirical research, the authors later came out with the extended service quality model. According to this extended model (Figure 2.3.18.2b) most factors involve communication and control process implemented in organizations to manage employees.




**Source:** Parasuraman *et al*. (1985)

**Figure 2.3.18.2a: The Gap Model of Service Quality**

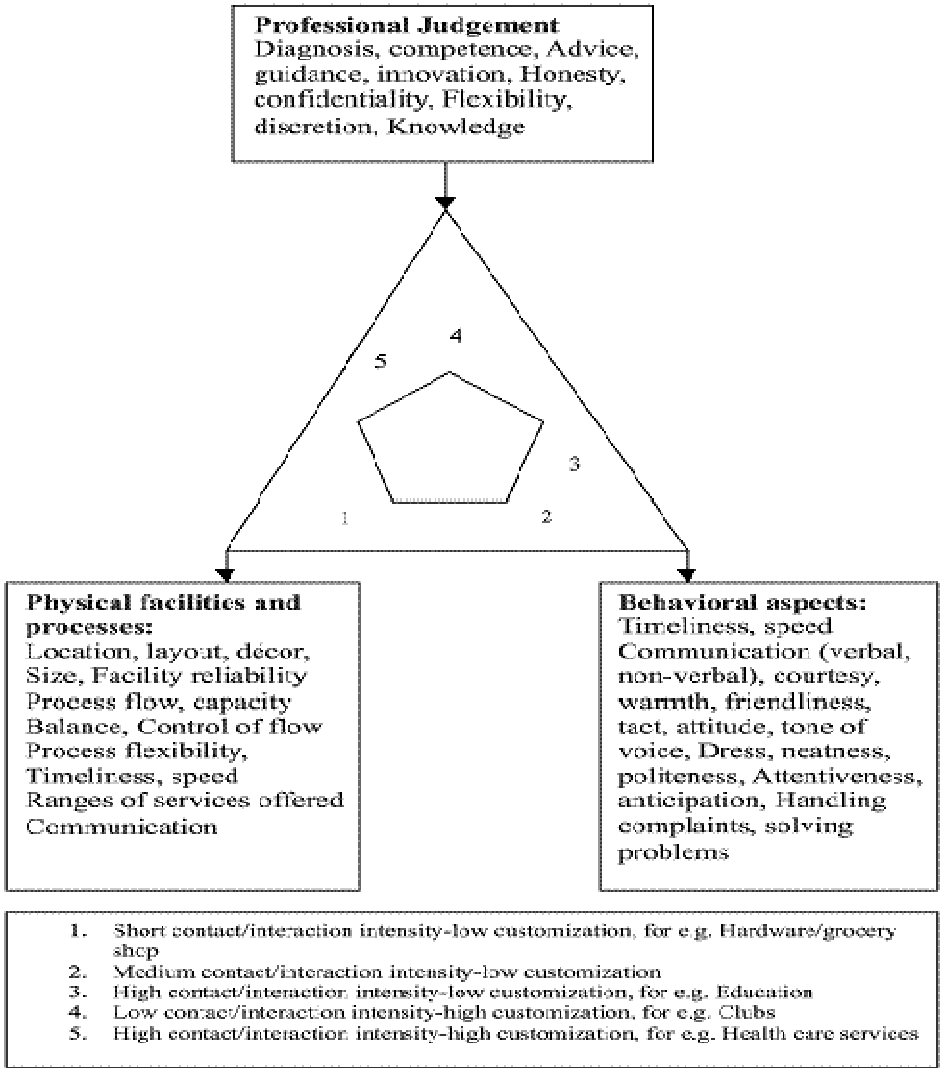



**Source:** Zeithaml *et al.* (1988)

**Figure 2.3.18.2b: The Extended Gap Model of Service Quality**

### 2.3.18.3 Attribute Service Quality Model (Haywood-Farmer, 1988)

This model proposes that a service organization has “high quality” if it consistently meets customer preferences and expectations. According to this model, the separation of attributes into various groups is the first step towards the development of a service quality model. It generally groups services into three basic attributes: physical facilities and processes; people’s behaviour; and professional judgment. Each attribute, involving several factors, forms an apex of the triangle as shown in Figure 2.3.18.3. This model emphasises that too much concentration on any one of these attributes sets to the exclusion of others may lead to disaster; for example, too much emphasis on procedures may give an impression to the customer that he will be processed as per his sequence. Different type of service settings is related as per degree of contact and interaction, degree of labour intensity and degree of service customization in this model.



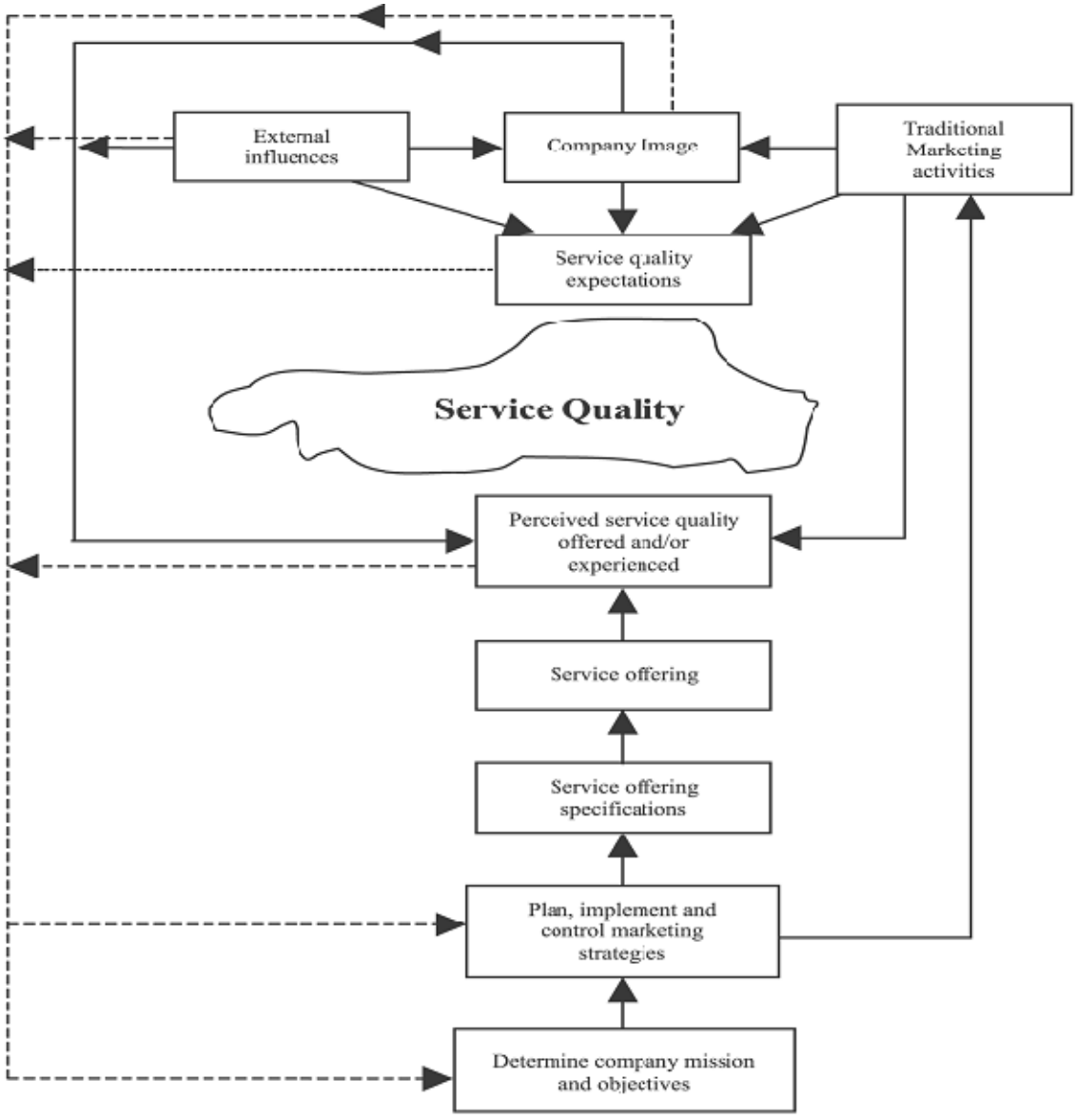

**Source:** Haywood-Farmer (1988)

**Figure 2.3.18.3 Attribute Service Quality Model**

### 2.3.18.4 Synthesised Model of Service Quality (Brogowicz et al. 1990)

According to this model, it is possible for service quality gap to exist even before the customer experiences the service. The customer learns through word of mouth, advertising or through other media communications. This implies that it is necessary to incorporate potential customers' perceptions of service quality offered in addition to the actual customers' perceptions of service quality experienced. This model attempts to integrate

traditional managerial framework, service design and operations and marketing activities. The synthesised service quality model (Figure 2.3.18.4) focuses on identifying the dimensions associated with service quality in a traditional managerial framework of planning, implementation and control. It considers three factors, i.e. company image, external influences and traditional marketing activities as the factors influencing technical and functional quality expectations.




**Source:** Brogowicz *et al.* (1990)

**Figure 2.3.18.4 Synthesised model of service quality**

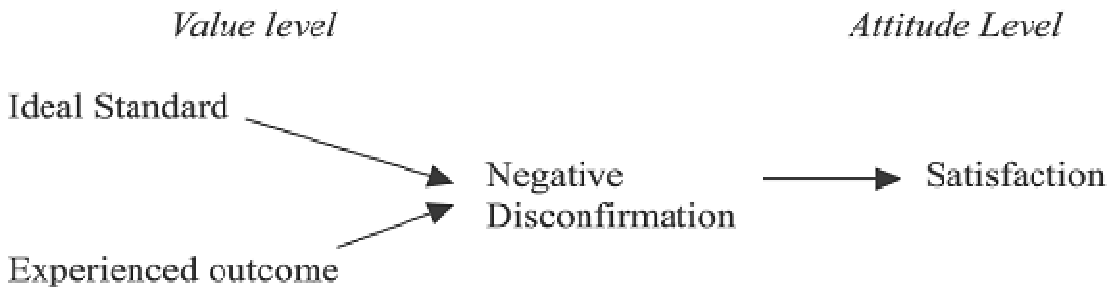
### 2.3.18.5 Performance Only Model (Cronin and Taylor 1992)

Performance only model presupposes that Performance instead of "Performance-Expectation" determines service quality. Service quality is evaluated by perceptions only without expectations and without importance to weights. The authors investigated the concept and measurement of service quality and its link with consumer satisfaction and purchase intentions. They compared estimated difference scores with perception to conclude that perceptions only are better predictor of service quality. They challenged the framework of Parasuraman et al. (1985) with its SERVQUAL instrument that it confounds satisfaction and attitude. As a result they developed measurement instrument based on performance only and called it SERVPERF. By this they portray that service quality is a form of consumer attitude and the performance only measure of service quality is an enhanced means of measuring service quality. They stated that service quality can be conceptualized as "similar to an attitude", and can be operationalised by the adequacy-importance model.

### 2.3.18.6 Ideal value model of service quality (Mattsson, 1992)

Most studies on service quality describe service quality as a customer's evaluation of perceived product/service performance against his/her expectation or desires. However, this evaluation of product/service performance need to be examined against other cognitive standards like experience based, ideal, minimum tolerable and desirable. The Ideal value of service quality model argues for value approach to service quality. It conceptualises value as an outcome of satisfaction process, and suggests the use of a perceived ideal standard against which the experience is compared. Figure 2.3.18.6 shows that implicit negative disconfirmation on a pre-conscious value level, is then hypothesized to determine satisfaction on a "higher" attitude level. This negative disconfirmation is the major determinant of

consumer satisfaction; more attention should be given to cognitive processes in the formation and dynamism of consumers' service concepts.




**Source:** Mattsson (1992)

**Figure 2.3.18.6 Ideal value Model of Service Quality**

### 2.3.18.7 Evaluated Performance and Normed Quality Model (Teas 1993)

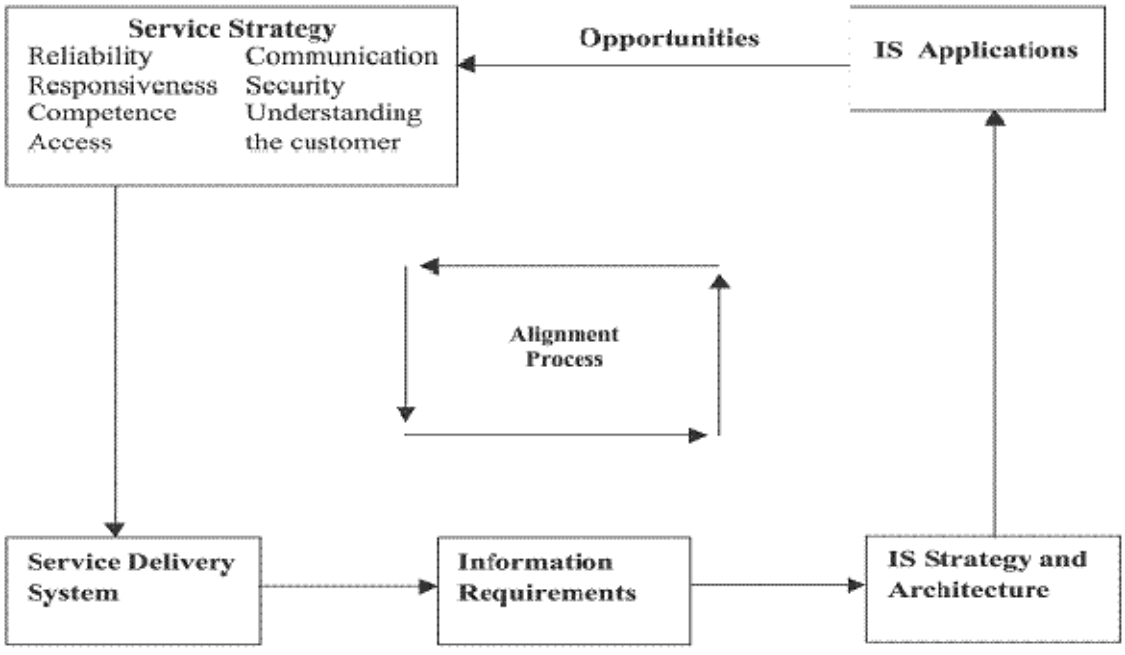
The author raised a number of criticisms against the conventional disconfirmation model that it has theoretical and measurement problems in the measurement of service quality (SERVQUAL (Parasuraman et al., 1988). The criticisms relate to conceptual definition ambiguity; theoretical justification of expectations in the measurement of service quality; the usefulness of the probability specification in the evaluated performance (EP) measurement; and link between service quality and consumer satisfaction/dissatisfaction.

The author proposed the following two frameworks for service quality: Evaluated performance (EP) framework and normed quality framework. The EP framework assumes that an individual evaluates an object with perceived certainty and that the object has a constant amount of each attribute also with Minkowski space parameter equals to unity. This assumes that perceived product/service ability to deliver satisfaction can be conceptualized as the product/service's relative similarity with the consumer's ideal product features.

Normed quality framework states that if the object is defined as the excellence norm, that is the focus of revised SERVQUAL concept, statistical equations can be used to define the perceived quality of excellence norm in terms of the similarity between the excellence norm and the ideal object with respect to several attributes.

### 2.3.18.8 IT Alignment Model (Berkley and Gupta 1994)

The IT alignment model describes the use of IT for improving service quality which is also reflected in customer satisfaction. It was developed through a number of case studies from variety of sectors (banking, courier, transportation, manufacturing, and services industries). The model seeks to correct the deficiency that occurs when organisation's investments in information technology (IT) mainly aims at productivity of efficiency gains but little on improving customer service and long-run customer retention and loyalty. This model (Figure 2.3.18.7) links the service and the information strategies of the organization.




**Source:** Berkley and Gupta (1994)

**Figure 2.3.18.8 The IT Alignment Model**

The model emphasises that it is vital for IT based-organisations to closely co-ordinate and align information system (IT) strategies to service quality. It explains the service-strategies alignment process. It demonstrates through case studies, where IT had been used and could be used for quality control, and to improve specific service quality dimensions such as reliability, responsiveness, competence, access, communications, security, understanding and knowing the customers.

### 2.3.18.9 Attribute and Overall Affect Model (Dabholkar 1996)

The Attribute and overall affect model is a two alternative models of service quality for technology-based self-service options. This is particularly important in situations where customers would prefer to use self-service as against other options in order to reduce cost of labour in service deliveries. The attribute model (Figure 2.3.18.9a, b) is based on how consumer expectations are formed in such an option. It is a cognitive-based approach to decision making, where the expectations of service quality are formed by consumers as they evaluate attributes associated with the technology-based self service option.

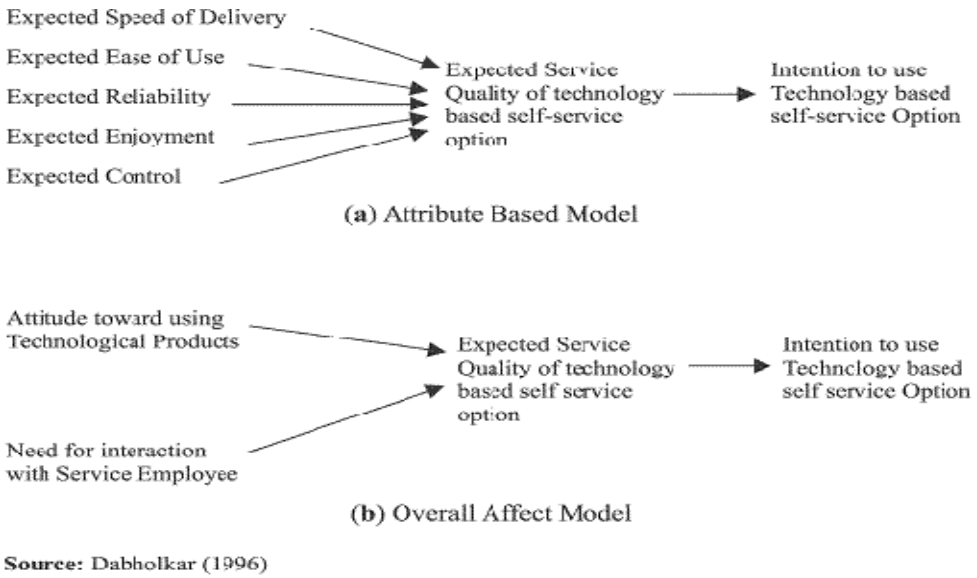
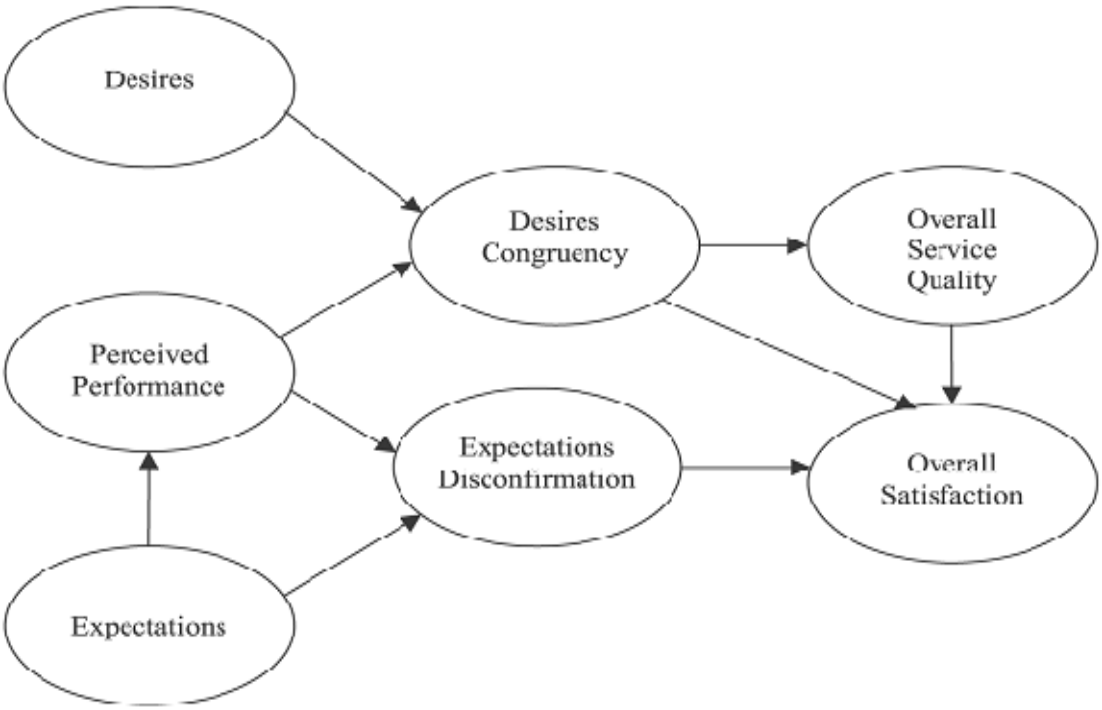



**Figure 2.3.18.9(a) Attribute based model (b) Overall affect model**

The overall affect model (Figure 2.3.18.9(b)) is based on how consumers' feel about the use of technology. It is the affective dimension of the entire model, where in the consumers' decision making process consumers would use overall feeling to form expectation self-service quality for a technology-based self-service option. Generally this model postulates that expected service quality would influence consumers' intentions to use technology-based self-service option.

#### 2.3.18.10 Model of Perceived Service Quality and Satisfaction (Spreng and Mackoy 1996)

This model seeks to enhance understanding of the antecedents of perceived service quality and consumer satisfaction. This model is a modification of Oliver's (1993) model. The model explains in detail the effect of expectations, perceived performance desires, desired congruency and expectation disconfirmation on overall service quality and customer satisfaction. These are measured by using a set of ten attributes relating to advising in customer service, which are: convenience in making an appointment, friendliness of the staff, advisor listened to my questions, the advisor provided accurate information, the knowledge of the advisor, the advice was consistent, advisor helped in long-range planning, the advisor helped in choosing the right courses for career, advisor was interested in personal life, and the offices were professional.

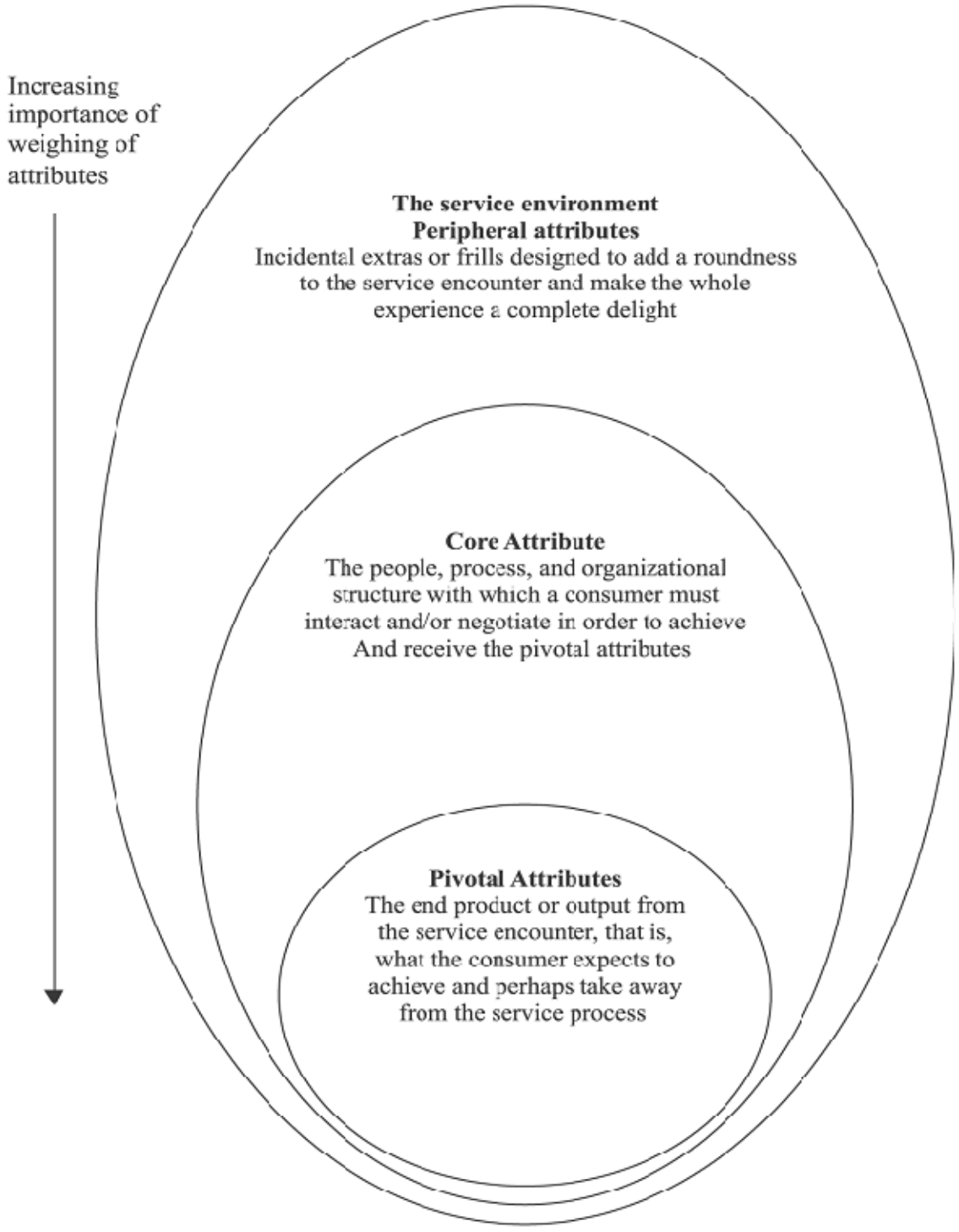



**Source:** Spreng and Mackoy (1996)

**Figure 2.3.18.10 Model of Perceived Service Quality and Satisfaction**

### 2.3.18.11 PCP Attribute Model (Philip and Hazlett 1997)

This model is onion-like depicting a hierarchical structure – based on three main classes of attributes – pivotal, core and peripheral. The authors postulate that every service consists of three intertwine areas that define service quality. These areas can be classified and prioritised as pivotal (outputs), core and peripheral (jointly representing inputs and processes).




**Source:** Philip and Hazlett (1997)

**2.3.18.11 PCP Attribute Model**

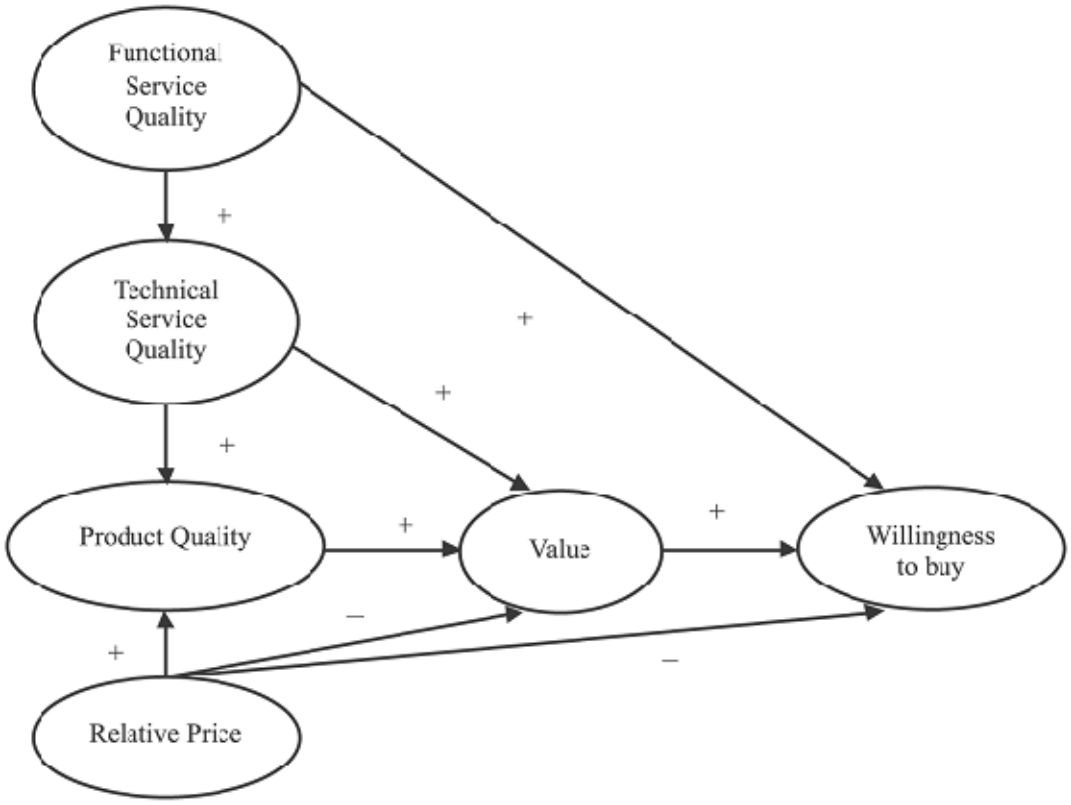
In this model (Figure 2.3.18.11), at the inner centre of the circle is the pivotal attributes that are considered collectively to be the single most significant factor in attracting a consumer to approach a particular organization and exerting the greatest influence on customer satisfaction levels. They represent the very outcome or "end product" that the customer derives directly from the service encounter. It is what the consumer anticipates to receive or take away when the service delivery process is completed.

The next layer of circle, the Core attributes focuses on the whole negotiation/or interaction process that combines the people, processes and the service organisational structure through which customers receive the pivotal attributes.

The third level of model has to do with peripheral attributes. These are other value added services referred to as the "incidental extras" designed to added overall pleasantness to the service encounter experiences that totally complete the customer satisfaction and delight. The consumer is typically satisfied when he/she achieves the pivotal attributes; the core and peripheral attributes gain importance afterwards.

#### 2.3.18.12. Retail Service Quality and Perceived Value Model (Sweeney et al. 1997)

This model maintains that service quality influences value and willingness to buy in a specific service encounters through two alternative models. The model (Figure 2.3.18.12) considers value to be "value for money" and defines value in terms of a comparison between what the consumers get and what they give, or a comparison of benefits and sacrifices (Zeithaml et al., 1988).




**Source:** Sweeney *et al*. (1997)

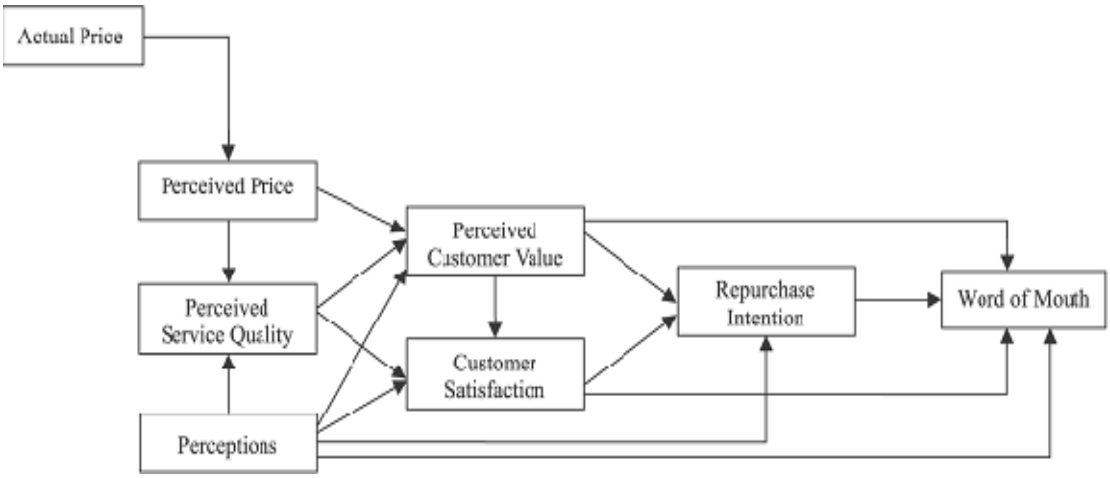
**Figure 2.3.18.12 Retail Service Quality and Perceived Value Model**

The whole model is divided into two models. Model one depicts that functional service quality and technical service quality perceptions significantly influence service quality perceptions in addition to product/service quality and price.

In model two, the authors postulate that customers' willingness to purchase is directly influenced by customers' perceptions of functional service quality. Functional service quality perceptions also influence technical service quality perceptions, which in turn influence product quality perceptions. However neither of the two directly influences value perceptions. It is possible from an analysis of the model to allow technical service quality to influence perceived value directly since model two appears to exert much influence on model one.

### 2.3.18.13. Service quality, customer value and customer satisfaction model (Oh 1999)

This is an integrative model of service quality, customer value and customer satisfaction. In this model (Figure 2.3.18.13), the author incorporates key variables such as perceptions, service quality, consumer satisfaction, customer value and intentions to repurchase. Word of mouth communication intention is depicted to have multiple influencers: perceptions, value, satisfaction and repurchase intentions.




**Source: Oh (1999)**

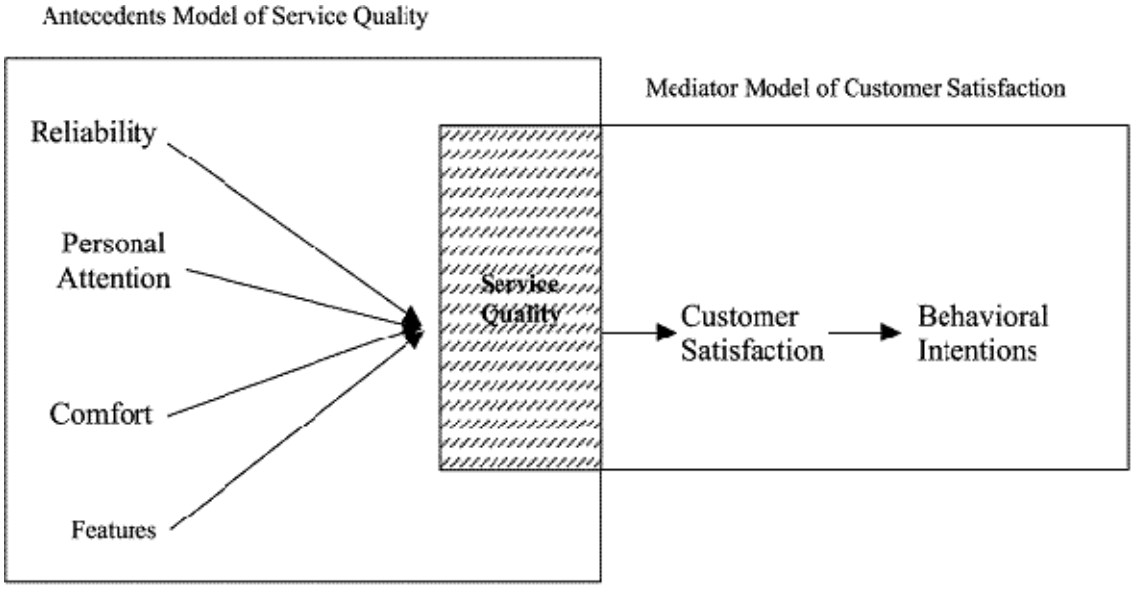
**Figure 2.3.18.13. Service Quality, Customer Value and Customer Satisfaction Model**

The model supports that customer value has a significant impact on customer's post-purchase decision-making process. Value is also an immediate antecedent to customer satisfaction and re-purchase. It however indicates that perceived price has a negative impact on perceived customer value and no relationship with perceived service quality.

### 2.3.18.14 Antecedents and Mediator Model (Dabholkar et al., 2000)

The authors propose a comprehensive model of service quality that attempts to examine the antecedents of service quality, as well as the consequences of service quality and its

mediators. The authors maintain that the main determinants of service quality are product/service features, comfort, personal attention and reliability of services. The model (Figure 2.3.18.14) portrays customer satisfaction as a mediator between service quality and behaviour intention. It seeks to provide a deeper understanding of conceptual issues related to service quality and behaviour intentions.

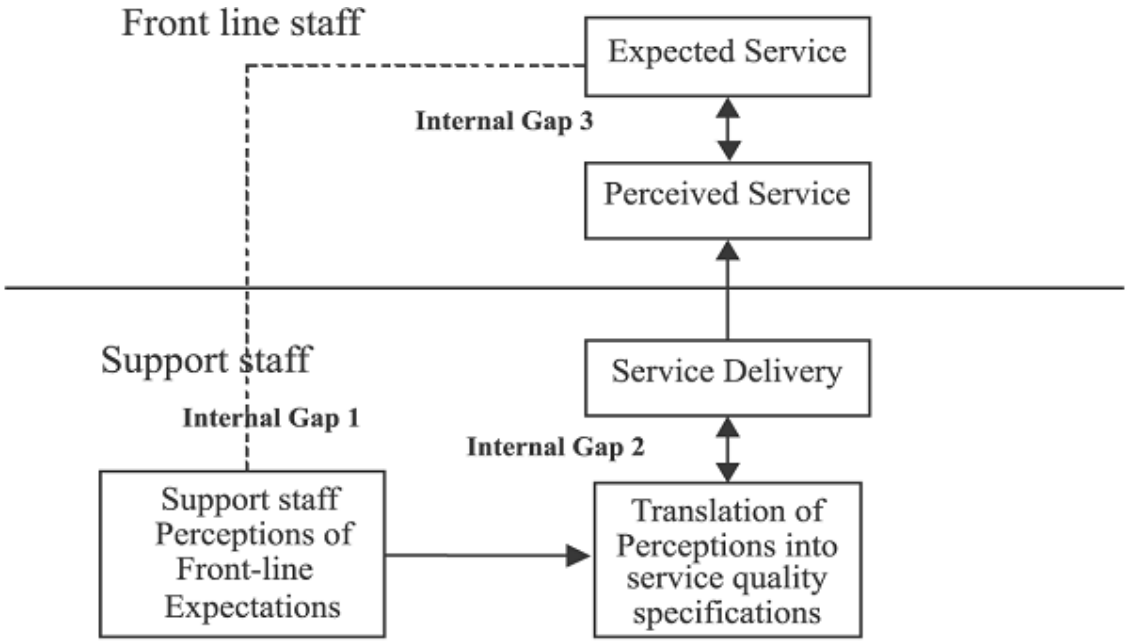



**Source:** Dabholkar *et al*. (2000)

**Figure 2.3.18.14 Antecedents and Mediator Model**

### 2.3.18.15 Internal Service Quality Model (Frost and Kumar, 2000)

The Internal Service Quality Model is based on concept of GAP model proposed by Parasuraman et al., (1985). The model (Figure 2.3.18.15) focuses on the internal quality that must exist between a service organisation and its internal customers (front-line staff) and internal suppliers (support staff). It evaluates the dimensions, and their relationships that determine service quality among internal customers and the support staff.




**Source:** Frost and Kumar (2000)

**Figure 2.3.18.15 Internal Service Quality Model**

It points out three main gaps that can exist which must be managed effectively.

The *internal gap 1* indicates the variation in support staff's perception (internal supplier) of front-line staff's expectation (internal customers).

The *Internal gap 2* is the significant disparity between service quality specifications and the service actually delivered resulting in an internal service performance gap.

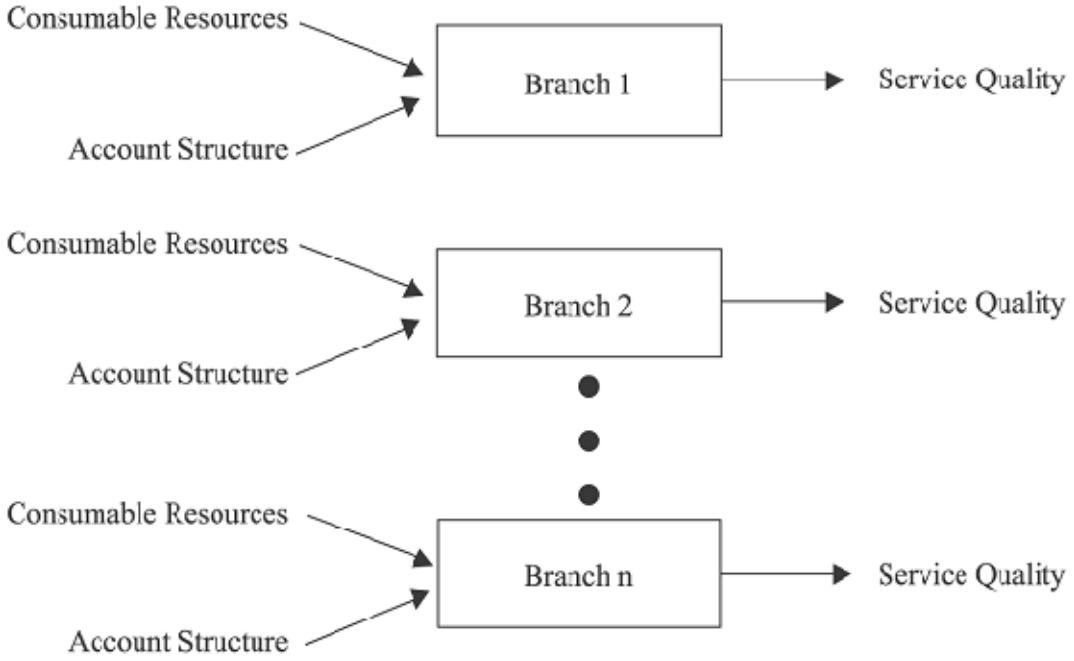
The *Internal gap 3* is the difference between front-line staff's expectations and perceptions of support staff's (internal supplier) service quality.

### 2.3.18.16. Internal Service Quality DEA Model (Soteriou and Stavrinide, 2000)

This model basically provides a guide to improving services quality in banking services. Though it does not develop measures for service quality, it identifies and shows how organisational resources can be properly utilised to achieve better service quality. It therefore

focuses on the internal service quality. The authors presented a service quality model that can be used to provide directions to a bank branch for optimal utilization of its resources. In the model, two main sets of input are identified: consumable resources such as personnel, space, time etc. and the number of accounts in different categories. The output of the model is the level of service quality perceived by the personnel of the branch.

Service quality is an important factor that must be considered when assessing a bank branch performance. The branch may report high volume of products and services offered as well as profits, but lose its long-term advantage owing to eroding service quality.




**Source:** Soteriou and Stavrinides (2000)

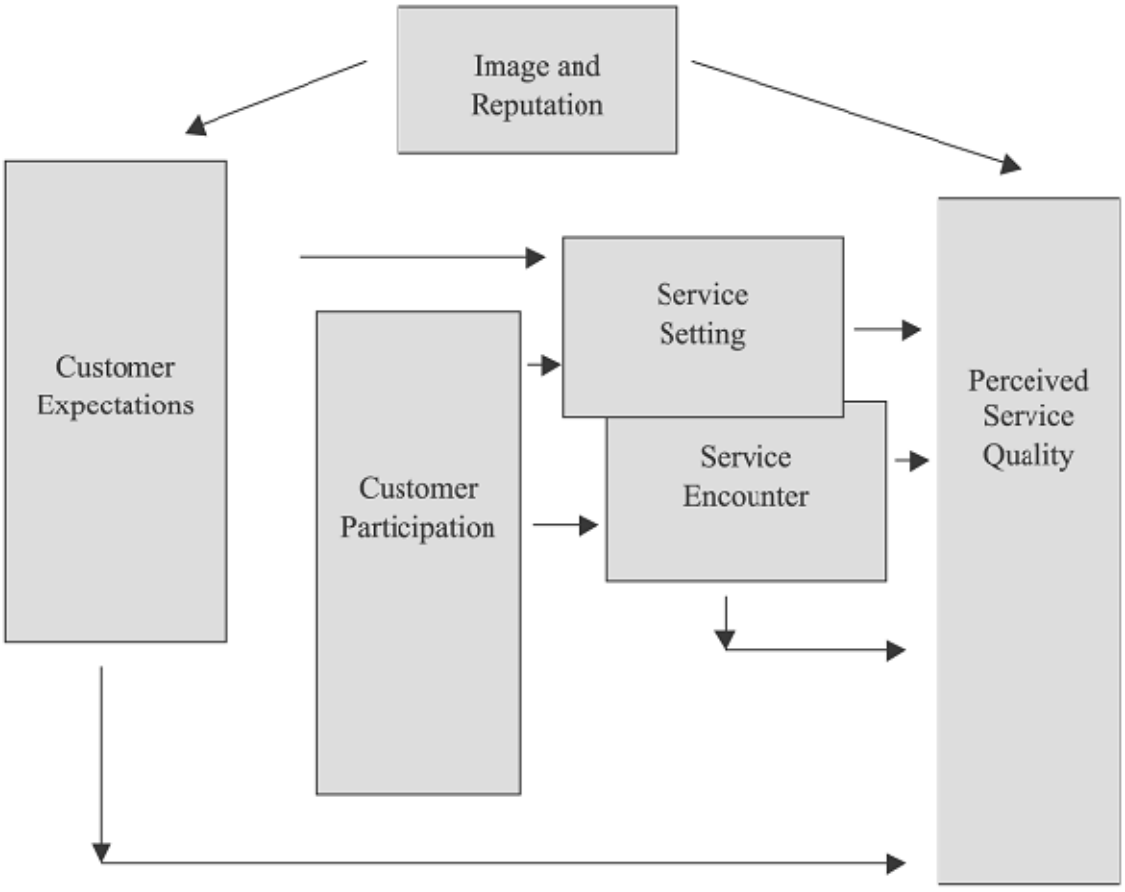
**Figure 2.3.18.16 Internal Service Quality DEA Model**

The data envelope analysis (DEA) model (Figure 2.3.18.16) compares branches on how well they transform these resources (inputs) to achieve their level of service quality (output) given the client base. The DEA model will identify under-performers and suggest ways for their

improvement. The input minimization DEA model will provide information on how much could the consumables resources be reduced while delivering the same level of service quality, while the output maximization DEA model will provide information on how much service quality can be improved using the same consumable resources.

### 2.3.18.17 Internet Banking Model (Broderick and Vachirapornpuk 2002)

The authors tested and proposed a service quality model of internet banking (Figure 2.3.18.17). It focuses on how service firms can manage service quality as these remote formats bring significant change in customer interaction and behaviour. It seeks to explore how internet banking customers perceive the elements of this model



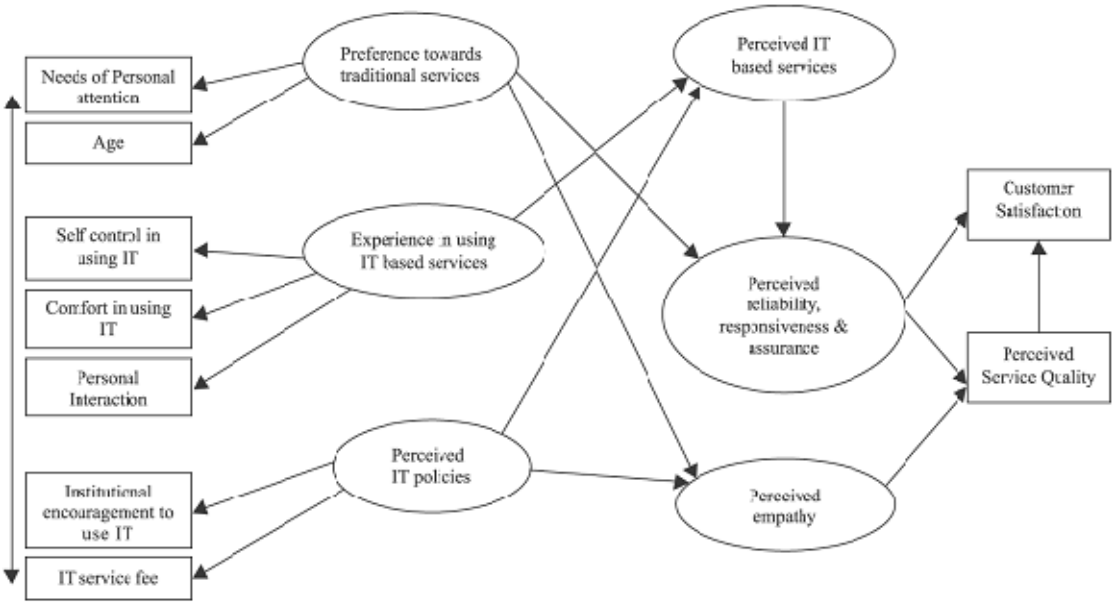

**Source:** Broderick and Vachirapornpuk (2002)

**Figure 2.3.18.17 Internet Banking Model**

The model identifies five key elements that basically influence perceived service quality in the context of internet. These factors are customer expectations of the service; the image and reputation of the service organization; aspects of the service setting; the actual service encounter; and customer participation. The main methodology used was participant observation and narrative analysis of UK internet web site community.

#### 2.3.18.18 IT-Based Model (Zhu et al. 2002)

The authors propose a service quality model that links customer perceived IT-based service options to traditional service dimensions. The IT-based service construct is linked to service quality as measured by SERVQUAL (Parasuraman et al., 1988, 1991). Several key variables affecting customers' views of IT-based services are identified and depicted (Figure 2.3.18.18). It attempts to investigate the relationship between IT-based services and customers' perceptions of service quality. It develops the constructs for IT-based service quality, preferences towards traditional services, experiences in using IT-based services, and perceived IT policies, and it depicts the interrelationships that exist among these variables in creating perceived service quality and customer satisfaction. This model basically brings to lime light the importance of information technology (IT)-based service options that can be used to reduce costs and create value-added services for customers especially in internet banking context.

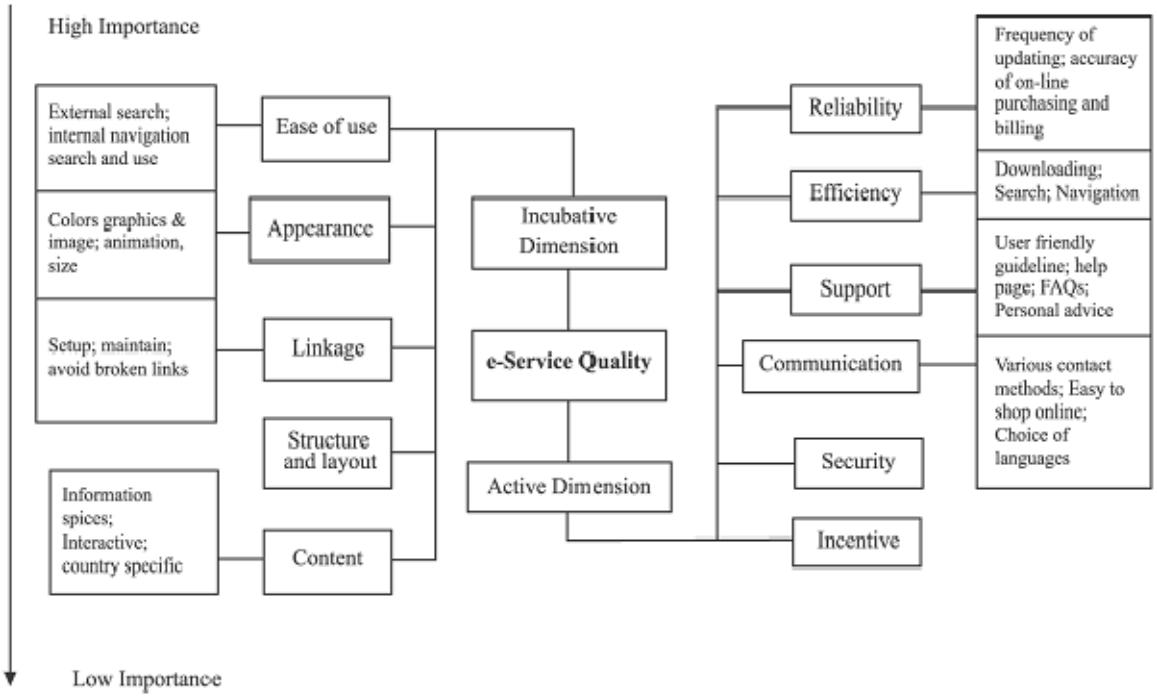



**Source:** Zha *et al*. (2002)

**Figure 2.3.18.18 IT-Based Model**

### 2.3.18.19 Model of e-Service Quality (Santos 2003)

In this model, the author proposes a conceptual model of e-service quality with its antecedents. The model basically focuses on the role of e-service quality in electronic commerce. E-service quality is conceptualised to have two main dimensions: the incubative and active dimensions. The incubative dimension represents the proper design of a website, how technology is used to create easy access for consumers, how consumers can be attracted to a website. The active dimension refers to other e-services supports that increases hit rate and customer stickness to websites, which eventually leads to customer retention and loyalty. Such active components include good support, fast speed, and active support from website.




**Source:** Santos (2003)

**Figure 2.3.18.19 Model of e-Service Quality**

### 2.3.19 Prioritising Service Quality Dimensions

One of the marketing values that measuring customer satisfaction can provide practitioners stems from prioritising the dimensions. Prioritising the dimensions offers organisations the value of identifying which dimensions of service quality customers are satisfied with and which ones they are dissatisfied with. This allows practitioners to effectively redirect their focus and re-allocate resources toward improving service quality with customer dissatisfied dimensions, while maintaining or increasing attention and resources on dimensions that customers are satisfied with. In the empirical work of Chowdhary N. and Prakash M., (2007, p.506) on prioritising dimension of service quality, they found out that "... no simple generalization of relative importance of determinants of service quality is possible. Thus, it must be noted that importance of determinants of quality for customers would vary across

different service types." In view of this, we explore the relative importance of dimensions of service quality from customer perspective in Ghana's mobile telecom industry as one of the objectives for this study.

## 2.4 Objectives of the study

Based on the literature reviewed, the following are the specific objectives of this study:

1. To measure and describe, using Minnesota Customer Satisfaction Index (MnCSI), disconfirmation models and overall satisfaction measure, customer satisfaction with service quality delivered by MTNs in Ghana respective of and irrespective of which mobile telecom network customers subscribe to.
2. To measure and describe customer satisfaction with dimensions of service quality in MTNs in Ghana using Expectation Disconfirmation Model (EDM).
3. To identify and prioritise dimensions of service quality in the context of MTNs within Ghana using Gronroos model of SERVQUAL.
4. To examine switching intention among customers of MTNs within Ghana.

## 2.5 Chapter Summary

In this study, measuring customer satisfaction with service quality delivered by mobile telecoms is taken in the context of Ghana mobile telecom network market, which has undergone tremendous development within the last decade. The study conceptualises customer satisfaction as a process, subjectively objective, cumulative, multi-dimensional, cognitive and affective. The three-question-based Minnesota Customer Satisfaction Index (MnCSI) is supported by disconfirmation theories and modified for this research. Desire and expectation disconfirmations as well as value, are all individually significant determinants of overall customer satisfaction. This study combines multiple measures to assess and analyse customer satisfaction, namely: Minnesota customer satisfaction index, disconfirmation models and overall satisfaction measures. Among the numerous service quality models reviewed, Gronroos model of SERVQUAL (Gronroos, 2000) was adopted because it is comprehensive and its service quality dimensionality is justifiably suitable in the context of MCNs in Ghana. 'Value' dimension was added through focus group discussion. Important SERVQUAL dimensions need to be explored trigger managerial action. Finally, the objectives of the study are given indicating the models of measurement of customer satisfaction to be used in this study.

# CHAPTER THREE

# OPERATIONALISATION

This chapter explains how the research questions are translated into hypothesis and how the hypothesis will be operationalised in this study. It identifies the Background to Operationalisation of Concepts, Main Research Concepts, Dimensions of each Concept, Indicators for each Dimension, and selected Models for Measuring Concepts. The theoretical context for concepts and the methodological approach for testing hypothesis are thoroughly explained. Other conceptual terminologies used in this study are defined, and it ends with a chapter summary.

## 3.1 Background to Operationalisation of Concepts in Hypotheses

In this thesis the problem of the study is: Are customers satisfied with the service delivery of MTNs in Ghana? The study seeks to assess and analyse customer satisfaction with service delivery of MTNs in Ghana. For the above problem and purpose, the study seeks to answer the following specific research questions:

1. How can customer satisfaction (CS) with service quality be described in mobile telecom networks within Ghana with and without respect to customers' mobile telecom network?
2. Which dimensions of service quality are customers satisfied or dissatisfied with in Ghana's MTNs?
3. Which dimensions of service quality are important to customers of MTNs in Ghana?
4. What is the switching intention among customers of MTNs in Ghana?

As justified in the literature in chapter two, to answer the research questions the following are the hypotheses for the study:

**H1**: **Customers are not satisfied with the service delivery of MTNs in Ghana respective of and irrespective of the network they subscribe to.**

H1a: Customers are not satisfied with service delivery of Company A.

H1b: Customers are not satisfied with service delivery of Company B

H1c: Customers are not satisfied with service delivery of Company C

H1d: Customers are not satisfied with service delivery of Company D

H1e: Overall CS between MTNs in Ghana is not the same.

**H2: Disconfirmation Models (DM) positively and significantly impact overall customer satisfaction (OCS) in Ghana's MTNs**.

H2a: Expectation disconfirmation positively and significantly impacts OCS

H2b: Desire disconfirmation positively and significantly impacts OCS.

**H3*:* Switching intention among customers of MTNs in Ghana is not the same.**

For the above problem and purpose, the following are the specific objectives for this study:

1. To measure and describe, using Minnesota Customer Satisfaction Index (MnCSI), disconfirmation models and overall satisfaction measure, customer satisfaction with service quality delivered by MTNs in Ghana respective of and irrespective of which mobile telecom network customers subscribe to.

2. To measure and describe customer satisfaction with dimensions of service quality in MTNs in Ghana using Expectation Disconfirmation Model (EDM).

3. To identify and prioritise dimensions of service quality in the context of MTNs within Ghana using Gronroos model of SERVQUAL.

4. To examine switching intention among customers of MTNs within Ghana.

The following explains how the research constructs and concepts in the hypothesis will be operationalised. According to many authors (Babbie E, 2005; Chris.Livesey: www.sociology.org.uk) there are a number of steps involved in operationlisation of concepts in a hypothesis. Operationalisation in this study involves these steps:

a. identification of and clear definition of the concepts in hypothesis

b. Definition of various dimensions to the concepts

c. Specification of variables for each dimension of concepts

d. Specification of components/indicators of each variable

e. Specification of measurement procedure for each variable

f. Indication of method of proving or disproving the hypothesis

## 3.2 Definition of Research Concepts

**3.2.1 Defining "customers":** The term "customer" is commonly used to refer to end-users of a product. Hayes (1997, p. 16) opines that "Customers' is a generic term referring to anybody who receives a service or product from some other person or group of people." Broadly, there are internal and external customers, where internal customers refer to the staff or employees and external customers refer to stakeholders of an organisation. In this study the customers of concern are the individual consumers/users who subscribe to the services of any of the mobile telecommunication networks in Ghana.

**3.2.2 Defining "satisfaction":** As reviewed in the literature chapter, the concept of satisfaction is defined in this study from the customer perspective. Of the many definition of the term "satisfaction" reviewed, our operational definition of customer satisfaction as conceptualised for this study is, "The process of customer overall subjective evaluation of the product/service quality against his/her expectation or desires over a time period." In this definition, customer satisfaction is related to service quality delivered by the mobile telecommunication companies in Ghana.

**3.2.3 Defining "service" and "service quality":** In this study, the focus is on telecommunication network services which fall in the system and networks services group proposed in Lovelock and Wirtz's classification (Lovelock and Wirtz, 2007). In this regard customers rent the right to participate in a specified telecommunication network services. In this study, "Service" is used to refer to the set of services delivered by MTNs in Ghana. "Service" is basically defined from customer perspective and not the manufacturer's, so it will be often referred to as customer-perceived quality (CPQ) as first opined by Gro¨nroos (1982). Of the many definition reviewed in the literature, service quality (SERVQUAL) is defined as "the confirmation (or disconfirmation) of a consumer's expectations of service compared with the customer's perception of the service actually received" (Gronroos 1982).

## 3.3 Dimensions of Research Concepts

### 3.3.1 Dimensions of customer satisfaction

In the literature, many scholars have developed many models to explain the components of customer satisfaction. While some authors perceive satisfaction as an overall component, others, notably the disconfirmation school of thought, conceptualise satisfaction as a product of customers' comparison of the perceived performance of the product/service with some

cognitive or affective standards like desire, expectation, perceived value or perceived service quality ((Oliver 1980; 1993; Parasuraman, A., et al., 1988; Gronroos, C., 1994, 2000, 2001; Yonggui Wang & Hing-Po Lo 2002; Kotler P.& Keller K. L., 2006). These components are conceptualised and displayed in Figure 3.3.1.

In this study, the components of satisfaction measured are overall satisfaction, desire and expectation disconfirmations in which customer "desire" and "expectation" are compared with customer perceived performance of the services to constitute satisfaction. These components are chosen because each of them is empirically validated to have significant impact on customer satisfaction (Oliver 1980; 1993; Parasuraman, A., et al., 1988; Khalifa & Liu, 2002).

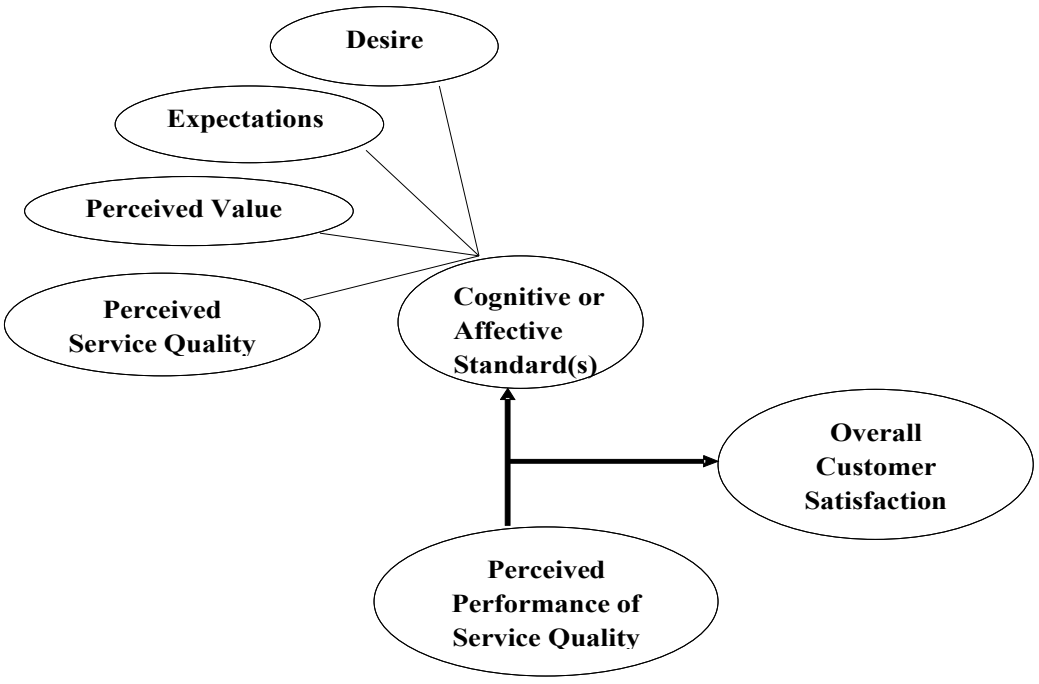



**Figure 3.3.1 Components of Customer Satisfaction**

### 3.3.2 Dimensions of Service Quality

Service quality like customer satisfaction is conceptualised differently by different scholars and practitioners. In defining service quality in respect of service delivery of mobile telecoms in Ghana, we reviewed theoretical models in the literature and conducted a focus group discussion. . Of the many models of SERVQUAL reviewed in the literature, we have selected the Gronroos model of service quality in understanding service quality dimensions for which customer satisfaction can be measured.

#### 3.3.2.1 Justification for Gronroos model

Many authors such as Asubonteng et al. (1996); Babakus and Boller, (1992); Cronin and Taylor, (1992) have made several criticisms about the popular and most applied two-stage SERVQUAL model propounded by Parasuraman *et al*., (1985, 1988). The criticisms include different scores, dimensionality, applicability and the lack of validity of the model, notably the dependence or independence of the five main variables.

Christian Gronroos (1994, 2000) argues, in his comprehensive model of service quality, that service quality is not only composed of functional quality as portrayed by Parasuraman et al.(1988) but also technical quality as well as image. Although Parasumaran *et al.* (1988) noted that service quality has functional and technical dimensions, they did not include them in their model. Gronroos (1994, 2000) presents a multi-dimensional and a more comprehensive perspective of service quality and demonstrated that perceived service quality which is an antecedent of customer satisfaction is significantly and positively impacted by functional quality, technical quality and image.

In this study we have selected Gronroos SERVQUAL model for several reasons. First of all, it has been empirically validated in service industry context. Gronroos SERVQUAL

dimensions have been examined and empirically supported by Gi-Du Kang and James (2004, p.1), they conclude that ‘‘The results from a cell phone service sample revealed that Gro¨nroos’ model is a more appropriate representation of service quality than the American perspective with its limited concentration on the dimension of functional quality.’’ The tested model is shown in Figure 3.3.2.1

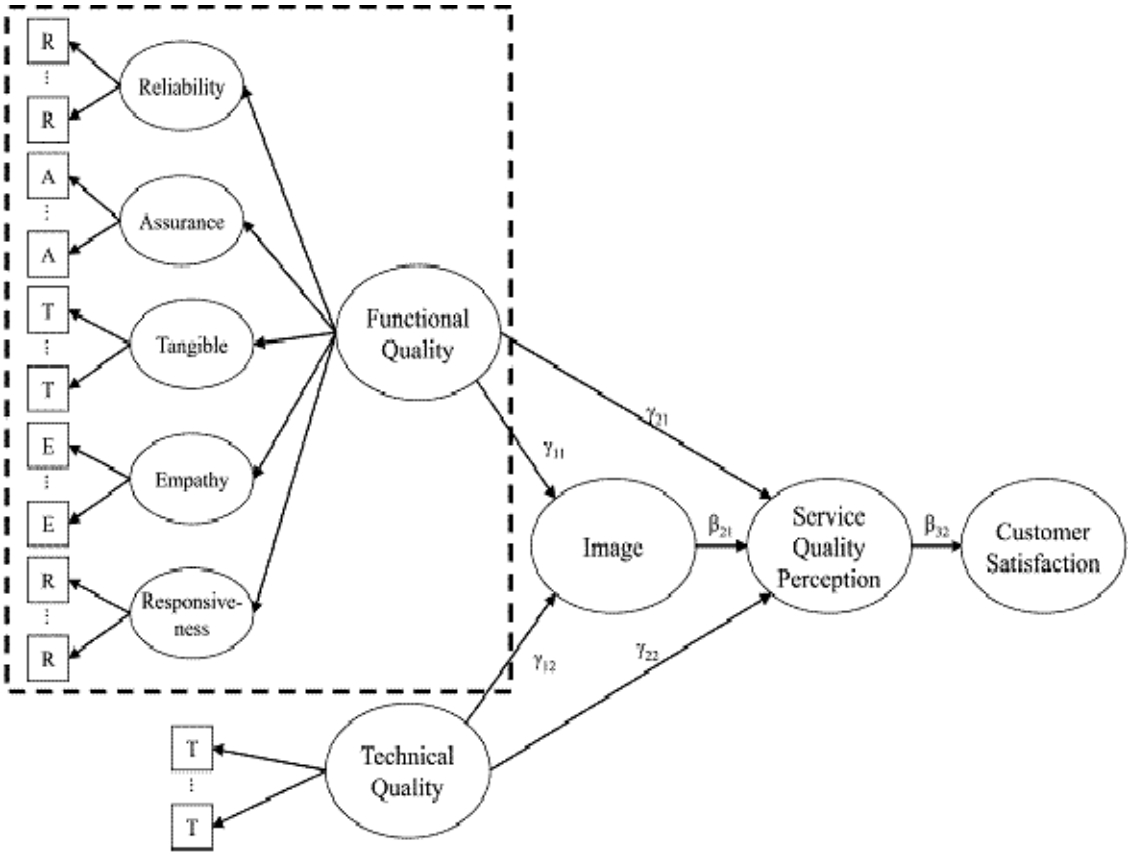



**Figure 3.3.2.1 Tested Gronroos SERVQUAL Model**

**Source: Gronroos (2000)**

Although, Gronroos model has not been widely adopted and applied in many research contexts as compared to the SERVQUAL of Parasuraman *et al.,* (1988), few authors like Bozorgi M. M. (2007) and Du Kang and James (2004) who have applied Gronroos model recommend it to be applied in different settings.

Secondly, this model is chosen because it is comprehensive. It does not only capture functional quality, but also technical quality and image dimensions, which is more realistic of today's dynamic global marketplace than functional quality only models portray.

Thirdly, it has been examined that Gronroos models is more applicable to mobile telecommunication context. In the empirical work of Nitin, Deshmukh & Vrat (Nitin S. et al., 2005 p.946) on critical review of service quality models found "that the service quality outcome and measurement is dependent on type of service, setting, situation, time need, etc. factors.'' The mobile telecom market is a type of service industry in which customers place much importance not only on how they are served (functional quality), but also and more importantly, on outcome or nature of services they experience which constitute network quality and other technical quality issues. Technical quality and image have been justified empirically. For example, in China telecom market, Yonggui Wang & Hing-Po Lo (2002) found out through focus group and empirically verified results of their study that network quality significantly impacted service quality and customer satisfaction. Also, in a similar mobile phone setting, Gi-Du Kang and James (2004) applied Gronroos SERVQUAL model and found out that technical quality and image positively and significantly impacted customer satisfaction. For the above reasons, our definition of service quality includes the three dimensions of Gronroos SERVQUAL model, namely: functional quality, technical quality and image or reputational quality.

The fourth dimension is "economy". Many previous studies (Rust and Oliver, 1994; Hume & Mort (2008) on determinants of customer satisfaction establish, that 'value' is a significant dimension of service quality that determines customer satisfaction. In the context of Ghana mobile telecom market, through a preliminary focus group discussion, it was discovered that "economy" - value for money or how economical services are to customers - was another

important dimension that is considered by most customers in Ghana when choosing and using mobile telecom services. As this is consistent with previous research work, 'economy' will be included as a separate dimension. Thus, customer satisfaction will be measured regarding four main service quality dimensions: functional, technical, image and economy dimensions as displayed in Figure 3.3.2.2 in this study.

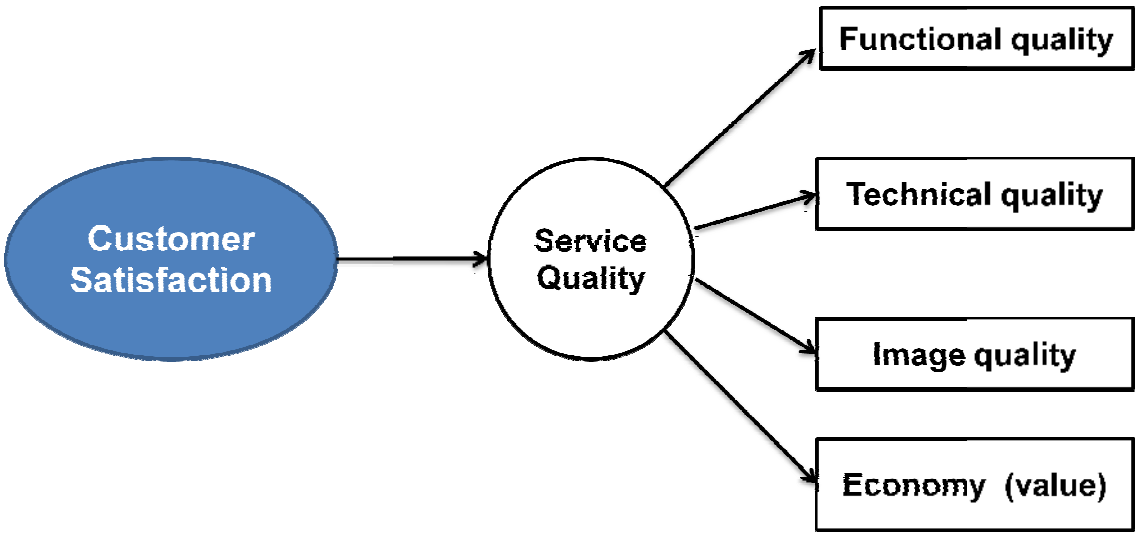



**Figure 3.3.2.2 Conceptual Framework for Service Quality Dimensions**
**Source: Based on Gronroos 1984, 2000; Rust and Oliver (1994)**

## 3.4 Variables/Indicators of Research Concepts

### 3.4.1 Variables for service quality

In order to accurately measure satisfaction of customers with the four service quality dimensions identified it is important to identify the variables or indicators of each dimension for which we can precisely measure. Constructs for functional quality that are widely used by many scholars are those designed by Parasuraman et al., (1988), which are usually

modified in one way or the other in various industry contexts. Functional quality is defined in terms of five main variables: tangibles, reliability, responsiveness, assurance and empathy. However, there is no agreement regarding technical quality and image constructs, and are therefore developed by researchers, sometimes through focus group or from similar previous researches. Specific indicators or items for each variable of functional quality and for each dimension of technical and image qualities were developed from the previous researches (Parasuraman et al., 1988; Yonggui Wang & Hing-Po Lo 2002; Gi-Du Kang and James 2004, p.1). The items were then modified within the context of the Ghanaian mobile telecom settings. The main dimensions, variables and their specific indicators are depicted in Table 3.4.1

| | **TANGIBLES** |
|---|---|
| **TA1** | Network's ability to give you access to information, SIM card (chip), reload cards |
| **TA2** | Provision of visually attractive, offices, equipment and materials like starter packs and reload cards |
| **TA3** | Network's ability to providing variety of entertainment facilities, etc. |
| **TA4** | How appealing are the appearance and uniforms of employees? |
| | **RELIABILITY** |
| **RL1** | How timely is the delivery of SMS, MMS, Voice message and other services of your network? |
| **RL2** | How truthful (keeping to promises) is your mobile network to you? |
| **RL3** | How dependable and consistent is your network in solving customers' complaints? |
| **RL4** | How able is your network to perform services right the first time? |
| **RL5** | How able is your network to insist on error-free records. |
| | **RESPONSIVENESS** |
| **RS1** | How is your network able to tell customers exactly when services will be performed? |

| | |
|---|---|
| **RS2** | How able is your network to give prompt customer services and attend to customers' needs/problems? |
| **RS3** | How are employees' willing to help customers in emergency situations? |
| **RS4** | How are the employees approachable and easy to contact? |
| **RS5** | Employees' ability to communicate clearly with you. |
| | **EMPATHY** |
| **EM1** | Having convenient periods & terms for activation, recharge, and accounts suspension, free call times. |
| **EM2** | Having operating hours convenient to all customers. |
| **EM3** | Having sound loyalty programme to recognise you as a frequent customer. |
| **EM4** | Having the customer's best interest at heart. |
| **EM5** | Giving individual customer attention by employees. |
| **EM6** | Efforts to understand specific customer needs. |
| **EM7** | Apologising for inconvenience caused to customers. |
| | **ASSURANCE** |
| **AS1** | Ability to provide variety of value added services- Music, internet access, SMS,etc. |
| **AS2** | Sincerity and patience in resolving customers' complaints/problems. |
| **AS3** | The behaviour of employees in instilling confidence in customers. |
| **AS4** | Employees' use of required skills and knowledge to answer customers' questions. |
| | **ECONOMY** |
| **EC1** | How economical is the use of your mobile telecom network's services in terms of: Reloading cards and their denominations? |
| **EC2** | How economical is the use of your mobile telecom network's services in terms of: The call charge per minute/second? |
| | **TECHNICAL QUALITY** |
| **TQ1** | Successful in completion of calls, SMS, MMS, line activation, credit reloading, etc |
| **TQ2** | Employees have technological knowledge and skills in solving customer problems. |

| | | |
|---|---|---|
| **TQ3** | Network clarity and speed for call and other services. | |
| **TQ4** | Network innovativeness – ability to use current technology to improve services. | |
| **TQ5** | Providing adequate network coverage. | |
| | **IMAGE** | |
| **IM1** | How *successful* is your mobile network company? | |
| **IM2** | What is the *reputation* of your mobile network Co.? | |
| **IM3** | What is the *brand image* of your mobile network? | |
| **IM4** | How *socially responsible* is your mobile network? | |

**Table 3.4.1 Measurement of SERVQUAL Dimension Variables**

### 3.4.2 Measuring Customer Satisfaction

According to the literature review, customer satisfaction can be measured and analysed using satisfaction indices, Database methods, Disconfirmation Models, Overall Performance, and Overall Satisfaction measures. We will choose three customer satisfaction measures, one index, MnCSI, in addition to disconfirmation models and overall satisfaction measures. We will choose multiple measures not only because they are all empirically validated, but also because we want to have a more reliable results and conclusions as we compare results of four tools that are able to measure the same thing.

#### 3.4.2.1 Minnesota Customer Satisfaction Index (MnCSI)

MnCSI will be used to measure overall customer satisfaction with service delivery irrespective of customers' network on one hand and within each network. We choose the MnCSI for three reasons. First of all, it is because it combines responses to three questions that ask about the same idea--total satisfaction. Interestingly the model of MnCSI succinctly

captures desire and expectation disconfirmations as well as overall satisfaction variables in a single index. This is more stable than simply looking at the responses to a single question, and is less affected when a customer misunderstands one question. Besides, it is relatively easy to apply as the weight of each response can be determined by the researcher irrespective of which industrial context it is used. Furthermore, it is relatively flexible and suitable for any reasonable number of responses deemed appropriate by the researcher.

The formulae for the MnCSI will be modified since customers will be given five (5) responses to the three questions to reflect the value or weights of the five-likert scale that will be used as shown below:

$$\text{MnCSI(modified)} = \frac{\text{Question } 1 - 1}{4} * 33.3 + \frac{\text{Question } 2 - 1}{4} * 33.3 + \frac{\text{Question } 3 - 1}{4} * 33.3$$

Three (3) questions for the MnCSI will be used to estimate overall satisfaction index:

4. What is your overall satisfaction with the services?
5. To what extent have the services met your expectations?
6. How well did the services you received compare with the ideal set of services?

Respondents will rate their opinion for the above questions on a five-point liket-scale; the value for each response will have a value from one (1) to five (5) respectively:

1. "Very dissatisfied, dissatisfied, neutral, satisfied and very satisfied " for question one;
2. "Much worse than expected, worse than expected, equal to expectation, better than expected and much better than expected" for question two, and
3. Much worse than desired, worse than desired, equal to my desire, better than desired and much better than desired" for question three.

The following procedure will be used in calculating the MnCSI with respective to and irrespective of mobile telecom network:

- STEP I: Find frequency of each scale of response for all three questions.
- STEP 2. Calculate the weight of each response as in Table 3.4.2.1a

| **Likert scale** | | | | | |
|---|---|---|---|---|---|
| **Responses** | 1 | 2 | 3 | 4 | 5 |
| **Weight** | 0 | 8.325 | 16.65 | 24.975 | 33.3 |

**Table 3.4.2.1a Weight for Each Response in MnCSI**

- STEP III: Multiply the response weight by the frequency of each response for all three questions.
- STEP IV: Find the sum of all the values for each of the three questions.
- STEP V: Divide the total sum by the appropriate sample size. The answer is the Minnesota Customer Satisfaction Index.

- STEP VI: **Description of Index**. For a description of index, we will assign "fair" to an index of "50". This is because if a customer rates satisfaction as equal to expectation or desire, or neutral for all the three questions in the formulae (MnCSI), it would sum up to an index of 49.99 i.e. 50. Table 3.4.2.1b describes the index.

| MnCSI | Description |
|---|---|
| 81 - 100 | Very Much High |
| 71 – 80 | Very high |
| 61 - 70 | High |
| 50 – 60 | Fair |
| 30 - 49 | Low |
| 10 - 29 | Very Low |
| BELOW 10 | Very Much Low |

**Table 3.4.2.1b Descriptions for MnCSI**

### 3.4.2.2 Disconfirmation models

Disconfirmation models are models that state that customer satisfaction occurs when there is confirmation or disconfirmation as a result of a customer comparing his/her the service performance or perceived service quality with his/her expectations or desire or some cognitive standards (Parasuraman, et al., 1988, Gronroos 2000, 2001).

Within the Disconfirmation school, it has been empirically established in the literature that expectation disconfirmation should be used in *addition to* and *not instead of* desire disconfirmation in explaining or analysing customer satisfaction (Khalifa and Liu, 2002). So we will measure satisfaction using both desire and expectation disconfirmations scales. The indicators for these variables are shown in Table 3.4.2.2.

| | |
|---|---|
| **DD** | **DESIRE DISCONFIRMATION**<br>How well did the services you received from your network compare with the **ideal/desired** set of services? |
| **ED** | **EXPECTATION DISCONFIRMATION**<br>To what extent have your mobile network services met your **expectations**? |

**Table 3.4.2.2 Variables for Desire and Expectation Disconfirmation**

Respondents will be asked to rate their satisfaction with service quality in relation to desired and expected satisfaction using the above questions on a five-point likert-scale, ranging from Much worse than desired to Much better than desired for DD and from "Much worse than expected" to "Much better than expected" for ED. A numerical value of one (1) for "Much worse than desired/expected" and five (5) for "Much better than desired/expected" will be used.

### 3.4.2.3 Overall satisfaction

Customer satisfaction can be measured using overall satisfaction measures. Overall satisfaction refers to the customers overall evaluation of the services quality delivered by an organisation. The indicators of this measure is one question that ask customers to rate their overall satisfaction of the service received. This will be measured using a single question (Table 3.4.2.3) to which respondents will be asked to rate their satisfaction on a five-point likert-scale: Very Dissatisfied, Dissatisfied, Neutral, Satisfied, and Very Satisfied. Their numerical values will range from one (1) for "very dissatisfied" to five (5) for "very satisfied".

| | |
|---|---|
| **OCS** | **OVERALL CUSTOMER SATISFACTION**<br>**Overall,** tell how **satisfied** you are with the service delivery of your network. |

**Table 3.4.2.3 Indicator for Measuring Overall Satisfaction**

### 3.4.3 Indicator and Measurement of Switching Intention of Customers

As explained earlier in the literature, customer switching intention (SI) is important to consider in analysing customer satisfaction as it is one of the outcome of CS. In this study switching intention refers to customer behaviour intention in which customer wants switch to use another service/product. This will be measured using a single question (Table 3.4.3) to which respondents will be asked to rate their switching intention on a five-point likert-scale: "Definitely yes", "a bit yes", "Neutral", "a bit No", and "Definitely No". Their numerical values will range from one (1) for "Definitely yes" to five (5) for "Definitely No".

| | |
|---|---|
| **SI** | **SWITCHING INTENTION**<br>Do you have any intention of **switching to use a better network's services?** |

**Table 3.4.3 Indicator for Measuring Switching Intention**

## 3.5 Procedures for Testing Hypotheses and Answering Research Questions

The following describes how research questions will be answered and hypotheses will be tested to prove or disprove them.

### 3.5.1 Research Question One (RQ 1)

How can customer satisfaction (OCS) with service delivery be described in mobile telecom networks within Ghana with and without respect to customers' mobile telecom network?

The procedure outlined under item 3.4.2.1 will be used.

#### 3.5.1.1 Testing Hypotheses 1a to 1d (see item 3.1) under RQ 1

One Sample T-test will be used to test *H1a* to *H1d* with respect to and without respect to mobile telecom network. A significance level of 0.05 will be chosen with a specified constant or cut off value of three (3) and four (4) for disconfirmation scales and overall satisfaction scale respectively. This is because for disconfirmation scales, a rating of 3 or 4 or 5 indicates customer satisfaction, and a rating of 1 or 2 indicates customer dissatisfaction with service quality. And with satisfaction scale, a rating of 4 or 5 indicates satisfaction; a rating of 1 to 3 indicates dissatisfaction or satisfaction below the required level.

Generally, this will be the procedure for testing the first hypothesis:

1. The null hypothesis:

   $\mathbf{H_0}$: $\mu \geq 3$, [equal to or better than expected/desired]

   $\mathbf{H_1}$: $\mu < 3$, [worse or much worse than expected/desired]

   $\mathbf{H_0}$: $\mu \geq 4$, [satisfied or very satisfied]

   $\mathbf{H_1}$: $\mu < 4$, [very dissatisfied, dissatisfied or neutral]
2. Statistical test and significance level: One sample t-test, significant at 0.05
3. Calculated t-value: t-statistics From SPSS output.
4. Critical value: confidence interval and ρ-value (from SPSS output).

5. Decision rule: null hypothesis should be rejected under two conditions: first, if the mean difference is significantly negative, and second, if the confidence interval between which the true mean lies in 95% is negative. Conversely, do not reject if the mean difference is significantly positive, or if the confidence interval includes a positive value – thus at least satisfaction is equal to expectation. Thus satisfied customers must have rated the service quality equal to or better than expectation or desire; for overall satisfaction, they must have rated their satisfaction with service quality as satisfied or very satisfied

#### 3.5.1.2 Testing Hypothesis 1e under RQ 1

*H1e: Overall Customer Satisfaction among MTNs in Ghana is not the same.*

A One-way ANOVA will be used to test *H1e* such that:

$H_{0:}\ \mu_{cA} = \mu_{cB} = \mu_{cC} = \mu_{Cd}$

$H_{1:}\ \mu_{Company\ A} \neq \mu_{Company\ B} \neq \mu_{Company\ C} \neq \mu_{Company\ D}$

#### 3.5.1.3 Testing Hypothesis Two (2) and sub hypotheses

*H2 Disconfirmation Models (DM) positively and significantly impact overall customer satisfaction collectively (OCS) in Ghana's MTNs.*

*H2a: Expectation disconfirmation (ED) positively and significantly impacts OCS.*

*H2b: Desire disconfirmation (DD) positively and significantly impacts OCS.*

A linear regression will be used because each sub-hypothesis involved a single independent variable and one dependent variable. The three linear regression models to be tested are:

*Model 1:* $OCS = a + ED + DD + \varepsilon$;

*Model 2:* $OCS = a + DD + \varepsilon$;

*Model 3:* $OCS = a + ED + \varepsilon$.

Where: a – constant, ε – error term

The procedure for testing models 1, 2 and 3 is as follows:

1. The null hypothesis is:

   $H_{0:}$ $DD \leq 0$ [Parameter DD is not significantly greater than zero]

   $H_{1:}$ $DD > 0$ [Parameter DD is significantly greater than zero]

   $H_{0:}$ $ED \leq 0$ [Parameter ED is not significantly greater than zero]

   $H_{1:}$ $ED > 0$ [Parameter ED is significantly greater than zero]
2. Test Statistic: linear regression F-test (produces similar results as t-test in bivariate)
3. Significance level: 0.05 will be chosen
4. Critical value: ρ-value from SPSS output. .
5. Decision: reject null hypothesis on two conditions: first, if the ρ-value from the One-way ANOVA F-test is less than the chosen significance (0.05), and second if the co-efficient of parameter estimate(s) is positive.

### 3.5.2 Research Question Two (RQ 2)

*Which dimensions of service quality are customers satisfied or dissatisfied with in Ghana's MTNs?*

As mentioned earlier on, customer satisfaction with four service quality dimensions will be measured. These are functional, technical, economy and image dimensions. A One sample T-test will be used with 0.05 significance level and a cut off value of three (3) implying that the entire sample would be split into satisfied customers and dissatisfied customers for each item in each dimension of service quality. Here it becomes necessary to assume a hypothetical situation in order to test and identify customer satisfied or dissatisfied dimensions. The following procedure will be used:

1. Null hypothesis:

   $\mathbf{H_0}$: $\mu \geq 3$, [equal to or better than expected]

   $\mathbf{H_1}$: $\mu < 3$, [worse or much worse than expected]

2. Statistical test: One sample T- test to be used with significance level of 0.05.

3. Critical value: ρ-value and confidence intervals will be used.

4. Decision rule: the null hypothesis should be rejected under two conditions: first, if the mean difference is significantly negative, and second, if the confidence interval between which the true mean lies in 95% is negative. Conversely, do not reject if the mean difference is significantly positive, or if the confidence interval includes a positive value – thus at least satisfaction is equal to expectation.

### 3.5.3 Research Question Three (RQ 3)

*Which dimensions of service quality are important to customers of MTNs in Ghana?*

One sample T-test will be used to test the significance of the means at 0.05 significance level and with a specified constant or cut off value of four (4) to split service quality dimensions that are important from those that are not important to customers. Then the dimensions will be ranked in order of magnitude to indicate the importance of the dimensions to customers.

### 3.5.4 Research Question four (RQ4)

*What is the switching intention among customers of MTNs in Ghana?*

These are the steps for answering research question four:

1. Respondents will be asked to respond to a question on the questionnaire that ask: Are you willingness to switch to use the services of a better mobile telecom network other than their own? A five-point likert-scale response will be given: Definitely yes, a bit yes, neutral, a bit no, and definitely no; they will be coded from one(1) to five(5) respectively.

2. Frequencies of customers responses will be taken according to mobile telecom network in a cross tabulation.

3. **Testing Hypothesis three**

   H3 *Switching intention among customers of MTNs in Ghana is not the same.*

   The purpose is to identify which mobile network customers are willing or not willing to switch. A One-way ANOVA will be used to test the statistically significant differences in switching intention.

   In testing H5, the following procedure will be followed:

1. The null hypothesis

   $\mathbf{H_0}$: $\mu_{c1} = \mu_{c2} = \mu_{c3} = \mu_{c4}$

   $\mathbf{H_1}$: $\mu_{c1} \neq \mu_{c2} \neq \mu_{c3} \neq \mu_{c4}$ (means are not equal)

2. Test statistics: F-test was chosen with significance level of 0.05.
3. Critical value: ρ-value
4. Decision rule: reject null hypothesis if ρ-value is less than significance level, 0.05.

The Levene statistic will be used to ensure the equality of the groups' variance before performing the ANOVA test. The Levene statistic is very robust in testing for equality of groups' variances at significance level of 0.05.

## 3.6 Other Operational Definitions

The following are other operational definitions used in this study:

*Mobile cellular telephone subscribers (post-paid + prepaid):* Refers to ''users of portable telephones subscribing to an automatic public mobile telephone service that provides access to the Public Switched Telephone Network (PSTN) using cellular technology. This can include analogue and digital cellular systems but should not include non-cellular systems.'' (ITU, Geneva, February 2005).

*Total number of subscribers to mobile networks: ''*Sum of low and medium speed mobile subscribers, and IMT-2000 (3G) subscribers. If data communications are available to voice subscribers without payment of an additional subscription charge, subscriber numbers would be those that have suitably equipped terminals AND have used the service at least once in a given period (e.g., the last three months).'' (ITU, Geneva, February 2005)

# CHAPTER FOUR

## 4.0 METHODOLOGY

This chapter presents the methodological concerns used in conducting this research and provide a justification for each step taken. It involves the General Research Perspectives, Data Collection, Summary of Statistical Measurement Methods, Access Strategies and Credibility of the Research.

### 4.1 Research Perspectives

Research methodology defines the systematic and scientific procedures used to arrive at the results and findings for a study against which claims for knowledge are evaluated (Nachamias et al., 1996; Saunders et al., 2007). A methodology is therefore shaped by the perspectives the researcher chooses to approach a study. The perspectives that usually shape a research work can be broadly grouped under five umbrellas (Saunders et al., 2007) as shown in Figure 4.1.

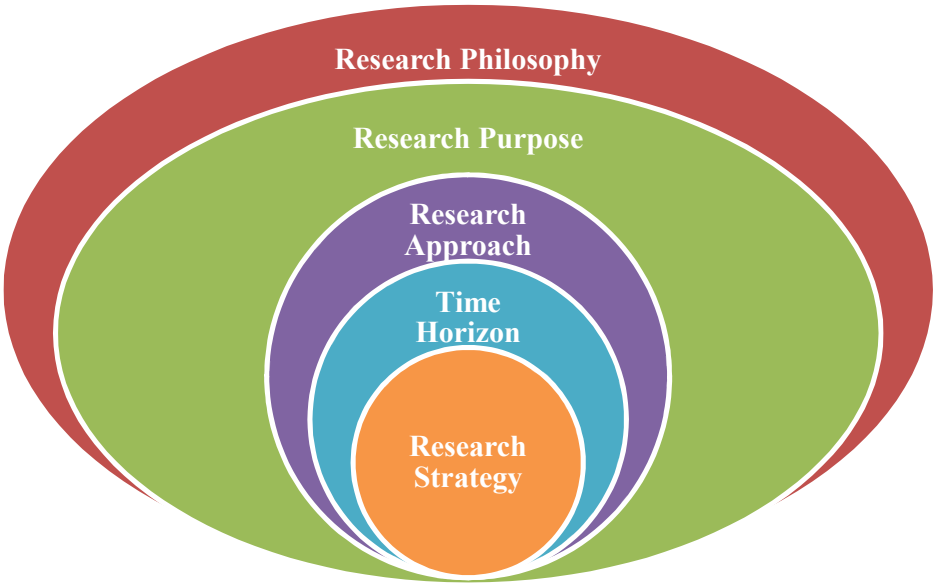



**Figure 4.1 The research "onion"**
**Source: Adapted from Saunders et al (2007)**

### 4.1.1 Research Philosophy

*Research philosophy* refers to the assumptions and beliefs that govern the way we view the world (Saunders et al., 2007); it underpins the general approach and direction that a researcher chooses to take about the whole research (*Ibid*). Many authors like Saunders et al (2000; 2007); Sullivan T.J. (2001); Cooper and Schindler (2006) and Malhotra and Birks (2007) agree that research can be influenced by positivism or phenomenological beliefs. Research philosophy is positivism where "knowledge or the world is thought to exist independent of people's perceptions of it and that science uses objective techniques to discover what exist in the world" (Sullivan T.J. 2001 p.47). On the other hand it is phenomenological where "... reality of the world is thought to arise out of the creation and exchange of social meaning during the process of social interactions" (Sullivan T.J. 2001 p. 48).

In this study we have chosen positivism more than phenomenological perspective because we believe that customer satisfaction as pertaining in Ghana's mobile telecom market can be defined objectively through the use of established theoretical frameworks and structured instruments to assess and analyse it, upon which generalisations can be made from the findings.

### 4.1.2 Research Purpose

The research purpose is a broad statement of what the research hopes to achieve. According to purpose, research could be broadly divided into exploratory, descriptive and explanatory (Saunders et al 2000, 2007; Cooper and Schindler 2006).

- *An exploratory research* is a study that is conducted to "find out what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson

2002:59). It is mainly used when a researcher wants to have a clearer understanding of a situation or a problem, where the area of study is so new or vague, important variable may not be known or defined. It therefore uses such methods as searching documented materials, asking for expert's opinion, and conducting a focus group interviews.

- *A descriptive research* is a study that seeks to "portray an accurate profile of persons, events or situations" (Robson 2002:59 in Saunders et al 2007). It involves formalising the study with definite structures in order to better describe or present facts about a phenomenon as it is perceived or as it is in reality.
- *An explanatory research* is a study that seeks to establish relationship that exists between variables. In order words its purpose is to identify how one variable affects the other; it seeks to provide an explanation to the causes and/or effects of one or more variables (Saunders et al 2000, 2007; Cooper and Schindler 2006; Malhotra and Birks, 2007). It is often termed causal studies. They are also used when the purpose of the study is to answer 'why' in a given context.

It is agreed by many scholars that these three research purposes can be combined in one study (*ibid*). This study has significant combination of all three: explanatory, descriptive and exploratory purposes. Firstly, we sought to describe or portray a reality regarding customer satisfaction with service quality and to better understand those service quality dimensions that customers are satisfied or dissatisfied with, so it was descriptive. Secondly, the study sought to determine the impact of desire and expectation on customer satisfaction and to examine the relationships that exist between customer satisfaction and customer behaviour intentions, therefore it was explanatory. Thirdly, in this study we sought to explore the relative importance of service quality dimensions in Ghana's mobile telecom market.

### 4.1.3 Research Approach

Research may be approached from deductive or inductive perspectives (Figure 4.1.3). It is deductive where it begins with the development of a theory or hypothesis and a strategy is designed to test it in a context to verify or reject its claims. So it is thinking from general to specific. On the other hand, the approach is inductive where the research begins with an observation of a phenomenon in an environment, then data is collected upon which a theory is developed or generalisation is made. Thus, thinking from specific to general.

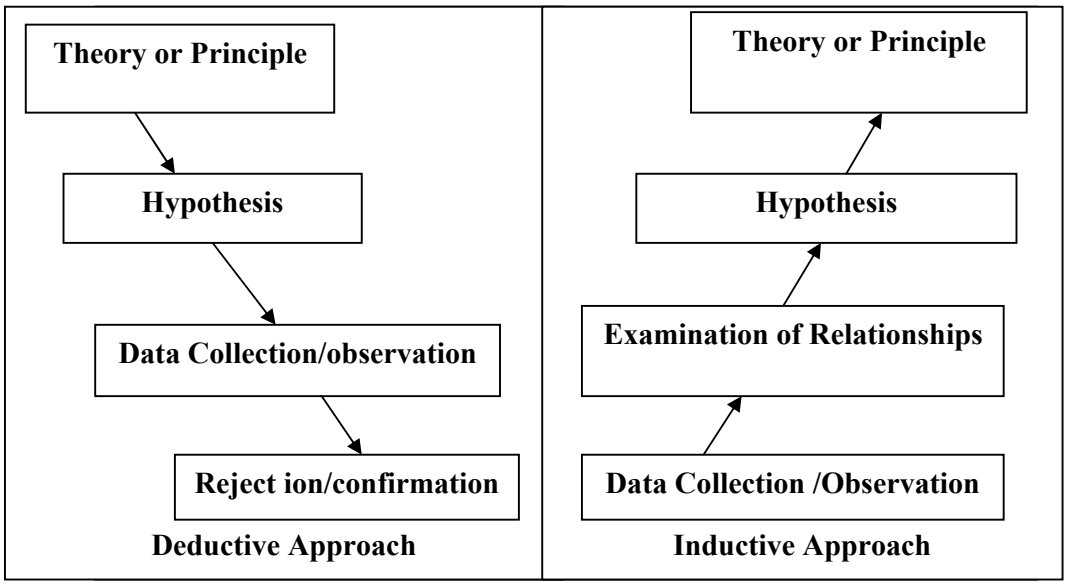



**Figure 4.1.3 Deductive and Inductive Approaches**
**Source: Based on (Sullivan T.J. 2001, Cooper & Schindler 2006, Saunders et al, 2007)**

Many authors agree on combination of induction and deductive approaches, it is possible depending on the focus of the study (Sullivan T.J. 2001; Cooper and Schindler 2006 Saunders et al 2007). In this study, we have carefully selected existing empirical theories and models, applying and testing them in measuring customer satisfaction in the context of Ghana's mobile telecom market. Therefore, the study is deductive.

### 4.1.4 Time Horizon

According to time horizon, research design can be longitudinal or cross-sectional. A cross-sectional study focuses on a particular phenomenon at a specific period of time (Saunders et al 2007). In this case, one sample of a population can be taken and studied at a particular time as in a single cross-sectional study or two or more samples of a target population could be studied once as in multiple cross sectional study (Malhotra and Birks 2007). On the other hand it is longitudinal where a particular phenomenon is studied at different periods of time. This can also take a form of a single longitudinal study where only one sample is studied at different time periods or multi-longitudinal where two or more samples are studied at different periods of time.

In this study we chose a cross-sectional study because data was collected from a cross section of customers of mobile networks once and not for different periods of time.

### 4.1.5 Research Strategy

Research strategy is a general plan of how to answer the research questions. It is mainly guided by the research questions and research objectives, among other things. It determines to a large extent the choice of data collection methods. The main research strategies are action research, ethnographic studies, experiment, survey, case study, grounded theory or archival research (Saunders et al 2000, 2007; Cooper and Schindler 2006; Malhotra and Birks 2007).

- *Action research*: The term “action research” was first used by Lewin in 1946. It is a study that investigates a specific problem in a specific environment and afterwards an appropriate intervention is designed and implemented to solve the problem or

improve the situation. It is a research in action rather than about action (Coghian & Brannick 2005 in Saunders et al 2007). It is diagnostic and evaluative, involves people or subjective of study in solving the problem and its more collaborative in nature (ibid).

- *Ethnographic studies*: The word 'ethno' is a Greek word that refers to a people, race or cultural group, combines with the suffix 'graphy' meaning 'knowing something or a knowledge of something' to produce the term ethnography. It is a study that describes and explains the cultural bases of a people, usually conducted in the people's natural environmental settings. In such a study, the research may choose to study a characteristic of a people's culture by being part of and participate in the activities of the people or situation being studied (Saunders et al 2000, 2007; Sullivan J.T. 2001; Cooper and Schindler 2006; Malhotra and Birks 2007).
- *Experiment:* experiments are a type of causal study in which a researcher investigates changes in one variable while manipulating one or more other variables under controlled conditions. It is usually conducted in natural sciences and social psychology. Its main purpose is to study causal links in variables under given situations (Saunders et al 2000, 2007; Cooper and Schindler 2006).
- *Survey:* A survey is a type of method associated with deductive approach and is conducted usually in business and management research to collect data that seek a characteristic or the opinion of a target population. It allows for the collection of large amount of data from a large population economically. It is most frequently conducted to answer research questions relating to 'who, what, how much and how many' involved in a problem of study. It often uses structured questionnaire and interviews.
- *Case study*: A case study is "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context

using multiple sources of evidence" (Robson 2002:178 in Saunders et al 2007). It is mostly used where the purpose is to gain a rich and an in-depth understanding of the context of the research and the processes being enacted (Morris and Wood, 1991 in Saunders et al 2007). It therefore uses multiple data collection sources, termed triangulation. Mostly it is related explanatory and exploratory research that seeks to find out 'why', 'what' and 'how' issues in the case context. Yin (2003 in Saunders et al) maintains that case studies can be single or multiple, holistic or embedded.

- *Grounded theory*: A grounded theory is often associated with inductive approach. It is "a research methodology for developing theory by letting the theory emerge from the data or be grounded in the data." (Sullivan 2001). It the strategy that seeks to build theory to predict or explain behaviour
- *Archival research*: It refers to a study that uses administrative records and documents as the principal sources of data. It usually used when the purpose is to find out about the past and changes over time, and often forms the starting point for explanatory, exploratory or descriptive studies.

These strategies can be combined in a single study for a particular purpose (Saunders et al 2007). In this study we chose basically survey strategy because it sought the opinion of a population about a specific subject matter and it combined the use of qualitative and quantitative techniques. However, it has significant aspects of grounded theory since one of the objectives for the study was to examine the relationships that existed between the determinants of customer satisfaction and customer behaviour intentions; the results could be used to derive a model for determining customer satisfaction in Ghana mobile telecom market.

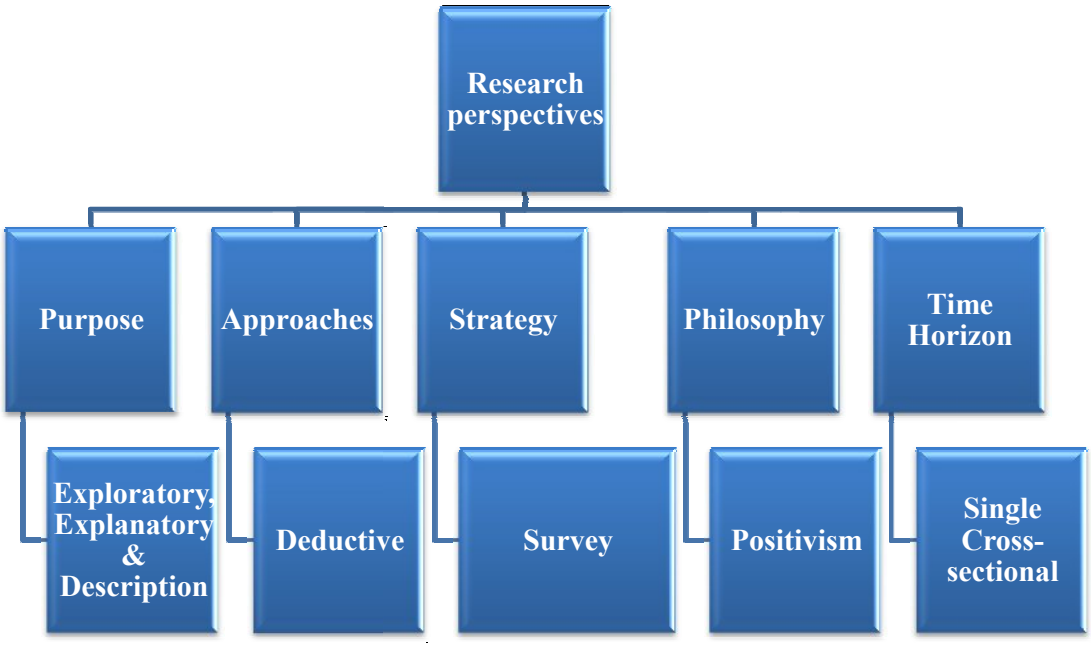



**Figure 4.1.5 Summary of Research Perspective**

## 4.2. Types of Data Collected

**4.2.1 Primary Data: "**primary data is a data originated by the researcher for the specific purpose of addressing the research problem" (Malhotra N. K. & Birks D. F. 2007, p. 94). It is what the researcher originally collects from the sample or target population. In this study the primary data used were those that were got from the focus group discussion and the questionnaire.

**4.2.2 Secondary Data:** "Secondary data are data collected for some purpose other than the problem at hand."(Malhotra & Birks 2007, p.94). In this study secondary data were collected from the directories of companies used for the study, online articles and journals.

## 4.3 Population

The target population for the study comprised all 7.6 million subscribers or customers who are individual users or subscribers, specifically external customers of MTNs within Ghana.

## 4.4 Sampling

### 4.4.1 Sample size

Out of the sample frame of seven million and six hundred thousand (7.6 million) subscribers in Ghana, a sample size of one thousand (1000) respondents were selected based on researchers' judgment because of cost and time constraints. Using a larger sample in this survey would require large financial resources which we could not afford. Again, the time limit within which the research was to be completed would not permit the use of larger sample size.

### 4.4.2 Sampling technique

In selecting the sample of one thousand (1000) respondents, a stratified simple random sampling was used. This technique was chosen because the population consists for mobile networks in Ghana, each being a stratum. This was done by, first of all, identifying each of the four (4) mobile telecom networks within the target population as a stratum. Secondly, the total sample was divided for each stratum according to the percentage of each stratum of mobile network in the entire industry as shown in Table 4.4.2. In selecting the percentages, we were guided by the available statistics of 2007subscribers for each network (ITU, 2007). Finally, a simple random method was used to select respondents for each of the mobile networks.

| Stratum of Mobile Network | Estimated Percentage of Total subscribers | Expected Sample Size for Strata |
|---|---|---|
| **Company A** | 60.5 | 605 |
| **Company B** | 19.5 | 195 |
| **Company C** | 4 | 40 |
| **Company D** | 16 | 160 |
| **TOTAL** | **100** | **1000** |

**Table 4.4.2 Stratified Random Sampling by Mobile Network**
**Source: Researchers' own**

## 4.5 Data Collection Procedures

### 4.5.1 In-depth Focus Group Interview

In this study a preliminary focus group interview was conducted to clarify service quality dimension in the context MTNs in Ghana. This was because in an exploratory study where certain constructs need to be clarified, most researchers recommend that qualitative techniques are appropriate, notably the use of projective techniques, focus group, in-depth individual and group discussion, as well as observational techniques (Saunders et al 2000; Cooper and Schindler 2006; Malhotra N. K. & Birks D. F. 2007). Since we wanted to be clear as to whether "economy" of a service is a significant service quality dimension in Ghana telecom industry, a focus group interview was used. The focus group was used to discuss dimensions of service quality that matter to Ghanaian customers/subscribers, specifically 'value for money' (economy dimension). According to Cooper & Schindler 2006; Malhotra & Birks 2007, the appropriate number of a focus group should be between five (5) and twelve (12) people; the people should be purposefully selected, and the discussion or interview last for usually an hour or two hour. In view of this, ten (10) participants were selected using purposive sampling technique. This was because the participants had to satisfy the criteria of eligibility before they could be selected. We invited four (4) network dealers, one from each service provider network, four (4) individual customers; one subscriber from each of the network, and two experts in telecom services. An interview guide was developed and used to direct focus group discussion, which lasted for seventy (70) minutes **(see Appendix A)**. The outcome of the focus group interview was that "economy" – value for money was an important service quality dimension that affects customer satisfaction.

### 4.5.2 Structured Questionnaire

According to many scholars, in the use of survey strategy, the main instruments used are self-administered/interviewer administered or structured/unstructured interviews and questionnaire or a combination of both (Saunders et al 2000; Cooper and Schindler 2006; Malhotra N. K. & Birks D. F. 2007). They further agree that generally the questionnaire can be used for descriptive or explanatory study, and must have a good layout, unambiguous questions, complete items, non-offensive but relevant items, logical arrangements of items, and the ability to elicit willingness to answer in respondents. As a result, questionnaire was used.

In this study, self-administered, structured questionnaire was used to collect data from respondents **(Appendix B).** The questions sought respondents' feelings about overall customer satisfactions, satisfaction for dimensions service quality, importance of dimensions of service quality, and switching intension of customers. In all, the questionnaire had four parts consisting of fifty-five (55) items; five (5) related to respondents' identification data, four (4) for overall customer satisfaction with service delivery, thirty-seven (37) related to customer satisfaction with dimensions of SERVQUAL and eight (8) related to importance of SERVQUAL dimensions and one (1) related to switching intention of customers.

### 4.5.3 Pilot Testing and Final Administration

Saunders et al 2000; Cooper and Schindler 2006; and Malhotra N. K. & Birks D. F. 2007 agree that in any research, it is expedient as a matter of reliability and validity check that the questionnaire should be pre-tested before final administration. A preliminary draft of the questionnaire was given to focus group members to test the clarity and meaningfulness of the questions. After that the final questionnaire was first given to two master's students in

marketing to assess its content and construction. Then, it was pre-tested to a sample of twenty (20) subscribers selected by simple random method. This small size was guided by the suggestion by Fink (2003b in Saunders et al 2007) that the minimum of ten (10) members for pre-testing is adequate. Each of them was told the purpose of the questionnaire and assured of anonymity before they were given the questionnaire to respond to.

Finally, after adjustments were made to get more effective instruments, the questionnaire was administered to the target population through personal contact by researchers. They were first informed of the purpose, assured anonymity and confidentiality of responses. In all, respondents were given the questionnaire to fill; we left it to them, after which they submitted the questionnaire to us. This was between the periods of 10th June and 12th July 2008. In order to get a more representative sample of the entire target population, the questionnaire was administered to respondents in three parts of the country, namely: the northern Ghana – Tamale, Middle belt of Ghana- Kumasi, and Southern Ghana- Accra.

### 4.5.4 Response Rate

Out of the one thousand questionnaires that were administered, nine hundred and thirty-seven (937) constituting 93.7% response rate were collected. Out of this, there were 601 customers of Company A, 140 customers of Company B, 40 of Company C and 156 customers of Company D. These numbers were adequate since a minimum sample of (30) is considered a large sample size for statistical analysis (Cooper and Schindler 2006, Saunders et al 2007). In all 55% were males and 45% females indicating a fairly balanced gender distribution. Most of them (63%) were students, 24% were public servants, 4% and 9% were business persons and other professionals respectively. 75% of the respondents had tertiary or higher education while 25% had high school and post-high school education.50% of the respondents were within the ages of 20 to 39 years and 13% were between 40 to 49 years, signifying that

majority of them were in the economically active population. 98% of respondents earned monthly income below GH¢300 of which 31% earned considerably lower monthly income (between GH¢100 to ¢200) while 30% earned virtually no monthly income.

## 4.6 Summary of Statistical Measurement Methods

A detailed of the statistical methods used in this study was presented in Chapter three. A summary of the methods used are:

**4.6.1 MnCSI**: The procedure involved in calculating MnCSI is described in detail in the operationalisation chapter (**3.4.2.1**).

**4.6.2 One sample T Test:** This is a statistical procedure that tests whether a single variable deviates from a specified constant or a cut off point. The cut off point may be a known population mean or a hypothesised value. It assumes that the sample is normally distributed; it is a fairly robust test that tests departure from normality. This chosen procedure was deemed appropriate because we wanted to find out customers who said they were satisfied with the services quality received or at least the service quality was equal to their desire or expectation. Again we needed to specify a constant or cut off point to determine dimension considered by customers as important and those not important. One sample T- test was used to test hypotheses 1a to 1d, and to answer research question two.

**4.6.3 Regression analysis:** A regression analysis is a statistical method used to estimate the strength of a relationship between one or more dependent variable and one or more independent variables. It assumes that the relationship between the dependent and independent variables is linear; that these variables have equal variance (homoscedasticity); that there is no correlation between two or more of the independent variable

(multicollinearity); and the data is normally distributed. (Cooper and Schindler 2006; Saunders et al 2007) Regression analysis can be simple involving one dependent variable and one independent variable, or multiple involving one dependent variable and two or more independent variable. This procedure was used because we wanted to find out how desire and expectation individually impact overall customer satisfaction (OCS) and how OCS impacts behaviour intentions: switching intention, all in simple regression model. Regression analysis was used to test hypotheses 2a and 2b.

**4.6.4 One-Way ANOVA:** One Way Analysis of Variance is a statistical test that determines the probability that values of a quantifiable data variable for three or more independent samples or groups are different. It tests whether the differences between the groups occur by chance alone (Saunders et al 2007). This technique was adopted because we wanted to find out whether customer satisfaction and switching intention between the four different mobile telecom networks is the same, i.e. whether the difference in customer satisfaction and switching intention by mobile network is significant or not. Again it was used to test hypotheses 1e and 3. Specifically we used a blend of Scheffe's statistic which assumes unequal sample size, equal variances for complex comparisons, and Tamhane T2 that assumes unequal sample size, unequal variances for pair wise comparisons.

## 4.7 Access Strategies

Permission to conduct research was considered with the aid of a consent form (**Appendix C).** Permission was sought for the use of professional and academic articles and other published papers. We introduced ourselves to respondents as students conducting the study and sought permission from them before asking them to respond to the questionnaire. Respondents were also assured of anonymity and confidentiality of their responses.

## 4.8 Credibility of the Research

Scientific methodology needs to possess the characteristic of credibility. Thus both the end and the means must not only be sincere but right (Saunders et al 2007). In this study efforts were made to ensure credibility in terms of validity and reliability, which are important at every stage of the research work.

### 4.8.1 Validity

Validity refers to whether the statistical instrument measure what it is intended to measure, i.e. accuracy of measurement (Sullivan T.J. 2001; Saunders et al., 2000; 2007). Validity can be internal or external. The following are the relevant forms of internal validity ensured in this study:

- *Face validity:* involves assessing whether a logical relationship exist between the variables and the proposed measure. This type of validity is highly subjective, and does not provide enough proof of validity. For face validity in this study, it was logical to us to measure customer satisfaction with service quality using a questionnaire-based survey.
- *Content validity:* content validity or sampling validity refers to whether a measurement instrument has adequate and representative coverage of the concepts in

the variables being measured. It is usually achieved by seeking opinion of other investigators or experts. The questionnaire for this study was given to two master's students in marketing to review its content validity.

- *Criterion validity:* This refers to ensuring validity by showing a correlation between the measurement instrument and some other criterion or standard that is believed to accurately measure the variable being considered. If the instrument is measured some other similar instrument that has been developed and tested to be valid, then such comparison is termed con-current validity. Thus in this study, the questionnaire developed was compared with other similar validated SERVQUAL instruments that have been developed and used in several studies. This was to ensure that the items in the questionnaire match up with the validated ones.
- *Construct validity:* This has to do with measuring an instrument to an overall theoretical framework in order to determine whether the device confirms a series of hypothesis derived from an existing theory. Thus, the instrument must have existing conceptual or theoretical bases in the literature. In this work, this construct validity was ensured by deriving the determinants of customer satisfaction and service quality from existing disconfirmation theory and Gronroos SERVQUAL model.

*External validity*: This refers to the extent to which the results of a study could be generalised. In this work, to ensure external validity, the findings and results will be generalised to the Ghanaian settings and specifically to the four mobile telecom networks used in this study.

### 4.8.2 Reliability

Reliability refers to whether a measurement instrument is able to yield consistent results each time it is applied. It is the property of a measurement device that causes it to yield similar outcome or results for similar inputs. Statistically, reliability is defined as the percentage of the inconsistency in the responses to the survey that is the result of differences in the respondents. This implies that responses to a reliable survey will vary because respondents have different opinions, not because the questionnaire items are confusing or ambiguous.

It could be estimated using stability or equivalence approaches. In this study we did pilot test the questionnaire to strengthen its reliability. Cronbach's alpha was also used to test it. Cronbach's alpha, developed in 1951 (Cronbach 1951) measures reliability with alpha that is a lower bound for the true reliability of the survey. The Cronbach's alpha is calculated based on the number of items on the survey (k) and the ratio of the average inter-item covariance to the average item variance:

$$\propto = \mathrm{k}\frac{(\mathrm{cov/var})}{1 + (\mathrm{k} - 1) * (\mathrm{cov/var})}$$

This ratio assumes that the item variances are all equal; it specifies to the average inter-item correlation, and the result is known as the Standardized item alpha (or Spearman-Brown stepped-up reliability coefficient):

$$\propto = \mathrm{k}\frac{\mathrm{kr}}{1 + (\mathrm{k} - 1)\mathrm{r}}$$

The results of the Cronbach's alpha retrieved from the *SPSS* output for all dimensions are summarised in Figure 4.8.2:

| Overall Reliability Statistics for all Items | | |
|---|---|---|
| **Dimensions** | **Cronbach's Alpha** | **Number of Items** |
| Tangible | 0.72 | 4 |
| Reliability | 0.78 | 5 |
| Responsiveness | 0.83 | 5 |
| Empathy | 0.85 | 7 |
| Assurance | 0.80 | 4 |
| Economy | 0.68 | 2 |
| Technical quality | 0.82 | 5 |
| Image | 0.84 | 4 |
| Importance of Dimensions | 0.86 | 8 |
| All other items(excluding Bio data) | 0.89 | 50 |

**Table 4.8.2 Cronbach's Alpha Reliability Test**

**Source: Researcher's Field Data from SPSS output**

The reliability test table above indicates that all the items for each dimension is high except 'value' or 'economy' dimension which was 0.68 which is even close to 0.7, the widely accepted limit for high reliability test.

In addition to the above the following steps were also taken to ensure valid and reliable data collection and analysis process:

1. The right target population was identified, i.e. individual customers of the mobile telecom networks in Ghana.
2. The representativeness of the sample was ensured since the sample was made up of adequate representation of customers from each mobile network, and was selected from Northern, central and southern parts of Ghana.
3. The sampling method was appropriate since respondents were selected through stratified simple random method to remove participant errors and biases.
4. The data sources were all reliable since we used published academic and professional journal articles.
5. Structured questionnaire with Likert-scales was used and coded with numerical system to remove errors resulting from unstructured answers.
6. In administering the instruments, the respondents were assured of anonymity and confidentiality so they could express their real feelings to remove subject/participant biases.
7. In administering the instruments, observer error was removed since we did not add any sort of interview to the questionnaire.
8. Data was entered using SPSS with much care. Missing values were discarded because they were significantly small.
9. It has been suggested that to ensure validity and reliability of instrument, the researchers must have adequate knowledge on the context (industry) being studied (Saunders et al 2007). For this, we the researchers have been very active subscribers and have been using most of the services delivered by the mobile networks for at least ten years.

# CHAPTER FIVE

## 5.0 DATA ANALYSIS

This chapter consists of two parts: Data presentation and Discussion. Data presentation covers data on respondents' characteristics, customer satisfaction measurement, and satisfaction with service quality dimensions, relative importance of service quality dimensions, and switching intension. The discussion is an analysis of hypotheses, results and findings to answer the research questions.

### 5.1 Respondents' Characteristics

Since the characteristics of the respondents influence the results, we present descriptive data of respondents.

| Gender | Frequency | Percentage |
|---|---|---|
| Male | 520 | 55 |
| Female | 417 | 45 |
| **Total** | **937** | **100** |

**Table 5.1.1 Respondents' Gender**

The respondents' gender as displayed in Table 5.1.1 indicates that the males (55%) were slightly more than the females (45%). This further implies that there was a good representation of both genders in the sample.

| Category | Frequency | % |
|---|---|---|
| Student | 592 | 63 |
| Public servant | 222 | 24 |
| Business persons | 35 | 4 |
| Other Professions | 88 | 9 |
| **Total** | **937** | **100** |

**Table 5.1.2 Respondents' Occupation**

Table 5.1.2 depicts respondents' Occupation. Most of the respondents were students representing 63% followed by Public servants representing 24%, while 4% and 9% were business persons and other professions respectively

| Age/Years | Frequency | Percentage (%) |
|---|---|---|
| Below 20 | 16 | 2 |
| 20-29 | 470 | 50 |
| 30-39 | 316 | 34 |
| 40-49 | 129 | 13 |
| 50+ | 14 | 1 |
| **Total** | **937** | **100** |

**Table 5.1.3 Age of respondents**

Table 5.1.3 indicates the respondents' age. It is obvious that most of them were in the young adult age and economically active group, between the ages of 20 and 39 constituting 84%

(50% and 34%), while the rest constitute 16% made up of respondents below 20, between 40 and 49, and 50 years plus.

| Income Level | Frequency | Percentage (%) |
|---|---|---|
| Below GH¢100 | 93 | 10 |
| GH¢100 - ¢200 | 277 | 30 |
| GH¢200 - ¢300 | 195 | 21 |
| Above GH ¢300 | 79 | 8 |
| Non Income earner | 293 | 31 |
| **Total** | **937** | **100** |

**Table 5.1.4 Income Level of respondents**

Table 5.1.4 displays the respondents' income levels. It indicates that generally, a relatively larger number of the respondents 71% were in very low income groups, of which 40% earned below GH¢200 per month and 31% were non-income earners, probably because they come from the student group. About one-third constituting 29% of the respondents were earning above GH¢200 and ¢300 per month.

| Education Level | Frequency | Percent |
|---|---|---|
| WASSCE | 74 | 8 |
| Technical/Post-secondary | 162 | 17 |
| Diploma/HND | 417 | 44 |
| Bachelor's degree | 243 | 26 |
| Post-graduate/Master's | 35 | 4 |
| PhD | 6 | 1 |
| **Total** | **937** | **100** |

**Table 5.1.5 Respondents' Education**

Figure 5.1.5 depicts respondents' level of education. They indicate the education levels were normally distributed. All the respondents were educated, with two-thirds constituting 70% of the respondents having Higher National Diploma (HND, 44%) and Bachelor's degree (26%). The rest representing one-third (30%) were in the extremes, consisting of those with at least education up to Post-secondary level (25%) and those with post-graduate and doctoral education (5). These statistics further indicate that most of the respondents (75%) had higher education while a relatively small number (25%) had at least high school education.

## 5.2 Measuring Customer Satisfaction with Service Quality

In measuring customer satisfaction with service quality, four measures were used that are all supported by theory as reviewed in literature and mentioned in Operationalisation Chapter. These are Minnesota Customer Satisfaction Index (MnCSI), desire and expectation disconfirmations, and overall satisfaction. Categorically, customer satisfaction was measured with respect to mobile network and without respect to mobile network.

### 5.2.1 Results of Minnesota Customer Satisfaction Index (MnCSI)

As earlier explained in chapter three (**3.4.2),** the formulae and description for the MnCSI were used to arrive at a satisfaction index for each and all mobile networks together. The results are presented in Table 5.2.1.

| Mobile Network | MnCSI | Interpretation |
|---|---|---|
| Company A | 44.3 | Low |
| Company B | 56.6 | Fair |
| Company C | 58.1 | Fair |
| Company D | 53.7 | Fair |
| Irrespective of Mobile Network | 48.3 | Low |

**Table 5.2.1 Summary of MnCSI for total sample and within groups**

Table 5.2.1 indicates that the calculated MnCSI for Companies A, B, C, and D were 44.3, 56.6, 58.1 and 53.7 respectively. The MnCSI indicated a fair index for Companies B, C, and D and a low index for Company A. The index for the entire sampled population irrespective of mobile network is 48.3 which is low.

### 5.2.2 Results of disconfirmation measures and overall customer satisfaction measure

Customers were asked to rate their satisfaction with service quality using desire disconfirmation (DD), expectation Disconfirmation (ED) measures and overall Customer satisfaction (OCS) measures. The ED measure had a five-point likert scale: “much worse than expected”, “worse than expected”, “equal to expectation”, better than expected and “much better than expected”. The scale for DD measure was also five-point likert scale from “much worse than desired” to “much better than desired”. OCS measure used a five-point likert scale: “very dissatisfied”, “dissatisfied”, “neutral”, “satisfied”, and “very satisfied”.

#### 5.2.2.1 Irrespective of mobile telecom network

The following (Table 5.2.2a) shows a descriptive statistics of the three measures: ED, DD and OCS.

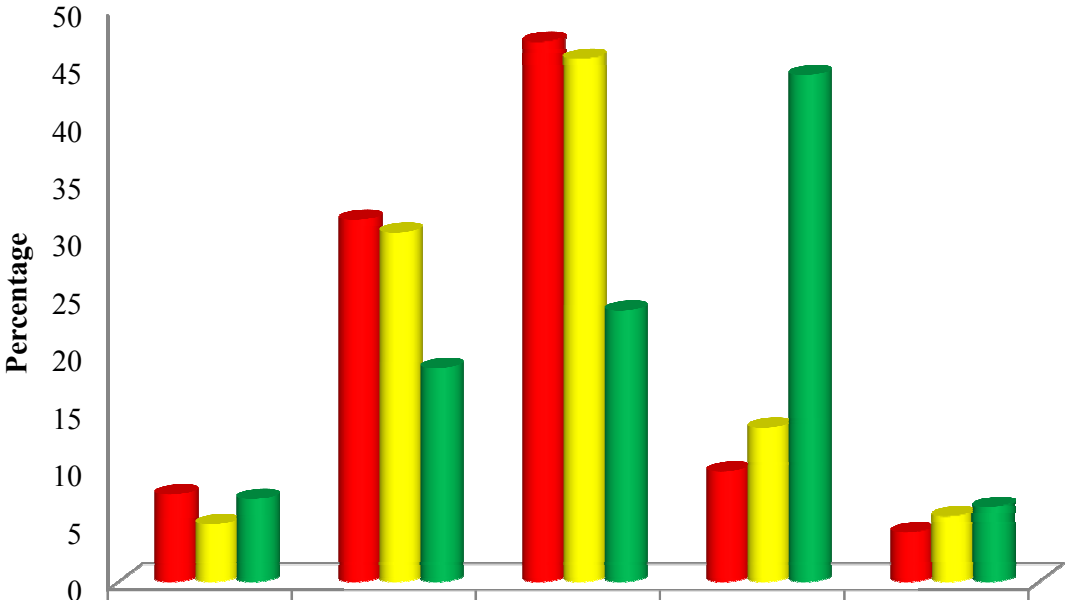
| | Mean | | Std. Dev. | Variance |
|---|---|---|---|---|
| | Statistic | Std. Error | Statistic | Statistic |
| **DD** | 2.7150 | .02930 | .89688 | .804 |
| **ED** | 2.8431 | .02997 | .91750 | .842 |
| **OCS** | 3.2433 | .03451 | 1.05638 | 1.116 |

**Table 5.2.2a Descriptive Statistics of Satisfaction Measures**

Table 5.2.2a indicates that the mean rating of customer satisfaction using DD measure is 2.7150 with standard deviation of .89688 while using ED measure, the mean is2.8431 with standard deviation of 0.91750. Using OCS, the mean rating was 3.2433 with standard deviation of 1.05638, being the highest. This means that the mean rating of customers using

(ED and DD) were all below their desire cut of point of three 3, and mean rating using OCS was also below the expected cut off value of four (4), with a wider deviation than the other DD and ED measures.

A summary of the results of customer satisfaction rating irrespective of mobile network is presented in Figure 5.2.2b below.




| | Much Worse/ Very dissatisfied | Worse/ dissatisfied | Equal to desire/expectation | Better/satisfied | Much better/ Very satisfied |
|---|---|---|---|---|---|
| DD | 7.6 | 31.5 | 47 | 9.6 | 4.3 |
| ED | 5 | 30.4 | 45.5 | 13.4 | 5.7 |
| OCS | 7.2 | 18.6 | 23.6 | 44.1 | 6.5 |

**Figure 5.2.2b Satisfaction ratings Irrespective of Network**

It indicates that using DD measure, while 47% of the respondents rated their satisfaction as equal to expectation, 7.6% and 31.5% representing 39.1% rated their satisfaction as much worse than expected and worse than expected respectively, and 13.9 (9.6% and 4.3%) of respondents rated their satisfaction as better and much better than expected. Then using ED

while 45.5% of the respondents rated their satisfaction as equal to desired, 5% and 30.4% representing 35.4% rated their satisfaction as much worse than desired and worse than desired respectively, and 19.1 (13.4% and 5.7%) of respondents rated their satisfaction as better and much better than desired. Finally, using OCS measure, 50.6% rated that overall they were satisfied and very satisfied while 49.4% maintained that they were either neutral, dissatisfied or very dissatisfied.

**5.2.2.2 With respect to mobile telecom network:** Details of frequencies with respect to mobile network are shown in **Appendix D**.

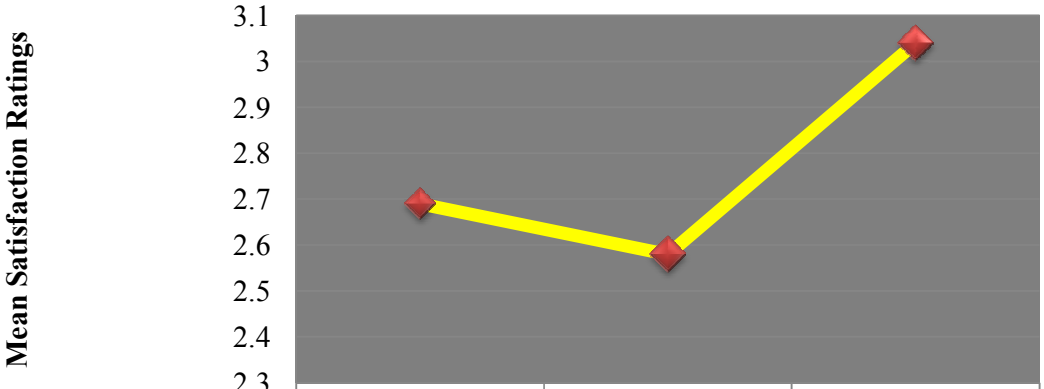



**Figure 5.2.3a Satisfaction rating for Company A**

Figure 5.2.3a indicates the mean satisfaction rating for Company A by customers using the three measures. Mean overall satisfaction was 3.04 while the mean expectation and desire disconfirmations were 2.69 and 2.58 respectively. These mean values are subsequently tested under item 5.3.2 to determine whether they are significant or not in order to arrive at a valid conclusion.

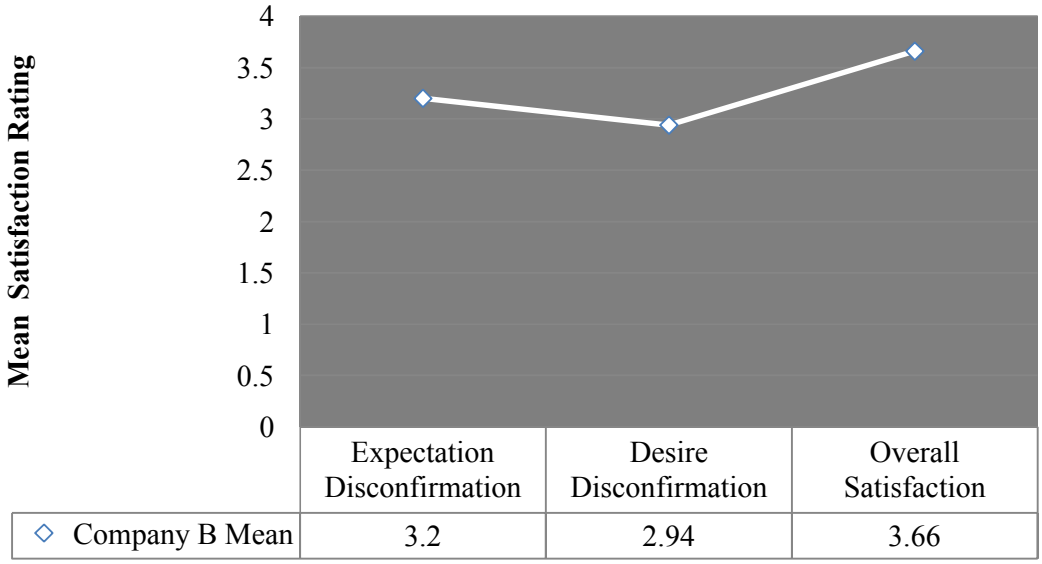



**Figure 5.2.3b Satisfaction rating for Company B**

Figure 5.2.3b indicates the mean satisfaction rating for Company B by customers using the three measures. Mean overall satisfaction was 3.66 while the mean expectation and desire disconfirmations were 3.2 and 2.94 respectively. These mean values are subsequently tested under item 5.3.2 to determine whether they are significant or not for a valid conclusion.

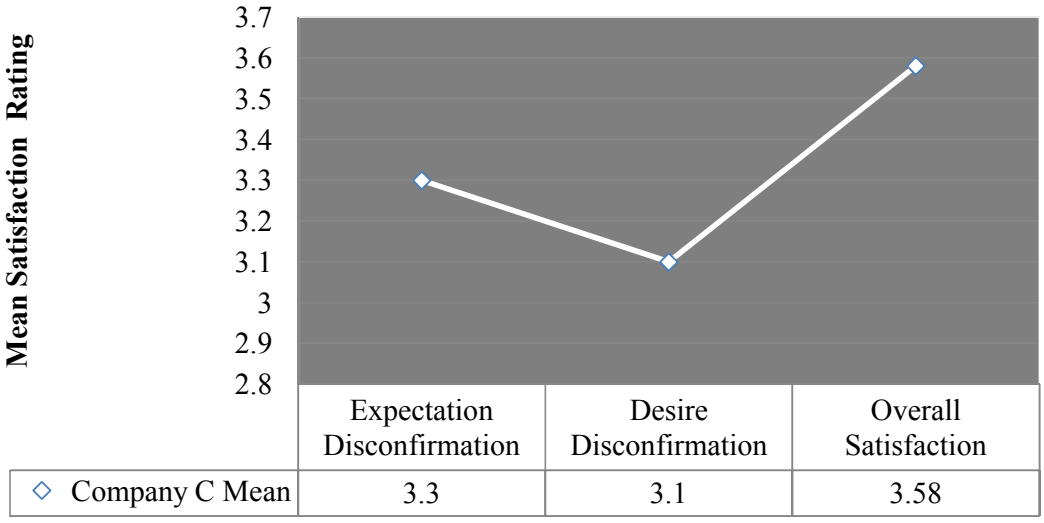



**Figure 5.2.3c Satisfaction rating for Company C**

Figure 5.2.3c indicates the mean satisfaction rating for Company C by customers using the three measures. Mean overall satisfaction was 3.58 while the mean expectation and desire disconfirmations were 3.3 and 3.1 respectively. These mean values are subsequently tested under item 5.3.2 to determine whether they are significant or not for a valid conclusion.

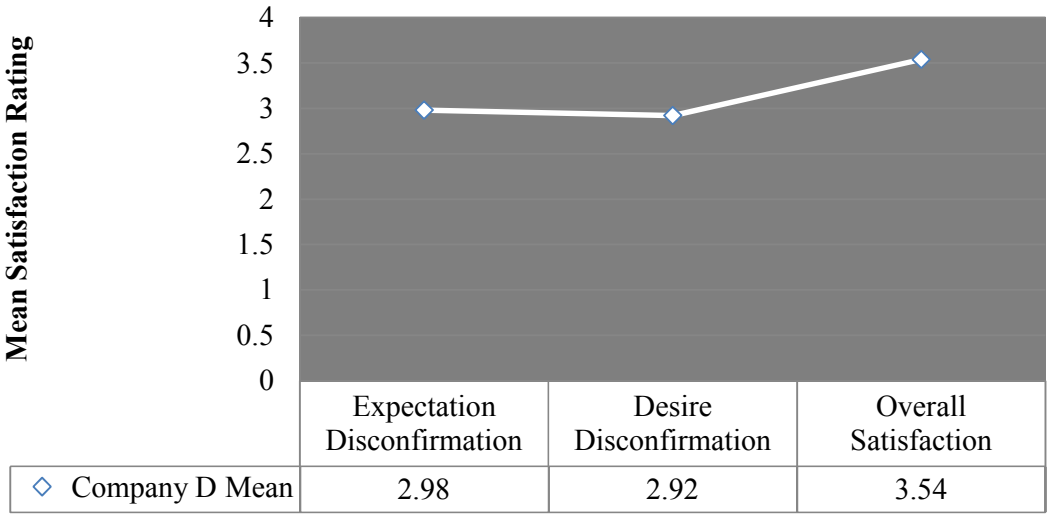



**Figure 5.2.3d Satisfaction rating for Company D**

Figure 5.2.3d indicates the mean satisfaction rating for Company D by customers using the three measures. Mean overall satisfaction was 3.54 while the mean expectation and desire disconfirmations were 2.98 and 2.92 respectively. These mean values are subsequently tested under item 5.3.2 to determine whether they are significant or not for a valid conclusion.

## 5.3 Testing Hypothesis one and its Sub-hypotheses

Hypothesis one and its sub-hypotheses were tested using the procedure outlined in Chapter three **(3.5.1.1).** The null hypothesis assumes that customers are satisfied irrespective of mobile network and with respect to network. The results are grouped accordingly as follows.

### 5.3.1 Customer satisfaction irrespective of mobile network

The mean satisfaction ratings were presented in 5.2.2 above and their detail descriptive statistics are in **Appendix E**; however as to whether the mean differences are significant or not, a one sample t-test was used to test them. The results of the significance test are presented in Tables 5.3.1a and b.

| One-Sample Test | | | | | | | |
|---|---|---|---|---|---|---|---|
| Test Value = 3 | | | | | | | |
| **Measures** | **t** | **df** | **Sig. (2-tailed)** | **Mean Difference** | **95% Confidence Interval of the Difference** | | **Assessment of Null Hypothesis** |
| | | | | | **Lower** | **Upper** | |
| Expectation Disconfirmation | -5.23 | 936 | .000 | -0.16 | -0.22 | -0.10 | Rejected |
| Desire Disconfirmation | -9.73 | 936 | .000 | -0.28 | -0.34 | -0.22 | Rejected |

**Table 5.3.1a One Sample Test Irrespective of Network using ED and DD**

Table 5.3.1a indicates that with a cut-off value of three (3), the mean differences in satisfaction using ED and DD (-0.16 and-0.28 respectively) with p-values of 0.000 imply that the means are significantly less than the cut-off value (3) providing strong evidence to reject the null hypothesis i.e. customer satisfaction is at least equal to expectation or desire of

customers. Therefore we can safely conclude with 95% confidence that, using ED and DD measures, customer satisfaction is neither equal to nor better than expectation and desire of customers irrespective of mobile network.

| One-Sample Test | | | | | | | |
|---|---|---|---|---|---|---|---|
| Test Value = 4 | | | | | | | |
| **Measure** | **t** | **df** | **Sig. (2-tailed)** | **Mean Difference** | **95% Confidence Interval of the Difference** | | **Assessment of Null Hypothesis** |
| **OCS** | | | | | Lower | Upper | |
| Overall satisfaction | -21.93 | 936 | .000 | -0.76 | -0.82 | -0.69 | Rejected |

**Table 5.3.1b One Sample Test Irrespective of Network using OCS**

Table 5.3.1b indicates that with a cut-off value of four (4), the mean difference in satisfaction using OCS measure (-0.76) with p-value of 0.000 imply that the mean is significantly less than the cut-off value (4) providing strong evidence to reject the null hypothesis i.e. customers are at least satisfied. Therefore we can safely conclude with 95% confidence that, using overall satisfaction measure, customers are not satisfied.

### 5.3.2 With respect to mobile network

The mean satisfaction ratings for each company were presented in 5.2.3a, b, c, and d above and their detail descriptive statistics are in **Appendix F**; however as to whether the mean differences are significant or not, a one sample t-test was used to test them. The results of the significance test for each company are presented in Tables 5.3.3a and b.

| One-Sample Test | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Test Value = 3 | | | | | | |
| Company | | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | | Assessment of Null Hypothesis |
| | | | | | | Lower | Upper | |
| **A** | Expectation disconfirmation | -8.594 | 600 | .000 | -.30616 | -.3761 | -.2362 | Not Supported |
| | Desire disconfirmation | -11.846 | 600 | .000 | -.41764 | -.4869 | -.3484 | Not Supported |
| **B** | Expectation disconfirmation | 2.522 | 139 | .013 | .20000 | .0432 | .3568 | Supported |
| | Desire disconfirmation | -.717 | 139 | .474 | -.05714 | -.2147 | .1004 | Supported |
| **C** | Expectation disconfirmation | 1.551 | 39 | .129 | .30000 | -.0914 | .6914 | Supported |
| | Desire disconfirmation | .612 | 39 | .544 | .10000 | -.2303 | .4303 | Supported |
| **D** | Expectation disconfirmation | -.289 | 155 | .773 | -.01923 | -.1506 | .1121 | Supported |
| | Desire disconfirmation | -1.145 | 155 | .254 | -.07692 | -.2096 | .0558 | Supported |

**Table 5.3.2a One Sample Test with Respect to Mobile Network using DD and ED**

Table 5.3.2a indicates that with a cut-off value of three (3), the mean differences in satisfaction using ED and DD measures for Company A (-.306 and -.417) with p-value of 0.000 imply that the means are significantly less than the cut-off value (3) providing strong evidence to reject the null hypothesis i.e. customers are at least satisfied. Therefore, we can

safely conclude with 95% confidence that, using ED and DD measures, generally customers are not satisfied with service quality delivered by Company A.

For Company B, the mean differences in satisfaction using ED and DD measures for Company B (.20000 -.05714) with p-value of -.013 and .474 respectively imply that using ED the mean is significantly more than the cut-off value (3) providing strong evidence in support of the null hypothesis that customers satisfaction is better than expected. However using DD measure, the p-value (.474) imply that the mean difference (-.05714) is not significant but the positive upper limit of confidence interval (3.568) provides a strong evidence to support the null hypothesis that CS is *at least* equal to expectation. Therefore, we can safely conclude with 95% confidence that, for Company B customer satisfaction is better than customer expectation but equal to the ideal/desired service quality of customers.

For Companies C and D the p-values (0.129, 0.544, 0.773, 0.254) are more than the significant level (0.05) implying that the mean differences using both ED and DD measures (3.0000, 1.0000, -.01923, -.07692 respectively) are not significant. However, the corresponding positive upper limits of the confidence intervals provide a strong support *not* to reject the null hypotheses. So we can safely conclude with 95% confidence that, for Companies C and D customer satisfaction is at least equal to the expectation and desire of the customers.

| One-Sample Test | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Test Value = 4 | | | | | | |
| Mobile Network | | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | | Assessment of Null Hypothesis |
| | | | | | | Lower | Upper | |
| **A** | Overall satisfaction | -22.240 | 600 | .000 | -.95341 | -1.0376 | -.8692 | Not Supported |
| **B** | Overall satisfaction | -4.139 | 139 | .000 | -.34286 | -.5066 | -.1791 | Not Supported |
| **C** | Overall satisfaction | -2.731 | 39 | .009 | -.7398 | -.1102 | | Not Supported |
| **D** | Overall satisfaction | -5.884 | 155 | .000 | -.45513 | -.6079 | -.3023 | Not Supported |

**Table 5.3.2b: One Sample Test with Respect to Company using Overall Satisfaction**

Table 5.3.2b indicates that with a cut-off value of four (4), the mean differences in satisfaction using overall satisfaction measure for Companies A, B, C, D (-.953, -.342, -.425 and -.455 respectively) with p-values of 0.000 imply that each of the mean satisfaction is significantly less than the cut-off value (4), and all the confidence intervals are negative values. These provide strong evidence to reject of the null hypothesis i.e. customers are at least satisfied. We can, therefore, safely conclude with 95% confidence that using overall satisfaction measure, customers are not satisfied with service quality delivered by each of their respective companies A, B, C, and D.

### 5.3.3 Comparing satisfaction among mobile networks

The study examined whether the customer satisfaction/dissatisfaction among the network companies is different and hypothesised that:

*H1e: Overall customer satisfaction (OCS) between Ghana's mobile telecom networks is not the same.*

A One-Way ANOVA was used to test the equality of the group's mean using Scheffe's statistic which assumes unequal sample size and equal variances for complex comparisons. As mentioned in Chapter three, the following procedure was used:

1. The null hypothesis

   $\mathbf{H_0}$: $\mu_{cA} = \mu_{cB} = \mu_{cC} = \mu_{cD}$

   $\mathbf{H_1}$: $\mu_{cA} \neq \mu_{cB} \neq \mu_{cC} \neq \mu_{cD}$ *(means are not the same)*

2. Test statistics: F-test was chosen with significance level of 0.05.
3. Critical value: ρ-value
4. Decision rule: reject null hypothesis if ρ-value is less than significance level, 0.05.

Before performing a One-Way ANOVA test it was important first to ensure that the assumption of equality of groups' variances was valid. To ensure this, we used the Levene statistic which is very robust in testing for equality of groups' variances at significance level 0.05. It tests the null hypothesis that the group variances are significantly equal. The results (Tables 5.3.3) indicate that the variances between the groups are equivalent because the ρ-value (0.172) was greater than the significance level (0.05). Thus we do not reject that the group variances are equal.

**Overall Customer Satisfaction**

| Levene Statistic | df 1 | df 2 | Significance |
|---|---|---|---|
| 1.671 | 3 | 933 | .172 |

**Table 5.3.3 Test of Homogeneity of Variances**

With equality of the group variances established, the ANOVA test was conducted with a significance level of 0.05 and the results are summarised in Table 5.3.4a.

**ANOVA**

| | Sum of Squares | df | Mean Square | F | Significance |
|---|---|---|---|---|---|
| **Between Groups** | 65.822 | 3 | 21.941 | 20.916 | .000 |
| **Within Groups** | 978.699 | 933 | 1.049 | | |
| **Total** | **1044.521** | **936** | | | |

**Table 5.3.4a ANOVA test for Overall Satisfaction among Mobile Networks**

Table 5.3.4a indicates that the p-value (0.00) is less than the significance level (0.05) providing strong support for rejecting the null hypothesis that the means are equal. Therefore, we can safely conclude with 95% confidence level that overall satisfaction or dissatisfaction among the networks is not the same or equal.

We explored to learn more about the structure and pairwise multiple comparisons of the differences. That was done by first using the mean plot (Figure 5.3.4b) to help identify the structure of the difference.

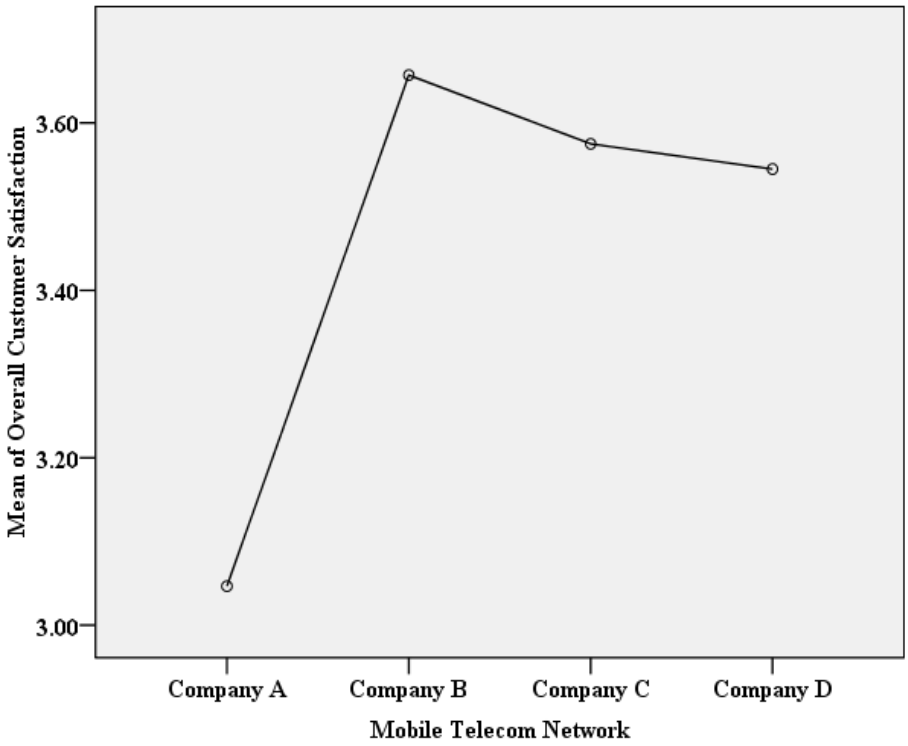



**Figure 5.3.4b Mean Plot of Mean Difference for OCS**

The result in Figure 5.3.4b indicates that relatively customers of Companies B, C, and D rated their satisfaction with service quality higher than those of Company A.

A further post hoc test was conducted to learn about details of possible differences in satisfaction among networks using Scheffe's T2 for a pair-wise comparison, the results are summarised in Table 5.3.5.

| Scheffe's Multiple Comparison | | | | | | |
|---|---|---|---|---|---|---|
| (I) Network | (J) Network | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
| | | | | | Lower Bound | Upper Bound |
| A | B | -.61055* | .09612 | .000 | -.8797 | -.3414 |
| | C | -.52841* | .16724 | .019 | -.9968 | -.0600 |
| | D | -.49828* | .09203 | .000 | -.7560 | -.2405 |
| B | A | .61055* | .09612 | .000 | .3414 | .8797 |
| | C | .08214 | .18362 | .978 | -.4321 | .5964 |
| | D | .11227 | .11923 | .829 | -.2217 | .4462 |
| C | A | .52841* | .16724 | .019 | .0600 | .9968 |
| | B | -.08214 | .18362 | .978 | -.5964 | .4321 |
| | D | .03013 | .18152 | .999 | -.4782 | .5385 |
| D | A | **.49828*** | **.09203** | **.000** | .2405 | .7560 |
| | B | -.11227 | .11923 | .829 | -.4462 | .2217 |
| | C | -.03013 | .18152 | .999 | -.5385 | .4782 |

* The mean difference is significant at 0.05

**Table 5.3.5 Comparison of Mean Difference in Satisfaction among Networks**

Figure 5.3.5 indicates a pair-wise comparison of satisfaction/dissatisfaction among customers of the four mobile networks in Ghana. It reveals that the p-values (0.000, 0.019, and 0.000) are all less than the significant level (0.05). This implies that the satisfaction or dissatisfaction of customers of Company A is significantly different from all the other companies.

### 5.4 Customer Satisfaction with Service Quality Dimensions

A detailed descriptive statistics of the results of customer rating of their satisfaction with four service quality dimensions can be found in **Appendix G**. However in order to verify whether the mean differences are significant or not, a one sample T-test was conducted. The alternate hypothesis states that customers are not satisfied or that satisfaction is worse or much worse than expected while the null hypothesis states that customer satisfaction is at least equal to expectation. The procedure used was presented in Chapter three under **3.5.2.** The results are summarised in **Table 5.4.1.**

| One-Sample Test | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Test Value = 3 | | | | | | | | |
| | | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | | Assessment of Null Hypothesis |
| | Service Quality Dimensions | | | | | Lower | Upper | |
| TA1 | Ability to give customers access to information, SIM card (chip), reload cards | 2.711 | 936 | .007 | .08431 | .0233 | .1453 | Do not Reject |
| TA2 | Provision of visually attractive, offices, equipment and materials like starter packs & reload cards | 4.013 | 936 | .000 | .13234 | .0676 | .1970 | Do not Reject |
| TA3 | Ability to providing variety of entertainment facilities, etc. | .241 | 936 | .810 | .00854 | -.0610 | .0781 | Do not Reject |
| TA4 | Appearance and uniforms of employees | 7.463 | 936 | .000 | .23799 | .1754 | .3006 | Do not Reject |
| RL1 | Timeliness of delivery of SMS, MMS, Voice message and other services. | .693 | 936 | .489 | .02348 | -.0430 | .0900 | Do not Reject |
| RL2 | Truthful (keeping to promises) | -3.792 | 936 | .000 | -.12914 | -.1960 | -.0623 | Reject |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RL3 | Dependable and consistency in solving customers' complaints. | -1.359 | 936 | .174 | -.04803 | -.1174 | .0213 | Do not Reject |
| RL4 | Ability to perform services right the first time. | 1.072 | 936 | .284 | .03415 | -.0284 | .0967 | Do not Reject |
| RL5 | Insisting on error-free records. | -6.294 | 936 | .000 | -.21238 | -.2786 | -.1462 | Reject |
| RS1 | Ability to tell customers exactly when services will be performed | -3.031 | 936 | .003 | -.10886 | -.1793 | -.0384 | Reject |
| RS2 | Ability to give prompt customer services and attend to customers needs/problems | -1.333 | 936 | .183 | -.04589 | -.1134 | .0217 | Do not Reject |
| RS3 | Employees' willingness to help customers in emergency situations. | -1.883 | 936 | .060 | -.06403 | -.1308 | .0027 | Do not Reject |
| RS4 | Employees' approachability and easy to contact. | .183 | 936 | .855 | .00640 | -.0621 | .0750 | Do not Reject |
| RS5 | Employees' ability to communicate clearly with you. | 5.503 | 936 | .000 | .18677 | .1202 | .2534 | Do not Reject |
| EM1 | Having convenient periods & terms for activation, recharge, and accounts suspension, free call times | 2.966 | 936 | .003 | .10672 | .0361 | .1773 | Do not Reject |
| EM2 | Having operating hours convenient to all customers | .955 | 936 | .340 | .03308 | -.0349 | .1011 | Do not Reject |
| EM3 | Having sound loyalty programme to recognise you as a frequent customer | -4.633 | 936 | .000 | -.15475 | -.2203 | -.0892 | Reject |
| EM4 | Having the customer's best interest at heart | -.772 | 936 | .440 | -.02668 | -.0945 | .0411 | Do not Reject |
| EM5 | Giving individual customer attention by employees | -1.570 | 936 | .117 | -.05229 | -.1176 | .0131 | Do not Reject |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EM6 | Efforts to understand specific customer needs. | -2.112 | 936 | .035 | -.07044 | -.1359 | -.0050 | Reject |
| EM7 | Apologising for inconvenience caused to customers. | -1.897 | 936 | .058 | -.07471 | -.1520 | .0026 | Do not Reject |
| AS1 | Ability to provide variety of value added services- Music, access to internet, SMS, MMS, etc. | 4.841 | 936 | .000 | .17716 | .1053 | .2490 | Do not Reject |
| AS2 | Sincerity and patience in resolving customers' complaints/problems. | 2.183 | 936 | .029 | .07257 | .0073 | .1378 | Do not Reject |
| AS3 | The behaviour of employees in instilling confidence in customers. | -.803 | 936 | .422 | -.02561 | -.0882 | .0370 | Do not Reject |
| AS4 | Employees' use of required skills and knowledge to answer customers' questions. | 4.490 | 936 | .000 | .14088 | .0793 | .2025 | Do not Reject |
| EC1 | Economy of reloading cards and their denominations. | -2.919 | 936 | .004 | -.10352 | -.1731 | -.0339 | Reject |
| EC2 | Economy of the call charge per minute/second. | -13.208 | 936 | .000 | -.48239 | -.5541 | -.4107 | Reject |
| TQ1 | Successful in completion of calls, SMS, MMS, line activation, credit reloading. | .000 | 936 | 1.000 | .00000 | -.0627 | .0627 | Do not Reject |
| TQ2 | Employees have technological knowledge and skills in solving customer problems | 1.603 | 936 | .109 | .05016 | -.0112 | .1116 | Do not Reject |
| TQ3 | Network clarity and speed for call and other services | -2.475 | 936 | .014 | -.08751 | -.1569 | -.0181 | Reject |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TQ4 | Network innovativeness – ability to use current technology to improve services | 2.923 | 936 | .004 | .09712 | .0319 | .1623 | Do not Reject |
| TQ5 | Providing adequate network coverage | 1.191 | 936 | .234 | .04376 | -.0283 | .1158 | Do not Reject |
| IM1 | *Success* of mobile network company. | 11.216 | 936 | .000 | .35966 | .2967 | .4226 | Do not Reject |
| IM2 | *Reputation* of mobile network. | 9.440 | 936 | .000 | .31697 | .2511 | .3829 | Do not Reject |
| IM3 | *Brand image* of mobile network. | 10.662 | 936 | .000 | .33725 | .2752 | .3993 | Do not Reject |
| IM4 | *Socially responsible* mobile network. | 9.026 | 936 | .000 | .31377 | .2455 | .3820 | Do not Reject |

**Table 5.4.1 One Sample T-Test for SERVQUAL Dimensions**

**Key: Coloured dimensions**

**Yellow:** Those dimensions that customer satisfaction is worse and much worse than expected.

**Gray:** Those dimension that customer satisfaction is at least equal to expectation.

**Uncoloured:** Those dimensions that customer satisfaction is better or much better than expected.

In Table 5.4.1 the mean differences, whether negative or positive are tested to really know whether it is significant or not in order to identify which dimensions of service quality customers are satisfied with or not. Remember that in this study, the null hypothesis states that customer satisfaction is at least equal to expectation, thus using a cut-off value of three (3). The null is rejected under two conditions: using the significance of the mean difference

and the confidence intervals. The mean satisfaction difference is significant where the corresponding significant value (p-value) is less than the chosen significant value of 0.05 ($p<0.05$). On the other hand, the mean difference is not significant where it is more than or equal to the chosen significant value ($P\geq 0.05$). A significantly positive mean difference with positive confidence intervals means that customer satisfaction is significantly better or much better than expected, while a significantly negative mean difference with negative confidence intervals means that customer satisfaction is worse or much worse than expected. Then, a confidence interval with a positive and a negative values means that customer satisfaction is at least equal to expectation.

The results in the table 5.4.1 show that for eight dimension items, all confidence intervals are negative; this implies that customer satisfaction is worse or much worse than expected for the following eight (8) dimensions: RL2, RL5, RS1, EM3, EM6, EC1, EC2, and TQ3.

Again, since their confidence intervals have a positive value or include zero, it means that customer satisfaction is at least equal to expectation for the following fifteen dimensions: TA3, RL1, RL3, RL4, RS2, RS3, RS4, EM2, EM4, EM5, EM7, AS3, TQ1, TQ2, and TQ5.

Finally, for thirteen dimension items, since their confidence intervals are all positive values, it implies that customer satisfaction is better or much better than expected for the following thirteen (13) dimensions: TA1, TA2, TA4, RS5, EM1, AS1, AS2, AS4, TQ4, IM1, IM2, IM3, and IM4.

As summary of the customer satisfaction with dimensions of service quality based on the results in Table 5.4.1 is displayed in Figure 5.4.2.

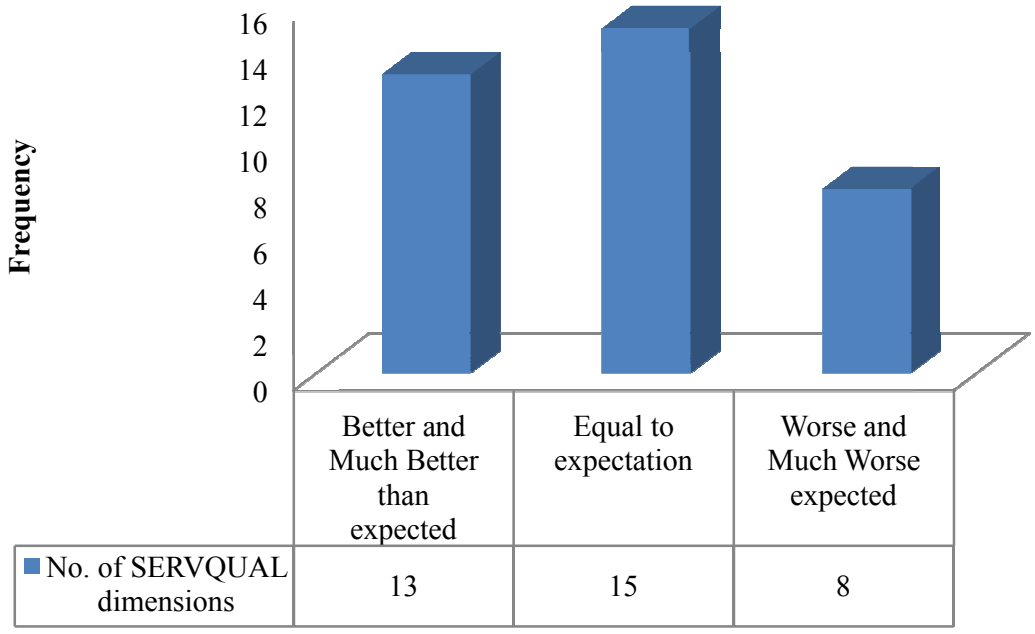



**Figure 5.4.2 Customer Satisfaction with SERVQUAL Dimensions**

Precisely, thirteen (13) of the dimensions were rated better than expected with means significantly equal to the cut off value of three (3), fifteen (15) dimension items were rated significantly as equal to expectation, and eight (8) dimension items were significantly rated below the cut-off value of 3. In all twenty-eight (28) dimensions were significantly rated by customers as at least equal to or better than expectation while eight were worse and much worse than expected.

## 5.5 Importance of SERVQUAL Dimensions

Customers were asked to rate importance of service quality dimensions on a five-point likert scale: “Not at all important”, “Not important”, “Neither important nor unimportant”, “Important”, and “Very important”. A summary of descriptive statistics is presented in Table 5.5.1. It indicates that seven dimensions had a mean above 4 while one had below 4.

| | N | Mean | | Std. Deviation | Variance |
|---|---|---|---|---|---|
| **Dimensions** | **Statistic** | **Statistic** | **Std. Error** | **Statistic** | **Statistic** |
| **Tangibles** | 937 | 3.9338 | .02633 | .80589 | .649 |
| **Assurance** | 937 | 4.0608 | .02645 | .80962 | .655 |
| **Responsiveness** | 937 | 4.2017 | .02741 | .83900 | .704 |
| **Empathy** | 937 | 4.2636 | .02531 | .77480 | .600 |
| **Reliability** | 937 | 4.2369 | .02462 | .75348 | .568 |
| **Economy** | 937 | 4.2060 | .02696 | .82512 | .681 |
| **Technical** | 937 | 4.2988 | .02668 | .81671 | .667 |
| **Image** | 937 | 4.1974 | .02681 | .82072 | .674 |

**Table 5.5.1 Summary Descriptive Statistics of Important SERVQUAL Dimensions**

In order to identify the important and unimportant dimensions, a One sample T test was used to test the significance of the mean importance rating at 0.05 significance level and with a specified constant or cut off value of four (4) to split service quality dimensions that are important from those that are not important to customers. The results are summarised in Table 5.5.2.

| **One-Sample Test** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Test Value = 4** | | | | | | | |
| **Dimension** | **t** | **df** | **Sig. (2-tailed)** | **Mean Difference** | **95% Confidence Interval of the Difference** | | **Remarks** |
| | | | | | **Lower** | **Upper** | |
| **Tangibles** | **-2.513** | **936** | **.012** | **-.06617** | **-.1178** | **-.0145** | Not Important |
| **Assurance** | 2.300 | 936 | **.022** | .06083 | .0089 | .1127 | Important |
| **Responsiveness** | 7.359 | 936 | **.000** | .20171 | .1479 | .2555 | Important |
| **Empathy** | 10.415 | 936 | **.000** | .26361 | .2139 | .3133 | Important |
| **Reliability** | 9.625 | 936 | **.000** | .23693 | .1886 | .2852 | Important |
| **Economy** | 7.641 | 936 | **.000** | .20598 | .1531 | .2589 | Important |
| **Technical quality** | 11.200 | 936 | **.000** | .29883 | .2465 | .3512 | Important |
| **Image** | 7.364 | 936 | **.000** | .19744 | .1448 | .2501 | Important |

**Table 5.5.2 One Sample Test for Importance of SERVQUAL Dimensions**

Table 5.5.2 indicates that, all the mean differences of all the dimensions are significant ($p<0.05$). Notably, "tangibles" is significantly unimportant to customers in receiving or using the services of a mobile network in Ghana; it had negative mean difference and confidence intervals. Conversely, the following seven dimensions of service quality had positive mean difference and confidence intervals, and so were rated as important to customers: Assurance, Responsiveness, Empathy, Reliability, Economy, Technical Quality, and Image.

As to which dimensions are perceived by customers as more important than others, Table 5.5.3a shows ranking of service quality dimensions in order of customers' priority.

| DIMENSIONS | RANKINGS (IN ASCENDING ORDER) |
|---|---|
| **Technical Quality** | 1 |
| **Empathy** | 2 |
| **Reliability** | 3 |
| **Economy** | 4 |
| **Responsiveness** | 5 |
| **Image** | 6 |
| **Assurance** | 7 |
| **Tangibles** | 8 |

**Table 5.5.3a Prioritised Dimensions of SERVQUAL in MTNs in Ghana**

Table 5.5.3a indicates that the most important service quality dimension to the customers is Technical quality, followed by Empathy, Reliability, Economy, Responsiveness, Image and Assurance, being least important. "Tangibles" dimension, as earlier indicated in Table 5.5.2, is unimportant to the customers.

**CUSTOMER SATISFACTION**

| PRIORITY OF DIMENSIONS | Better or Much better than Expected | At least Equal to Expectation | Worse or Much Worse than Expected |
|---|---|---|---|
| **Technical Quality** | TQ4 | TQ1, TQ2, TQ5 | TQ3 |
| **Empathy** | EM1 | EM2, EM4, EM5 EM7 | EM3, EM6 |
| **Reliability** | - | RL1, RL3, RL4 | RL2, RL5 |
| **Economy** | - | - | EC1, EC2 |
| **Responsiveness** | RS5 | RS2, R3, RS4 | RS1 |
| **Image** | IM1,IM2, IM3, IM4 | - | - |
| **Assurance** | AS1, AS2 AS4 | AS3 | - |

**Table 5.5.3b SERVQUAL Dimension Priority-Satisfaction Matrix**

The dimension priority-satisfaction matrix (Table 5.5.3b) shows customer satisfaction for each of the prioritised dimension of service quality. The table indicates that for the very satisfied dimension items *two* are more important to customers: TQ4 and EM1; *eight* are less important: RS5, IM1, IM2, IM3, IM4, AS1, AS2 and AS4; while three are unimportant to customers: TA1, TA2, and TA4.

Then, for the least satisfied dimension items, ten are very important: TQ1, TQ2, TQ5, EM2, EM4, EM5, EM7, RL1, RL3, and RL4; four are less important: RS2, RS3, RS4 and AS3, while one is unimportant: TA3. Finally, for the dissatisfied dimension items, seven of them are very important to customers: TQ3, EM3, EM6, RL2, RL5, EC1, and EC2; while one is less important: RS1, and none is unimportant.

## 5.6 Testing hypothesis two and sub hypotheses

H3 Disconfirmation Models (DM) positively and significantly impact overall customer satisfaction collectively (OCS) in Ghana's MCNs.

**H3a:** Expectation disconfirmation (ED) positively and significantly impacts OCS.

H3b: Desire disconfirmation (DD) positively and significantly impacts OCS.

A detailed explanation for the procedure for testing hypothesis three (3) can be found under chapter three (**3.5.1.3**). Recall that the null hypotheses state that there is no positive and significant relationship between DD and ED together and OCS. Detail results of the regression analysis can be found in **Appendix H**. The summary of the results of the regression analysis of the three models are presented in Table 5.6.1.

| Models | Unstandardized Coefficients | | | Std Error of the Estimate | Sig. F Test | Collinearity Statistics | | Assessment of null hypothesis |
|---|---|---|---|---|---|---|---|---|
| | Beta | R | $R^2$ | | | Tolerance | VIF | |
| ***Model 1*** | | .635 | .403 | .81704 | | | | Reject |
| (Constant) | .933 | | | | | | | |
| ED. | .415 | | | | .000 | .669 | 1.495 | |
| DD. | .298 | | | | .000 | .669 | 1.495 | |
| ***Model 2*** | | .537 | .288 | .89181 | | | | |
| (constant) | 1.527 | | | | | | | |
| DD. | .537 | | | | .000 | 1.000 | 1.000 | Reject |
| ***Model 3*** | | .586 | .344 | .85633 | | | | Reject |
| (constant) | 1.325 | | | | | | | |
| ED. | .586 | | | | .000 | 1.000 | 1.000 | |

**Table 5.6.1 Summary of Regression Analysis for Disconfirmation Models**

Table 5.6.1 indicates that in model 1, ED and DD collectively impacts CS positively because the co-efficient of the parameters (0.415 and 0.298) are greater than zero and the model is significant ($p<0.05$) so the null hypothesis is rejected. In model 2, DD only significantly ($p<0.05$) and positively (0.537) impacts OCS. In model 3, ED significantly ($p<0.05$) and positively (0.586) impacts OCS.

## 5.7 Switching intentions within and between mobile networks

Customers were asked to rate their intention to switch to a better mobile network operator on a five-point likert scale: “definitely yes”, “a bit yes”, “neutral”, “a bit no”, and “definitely yes”. These were coded 1 to 5 respectively, such that a mean or cut off value of four (4) is required to concretise a conclusion that customers are not willing to switch from a specific mobile telecom network to another. A summary of results is presented in a cross tabulation and descriptive statistics for switching intentions in Table 5.7

| % within Mobile Telecom Network | | | | | | |
|---|---|---|---|---|---|---|
| **Count** | | **Mobile Telecom Network** | | | | |
| **Switching Intention** | **Ratings** | **A** | **B** | **C** | **D** | **Total** |
| | **Definitely yes** | 26.1% | 12.9% | 7.5% | 10.9% | 20.8% |
| | **A bit yes** | 25.8% | 13.6% | 15.0% | 21.2% | 22.7% |
| | **Neutral** | 19.5% | 18.5% | 35.0% | 18.5% | 19.9% |
| | **A bit no** | 9.5% | 17.1% | 17.5% | 17.3% | 12.3% |
| | **Definitely no** | 19.1% | 37.9% | 25.0% | 32.1% | 24.3% |
| | **Total** | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

**Table 5.7 Cross tabulation of Switching among Mobile Networks in Ghana**

In Table 5.7 shows results of customer rating among the four Mobile Networks in this study. For Company A, 51.9% are willing to switch to another network while 19.5% and 28.6% are neutral and not willing to switch respectively. For Company B, 26.5% of the customers are willing to switch while 18.6% and 55.0% are neutral and not willing to switch respectively. For Company C, 22.5% are willing to switch while 35.0% and 42.5% of the customers are neutral and not willing to switch respectively. For Company D, 32.1% of customers are willing to switch, while 18.5% and 49.4% are neutral and not willing to switch respectively. In all 43.5% of customers are willing to switch to another network while 19.9% and 36.6% are neutral and not willing to switch respectively in the Mobile Telecom market.

## 5.8 Testing Hypothesis three

*H3: Switching intention (SI) among customers of MTNs in Ghana is not the same*

In testing H3, the following procedure was followed:

5. The null hypothesis

   $\mathbf{H_0}$: $\mu_{c1} = \mu_{c2} = \mu_{c3} = \mu_{c4}$

   $\mathbf{H_1}$: $\mu_{c1} \neq \mu_{c2} \neq \mu_{c3} \neq \mu_{c4}$ *(means are not equal)*

6. Test statistics: F-test was chosen with significance level of 0.05.
7. Critical value: ρ-value
8. Decision rule: reject null hypothesis if ρ-value is less than significance level, 0.05.

The ANOVA test was conducted and the results are summarised in Table 5.8.1

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 122.902 | 3 | 40.967 | 20.160 | .000 |
| Within Groups | 1896.005 | 933 | 2.032 | | |
| Total | 2018.907 | 936 | | | |

**Table 5.8.1 ANOVA test for Switching Intention among Mobile Networks**

Table 5.8.1 indicates that the p-value (0.00) is less than the significance level (0.05) providing strong support for rejecting the null hypothesis that the means are equal. Therefore, we can safely conclude with 95% confidence that switching intention of the customers among the mobile telecom networks is not the same or equal.

We explored to learn more about the structure and pair-wise multiple comparisons of the differences. This was done first by using the mean plot (Figure 5.8.2) to help identify the structure of the difference.

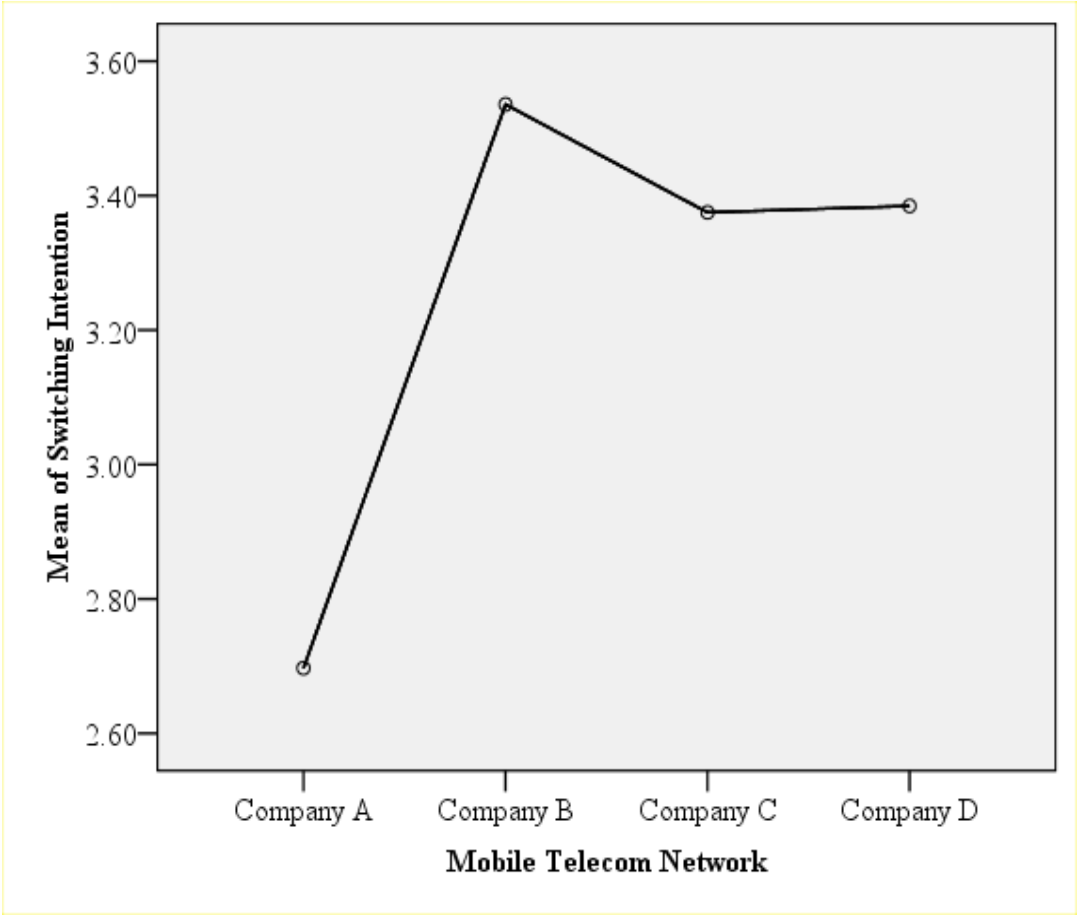



**Figure 5.8.1 Mean Plot of Mean Difference for Switching Intention**

Figure 5.8.1 indicates that relatively customers of Company A rated their intention to switch lower than customers of companies B, C, and D. This means customers of company A are more willing to switch to use the services of a better network than customers of companies B, C, and D.

A further post hoc test of pair-wise comparison of groups mean was conducted to learn details of the mean differences using Scheffe's T2 (Table 5.8.2).

**Multiple Comparisons (Scheffe)**

**Dependent Variable: Switching Intention**

| (I) Mobile Network | (J) Mobile Network | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| A | B | **-.83854*** | .13378 | .000 | -1.2132 | -.4639 |
| | C | **-.67783*** | .23278 | .038 | -1.3297 | -.0259 |
| | D | **-.68744*** | .12809 | .000 | -1.0462 | -.3287 |
| B | A | **.83854*** | .13378 | .000 | .4639 | 1.2132 |
| | C | .16071 | .25558 | .941 | -.5551 | .8765 |
| | D | .15110 | .16596 | .843 | -.3137 | .6159 |
| C | A | **.67783*** | .23278 | .038 | .0259 | 1.3297 |
| | B | -.16071 | .25558 | .941 | -.8765 | .5551 |
| | D | -.00962 | .25265 | 1.000 | -.7172 | .6979 |
| D | A | **.68744*** | .12809 | .000 | .3287 | 1.0462 |
| | B | -.15110 | .16596 | .843 | -.6159 | .3137 |
| | C | .00962 | .25265 | 1.000 | -.6979 | .7172 |

*** The mean difference is significant at the 0.05 level.**

**Table 5.8.2 Comparison of Mean Difference in Switching Intention among Networks**

Table 5.8.2 indicates a pair-wise comparison of satisfaction/dissatisfaction among customers of the four mobile networks in Ghana. It reveals that the p-values (0.000, 0.019, and 0.000) are all less than the significant level (0.05) for each of Companies B, C, and D against

Company A. This implies that the switching intention of customers of Company A is significantly different from all the other companies. Thus, customers of company A are significantly more willing to switch than do the customers of Companies B, C, and D.

## 5.9 DISCUSSION

### 5.9.1 Summary of Respondents Characteristics

As indicated in Tables 5.1.1, 5.1.2, 5.1.3, 5.1.4 and 5.1.5, out of the sample of 937 respondents, 55% were males and 45% females indicating a fairly balanced gender distribution. Most of them (63%) were students, 24% were public servants, 4% were business persons while 9% other professionals. 50% of the respondents were within the ages of 20-39 years and 13% were between 40 and 49 years, signifying that majority of them were in the economically active population. 98% of respondents earned monthly income below GH₵300 of which 31% earned considerably lower monthly income (between GH₵100 to ₵200) while 30% earned virtually no monthly income. 75% of the respondents had tertiary or higher education while 25% had high school and post-high school education.

### 5.9.2 Research Question One:

**How can customer satisfaction (CS) with the service quality be described in mobile telecom networks within Ghana with and without respect to mobile network?**

#### 5.9.2.1 Irrespective of mobile network company

First, the MnCSI (Table 5.2.1) indicated an index of 48.3 which could be described as low because it is below the satisfactory index of 50. This result indicates that generally CS in Ghana's mobile telecom market is considerably low.

Second, using desire and expectation disconfirmation measures (Table 5.2.2a and b) show that 13.9% and 19.1% of respondents rated their satisfaction better than their desire and expectation respectively, with mean rating of 2.72 and 2.84 respectively, which were a little below the required mean of 3.

Third, overall satisfaction measure showed that 51.2% of customers indicated that they were satisfied or very satisfied, while 25.8% of respondents indicated that they were not satisfied or very dissatisfied, with a mean rating of 3.24 which was a little below the cut-off value of 4.

The significance test of the means of the three measures (Table 5.3.1a and b) showed ρ-values (0.000) less than the chosen significance level (0.05) indicating that the mean satisfaction is significantly below the specified constants; the tests provide a strong evidence to reject the null hypothesis that CS is better than expected and desired, or at least satisfied. Therefore we can safely conclude with 95% confident that irrespective of mobile network of customers, generally the customers are not satisfied with service quality delivered by MTNs in Ghana.

#### 5.9.2.2 With respect to mobile network

First of all, the MnCSI (Table 5.2.1) indicates an index of 44.3, 56.6, 58.1 and 53.7 for Companies A, B, C, and D respectively. This implies that CS with service quality is considerably low for Company A, but is fair for Companies B, C, and D. Again, using disconfirmation and overall satisfaction measures for each network, Figure 5.2.3a, b, c and d showed means just around the required mean of 3.

A significant test of the mean satisfaction using DD and ED measures (Table 5.3.2a) shows that for Company A the null hypothesis can be rejected, therefore we can safely conclude with 95% confidence that customers of company A are not satisfied with the service quality

delivered by the company. For Company B, using expectation and desire disconfirmation measures, the respective ρ-values (0.013 and 0.474) and corresponding positive upper limit of confidence intervals strongly suggest that, at a significance of 0.05, CS with service quality of Company B is better than expected and at least equal to desire of customer. For Company C, the ρ-values (0.129, 0.544) with a positive confidence upper limit strongly suggest that customer satisfaction at least significantly equal to expectation and desire of customers. For Company D, the ρ-values (.773, .254) with positive upper limit confidence interval provide some evidence to support the null hypothesis that CS with service quality of the company is at least equal to the expectation and desire of customers respectively.

Using overall satisfaction measures (Table 5.3.2b) customers are significantly not satisfied with service quality of all the mobile networks. This is because all confidence intervals had negative values. These statistics indicate a strong support for rejecting the null hypothesis. Therefore, we can conclude with 95% confidence that, using overall satisfaction measure, the customers of each of the mobile networks are not satisfied. Furthermore, overall satisfaction is much worse with service quality of Network A than the other three mobile telecom networks because Network A has the greatest significant negative mean difference in satisfaction.

#### 5.9.2.3 Comparing customer satisfaction among mobile networks

The study hypothesised that CS between mobile telecom networks is not the same. From the ANOVA F-test (Table 5.3.4a), the ρ-value (.000) is less than alpha (0.05) providing support for rejecting the null hypothesis that the means are equal across mobile telecom networks in Ghana. We can, therefore, safely conclude with 95% confidence that CS is not equal among the mobile networks in Ghana. The mean plot (Table 5.3.4b) further revealed that significantly most customers of Company B, C and D rated their satisfaction with service

quality higher than Company A. A further study of pairwise multiple comparisons of CS among the companies using Scheffe's T2 statistic (Table 5.3.5) revealed interestingly, that the mean CS of Company A is significantly different from Company B, C, and D. and the means of Companies B, C, and D are each significantly different from Company A's. So we can further conclude that CS is significantly different between Company A and each of the other companies, but significantly not different among Companies B, C, and D.

### 5.9.3 Research Question Two

**Which dimensions of service quality are customers satisfied or dissatisfied with in Ghana's MTNs?**

A significance test of the mean rating for satisfaction with service quality (Table 5.4.1) provides a strong support for rejecting the null hypothesis, implying that customers are significantly not satisfied in the following eight (8) SERVQUAL dimension items: RL2, RL5, RS1, EM3, EM6, EC1, EC2, and TQ3.. Thus, in all, customer satisfaction is worse or much worse than expected for these eight dimensions.

Again, the analysis (Table 5.4.1) also provides adequate evidence not to reject the null hypothesis for the rest of the twenty-eight (28) SERVQUAL dimensions. Within this twenty-eight, customer satisfaction is at least equal to expectation for these fifteen dimensions: TA3, RL1, RL3, RL4, RS2, RS3, RS4, EM2, EM4, EM5, EM7, AS3, TQ1, TQ2, and TQ5. Then customer satisfaction is better or much better than expected for the following thirteen (13) dimensions: TA1, TA2, TA4, RS5, EM1, AS1, AS2, AS4, TQ4, IM1, IM2, IM3, and IM4. Thus, we can conclude with 95% confidence that customers are dissatisfied with eight dimensions (RL2, RL5, RS1, EM3, EM6, EC1, EC2, and TQ3) and at least satisfied with

twenty-eight SERVQUAL dimensions (TA3, RL1, RL3, RL4, RS2, RS3, RS4, EM2, EM4, EM5, EM7, AS3, TQ1, TQ2, and TQ5, TA1, TA2, TA4, RS5, EM1, AS1, AS2, AS4, TQ4, IM1, IM2, IM3, and IM4).

### 5.9.4 Research Question Three

**Which dimensions of service quality are important to customers of MTNs in Ghana?**

The descriptive statistics (Table 5.5.1a and b) show that the mean importance ratings for all dimensions were above the required mean value of 4 except "tangibles" that had 3.93. A significant test of the means (Table 5.5.2) at 0.05 significant level with a specified constant of 4 indicated that seven (7) SERVQUAL dimensions are perceived as important by customers. These are: assurance, responsiveness, empathy, reliability, economy, technical quality and image; while only one, tangibles, is considered unimportant service quality dimension. In prioritising the SERVQUAL dimensions, the mean ranking of the dimensions (Table 5.5.3a) indicated that technical quality is the most important dimension, followed by empathy, reliability, economy, responsiveness, image, while assurance was the least important dimension.

In relation to other similar research work, three of most important SERVQUAL dimensions: technical quality, empathy and reliability were similarly found among the strongly rated SERVQUAL dimensions in Iran Mobile Telecom Market (IMTM) in the work of Satari S. (2007), but technical quality and reliability were found to be more important than the others in Iran Aseman Airline (IAA) by Borzorgi M. M. (2007). However, "tangibles" which Borzorgi.(2007) found to be more important in IAA was not important at all in MTNs in Ghana and received lower rating in Iran's Mobile Telecom Market. Again, while assurance

was less important in Ghana's MTNs, it received strong rating in IMTM. Image and responsiveness dimensions that were found less important in Ghana's MTNs received similar ratings in IAA and IMTN respectively. The trends in these comparative findings are consistent with the conclusion of Chowdhary N. and Prakash M., (2007, p.506) that "... no simple generalization of relative importance of determinants of service quality is possible ... that importance of determinants of quality for customers would vary across different service types."

A careful analysis of customer satisfied/dissatisfied dimensions in relation to customer prioritised dimensions i.e. Dimension Priority-Satisfaction Matrix (Table 5.5.3b) provides some significant findings.

First, out of the thirteen (13) dimension items that CS *is better than* expected, eight (8) of them (RS5, IM1, IM2, IM3, IM4, AS1, AS2, and AS4) relate to the less important service quality dimensions: responsiveness, image and assurance; only two (2) of them (TQ4 and EM1) relate to the more important service quality dimensions: technical quality and empathy, while three of them (TA1, TA2, TA4) are unimportant to customers.

Second, out of the fifteen (15) dimension items that CS is *at least equal to* expectation, most of them, ten (10) items (TQ1, TQ2, TQ5, EM2, EM4, EM5, EM7, RL1, RL3, and RL4) relate to the more important service quality dimensions: technical quality, empathy, reliability; while five (5) of them (RS2, RS3, RS4 and AS3) related to less important dimensions: responsiveness and assurance, and one (TA3) is unimportant to customers.

Finally, of the eight (8) dimension items that CS is worse than expected, seven (7) of the items (TQ3, EM3, EM6, RL2, RL5, EC1, and EC2) are rated more important by customers, while only one (RS1) is rated a less important service quality item by customers.

### 5.9.5 Research Question Four

**What is the switching intention among customers of MTNs in Ghana?**

Switching intention (SI) statistics (Table 5.7.2) reveal that half of the customers of Company A (51%) are more willing to switch to other networks, followed by 32.1% of Customer of Company D who are willing to switch, 26.5% of Company B and 22.5% of Company D. Thus a considerable number of customers of Company A are willing to switch. This is supported by the fact that a smaller proportion (28.6%) of the respondents of Company A are not willing to switch.

Conversely, the mean rating of switching intention for companies B, C, and D shows that 55%, 42.5%, 49.4 respectively are not willing to switch. These findings are supported by the fact that generally their customers are neutral and not willing to switching (18.6% and 55.0%, 35.0% and 42.5%, 18.5% and 49.4% respectively) as have been analysed.

The study hypothesised that switching intention (SI) is not the same. From the One-Way ANOVA F-test (Table 5.8.1), the ρ-value (.000) is less than 0.05 providing strong support for rejecting the null hypothesis that the means are equal across mobile telecom networks in Ghana. Therefore we can safely conclude with 95% confidence that SI is not equal among the mobile telecom networks in Ghana. The mean plot further revealed (Figure 5.8.1) that customers of Company B, C and D significantly rated their intention to switch higher than Company A (i.e. not willing to switch). A further post hoc test of pairwise multiple comparisons of SI using Scheffe's T2 statistic (Table 5.8.2) indicated that mean SI of Company A is significantly different from that of Companies B, C, and D, and SI of Companies B, C, and D are each significantly different from Company A's. So we can safely

conclude that switching intention is significantly different between Company A and each of the other companies but significantly not different among Companies B, C, and D.

### 5.9.6 How Desire and Expectation Disconfirmations Explain Customer Satisfaction

As pointed out in the literature, it has been verified that desire and expectation play complementary role in determining overall customer satisfaction (Khalifa and Liu (2002).

As to the strength of DD and ED in explaining CS in MTNs in Ghana, the regression analysis (Model 1 in Tables 5.6.1) indicated that DD and ED collectively impact OCS significantly at 0.05 level; the R(0.635) shows that there is a fairly strong relationship between overall satisfaction and desire and expectation disconfirmation. The $R^2$ (0.403) which is the strength of the relationship, indicates that about 40% of variations in overall satisfaction is collectively caused or explained by DD and ED. Therefore we can conclude with 95% confidence that desire and expectation disconfirmation collectively impact overall customer satisfaction positively and significantly. However, multicolinearity statistics indicated that multicolinearity may be a problem since the Variance Inflation Factor was greater than one (1).

Secondly, the regression analyses (Model 2 and 3 in Table 5.6.1) indicate smaller ρ-values (.000, 0.000) and positive standardised parameter estimates (0.537 and 0.586) indicating that each of the models positively and significantly impacts OCS. The $R^2$ (0.288 and 0.344) for DD and ED respectively indicate that 28.8% and 34.4% of the variations in OCS is caused by DD and ED respectively. Multicolinearity in the model is not a problem because the VIF is one (1). It is, therefore, validated that ED strongly impacts OCS than DD in Ghana's Mobile Telecom Market.

These findings are consistent with the work of Khalifa and Liu (2002) who empirically established that DD and ED simultaneously affect overall customer satisfaction significantly. Again, the findings support the empirical work of Satari S. (2007) who found out that, in Iran Mobile Telecom Market, ED and DD models are significant in explaining overall customer satisfaction. His findings were also consistent with ours in this study that ED is more important in explaining OCS than DD in Mobile Telecom Market in Ghana. Thus in Ghana's MTNs customer satisfaction is significantly affected by both the desire and expectation of customers, with ED having a stronger impact on OCS than DD.

# CHAPTER SIX

## 6.0 SUMMARY, CONCLUSION AND IMPLICATIONS

This concluding chapter summarises the purpose and objectives of the study, the major findings and conclusions, discusses the implications for marketing, and makes recommendation for further research.

### 6.1 Summary of Findings and Conclusions

In this study the purpose was to measure customer satisfaction with service quality delivered by Ghana's Mobile Telecom Networks with respect to and irrespective of mobile telecom network using four measures: MnCSI, desire and expectation disconfirmation measures, and overall satisfaction measures. The study examined customer satisfaction with service quality dimensions, customer-prioritised SERVQUAL dimensions, and switching intentions among customers of MTNs in Ghana.

Out of the one thousand sample population, nine hundred and thirty-seven (937) responded to the questionnaire administered. Based on an objective analysis of data and discussion of results and findings, the following are the summary of major findings and conclusions of this study:

1. Irrespective of mobile telecom network in Ghana, all the four tools or measures pointed that CS is low and not equal to or better than desired or expectation, so the customers are not satisfied with service quality delivered by MTNs in Ghana.
2. With respect to mobile networks, the customers are not satisfied with the service delivery of Mobile Network A. Customer satisfaction for service quality of Company B is better than *expected* and at least equal to *desire* of customers. For Mobile

Network C, customer satisfaction is at least equal to *expectation* and *desire* of the customers. Finally for Mobile Network D, customer satisfaction is at least equal to the desire and expectation of the customers.

3. Overall customer satisfaction is significantly different among Mobile Telecom Networks in Ghana. Significantly, customers of Company B, C and D rated their satisfaction with service quality higher than Company A.
4. Regarding satisfaction with service quality dimensions, customer satisfaction is better than expected for the following thirteen (13) SERVQUAL dimension items: TA1, TA2, TA4, RS5, EM1, AS1, AS2, AS4, TQ4, IM1, IM2, IM3, and IM4. Customer satisfaction is at least equal to expectation for these fifteen SERVQUAL dimension items: TA3, RL1, RL3, RL4, RS2, RS3, RS4, EM2, EM4, EM5, EM7, AS3, TQ1, TQ2, and TQ5. Then customers were dissatisfied with the following eight (8) SERVQUAL dimension items: RL2, RL5, RS1, EM3, EM6, EC1, EC2, and TQ3.
5. According to customer priority, technical quality is the most important dimension, followed by empathy, reliability, economy, responsiveness, image, while assurance is the least important dimension. "Tangibles" is significantly unimportant to the customers.
6. Most of the customer-satisfied dimension items are less important to customers, while most of the customer-dissatisfied dimension items are more important.
7. Desire and Expectation Disconfirmation simultaneously affect overall customer satisfaction positively and significantly and each of them is significant in explaining overall customer satisfaction. However, ED is stronger in explaining OCS than DD in Mobile Telecom Market in Ghana.

8. Switching Intention of customers is different among the mobile telecom networks in Ghana, but the customers of Company A are significantly more willing to switch than those of Companies B, C and D.

## 6.2 Implications of the Findings

### 6.2.1 To Industry Regulators and Policy Makers

It has been found in this study that generally customer satisfaction with service quality is low or less than expected and desired in the Ghana MTNs. This imply that policy makers and industry regulators such as the Ministry of Communication and National Communication Authority in Ghana, need to be awakened to this empirical fact and take pragmatic steps to ensure that mobile telecom network operators in Ghana improve their efficiency and effectiveness in the provision of telecommunication services that meet and exceed customer need, desire and expectation.

This can be done by sensitising and encouraging the various mobile network companies to focus more attention and resources on more important service quality dimensions for which customers are not satisfied and to focus little attention on unimportant and less important dimensions. There is the need for companies to focus on important product/service attributes that are rated important and very important by customers (Kotler & Kelvin 2007).

In this regard, firstly of all, efforts and resources should be focused on improving technical quality, empathy, reliability, and economy of the service quality delivered. Within these SERVQUAL dimensions, more management efforts and intensive strategy must be geared towards improving upon important dimensions for which customers are least satisfied, specifically:

- Success in completion of calls, SMS, MMS, activation, credit reloading and other services;
- Employees having technological knowledge and skills in solving customer problems;
- Providing adequate network coverage throughout the country;
- Having operating hours convenient to all customers;
- Having the customer's best interest at heart;
- Giving individual customers attention by employees;
- Apologising for any inconvenience caused to customers;
- Timeliness in the delivery of SMS, MMS, Voice message and other services;
- Dependability and consistency in solving customers' complaints; and
- Ability of network to perform services right the first time.

For important SERVQUAL dimensions for which customers are totally dissatisfied, strategic management efforts is needed in order to make significant improvement in the service quality. This would require a total transformation in operational efficiency of the mobile networks to achieve customer satisfaction in the following SERVQUAL dimension-items that the customers are totally dissatisfied, specifically in areas like:

- Insisting on error-free records;
- Efforts to understand specific customer needs;
- Having sound loyalty programme to recognise frequent customers;
- Truthfulness in keeping to promises;
- Network quality: Clarity and speed for calls and other services.

Moreover, the service quality should be improved by making the services more economical so that customers can afford and have better value for their money or sacrifices made for using the mobile network services. By pursing this, the service quality and therefore customer

satisfaction would be improved in the "economy" dimension for which generally customers are significantly dissatisfied in areas like:

- How economical the use of network's services is in terms of: the call charge per minute/second, and
- How economical the use of network's services is in terms of cost of reloading cards and their denominations.

Also, in "responsiveness" service quality, management should develop strategies to improve upon the "ability to tell customers exactly when services will be performed", "ability to give prompt customer services" and "attend to customers' need/problems", "employees' willingness to help customers in emergency situations" and "easy contact and approachability of employees".

Furthermore, some attention and effort should be given to sustain the assurance dimension especially employees' use of required skills and knowledge in answering customers questions. For image and tangibles, being the least important and unimportant to customers respectively, already customers are satisfied with all items relating to them, so less strategic effort should be devoted to them.

Finally, in Ghana's MTNs, the regulators should encourage marketers through marketing seminars and workshops to seek meeting and exceeding not only the expectations of customers but also customer desired set of service quality and experiences. This is because it has been verified in this study that desire and expectation disconfirmations simultaneously and individually explain customer satisfaction in Ghana's Mobile Telecom Market.

### 6.2.2 To the Mobile Network Companies

Specifically, the findings of this study imply that the management of Company A must seriously take knowledge of their customer dissatisfaction with their service quality and work harder to develop effective strategies to improve the situation. The management of Companies B, C and D must understand that generally their customer satisfaction is only equal to and not better than expected, and that they ought to work towards exceeding the expectation and desired service quality of their customers.

Again, Company A should consider as very important its customer switching intention since the study indicates that switching intention is significantly different among the MTNs in Ghana and especially that, the customers of the company are significantly more willing to switch to use better network services from other competitor mobile telecoms in Ghana.

## 6.3 Final Conclusion

The final conclusion of this study is that generally customers are not satisfied with service quality delivered by mobile telecom networks in Ghana or that their satisfaction is considerably low, but customer satisfaction is better than expected for Mobile Network B, at least equal to expectation for Mobile Network C and D, and worse than expected for Mobile Telecom Network A.

## 6.4 Recommendations for Further Research

This study mainly assessed and analysed customer satisfaction with service quality in Ghana's MTNs. It is recommended that future research should:

1. Examine customer satisfaction with specific service areas delivered across mobile telecom networks such as the delivery of MMS, SMS, Internet Services, customised services, customer services, etc.
2. Examine customer satisfaction with fixed lines or prepaid telecom services.
3. Develop and verify a model of customer satisfaction for Ghana's Telecom Industry or verify disconfirmation theories in other different industry settings.

Finally, this study was a questionnaire-based survey and used a mixture of qualitative and quantitative models and approaches. It is, therefore, recommended that different models and methodology should be used for a similar study and compare the results.

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## APPENDIX A

## FOCUS GROUP INTERVIEW GUIDE

**Introduction**

Moderator leads the introduction of participants and declares the purpose of the interview.

**Number of participants** = 10

| Activity | Time (70 minutes) |
|---|---|
| **1. Preliminary test of Draft Questionnaire**[1]<br>Tell participants to read silently the questions on the questionnaire and give their comments on any question that is not clear in construction and meaning to them. | **20** |
| **2. Services delivered by mobile telecom networks**<br>Ask about their knowledge of services delivered by Ghana's mobile networks | **10** |
| **3. Dimensions of service delivery**<br>Ask questions on what they think makes a service delivered a good quality<br>Ask their view about whether 'economy' is an important part of what makes a quality service. | **40** |

[1] This drafted questionnaire was full-developed questionnaire after the focus group interview and pre-tested using a different group of customers. Here it was not meant for participants to answer but for their comment on the clarity of the items.

## APPENDIX B

## QUESTIONNAIRE FOR CUSTOMERS OF MOBILE TELECOMS

**Dear mobile network subscriber**, this questionnaire is designed to collect information about how you feel about the service delivery of your mobile network in Ghana (MTN, Tigo, Kasapa, or OneTouch) at least for the last 12 months. Your responses will be treated confidential and used for only academic purpose. We are Master's students of Lulea University of Technology, Sweden and University of Education, Winneba (Kumasi Campus).

**Please tick [√] the appropriate box for your answers.**

**RESPONDENT'S IDENTIFICATION**

1. Please what is your gender? [ ] male [ ] female

2. Please select your age group.

   [ ] below 20 years [ ] 20 – 29 [ ] 30-39 [ ] 40 – 49 [ ] 50 and above

3. What is your occupation?

   [ ] civil servant [ ] student [ ] businessman/woman [ ] other

4. What is your monthly income?

   [ ] Below GH¢100 [ ] GH¢100 - ¢200 [ ] GH¢100 - 300 [ ] above GH¢300

5. Select your highest academic or professional qualification? **Select only one**

   [ ] WASSCE [ ] Technical/Post-secondary [ ] Diploma/HNDiploma
   [ ] Bachelor's degree [ ] Post-graduate Diploma/Masters [ ] PhD

**CUSTOMER SATISFACTION WITH SERVICE DELIVERY**

6. Which mobile telecom network(s) do you use? **Tick all the networks you use**.

   [ ] Onetouch [ ] MTN [ ] Tigo [ ] Kasapa

7. Which mobile telecom network **services** do you use **most often** as **your network**?

   [ ] MTN [ ] Tigo [ ] Kasapa [ ] Onetouch

8. How well did the services you received from your network compare with the **ideal/desired** set of services?

| Much worse than desired | Worse than desired | Equal to my desire | Better than desired | Much better than desired |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |

9. To what extent have your mobile network services met your **expectations**?

| Much worse than expected | Worse than expected | Equal to my expectation | Better than expected | Much better than expected |
|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** |

10. Do you have the intention of **switching to use a better network**?

    [ ] Definitely yes [ ] a bit Yes [ ] Neutral [ ] a bit No [ ] Definitely No

**CUSTOMER SATISFACTION WITH SERVICE QUALITY DIMENSIONS**

In your opinion, how does the ***service quality*** of your mobile network ***meet your expectations*** in terms of following dimensions? Use these responses from 1-5 to answer, where:

**1- Much worse than expected 2 – Worse than expected 3 - Equal to expectation**

**4 – Better than expected 5 – Much better than expected**

| | **DIMENSIONS** | **Circle only one option in 1 - 5** | | | | |
|---|---|---|---|---|---|---|
| | **TANGIBLES** | | | | | |
| **TA1** | Your network's ability to give you access to information, SIM card (chip), reload cards | **1** | **2** | **3** | **4** | **5** |
| **TA2** | Provision of visually attractive, offices, equipment and materials like starter packs and reload cards | **1** | **2** | **3** | **4** | **5** |
| **TA3** | Network's ability to providing variety of entertainment facilities, etc. | **1** | **2** | **3** | **4** | **5** |
| **TA4** | How appealing are the appearance and uniforms of employees of your network. | **1** | **2** | **3** | **4** | **5** |
| | **RELIABILITY** | | | | | |
| **RL1** | How timely is the delivery of SMS, MMS, Voice message and other services of your network? | **1** | **2** | **3** | **4** | **5** |
| **RL2** | How truthful (keeping to promises) is your mobile network to you? | **1** | **2** | **3** | **4** | **5** |
| **RL3** | How dependable and consistent is your network in solving customers' complaints? | **1** | **2** | **3** | **4** | **5** |
| **RL4** | How able is your network to perform services right the first time? | **1** | **2** | **3** | **4** | **5** |
| **RL5** | How able is your network to insist on error-free records. | **1** | **2** | **3** | **4** | **5** |
| | **RESPONSIVENESS** | | | | | |
| **RS1** | How is your network able to tell customers exactly when services will be performed? | **1** | **2** | **3** | **4** | **5** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **RS2** | How able is your network to give prompt customer services and attend to customers needs/problems? | **1** | **2** | **3** | **4** | **5** |
| **RS3** | How are employees' willing to help customers in emergency situations? | **1** | **2** | **3** | **4** | **5** |
| **RS4** | How are the employees approachable and easy to contact? | **1** | **2** | **3** | **4** | **5** |
| **RS5** | Employees' ability to communicate clearly with you. | **1** | **2** | **3** | **4** | **5** |
| | **EMPATHY** | | | | | |
| **EM1** | Having convenient periods & terms for activation, recharge, and accounts suspension, free call times | **1** | **2** | **3** | **4** | **5** |
| **EM2** | Having operating hours convenient to all customers | **1** | **2** | **3** | **4** | **5** |
| **EM3** | Having sound loyalty programme to recognise you as a frequent customer | **1** | **2** | **3** | **4** | **5** |
| **EM4** | Having the customer's best interest at heart | **1** | **2** | **3** | **4** | **5** |
| **EM5** | Giving individual customer attention by employees | **1** | **2** | **3** | **4** | **5** |
| **EM6** | Efforts to understand specific customer needs. | **1** | **2** | **3** | **4** | **5** |
| **EM7** | Apologising for inconvenience caused to customers | **1** | **2** | **3** | **4** | **5** |
| | **ASSURANCE** | | | | | |
| **AS1** | Ability to provide variety of value added services- Music, access to internet, SMS, MMS, etc. | **1** | **2** | **3** | **4** | **5** |
| **AS2** | Sincerity and patience in resolving customers' complaints/problems | **1** | **2** | **3** | **4** | **5** |
| **AS3** | The behaviour of employees in instilling confidence in customers. | **1** | **2** | **3** | **4** | **5** |
| **AS4** | Employees' use of required skills and knowledge to answer customers' questions. | **1** | **2** | **3** | **4** | **5** |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **ECONOMY**<br>How economical is the use of your mobile<br>telecom network's services in terms of | | | | | |
| **EC1** | Reloading cards and their denominations? | **1** | **2** | **3** | **4** | **5** |
| **EC2** | The call charge per minute/second? | **1** | **2** | **3** | **4** | **5** |
| | **TECHNICAL QUALITY** | | | | | |
| **TQ1** | Successful in completion of calls, SMS, MMS, line activation, credit reloading, etc | **1** | **2** | **3** | **4** | **5** |
| **TQ2** | Employees have technological knowledge and skills in solving customer problems | **1** | **2** | **3** | **4** | **5** |
| **TQ3** | Network clarity and speed for call and other services | **1** | **2** | **3** | **4** | **5** |
| **TQ4** | Network innovativeness – ability to use current technology to improve services | **1** | **2** | **3** | **4** | **5** |
| **TQ5** | Providing adequate network coverage | **1** | **2** | **3** | **4** | **5** |
| | **IMAGE** | | | | | |
| **IM1** | How *successful* is your mobile network company? | **1** | **2** | **3** | **4** | **5** |
| **IM2** | What is the *reputation* of your mobile network Co.? | **1** | **2** | **3** | **4** | **5** |
| **IM3** | What is the *brand image* of your mobile network? | **1** | **2** | **3** | **4** | **5** |
| **IM4** | How *socially responsible* is your mobile network? | **1** | **2** | **3** | **4** | **5** |

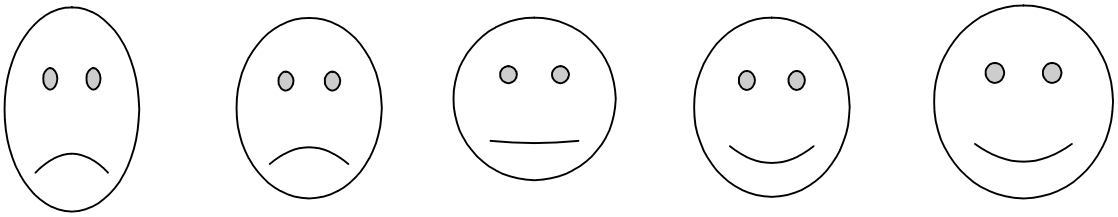
**IMPORTANCE OF DIMENSIONS OF SERVICE QUALITY**

In receiving or using services of your network**,** how **important** is **each** of the following **dimensions** to you? Use the scale 1 – 5 to answer, where : **1 – Not-at-all important 2 - Not important 3 - Neither Important nor Unimportant 4 – Important 5 – Very Important**

| | **DIMENSIONS** | **Circle only one option: 1-5** | | | | |
|---|---|---|---|---|---|---|
| **TAN** | **TANGIBLES** (The appealing nature of physical environment , reload cards, etc) | **1** | **2** | **3** | **4** | **5** |
| **ASS** | **ASSURANCE** (assurance of security, efficiency and variety of services) | **1** | **2** | **3** | **4** | **5** |
| **RES** | **RESPONSIVE** (attending to customers needs and complaints promptly any time) | **1** | **2** | **3** | **4** | **5** |
| **EMP** | **EMPATHY** (showing of respect, care and understanding to customers' needs) | **1** | **2** | **3** | **4** | **5** |
| **REL** | **RELIABLE** (competence to give timely, reliable services and truthful to promises | **1** | **2** | **3** | **4** | **5** |
| **ECO** | **ECONOMY** (giving customer value for services received) | **1** | **2** | **3** | **4** | **5** |
| **TEQ** | **TECHNICAL QUALITY (** having good network clarity & coverage for call completion/services) | **1** | **2** | **3** | **4** | **5** |
| **IMG** | **IMAGE (**having a good reputation of company and brand name ) | **1** | **2** | **3** | **4** | **5** |

11. **Overall,** tell how satisfied or dissatisfied you are with the service delivery of your network by ticking the face that best describes your feelings and perceptions.

**Very Dissatisfied** **Dissatisfied** **Neither** **Satisfied** **Very Satisfied**



**1** **2** **3** **4** **5**

**Thank you for taking time to complete this questionnaire!**

## APPENDIX C

## INFORMED CONSENT INFORMATION

Thank you for agreeing to participate in this study. This form outlines the objectives of the study and provides a description of your involvement and rights as a participant.

This is study is part of a joint **Msc in Marketing and e-Commerce programme** at the Lulea University of Technology (LTU) and University of Education, Winneba, Kumasi Campus. Its **purpose** is to assess and analyse customer satisfaction with service delivery of mobile communication networks within Ghana. A questionnaire will be used for customers of mobile telecom networks for information.

**The outcome of the study:** The information from this study will be used to write a thesis about mobile telecom networks within Ghana. The case study report may be used as a reference for students in LTU for their dissertations.

We guarantee that respondents' anonymity is fully assured and that your participation in this research is voluntary; and you have the right to withdraw at any point of the study, for any reason, and any corresponding information will be destroyed.

## INFORMED CONSENT FORM

1. I Confirm that I have read and understand the purpose of the above study and have had the opportunity to ask questions
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. I agree that the information I give can be anonymised in academic paper.

| ……..... | ……..... | ……..... |
|---|---|---|
| **Name of participant** | **Date** | **Signature** |

**Researchers' contacts:**


| | | |
|---|---|---|
| Name: | Simon Gyasi Nimako | Name: Foresight Kofi Azumah |
| Address: | University of Education, Winneba, Box 1277, Kumasi | Address: *use same address* Phone: 0244253451/020836638 |
| Phone: | +233-2741343 / 0242040657 | Email:foresight61@yahoo.com |
| Email: | simongn200331@yahoo.com | |

## APPENDIX D

## FREQUENCIES OF RATING FOR DISCONFIRMATION MEASURES AND OVERALL SATISFACTION MEASURES IRRESPECTIVE OF MOBILE TELECOM NETWORK

| Desire Disconfirmation | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **%** | **Valid Percent** | **Cumulative Percent** |
| **Valid** | Much worse than desired | 71 | 7.6 | 7.6 | 7.6 |
| | Worse than desired | 295 | 31.5 | 31.5 | 39.1 |
| | Equal to desire | 441 | 47.1 | 47.1 | 86.1 |
| | Better than desired | 90 | 9.6 | 9.6 | 95.7 |
| | Much better tan desired | 40 | 4.3 | 4.3 | 100.0 |
| | Total | **937** | **100.0** | **100.0** | |

| Expectation disconfirmation | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **%** | **Valid Percent** | **Cumulative Percent** |
| **Valid** | Much worse than expected | 47 | 5.0 | 5.0 | 5.0 |
| | Worse than expected | 285 | 30.4 | 30.4 | 35.4 |
| | Equal to expectation | 426 | 45.5 | 45.5 | 80.9 |
| | Better than expected | 126 | 13.4 | 13.4 | 94.3 |
| | Much better than expected | 53 | 5.7 | 5.7 | 100.0 |
| | **Total** | **937** | **100.0** | **100.0** | |

| Overall Customer Satisfaction | | | | | |
|---|---|---|---|---|---|
| | | **Frequency** | **%** | **Valid Percent** | **Cumulative Percent** |
| **Valid** | very dissatisfied | 67 | 7.2 | 7.2 | 7.2 |
| | dissatisfied | 174 | 18.6 | 18.6 | 25.7 |
| | neither | 221 | 23.6 | 23.6 | 49.3 |
| | satisfied | 414 | 44.2 | 44.2 | 93.5 |
| | very satisfied | 61 | 6.5 | 6.5 | 100.0 |
| | **Total** | **937** | **100.0** | **100.0** | |

## APPENDIX E

## FREQUENCIES OF SATISFACTION RATING FOR EACH MOBILE TELECOM NETWORK

| Desire Disconfirmation | | | | | | |
|---|---|---|---|---|---|---|
| **Mobile Telecom Network** | | | **Frequency** | **Percent** | **Valid Percent** | **Cumulative Percent** |
| **Company A** | **Valid** | Much worse than desired | 52 | 8.7 | 8.7 | 8.7 |
| | | Worse than desired | 227 | 37.8 | 37.8 | 46.4 |
| | | Equal to desire | 261 | 43.4 | 43.4 | 89.9 |
| | | Better than desired | 42 | 7.0 | 7.0 | 96.8 |
| | | Much better than desired | 19 | 3.2 | 3.2 | 100.0 |
| | | Total | 601 | 100.0 | 100.0 | |
| **Company B** | **Valid** | Much worse than desired | 12 | 8.6 | 8.6 | 8.6 |
| | | Worse than desired | 21 | 15.0 | 15.0 | 23.6 |
| | | Equal to desire | 79 | 56.4 | 56.4 | 80.0 |
| | | Better than desired | 19 | 13.6 | 13.6 | 93.6 |
| | | Much better than desired | 9 | 6.4 | 6.4 | 100.0 |
| | | Total | 140 | 100.0 | 100.0 | |
| **Company C** | **Valid** | Much worse than desired | 3 | 7.5 | 7.5 | 7.5 |
| | | Worse than desired | 6 | 15.0 | 15.0 | 22.5 |
| | | Equal to desire | 19 | 47.5 | 47.5 | 70.0 |
| | | Better than desired | 8 | 20.0 | 20.0 | 90.0 |
| | | Much better than desired | 4 | 10.0 | 10.0 | 100.0 |
| | | Total | 40 | 100.0 | 100.0 | |
| **Company D** | **Valid** | Much worse than desired | 4 | 2.6 | 2.6 | 2.6 |
| | | Worse than desired | 41 | 26.3 | 26.3 | 28.8 |
| | | Equal to desire | 82 | 52.6 | 52.6 | 81.4 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Better than desired | 21 | 13.5 | 13.5 | 94.9 |
| | | Much better than desired | 8 | 5.1 | 5.1 | 100.0 |
| | | **Total** | **156** | **100.0** | **100.0** | |

| **Expectation disconfirmation** | | | | | | |
|---|---|---|---|---|---|---|
| **Mobile Telecom Network** | | | **Frequency** | **Percent** | **Valid Percent** | **Cumulative Percent** |
| **Company A** | **Valid** | Much worse than expected | 39 | 6.5 | 6.5 | 6.5 |
| | | Worse than expected | 214 | 35.6 | 35.6 | 42.1 |
| | | Equal to expectation | 258 | 42.9 | 42.9 | 85.0 |
| | | Better than expected | 72 | 12.0 | 12.0 | 97.0 |
| | | Much better than expected | 18 | 3.0 | 3.0 | 100.0 |
| | | Total | 601 | 100.0 | 100.0 | |
| **Company B** | **Valid** | Much worse than expected | 4 | 2.9 | 2.9 | 2.9 |
| | | Worse than expected | 22 | 15.7 | 15.7 | 18.6 |
| | | Equal to expectation | 72 | 51.4 | 51.4 | 70.0 |
| | | Better than expected | 26 | 18.6 | 18.6 | 88.6 |
| | | Much better than expected | 16 | 11.4 | 11.4 | 100.0 |
| | | Total | 140 | 100.0 | 100.0 | |
| **Company C** | **Valid** | Much worse than expected | 3 | 7.5 | 7.5 | 7.5 |
| | | Worse than expected | 8 | 20.0 | 20.0 | 27.5 |
| | | Equal to expectation | 11 | 27.5 | 27.5 | 55.0 |
| | | Better than expected | 10 | 25.0 | 25.0 | 80.0 |
| | | Much better than expected | 8 | 20.0 | 20.0 | 100.0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Total | 40 | 100.0 | 100.0 | |
| **Company D** | **Valid** | Much worse than expected | 1 | .6 | .6 | .6 |
| | | Worse than expected | 41 | 26.3 | 26.3 | 26.9 |
| | | Equal to expectation | 85 | 54.5 | 54.5 | 81.4 |
| | | Better than expected | 18 | 11.5 | 11.5 | 92.9 |
| | | Much better than expected | 11 | 7.1 | 7.1 | 100.0 |
| | | **Total** | **156** | **100.0** | **100.0** | |

| **Overall Customer Satisfaction** | | | | | | |
|---|---|---|---|---|---|---|
| **Mobile Telecom Network** | | | **Frequency** | **Percent** | **Valid Percent** | **Cumulative Percent** |
| **Company A** | **Valid** | very dissatisfied | 55 | 9.2 | 9.2 | 9.2 |
| | | dissatisfied | 133 | 22.1 | 22.1 | 31.3 |
| | | neither | 162 | 27.0 | 27.0 | 58.2 |
| | | satisfied | 231 | 38.4 | 38.4 | 96.7 |
| | | very satisfied | 20 | 3.3 | 3.3 | 100.0 |
| | | Total | 601 | 100.0 | 100.0 | |
| **Company B** | **Valid** | very dissatisfied | 7 | 5.0 | 5.0 | 5.0 |
| | | dissatisfied | 12 | 8.6 | 8.6 | 13.6 |
| | | neither | 21 | 15.0 | 15.0 | 28.6 |
| | | satisfied | 82 | 58.6 | 58.6 | 87.1 |
| | | very satisfied | 18 | 12.9 | 12.9 | 100.0 |
| | | Total | 140 | 100.0 | 100.0 | |
| **Company C** | **Valid** | very dissatisfied | 1 | 2.5 | 2.5 | 2.5 |
| | | dissatisfied | 6 | 15.0 | 15.0 | 17.5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | neither | 7 | 17.5 | 17.5 | 35.0 |
| | | satisfied | 21 | 52.5 | 52.5 | 87.5 |
| | | very satisfied | 5 | 12.5 | 12.5 | 100.0 |
| | | Total | 40 | 100.0 | 100.0 | |
| **Company D** | **Valid** | very dissatisfied | 4 | 2.6 | 2.6 | 2.6 |
| | | dissatisfied | 23 | 14.7 | 14.7 | 17.3 |
| | | neither | 31 | 19.9 | 19.9 | 37.2 |
| | | satisfied | 80 | 51.3 | 51.3 | 88.5 |
| | | very satisfied | 18 | 11.5 | 11.5 | 100.0 |
| | | Total | **156** | **100.0** | **100.0** | |

## APPENDIX F

## DESCRIPTIVE STATISTICS OF SATISFACTION RATINGS FOR EACH MOBILE NETWORK

| Report: DESCRIPTIVE STATISTICS | | | | |
|---|---|---|---|---|
| Mobile Network | | Desire Disconfirm-ation | Expectation disconfirmation | Overall Customer Satisfaction |
| Company A | Mean | 2.5824 | 2.6938 | 3.0466 |
| | N | 601 | 601 | 601 |
| | Std. Deviation | .86427 | .87337 | 1.05095 |
| | Std. Error of Mean | .03525 | .03563 | .04287 |
| | Variance | .747 | .763 | 1.104 |
| | Sum | 1552.00 | 1619.00 | 1831.00 |
| | % of Total Sum | 61.0% | 60.8% | 60.3% |
| Company B | Mean | 2.9429 | 3.2000 | 3.6571 |
| | N | 140 | 140 | 140 |
| | Std. Deviation | .94276 | .93839 | .98017 |
| | Std. Error of Mean | .07968 | .07931 | .08284 |
| | Variance | .889 | .881 | .961 |
| | Sum | 412.00 | 448.00 | 512.00 |
| | % of Total Sum | 16.2% | 16.8% | 16.8% |
| Company C | Mean | 3.1000 | 3.3000 | 3.5750 |
| | N | 40 | 40 | 40 |
| | Std. Deviation | 1.03280 | 1.22370 | .98417 |
| | Std. Error of Mean | .16330 | .19348 | .15561 |
| | Variance | 1.067 | 1.497 | .969 |

| | | | | |
|---|---|---|---|---|
| | Sum | 124.00 | 132.00 | 143.00 |
| | % of Total Sum | 4.9% | 5.0% | 4.7% |
| **Company D** | Mean | 2.9231 | 2.9808 | 3.5449 |
| | N | 156 | 156 | 156 |
| | Std. Deviation | .83888 | .83063 | .96616 |
| | Std. Error of Mean | .06716 | .06650 | .07735 |
| | Variance | .704 | .690 | .933 |
| | Sum | 456.00 | 465.00 | 553.00 |
| | % of Total Sum | 17.9% | 17.5% | 18.2% |
| **Total** | Mean | 2.7150 | 2.8431 | 3.2433 |
| | N | 937 | 937 | 937 |
| | Std. Deviation | .89688 | .91750 | 1.05638 |
| | Std. Error of Mean | .02930 | .02997 | .03451 |
| | Variance | .804 | .842 | 1.116 |
| | Sum | 2544.00 | 2664.00 | 3039.00 |
| | % of Total Sum | 100.0% | 100.0% | 100.0% |

## APPENDIX G

## DESCRIPTIVE STATISTICS OF SATISFACTION RATINGS FOR EACH DIMENSION OF SERVICE QUALITY

| Descriptive Statistics | | | | | | |
|---|---|---|---|---|---|---|
| | N | Range | Mean | | Std. Deviation | Variance |
| | Stats | Statistic | Statistic | Std. Error | Statistic | Statistic |
| **TA1** | 937 | 4.00 | 3.0843 | .03110 | .95202 | .906 |
| **TA2** | 937 | 4.00 | 3.1323 | .03297 | 1.00935 | 1.019 |
| **TA3** | 937 | 4.00 | 3.0085 | .03545 | 1.08502 | 1.177 |
| **TA4** | 937 | 4.00 | 3.2380 | .03189 | .97617 | .953 |
| **RL1** | 937 | 4.00 | 3.0235 | .03389 | 1.03748 | 1.076 |
| **RL2** | 937 | 4.00 | 2.8709 | .03406 | 1.04256 | 1.087 |
| **RL3** | 937 | 4.00 | 2.9520 | .03533 | 1.08153 | 1.170 |
| **RL4** | 937 | 4.00 | 3.0342 | .03187 | .97561 | .952 |
| **RL5** | 937 | 4.00 | 2.7876 | .03375 | 1.03297 | 1.067 |
| **RS1** | 937 | 4.00 | 2.8911 | .03591 | 1.09919 | 1.208 |
| **RS2** | 937 | 4.00 | 2.9541 | .03442 | 1.05360 | 1.110 |
| **RS3** | 937 | 4.00 | 2.9360 | .03401 | 1.04091 | 1.084 |
| **RS4** | 937 | 4.00 | 3.0064 | .03493 | 1.06917 | 1.143 |
| **RS5** | 937 | 4.00 | 3.1868 | .03394 | 1.03894 | 1.079 |
| **EM1** | 937 | 4.00 | 3.1067 | .03598 | 1.10134 | 1.213 |
| **EM2** | 937 | 4.00 | 3.0331 | .03463 | 1.06014 | 1.124 |
| **EM3** | 937 | 4.00 | 2.8453 | .03340 | 1.02248 | 1.045 |
| **EM4** | 937 | 4.00 | 2.9733 | .03454 | 1.05730 | 1.118 |
| **EM5** | 937 | 4.00 | 2.9477 | .03330 | 1.01928 | 1.039 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **EM6** | 937 | 4.00 | 2.9296 | .03335 | 1.02080 | 1.042 |
| **EM7** | 937 | 4.00 | 2.9253 | .03939 | 1.20574 | 1.454 |
| **AS1** | 937 | 4.00 | 3.1772 | .03660 | 1.12023 | 1.255 |
| **AS2** | 937 | 4.00 | 3.0726 | .03324 | 1.01751 | 1.035 |
| **AS3** | 937 | 4.00 | 2.9744 | .03192 | .97697 | .954 |
| **AS4** | 937 | 4.00 | 3.1409 | .03138 | .96044 | .922 |
| **EC1** | 937 | 4.00 | 2.8965 | .03546 | 1.08553 | 1.178 |
| **EC2** | 937 | 4.00 | 2.5176 | .03652 | 1.11801 | 1.250 |
| **TQ1** | 937 | 4.00 | 3.0000 | .03196 | .97840 | .957 |
| **TQ2** | 937 | 4.00 | 3.0502 | .03129 | .95779 | .917 |
| **TQ3** | 937 | 4.00 | 2.9125 | .03536 | 1.08251 | 1.172 |
| **TQ4** | 937 | 4.00 | 3.0971 | .03323 | 1.01704 | 1.034 |
| **TQ5** | 937 | 4.00 | 3.0438 | .03673 | 1.12433 | 1.264 |
| **IM1** | 937 | 4.00 | 3.3597 | .03207 | .98156 | .963 |
| **IM2** | 937 | 4.00 | 3.3170 | .03358 | 1.02785 | 1.056 |
| **IM3** | 937 | 4.00 | 3.3372 | .03163 | .96821 | .937 |
| **IM4** | 937 | 4.00 | 3.3138 | .03476 | 1.06406 | 1.132 |
| **TANGIBLE** | 937 | 4.00 | 3.9338 | .02633 | .80589 | .649 |
| **ASSURANCE** | 937 | 4.00 | 4.0608 | .02645 | .80962 | .655 |
| **RESPONSIVENESS** | 937 | 4.00 | 4.2017 | .02741 | .83900 | .704 |
| **EMPATHY** | 937 | 4.00 | 4.2636 | .02531 | .77480 | .600 |
| **RELIABILITY** | 937 | 4.00 | 4.2369 | .02462 | .75348 | .568 |
| **ECONOMY** | 937 | 4.00 | 4.2060 | .02696 | .82512 | .681 |
| **TECHNICAL** | 937 | 4.00 | 4.2988 | .02668 | .81671 | .667 |
| **IMAGE** | 937 | 4.00 | 4.1974 | .02681 | .82072 | .674 |
| **Valid N (listwise)** | **937** | | | | | |

## APPENDIX H

## REGRESSION ANALYSIS INVOLVING DESIRE AND EXPECTATION DISCONFIRMATION AND OVERALL CUSTOMER SATISFACTION

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .635[a] | .403 | .402 | .81704 |

**ANOVA[b]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 421.022 | 2 | 210.511 | 315.345 | .000[a] |
| | Residual | 623.499 | 934 | .668 | | |
| | Total | 1044.521 | 936 | | | |

**a. Predictors: (Constant), Expectation Disconfirmation, Desire Disconfirmation**

**b. Dependent Variable: Overall Customer Satisfaction**

Coefficients[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | .933 | .096 | | 9.716 | .000 | .744 | 1.121 |
| | Desire Disconfimation | .351 | .036 | .298 | 9.648 | .000 | .280 | .423 |
| | Expectation disconfirmation | .477 | .036 | .415 | 13.415 | .000 | .408 | .547 |

a. Dependent Variable: Overall Customer Satisfaction

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .537[a] | .288 | .287 | .89181 |

**ANOVA[b]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 300.891 | 1 | 300.891 | 378.325 | .000[a] |
| | Residual | 743.629 | 935 | .795 | | |
| | Total | 1044.521 | 936 | | | |

**a. Predictors: (Constant), Desire Disconfirmation**

**b. Dependent Variable: Overall Customer Satisfaction**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 1.527 | .093 | | 16.432 | .000 | 1.345 | 1.709 |
| | Desire Disconfimation | .632 | .033 | .537 | 19.451 | .000 | .568 | .696 |

**a. Dependent Variable: Overall Customer Satisfaction**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .586[a] | .344 | .343 | .85633 |

**ANOVA[b]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **1** | Regression | 358.885 | 1 | 358.885 | 489.410 | .000[a] |
| | Residual | 685.636 | 935 | .733 | | |
| | **Total** | **1044.521** | **936** | | | |

**a. Predictors: (Constant), Expectation disconfirmation**

**b. Dependent Variable: Overall Customer Satisfaction**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| **1** | (Constant) | 1.325 | .091 | | 14.534 | .000 | 1.146 | 1.503 |
| | Expectation disconfirmation | .675 | .031 | .586 | 22.123 | .000 | .615 | .735 |

**a. Dependent Variable: Overall Customer Satisfaction**

# Letter of Transmittal

July, 2016

**Dr. Shaikh Mostak Ahammad**
**Associate Professor**
Department of Accounting
Hajee Mohammad Danesh Science and Technology University, Dinajpur.

**Subject: Submission of the internship report.**

Dear Sir,

With due respect and humble submission, I would like to inform you that, it is a great pleasure for me to submit this report on **"Customer satisfaction of Southeast Bank Limited-Dinajpur Branch"** As a requirement for MBA program. During preparing this report, I have gather extended knowledge on working procedure of financial performance section Southeast Bank Ltd. of Bangladesh. I also got an in-depth understanding and experience, working with their banking activities at Southeast Bank Ltd. (Dinajpur Branch).

It was my great pleasure and honor that I got the opportunity, working with them.

Sincerely Yours

_____

Md. Rezaul Karim

MBA-major in Accounting and Information Systems (MBA-AIS)
Student ID: 1505146
Department of Accounting
HSTU, Dinajpur.

# Student's Declaration

The discussing report is the terminal formalities of the internship program for the degree of Master of Business Administration (MBA), Faculty of Post Graduate Studies at Hajee Mohammad Danesh Science and Technology University, Dinajpur which is compact professional progress rather than specialized. This report has prepared as per academic requirement after the successfully completing for the period of 90 days (15/03/2016 to 13/06/2016) internship program under the supervision of my honorable supervisor Dr. Shaikh Mostak Ahammad Associate Professor, Department of Accounting and co-supervisor Md. Saiful Islam Assistant Professor, Department of Accounting. It is my pleasure and great privilege to submit my report titled **"Customer satisfaction of Southeast Bank Limited-Dinajpur Branch"** As the presenter of this report; I have tried my level best to get together as much information as possible to enrich the report. After all, as a human being, I believe everyone is not beyond of limitation. There might have problems regarding lack and limitation in some aspects and also some minor mistakes such as syntax error or typing mistake or lack of information. Please pardon me for that mistake and clarify these of my further information on those matters.

I also declare that this paper is original work and prepare for academic purpose which is a part of MBA (Major in Accounting and Information Systems).

Md. Rezaul Karim

MBA-major in Accounting and Information Systems (MBA-AIS)
Student ID: 1505146
Department of Accounting
HSTU, Dinajpur.

# Supervisor's Declaration

I hereby declare that the concerned report **"Customer satisfaction of Southeast Bank Limited-Dinajpur Branch"** is a work by Md. Razaul Karim, MBA, Major in Accounting and Information Systems, Student ID: 1505146, Department of Accounting, Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200, is completed under my supervision and submitted for the fulfillment of the requirement of the degree of Master of Business Administration (MBA), (Major in Accounting and Information Systems ) at HSTU, Dinajpur.

_____

Dr. Shaikh Mostak Ahammad
Supervisor and
Associate Professor
Department of Accounting
Hajee Mohammad Danesh Science and Technology University, Dinajpur

# Co-Supervisor's Declaration

I hereby declare that the concerned report **"Customer satisfaction of Southeast Bank Limited-Dinajpur Branch"** is a work by Md. Rezaul Karim, MBA, Major in Accounting and Information Systems, Student ID: 1505146, Department of Accounting, Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200, is completed under my supervision and submitted for the fulfillment of the requirement of the degree of Master of Business Administration (MBA) , (Major in Accounting and Information Systems ) at HSTU, Dinajpur.

_____

Saiful Islam
Co-Supervisor
Assistant Professor
Department of Accounting
Hajee Mohammad Danesh Science and Technology University, Dinajpur.

# Acknowledgements

I would like to express my deepest gratitude to Almighty Allah for giving me the strength and composure to finish the task within the schedule time. Internship program is an integral part of MBA degree. Every MBA student is being placed into different organization to learn something within the pre-stipulated time by observing their organizational daily practices. In this regard my internship was arranged at Southeast Bank Ltd. (Dinajpur Branch). With deliberate counseling of my intern supervisor Dr. Shaikh Mostak Ahammad, Department of Accounting, Faculty of Business Studies, Hajee Mohammad Danesh Science and Technology University, Dinajpur.

I have accomplished my internship report successfully. My humble gratitude for his enthusiastic guidance and consideration during the entire phase of the study made it possible for me to prepare this report efficiently.

Furthermore specially, I would like to thank Subroto Ghosh (Branch Manager), for giving me full facilities and support to acquire practical experience and knowledge. Now at this point, I would like to recall those people's contribution, who received me as a member of their Banking family, with whom I worked for the Period of 90 days (15/03/2016 to 13/06/2016). I would like to express my deep sympathy and gratitude to all the officials and members of Southeast Bank Ltd. (Dinajpur Branch) for all their guidance and suggestion during my "Internship Program".

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# Abstract

Southeast Bank Limited established in 1995 is one of the leading commercial banks in the private sector of Bangladesh. With its 46 branches, the bank provides all types of banking services to the people of the country. In this short span of time, the bank has emerged as a progressive and dynamic financial institution in the country. The internship program was conducted on Customers' satisfaction of the Southeast Bank Limited Dinajpur branch. It is an exploratory study in nature and data have been collected from primary and secondary sources. In the study it has been found that the major determinants of customers' satisfaction towards the bank are employee behavior with the customer, reasonable service charge provide prompt and accurate service, problem solving skills of the employee, ensuring error free record, facility of utility bill payment, using and update technology, provide quality network for ATM service, easy procedure of getting loan, ensure good online banking service and office space. The study depicts that most of the customers are satisfied with the services of the bank but there are some dissatisfying factors which are inflexibility in credit sanctioning facility, higher interest rate, and inadequate e-banking facilities. In these circumstances, to serve the customers better the branch should be more flexible in giving loans, charge reasonable interest rate, and can undertake some promotional measures to make customers aware of their services.

# ***CHAPTER–1***

## *Introduction*

# 1. Introduction

During the last decade, banking became the most competitive industries of Bangladesh with a huge amount of growth. A large number of new banks have their places in industry and yet there are more to register in the list. In this modern era of business, banking activities have spread out in many areas like merchant banking, share trading, giving lease and so on. In such a highly competitive service industry, the importance of customer satisfaction cannot be de-emphasized.

Southeast Bank Limited is one of the most renowned private commercial bank in Bangladesh. During a short span of time the Bank has been able to establish a good image in the Banking sector and has become a house hold name in the country due to several customers friendly deposit and loans scheme. I am doing my internship in Southeast Bank limited with rotation on different desks which includes Accounts opening, General Banking, Retail Banking, Clearing, Remittance, Loans and Advances etc. In this report The Customer Satisfaction on different services of Southeast Bank limited. I will focus on various aspects of this Bank. Since they are standing at good position among the private banks, their financial position, market shares, marketing mechanisms, overall strengths and weakness, objectives, goals will be cross examined for analyzing the fact that how they were and how they will be in future. Various types of analysis will help us to understand the comparative position and a transparent picture of this Bank that will help us to draw any comment at a glance.

As I am directly in touch with customers, the report will deal with the service quality and customer satisfaction of Southeast Bank limited. A survey will be conducted on the customers of Southeast Bank limited. The objective of this report will be to determine how well Southeast Bank limited is satisfying the customers on different service grounds. Various important issues of customer satisfaction will be presented in light of the findings of the survey.

Lastly, the findings will be examined to prescribe a set of specific recommendations to improve the overall service quality according to customers expectations and also to solve the existing problems in the whole organizational level.

## 1.1 Origin of the Report

This report has been prepared as the requirement of the internship program. I have prepared this report on the basis of my 90 days practical working experience and under the supervision of Dr. Shaikh Mostak Ahammad, Associate Professor, Department of Accounting, HSTU. He approved the topic on which I have prepared my internship report.

## 1.2 Objective of the report

**i) The primary objective of the report is**

- The major objective of this report is to find out the customer satisfaction of Southeast Bank Ltd.

## ii) The secondary objectives of the report are as follows:

- To know the operation of commercial banks in Bangladesh.
- To describe the customer service process of Southeast Bank Limited.
- To suggest a supportive role in the progress of banking system in financial sector
- To know about the objectives and planning of SEBL
- To know how the branches are efficiently controlled.
- To identify whether all process are perfectly rand effectively practiced or not.
- To make an opinion on the reports.

## 1.3 Scope of the report

Defining the scope of the report is a broad aspect to be described. Still the officers of Dinajpur Branch of Southeast Bank helped me to prepare the report. On the other hand due to some confidential resolutions there were difficulties to find out some information as well.

This report is prepared in a systematic way from selecting of the topic to final report preparation.

# ***CHAPTER–2***

***Literature Review***

## 2. Literature Review

A verity of works was done previously on this topic. In below some theoretical researches are noted based on this topic.

Hasan (2012) scrutinized customer service at Branch of BRAC Bank Ltd. The result revealed that BRAC Bank as an organization tried to establish their service and they can improve their service through low price service with skilled service provider. So, the Bank Need to relate strongly service quality department with branch customer service department. Nimaco and Azumah (2009) analyzed an assessment and analysis of Customer Satisfaction with Service Delivery of Mobile Telecommunication Networks within Ghana, The study focused the customer of the company are significantly more willing to use better network services from other competitor mobile telecoms in Ghana. So the Ghana's Telecom Industry have to develop and verify a model of customer satisfaction. Datta (2012) analyzed Customer Satisfaction of the Foreign Exchange Department Prime Bank Limited, Mouchack Branch.This study focused an equal significant role to the economic growth of a country. So through this division banks are contributing to the economic empowerment of the country. So this bank need to enhance their customer Satisfaction.

Asiedu and Sarfo (2013) scrutinized multi-dimensional service delivery among mobile network providers in Ghana: a case of customer satisfaction. The aim of the study was to identify the dimensions of mobile telecommunication services in Ghana as well as to develop a model to identify consumer satisfaction. Levesque, and McDougall. (1996) investigated the major determinant of customer satisfaction and future behavioral intensions in the retail banking sector. The study identifies the determinants that include service quality dimensions (e.g. getting: it right the first time). Service features (e.g. completive interest rates), service problems, service recovery arid products used. The study finds, in particular. At best a satisfaction problem recovery leads to the same level of customer satisfaction as when a problem had not occurred. Maihotra and Arora, (1999) investigated the level of customer satisfaction in the public sector banks and the private, with the purpose of helping bank managements to formulate marketing strategies to attract customers towards them. The study found that there are six factors, in order of their importance are routine operation factor, price factor, and situation factor. Environmental factors. Technology factor and interactive farce. Armstrong and Seng (2000) extended the current understanding of customer satisfaction at the business to business level in the Asian banking industry. It incorporates guarnu (Chinese

business relationship). Relationship marketing and the disconfirmation paradigm. The research highlights the importance of relational constructs and disconfirmation paradigm in the influencing customer satisfaction at the business to business level in the Singapore banking industry.

On the basis of the literature discussed above, this study wants to know the customer satisfaction of Southeast Bank Ltd.

# ***CHAPTER−3***

## *Methodology and Data*

# 3. Methodology and Data

The study is performed based on the information extracted from different sources collected by using a specific methodology. To fulfill the objectives of this report total methodology has divided into two major parts:

## 3.1 Data Collection Procedure

In order to make the report more meaningful and presentable, two sources of data and information have been used widely.

***Sources of Data:***

i. Primary Sources

ii. Secondary Sources

**Primary Sources:**

i. Face to face conversation with the respective customers.
ii. Direct Observation
iii. Practical desk work

**Secondary Sources:**

i. Annual report of Southeast Bank Limited
ii. Southeast Bank's internal server and external websites
iii. Different documents provided by the concerned officers of the organization.
iv. Relevant books, research paper and journals

***Analysis, Interpretations and Presentation of Data:***

Some diagram and tables are used to analyze the collected data and gave flawless visible representation of the report. I have also made a Questionnaire that is added in the end of this report.

***Findings of the Report:***

The collected data were analyzed methodically and pointed out in a synchronized way and finally shown as findings at the last portion of the report. I have also made a questionnaire

that is added in the end of the report.

***Final Report Preparation:***

i. The final report is prepared with the valuable information, suggestion, and feedback of my supervisor, colleagues, and senior officers of Southeast Bank Limited.

## 3.2 Limitation of the report

Preparing such intense report, requires huge amount of information. While preparing this report, many limitation and hindrance have been faced to going on further. Still I managed to bring up the best within my access limit. The limitations those I confronted mostly are-

The major hindrance that I faced that is the management of the bank was unwilling to share or disclose some information which was really required to prepare the report due to confidential issues.

While conducting the report, it was difficult to communicate with the selected corporate clients because they were very busy with their regular jobs.

As I had more dependence on the primary sources, so there might be some levels of inaccuracy with this collected information.

# ***CHAPTER−4***

## *The Organization Overview*

# 4. The Organization Overview

## 4.1 Background of Southeast Bank Limited

The emergence of Southeast Bank Limited into banking industry of Bangladesh was at the stage of liberalization of global economic activities in 1995. The experience of the prosperous economies of the Asian countries and in particular of South Asia; has been the driving force and the strategic operational policy option for the Bank. The philosophy of the bank is “A Bank with Vision" has been precisely an essence of the legend of success in the Asian countries.

Southeast Bank Limited was established in 1995 with a vision to become a leading banking financial institution of the country and contribute significantly to the growth of the national economy. It is one of amongst the fast moving, conventional financial institution; a scheduled private commercial bank which established under the domain of Bank Company Act of 1994 and incorporated as a public limited company under Companies Act, 1994. The Bank started commercial banking operations effective from May 25, 1995 with an Authorized capital of Tk 500 million and Paid up Capital of Tk. 100 million. During this short period of time this organization has managed to successfully position itself as a progressive and dynamic financial institution of the country. The financial strength of its portfolio has upward trend for several years. The bank obtained mentionable achievement within a period of 15 years of its operation and met up requirements of Bangladesh Bank. In the recent period of the economic slowdown, the bank asset and investment portfolio is fair enough than other banks.

The bank had been widely acclaimed by the business community, from small entrepreneurs to large traders and industrial conglomerates including the top rated corporate borrowers for its forward - looking business outlook and innovative financial solutions. The products and services provided by this bank is wide and competitive, includes conventional deposit-loan products, trade finance, project finance, risk management, underwriting, foreign exchange, guarantees, credit and debit cards, Islamic banking and many more. Within a very short interval of time, it has been managed to create good brand image and significant reputation in the banking industry. Presently, it has 88 branches all over the country. It maintains correspondence with more than 25 foreign financial institutions in business intensive countries of the world to bolster the trade finance and foreign exchange activities. It also has planned the spread its name and credentials across the country.

Southeast Bank Limited has consistently turned over good returns on assets and capital. The bank has maintained good proportion of debt-equity and reserve ratio in considering the betterment of its stakeholders. In spite of complex business environment and default culture, quantum of classified loan in the Bank is very insignificant and stood at less than 1.13%. It has been growing fast as one of the leaders of the new generation banks in the private sector in respect of business and profitability as it is evident from the financial statements. The bank has been graded a top class bank in the country through internationally accepted CAMEL rating.

The bank's decision making authority is chaired by great business professional and tycoons who are leading the bank to a new height in this competitive market place by using their expertise, knowledge and visionary attitude towards growth. They are struggling to create an environment of trust and discipline that will drive the employees to the objective. The human resources of the bank is perfect blending of all types of professional, they have a strong focus of women employment and indiscriminating business practice. They also conduct high degree of social welfare activities through the SEBLL Foundation to support the underprivileged classes in education, health, agriculture, training and empowerment also to other socio-economic development sector. In a nutshell, SEBL is determined to remain competitive and contemporary to the market and industry upon major business and performance evaluators. The information is following has been collected from annual report.

**Corporate Profile**

| | |
|---|---|
| Name of the Company | : Southeast Bank Limited |
| Chairman | : Alamgir Kabir, FCA |
| Vice Chairman | : Ragib Ali |
| Managing Director | : Mahbubul Alam |
| Company Secretary | : Muhammad Shahjahan |
| Legal Status | : Public Limited Company |
| Date of Incorporation | : March 12, 1995 |
| Registered Office | : Eunoos Trade Centre<br>52-53, Dilkusha C/A<br>(Level 2, 3 & 16) Dhaka-1000 |
| Line of Business | : Banking |
| Authorized Capital | : Tk.10,000.00 million |
| Paid Up Capital | : Tk.8317.01 million |
| Year of Initial Public Offer | : 1999 |
| Stock Exchange Listing | : April 10, 2000 (DSE) & April 24, 2000 (CSE) |
| Phone | : 9571115, 7160866, 7173793, 9555766 & 9550081 |
| Fax | : 9550086, 9550093 & 9563102 |
| SWIFT | : SEBDBDDHXXX |
| E-mail | : info@southeastbank.com.bd |
| Website | : http://www.southeastbank.com.bd/owa |
| Names of the Bank's Subsidiary Companies | : Southeast Bank Capital Services Limited<br>: Southeast Financial Services (UK) Limited |

## 4.2 Principle Business Entities

The principles of doing business are an integral part of organizations‟ operation, function, prospect and positioning. The principles include its mission, vision, objectives, commitment and competitive edges.

### 4.2.1 Mission: - Southeast Bank

Limited aims to become one of the leading banks inBangladesh by prudence, flair and quality of operations in their banking sector. The bank has some mission to achieve the organizational goals time to time. There mission statements are not condensed into single sentences rather they have generalized their mission. Some of them are mentioned in following-:

i. Providing Mobile banking service
ii. Providing high quality financial services with the help of latest technologies
iii. Providing fast and accurate customer service
iv. Balancing growth strategy
v. Setting high standard in business ethics
vi. Ensuring steady return on shareholders equity
vii. Innovating banking at a competitive price
viii. Declaring deep commitment to the society and growth of national economy
ix. Attracting and retaining quality human resource

**4.2.2 Vision: -** The vision is the condensed figure of mission is long-term and theirmissions are linked with vision.

i. To stand out as a premier banking institution in Bangladesh
ii. To contribute significantly to the national economy

**4.2.3 Objectives: -** Southeast Bank Limited is designed to provide commercial and investment banking services to all types of customers ranging from small entrepreneurs to big business firms. In this regard it emphasizes on the priority sectors of the economy like agriculture, industry, housing and self-employment. Besides, the bank aims to provide different customers friendly deposit and loan products in the field of personal banking to fulfill the bank needs of individual customers.

**Some other objectives of SEBL are:**

i. Establishing an interest free economy
ii. Establishing a modern banking system for all kinds of people
iii. Taking part in the economic growth of the country.
iv. Eradicating poverty and doing social services by establishing Schools, Madrashas, University, Hospitals, Public Library etc.

**4.2.4 Commitment: -** The bank has outlined some commitment criteria to clients when started the business.

i. Providing service with high degree of professionalism and use of modern technology
ii. Creating long - term relationship based on mutual trust
iii. Responding to customer needs with speed and accuracy
iv. Sharing their values and beliefs
v. Growing as the customer base and market grows
vi. Providing products and service at competitive pricing

## 4.3 Products and Services

Southeast Bank provides a wide variety of banking products and services to different category of customer in response to their need of banking. They have clustered the product and services into several segments which are directed and operated by independent divisions. Each product and services has numerous rule-regulations, term-conditions, fees-charges and distinct characteristics. For the sake of simplicity and relevance, I am skipping those particular parts which can be seen at internet or any brochures.

a) **Conventional Banking:-** The bank offers several conventional retail products available in the market which are stated below-

i. Savings Deposit
ii. Current Deposit
iii. Fixed Deposit Receipt
iv. Double Benefit Scheme
v. Short Notice Deposit
vi. Pension Savings Scheme
vii. Monthly Savings Scheme

viii. Monthly Income Scheme
ix. Millionaire Deposit Scheme

b) **Islamic Banking: -** The bank offers similar type of banking product on the basis of Shariah law of Finance and Banking so that the majority people or Muslims can follow the religious instructions in every sphere of life. The brand name of Islamic banking is „Tijarah" which offers interest-free concept of banking.

i. Mudaraba Savings Deposit
ii. Al-Wadiah Current Deposit
iii. Mudaraba Short Term Deposit
iv. Mudaraba Term Deposit Receipt
v. Mudaraba Double Benefit Scheme
vi. Mudaraba Millionaire Deposit Scheme
vii. Mudaraba Hajj Sanchay Prokalpa

c) **Loans and Advances Product: -** The bank offers wide range of different funded and non-funded loans and advance products in name of working capital finance, project finance, syndicated finance, trade finance etc.

i. Working capital finance
ii. Trade capital finance
iii. Project finance
iv. Syndicated loan
v. Packing Credit
vi. Loan against Trust Receipt
vii. Loan against Export/Import Bill payment
viii. Bank guarantee
ix. SME credit
x. Loan against Share and Securities
xi. VISA Credit Card
xii. House building financing
xiii. Industrial finance

d) **Services: -** The bank provides some direct service to its customers.

i. Virtual Card

ii. Locker Service
iii. Remittance Service
iv. Western Union
v. SWIFT
vi. ATM
vii. Internet Banking
viii. E-Statement
ix. Online bill payment

## 4.4 Interest Rate and Benefits of Scheme

The benefit that SEBL provides to its customer in terms of deposit schemes is very competitive. It is the benefit for which people from different classes comes to the bank and fixes their amount into a scheme. There are different types of schemes available to customers to invest. The difference between the deposit schemes mainly are interest rate, time and distributed interest. Each schemes charges 10% excise duty upon distributing interest to an account. The customer gets his principal amount the end of maturity. If anyone encashes the scheme before maturity, will get regular interest only. The interest is fixed by the policy-makers of the bank with the help of treasury division. The central bank has instructed to define the spread of interest up to 3% which means if the lending loan interest is 15%; the deposit interest given to customers cannot be less than 12%. Some bank can also use special consideration in deciding interest rate upon the amount and party reputation. The interest rate on schemes generally moves lower of remains stable for a long period. The primary instruction on interest rate is generated by central bank upon discussion with bankers committee.

**Table 4.4.1: Types of Deposits**

| Types of Deposits | Rate of Interest (With effect from December-04,2015) |
|---|---|
| Current Deposit | 0.00% |
| Savings Deposit | 4.25% |
| Short Notice Deposit | 4.00% (Banks & NBFI): 3.75%-6.00% (Customers) |
| Fixed Deposit | 6.50% (3 Months) |

## 4.5 Management Hierarchy of SEBL

The management hierarchy descends from Chairman to Asst. Officer. The hierarchy is similar to other banks in the industry.


The management hierarchy descends from Chairman to Asst. Officer. The hierarchy is similar to other banks in the industry.

## 4.6 Local and International Network

The branch network of Southeast Bank Limited has increased in last consecutive years with an increase in its human resources and cumulative income. There are 114 branches of Southeast Bank throughout the country at this moment. The branches are located at various important locations and enables Southeast Bank to provide quality banking service to the clients. The amount of branch is low than its close competitors if we consider the inception period of this bank. To cater to the increasing demand of client, the bank has planned to open 10 more branches, 3 offshore banking unit and 10 rural branches in important business hubs by next year.

**Table 4.6.1: Total Number of Southeast Bank Branches in Different Divisions**

| **Dhaka** | Chittagong | Sylhet | Khulna and Barisal | Rajshahi and Rangpur |
|---|---|---|---|---|
| **59** | 29 | 12 | 5 | 9 |

The bank has significant amount of correspondence with foreign banks in terms of offshore banking, foreign exchange operation and trade finance. The correspondence with the foreign banks is needed to fulfill foreign currency transaction and requirement. International correspondence in last five year was in between 590 to 650 with an increasing trend. The network with foreign banks is satisfactory. The bank has only one own subsidiary that is Southeast financial Services in London, UK from where they conduct foreign banking services directly with clients and other foreign correspondent banks. The related foreign correspondences of SEBL are located in USA, Germany, Switzerland, Canada, India, Nepal, Pakistan, UK, Australian and Japan. Among these agents, most of them are stationed at New York, Frankfurt, London, Mumbai, Kolkata and Zurich.

## 4.7 SWOT Analysis

The SWOT analysis of Southeast Bank will show internal and external influential factor both positively and negatively. It's the most important building block for growth to take place. After analyzing SWOT, specific inferences can be made in matrix.

**Table 4.7.1: SOWT analysis**

| Strength | Weakness |
|---|---|
| **Effective Corporate Governance** | No separate R&D division |
| **Highly experienced policymakers and** | No or less advertising activities |
| **top level management** | Ineffective card division |
| **Continuous positive trend in financial** | Poor internet banking services |
| **Performance** | Lack of experienced employees in |
| **Regular training of employees** | junior level management |
| **Strong corporate customer base** | Backdated website |
| | Lower amount of CSR activities |
| | Less participation in decision-making |
| | by lower level management |
| **Opportunity** | **Threat** |
| **Providing sponsorship to emerging agricultural business** | Fierce and unhealthy competition |
| **Introducing new banking services** | Government intervention on liquidity |

# CHAPTER–5

## Internship Experience and Job Description

# 5. Internship Experience and Job Description

## 5.1 An Overview of Internship

My internship experience at Southeast Bank Ltd. started in the Dinajpur Branch. The branch is a two storied building in which around 18 officers of different designation works from 09:30 am of the morning to 07:30 pm of the night. The most attracting thing of the branch is the state-of-the-art interior design and space of the bank premise.

I started my internship from (15/03/2016 to 13/06/2016) in Southeast Bank Limited at Dinajpur branch. We were prepared for an interview which happened after 2 hours of waiting. We meet with the authoritative person of the branch who is honorable the Head of the branch of SEBL. Then he took our short interview and told to wait for the final call. After 4 days, the call finally came; we were advised to receive the appointment letter.

After joining to the branch at the morning, the Head of the Branch received my appointment letter warm heartedly and introduced others with me as a new intern from HSTU. At first, I have been posted to the Front Desk, the first of customer to get general banking service where I passed second highest work time among all departments. I learned many things about general banking and customer dealing there. By this time, I was able to build good relation with officer at the second floor in general banking. Credit related activities has no known bounds and have many difficulties and limitless pressure. Though the interns had nothing mentionable to do in the credit department, but I enjoyed the credit most after front desk; it was the place where I passed 3 months because I found it most important and interesting for my report purpose. The job rotation of employees and interns is very effective for better understanding of branch banking.

My relationship with the officials and others interns goes deeper and deeper as time passes and I can confidently say that I tried to become a professional, hard-working, honest, responsible, ardent and amiable person at my workplace. Finally, I got verbal compliments from my branch manager, second manager and officers who actually make me feel that I am successful as an intern in their eyes. My confidence level has gone higher after finishing successfully. The only problem I faced was the workless times at different departments and doing nothing. However, in an aggregate, I will rank the branch high in some major distinguishing factors. I enjoyed my first time official attachment very much indeed. My job responsibilities, experience and recommendation at different department are explained in following parts.

## 5.2 Front Desk (General Banking)

My work at front desk started at the very beginning from joining date.

**5.2.1 Experience: -** Front Desk of the branch was one of most mentionable work area forme where I have learned many things about branch banking and customer relation. I got 60% of my internship learning from there because I had to deal with different types of customers with varied requirement to us. I generally; assisted my supervisor and other officers at front desk to execute the tasks swiftly and successfully. Sometimes, I solely had to take the charge of front desk for a while when other officer were not available. I observed firstly, the place or shelves which are frequently used by officer like the files-folders, different types of forms-papers, cheque box, stationary box etc so that when the want anything from me, I can easily find those stuffs for them. It also helped me to do my task when I was alone.

The experience of front desk was both enjoyable and painful. It was enjoyable when I faced challenge to do any task or respond to customer queries at fast as possible because customers are the wealth of the bank and I am providing them the response as an intern. It was quite thrilling to serve customers accordingly with perfection and highest professionalism. Some clients‟ behavior was very fascinating and cooperative that actually drives the officer to respond quickly and perfectly. Dealing with different types and level of clients has reflected the lecture of my marketing teacher who talked about different aspect of consumer behavior and relationship. It felt good when the officer relied on me to be dealt with a client. It was also interesting to respond to persons queries that don‟t have any relation with front desk. Though it was annoying but got something to learn from them. Sometimes sales executives from different organization came, briefed about their product and services and gave some sort of corporate invitation or complementary. At front desk, officers can learn about diverse things of the world which is not available in other departments. Responding to the clients‟ queries and instruction become easy when I learned to use some function of the banking software namely „Bank Ultimus‟. Each task has different protocols or file path to proceed and most interestingly it takes an officer to go into several file paths to execute on small operation. However, interns of Dinajpur branch have littlie or no permission to use the banking software because of sensitivity of information and operation.

The painful experience of working at front desk was dealing with an impatient client who lacks educational and technical knowledge to understand banking. They just push and scold at responsible officer to respond him, which was actually not possible or feasible to do. Once I found one customer whose hand-writing was hazy and difficult to understand but was continuously patronizing me. Other than client, the work of preparing a raw form to complete one, was very annoying because a complete form contains many sub-forms like a savings account form has been made by sign card, cheque requisition slip, personal banking form, personal information form, transaction profile, KYC form, Terms and conditions form, ATM card requisition form and internet banking application form. All of the forms are very crucial documents for a client and bank, which needed to be duly filled and signed by client and branch officials. Maintaining proper documentation and finding cheque book for client from hundreds of different type of cheque book like savings account cheque book, current account cheque book, overdraft account cheque book was a crucial, sensitive, critical, boring and risky task to do. Eventually I realized that no experience of banking is worthless rather it broadens the outlook and knowledge level.

**5.2.2 Job Responsibilities: -** My job responsibility at the front desk was vast and diverse as an intern. Apart from some specific tasks, I had to perform certain tasks during the office hour.

i. Dealing with clients as per the demand of client and officials
ii. Responding to the queries in detail about different types of deposit schemes and accounts.
iii. Preparing form of different deposit scheme and accounts
iv. Inspecting the form boxes and making forms as per need
v. Filling up the important unfilled items on a form
vi. Filing the used, closed and pending forms
vii. Finding and delivering cheque books
viii. Processing and enlisting cheque books
ix. Giving guidelines to fully fill a deposit scheme or account opening form
x. Informing client about account balance and transaction
xi. Giving accounts statement
xii. Delivering ATM Cards
xiii. Writing pay orders

**5.2.3 Observation and Recommendation: -** From my observation, front desk has ahigh potential to communicate with different level of clients. The officials of front desk have more client related responsibility than other section. The job is a mixture of good and bad experiences but all experiences can be counted. The desk demands fast, organized and perfect execution of works. The authority should permit an intern to learn and use banking software to increase their knowledge and experience levels. The most energetic, handsome and smart official should always be placed at the front desk. Authority should give small training or banking guideline of GB for best results if possible.

# ***CHAPTER–6***

## *Project and Research*

# 6. Project and Research

## 6.1 Customer satisfaction level on Southeast Bank

Customers are the life of any kind of business. Most of the business organizations in the modern world are customer driven, trying to meet the customer's expectation in the best way. They always try to grab their most potential customers to increase their market share. When the products and services provided by the companies meet the expectations of the customer then the customer will be satisfied and will repurchase product and he will be loyal customer to that company. In the banking sector in Bangladesh customer satisfaction is also very important as because the competition in this sector has been increasing. To retain their most loyal and to attract potential customer banks should offer what the customer require and expectation. Southeast Bank Limited is also customer concentrated and always committed to provide best service to its customer which is first priority of this bank.

As an intern of Southeast Bank limited I was assigned to resolve customer problem of general banking and observe the customer expectation and requirement. From this I got interest to find out the customer satisfaction level of Southeast Bank limited. Thus I decided that my project will be the customer satisfaction level of the Southeast Bank Limited Finding the customer satisfaction level is also important for a company to take proper and effective decision. This will indicate the customer repurchase intention, limitation on the service provided by the company, customers' expectation, points to improve which will play a vital role to take important decision by the management. Customer service is an extremely important part of maintaining ongoing client relationships that are important to continuous revenue. For this reason, many companies have worked hard to increase their customer satisfaction level. Customer's satisfaction basically depends on various factors. Customers will be satisfied with the bank when they will get excellent and quality services from employees of bank on a continuous basis.

## 6.2 Method to find out Customer Satisfaction Level

- Making Questionnaire
- Survey
- Analysis of survey data
- Finding from the analysis
- Result

To find out the customer satisfaction level of Southeast Bank limited firstly I have made a questionnaire of 15 questions which will be rated by the existing customer of Dinajpur Branch of Southeast Bank Limited by 1-5 which will represent poor to excellent. The survey will be conducted by response of 50 customers of this bank. The standards of the rating is given below-

| | |
|---|---|
| 1 | Poor |
| 2 | **Fair** |
| 3 | **Good** |
| 4 | **Very good** |
| 5 | **Excellent** |

After the survey I will analyze survey data and make a summary of the analyzed data which is finding from the analysis. Finally I will give the survey result based on the findings from analysis of survey data.

## 6.3 Analysis of survey data

Questionnaire is made based on some variables that have directly or indirectly influence on the customer satisfaction level. Analysis of survey data is given bellow-

i. Employee Behavior with Customer
ii. Reasonable service charge
iii. Provide prompt & accurate service
iv. Problem solving skills of employees
v. Ensuring error free records
vi. Facility of utility bill Payment
vii. Using modern and updated technology
viii. Provide quality network for ATM service
ix. Easy procedure of getting Loan
x. Customer feels safe by making transaction
xi. Ensure good online banking service
xii. Well organized office environment
xiii. Keep Promises
xiv. Waiting time to get service
xv. Office Space

**Employee behavior with the customer**


Figure 1: Employee behavior with the customer

Behavior of the employee working in the bank is one of the important factors for the customer to be satisfied. In my survey there was a questionnaire about the behavior of employee of the Southeast Bank limited with the customer when providing banking service. From the survey, we can see that at most 25 customers which about of the 50 customers said "Good". It means that they are somewhat satisfied with the behavior of the employee of Southeast Bank Limited.

**Reasonable Service Charge**

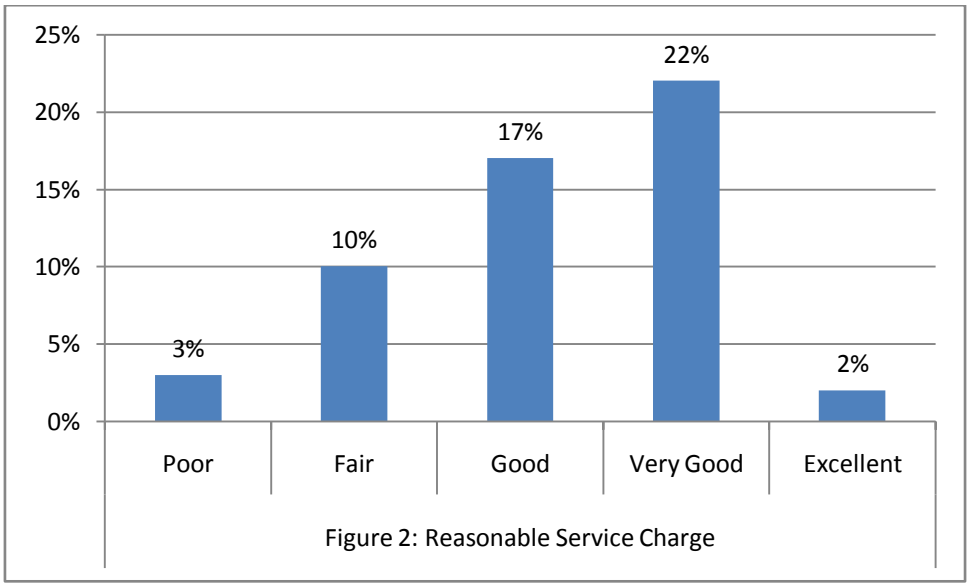


Figure 2: Reasonable Service Charge

Service charge taken by the bank is always a considerable factor to the customer to be satisfied with. Customers were asked that Southeast Bank Charges reasonably for the service

they are providing to the customer. Among 50 customers, 22 said "Very Good" and 17 said "Good" that means 22 customers which is 44% of the sample are satisfied with the service charge taken by the Southeast Bank. 17 customers which are 34% of the sample are somewhat satisfied with charge of service of the bank. This indicates that service charge taken by the Southeast Bank is quite reasonable than other banks operating in the country.

**Provide prompt and accurate service**

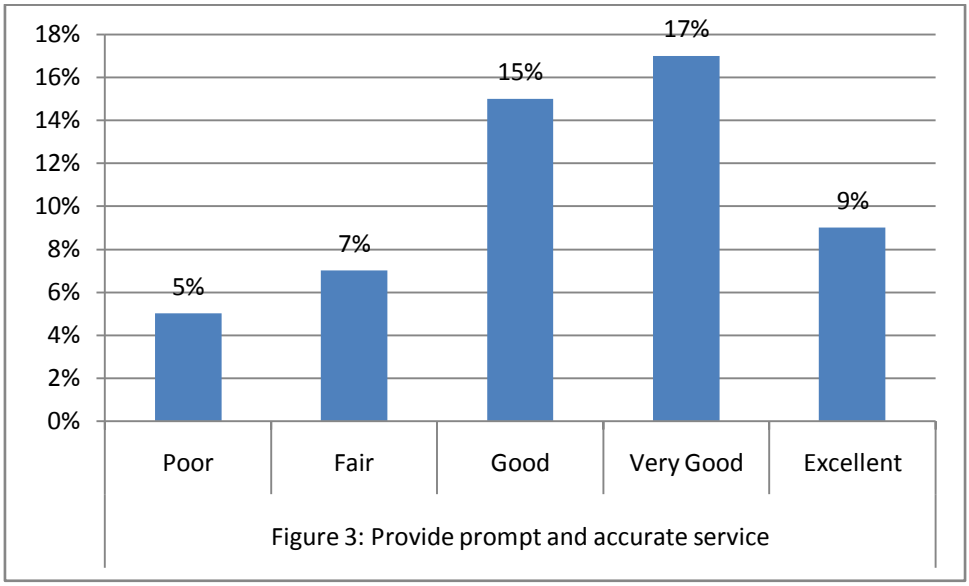


Figure 3: Provide prompt and accurate service

Getting Prompt and accurate service is one of the most important factors of customer satisfaction. If one bank fails to provide prompt and accurate service then it will obviously lose its valuable customer and affect of this can be devastating for the prospect of the bank and it will be criticized. So it is very much important for both the bank to consider as a first priority to provide. Survey shows that 17 customers of 50 which are 34 % said "Very Good" meaning that they are satisfied with prompt and accurate service provided by the Southeast Bank. Moreover, 17 of them are also said "Good" means that they are somewhat satisfied with this. From this, we can say that Southeast Bank provide prompt and accurate service to its customers.

**Problem Solving Skills of the Employee**

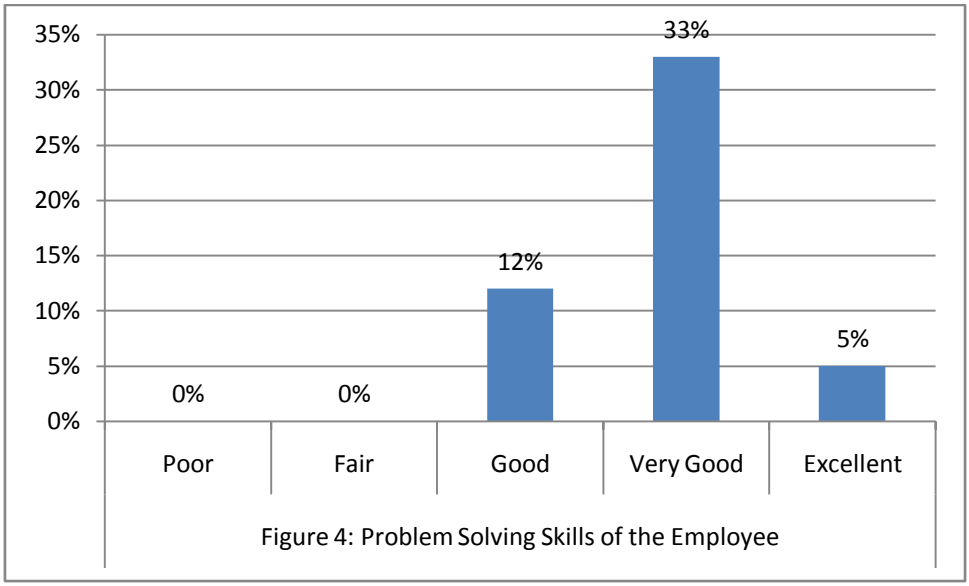


Figure 4: Problem Solving Skills of the Employee

Problem solving skills of employee of the Southeast Bank is a significant matter to think when we are trying to justify performance of a bank which resulted in satisfaction or dissatisfaction of the customer of the bank. Customer often face different problem when making transaction, taking loan, depositing money and taking other service provided by the bank. It is important matter to think how much willingness or eagerness shown by employee and time taken to solve the problem. The biggest pillar of the chart shows that 33 customers which are 66% said ” Very Good” meaning that they are satisfied with problem solving skills of the employee.

**Ensuring error free record**

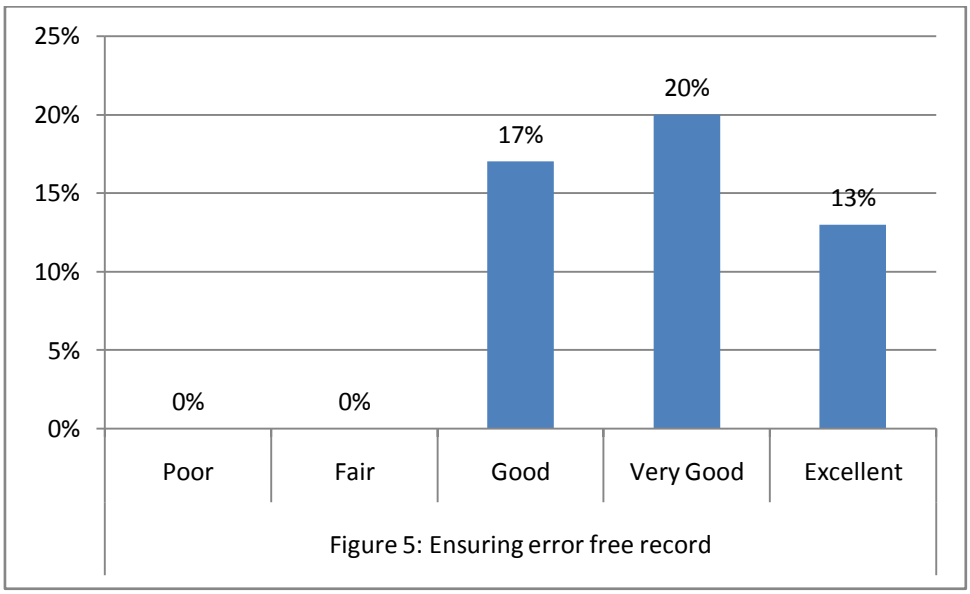


Figure 5: Ensuring error free record

Ensuring error free record of every transaction made by the customers and bank is basic element and fundamental requirement for the bank. Among 50 customers, 17 people said "good" 20 of them which are 40% of the sample said "Very Good" and 13 of them said "Excellent". This stat tells that almost everyone believes that Southeast Bank Limited ensure the error free record every transaction occur in the bank.

**Facility of utility bill Payment**

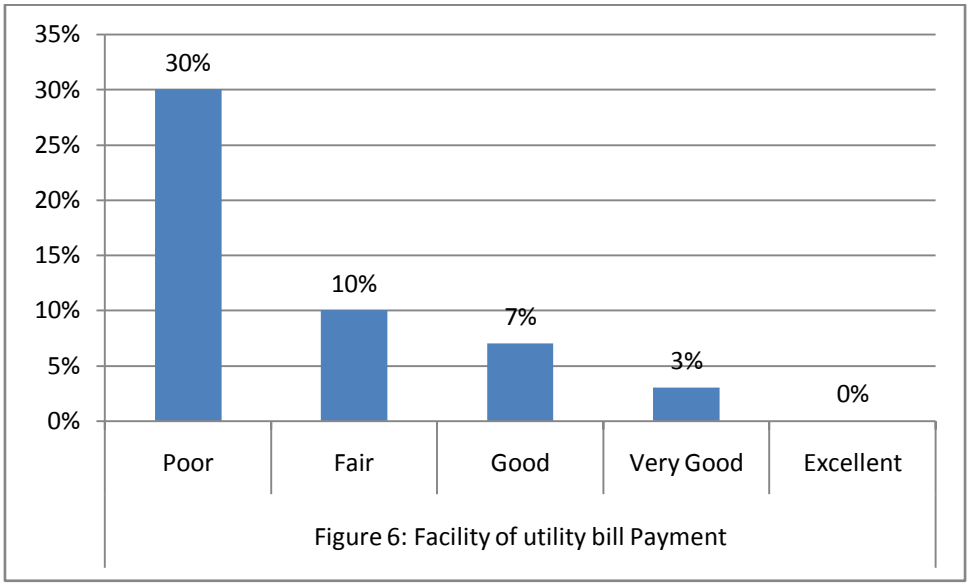


Figure 6: Facility of utility bill Payment

Utility bill payment on the bank is one of the criteria where customers are interested in. they want to pay bill to the nearest place of their home. If a bank provides this opportunity then it will make customer happy. Here we can see that 30 persons among 50 which 60% are not satisfied with this service provided by the bank. I tried to know why they don't like this service of this bank, they said Southeast Bank accept electricity and WASA bill but not gas bill. People have to go for another bank to pay gas bill. This is one area where Southeast Bank can improve. They need to know the customers' requirement. It is irritating to pay electricity bill in one bank and pay gas bill to another bank. This indicates customer dissatisfaction on utility bill payment factor.

**Using modern and updated technology**

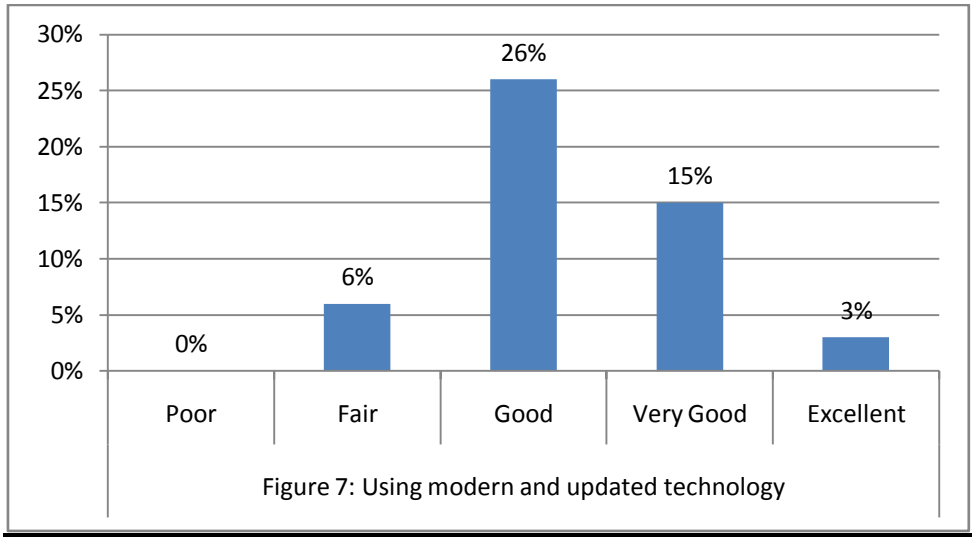


Figure 7: Using modern and updated technology

Technology is very important in the present world in any business. In the banking industry it is obvious. To record transaction the software they use and devices they use are also considerable to find the customer satisfaction level. If the bank uses latest and reliable software and devices then it will have an affect also on customer satisfaction. It will make easy for the bank to do day today general banking activity and others activity and this will have an impact on the customer.

Here we can see that 26 or 52% customers said “Good” which means that they are somewhat satisfied and 15 customers or 30% of customers said “very good” meaning that they satisfied about the using of modern and updated technology by Southeast Bank Limited.

**Provide quality network for ATM service**

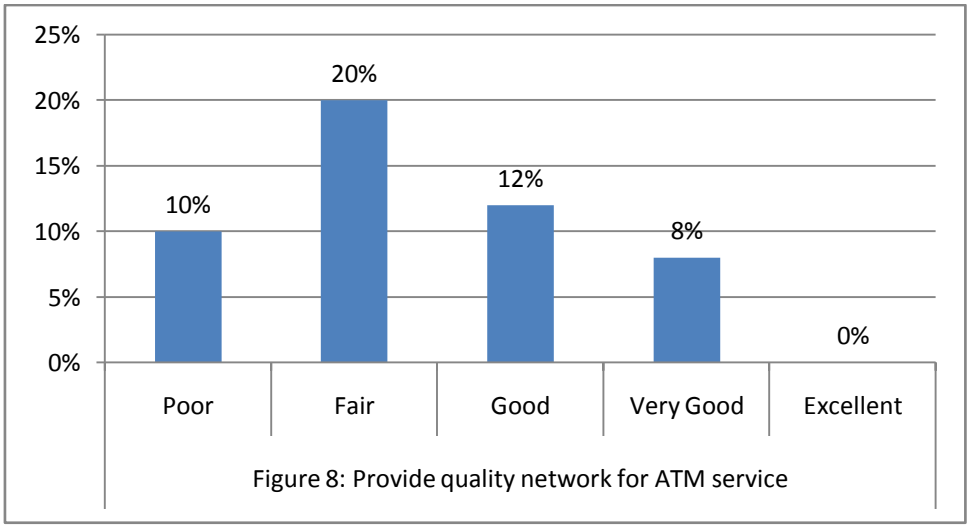


Figure 8: Provide quality network for ATM service

Network provided for ATM service by the bank is an element to justify a bank's quality service.

If the bank ensure quality network for ATM service then customer will be satisfied. If there is good network then there will be no problem to withdraw and deposit money from ATM machine. For Southeast Bank limited, survey data shows no positive sign, 20 customers which are said

"Fair" which means that network is not that satisfactory. However 12 customers said it is somewhat satisfactory.

**Easy procedure of getting Loan:**

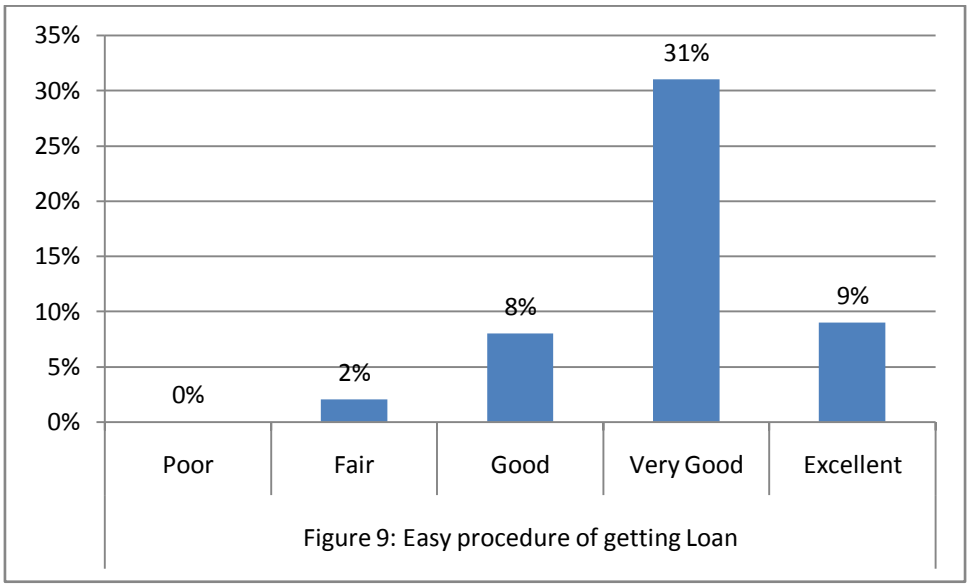


Figure 9: Easy procedure of getting Loan

Different banks have different procedure or process to provide loan to their customer. Complexity or easiness of the process is also a considerable element which has impact on customer satisfaction. If the process of getting loan is easy, precise and applicable then customers will be happy and delighted by getting loan on easy condition. From the survey, we can see that 31 customers which are 62% of the sample said "Very Good" which mean that they are satisfied about the process, term and condition of getting loan from Southeast Bank Limited. It is also indicate the process of providing loan to the customer of Southeast Bank limited is easy and implementable.

**Customer feels safe by making transaction**

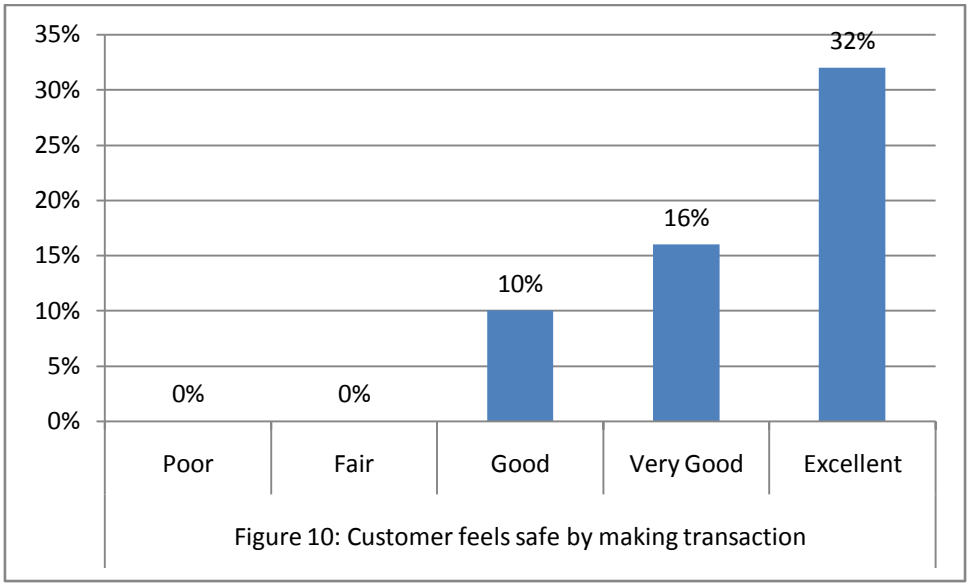


Figure 10: Customer feels safe by making transaction

When the customer feels safe about their money transacted through the bank, we can say that customers are satisfied the service bank provided. It is important factor for customer satisfaction level of a company. The chart 10 shows that 24 customers out of 50 give their opinion as "Excellent" which is 48% of the sample. So that we can say that they are fully satisfied and feel safe about their money deposited or transacted through the bank.

**Ensure good online banking service**

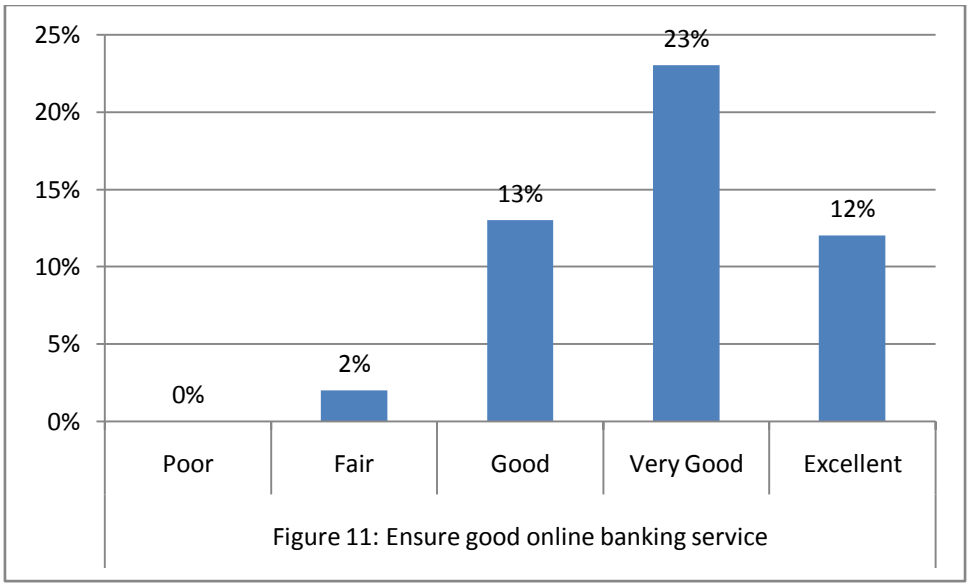


Figure 11: Ensure good online banking service

Online banking is a new dimension for the modern banking system. This is one of the Value added service provide by different banks save time and cost for customer. With help of

internet connection customer will be able deposit money and make payment by sitting at home. Southeast Bank has offer online banking as well. Survey indicates that 23 which 46% said that Southeast Bank provide good online banking service.

**Well organized office environment**

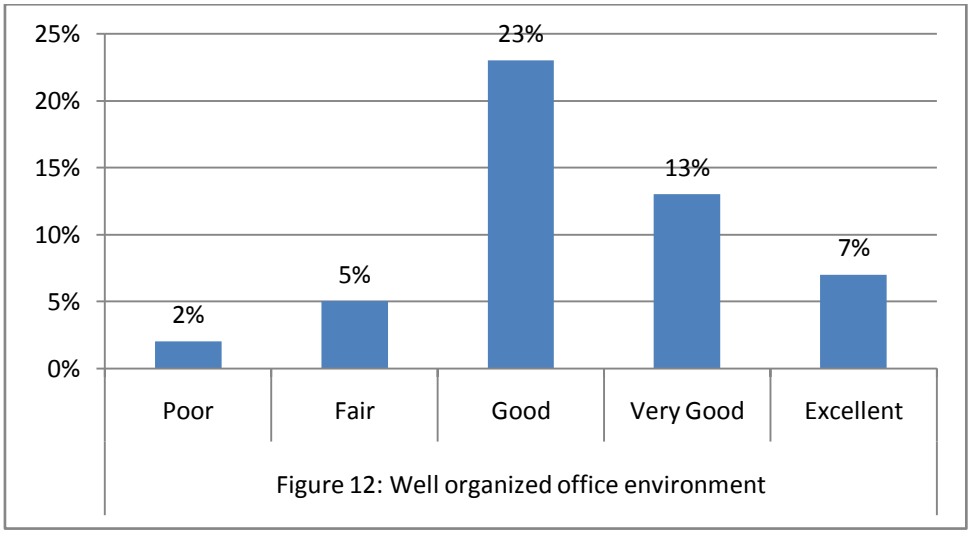


Figure 12: Well organized office environment

Office environment influences the customer as well as the employee working in the bank. If the office is well organized and decorated with quality furniture the employee will feel fresh to work here and will have impact on their performance. Moreover the customers also feel soothing and comfortable by being in bank office to get service from the bank. It is also an important element of customer satisfaction. According to the survey data we can see that 23 customer said “good” to well organized office environment which means that they are somewhat satisfied with office environment of the Southeast Bank Dinajpur Branch.

**\Keeps promises**

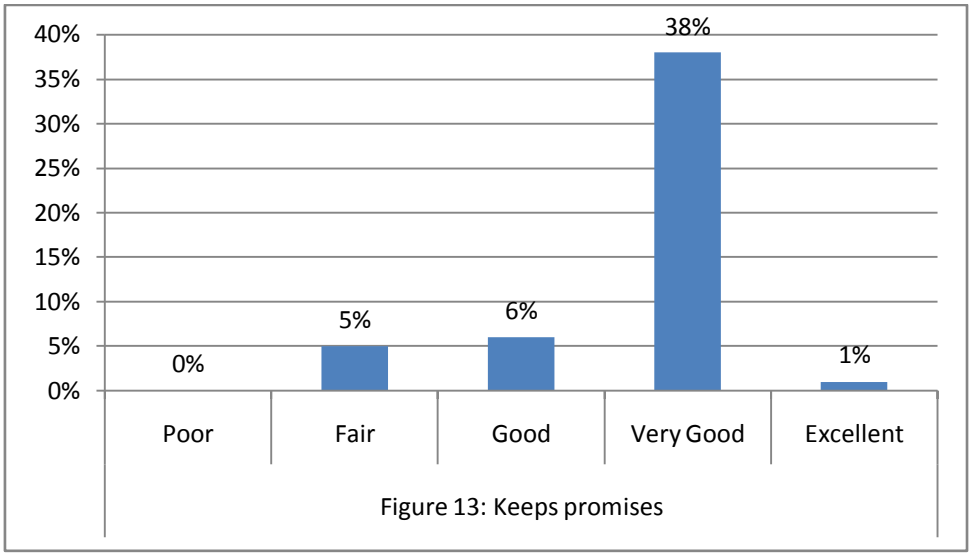


Figure 13: Keeps promises

Keeping promise is also very important for a bank. If any does not keep promise which it made the effect would be worse. The customer can leave the bank by being deprived by the bank. Here we can see that 38 customer which about 76% are satisfied with the keeping promise by the Southeast Bank. It indicates that Southeast Bank keep promises what it made to its customer.

**Waiting time to get service**

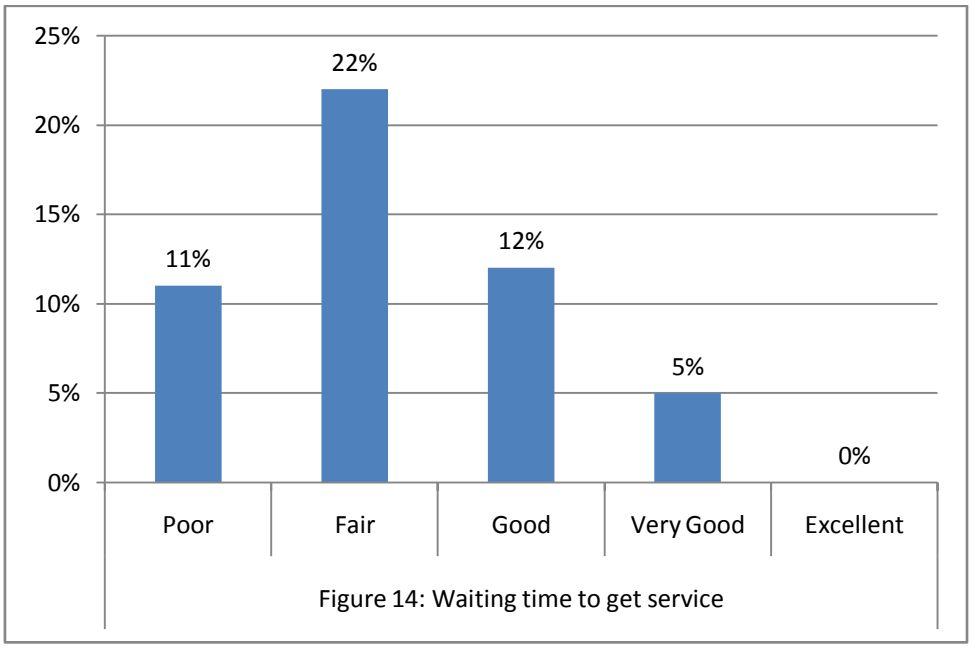


Figure 14: Waiting time to get service

Weighted average time of waiting to get a service from the bank is also important factor to be satisfied by the service from the bank. If the waiting time is longer, then customer will obviously dissatisfied by the performance of the employee of the bank. Here we can see that 22 customer out of 50 which is 44% saying that "Fair" indicate that waiting time to get a service is not that satisfactory. It also indicates that waiting tine is longer and performance of the employee is not that convincing.

**Office Space**

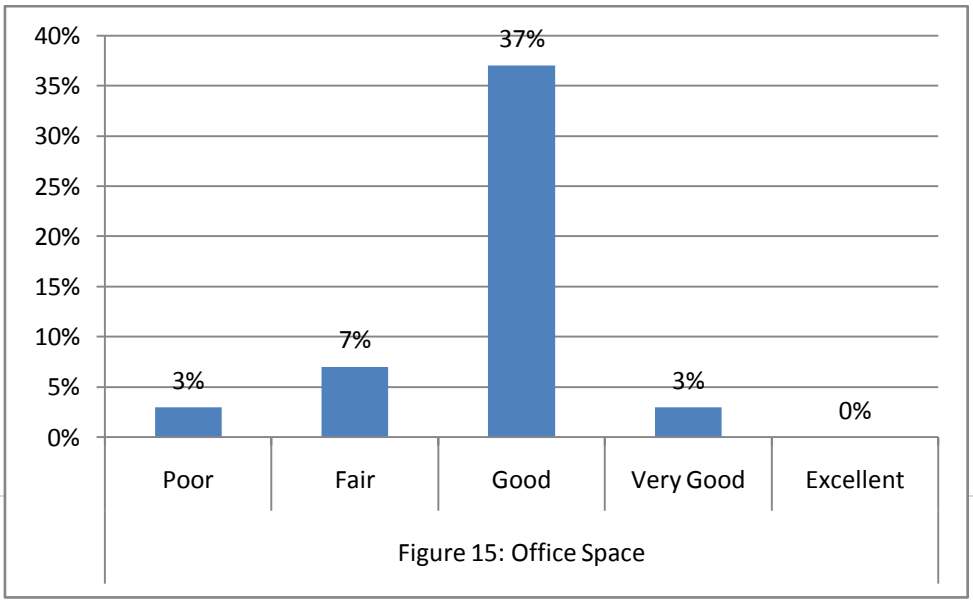


Figure 15: Office Space

Office space is also important element of justifying of customer satisfaction. When the office is spacious the customer can stand comfortably on the queue for getting service from bank. When there is narrow space then customer feels irritating. Here we can see that, 37 out of 50 customers whish are 74% said "Good" means that they are somewhat satisfied with the Office space. It indicate that Southeast Bank Dinajpur Branch has medium office space which quite okay.

# CHAPTER–7

## Result and Discussion

# 7. Result and Discussion

## 7.1 Findings from analyzed data

Here I will divide the findings from analyzed data into two sections. These are-

- Positive findings
- Negative findings

By comparing these two sections I can decide the level of satisfaction of the customer in Southeast Bank limited.

**Positive findings**

- 25% of the customers are Said good and 7% Said very good 3% said excellent.
- 17% of the customers are Said good and 22% Said very good 2% said excellent.
- 15% of the customers are Said good and 17% Said very good.
- 12% of the customers are Said good and 33% Said very good 5% said excellent.
- 15% of the customers are Said good and 17% Said very good.
- 17% of the customers are Said good and 20% Said very good 13% said excellent.
- 7% of the customers are Said good and 3% Said very good.
- 26% of the customers are Said good and 15% Said very good 3% said excellent.
- 12% of the customers are Said good and 8% Said very good.
- 8% of the customers are Said good and 31% Said very good 9% said excellent.
- 10% of the customers are Said good and 16% Said very good24% said excellent.
- 13% of the customers are Said good and 23% Said very good 12% said excellent.
- 6% of the customers are Said good and 38% Said very good 1% said excellent.
- 12% of the customers are Said good and 5% Said very good.
- 37% of the customers are Said good and 3% Said very good.

**Negative findings**

- 60% of the customer are not satisfied with facility of utility bill payment offered by Southeast Bank limited
- 20% of the customers are not satisfied and 40% are not that satisfied with the quality of the network provided to ATM service.
- 22% of the customers are not satisfied.

## 7.2 Result of the Survey

Comparison between positive findings and negative findings from the survey clearly suggest that positive findings are far more than the negative findings. So we can say that most of the customers are satisfied but not fully satisfied about the service and facility provided by the Southeast Bank Limited Dinajpur Branch. However, Southeast Bank has many areas where they can improve the quality of the service and atmosphere. Moreover, they need to think about the customer requirement, desire and expectation and should work according to this. They should build a strong relationship with the customer by offering best service they can. They need to set goal to make the customer fully satisfied by improving all the lacking they have. All the variables discussed before like employee behavior, service charge, network, utility service, accurate service, error free record, problem solving skills, and office atmosphere are very important elements for the bank, have direct or indirect impact on the customer satisfaction.

# *CHAPTER–8*

## *Conclusions, Suggestions and Future works*

# 8. Conclusions and Suggestions

## 8.1 Conclusion

Southeast Bank Limited has earned a good reputation around Bangladesh. Despite competition among banks operation in Bangladesh both local and international, SEBL has made remarkable progress, practically in every sphere of its activities. But they have their competitors who actively striving to take the advantages in every side. They should aware about this. They have reputation about online banking transaction. Customers are quite satisfied about the online banking. But the users of online banking are limited in regard to their total customers. It must be a concerning fact. They try to satisfy their customer through providing different service. So, they should improve their service quality to attract more customers. None the less, they have launched new technology to give fastest service to their customers. For sustainable growth, by implementing new technology and innovation they have to walk with the time. In this purpose, they have to identify their strength and need to recover their weak sides.

## 8.2 Suggestions

i. A need to extend branch network and more new branch to be opened in other Cities and Towns of Bangladesh to reach out the Potential Customers.

ii. Difficulties in account opening procedure should be reduced. If they cancel the introducer system they can collect more deposit through opening of new accounts and, hence, it will also satisfy the customers.

iii. Southeast Bank Ltd. should emphasis more on empathy to customers which means that SEBL should take more attention to individual care of customers and solves their specific needs.

iv. They should also focus on the marketing aspects to let customers know about their products and offerings and more promotion should be given to attract new customer. So that customer will know the benefit of becoming customer in Southeast Bank Limited through different advertisement and marketing programme. For that they can use print media, electronic media or they can distribute leaflets to customers, also they can set up stall in different trade fair.

v. SEBL should reduce their ATM and Credit card charge. Extra charge is discouraging customers to make business with SEBL.

vi. As long queues are found in the first week of the month and on Sunday as well as on

Thursday, Flexible Multipurpose Counter can be opened for Customer Services. Opening more counters is very important part for the customer's satisfaction level in the bank.

vii. For cash withdrawals and deposits more ATM can be installed in major cities and towns across the country through which customers can easily get access to their Accounts.

viii. As the competitors offering a higher interest rate on deposits and lower charges in loans, Southeast Bank Ltd. should think about it and if possible then maintain the interest rate and bank charges as similar as to its competitors.

ix. Southeast Bank Limited (SEBL) should practice a participant marginal process because in this all the employees get chance for participating in problem recognition and problem solving and this will make thee employees feel better which will work as a motivation weapon. Also award system should be activated depending on the Performance Appraisal of the Employees.

x. Sometimes customers ask for more quality service especially quick, accurate service and good behavior from bankers. Token system service can be introduced. So, that customer can easily get the service without any hassle. That time customers waiting time to get service from Southeast Bank Limited can be reduced.

xi. The features of the products offered by Southeast Bank Limited, Dinajpur branch is not enough. The demand of the customer is high in comparison. Sometime customer claims that benefit that bank is providing with the product is not that much attractive or useful for the customers. The feature of those products should be great and more variety of products is needed. So that it will fulfill the customer needs.

xii. SEBL offers the customer that they can pay their current bill, water supply bill, material bill etc in the branch. But they are not offering to pay the gas bill. So, customers are not satisfied with that service. They want to pay the every bill in one branch. So that they have not to go another bank. SEBL should try to think about that service to attract more customers in their branch.

## 8.3 Future Work

In future, the present work can be extended by applying the following:

- As I work only in one bank, in future others will work two or more banks.
- My questionnaire contain based on fifty customers, in future other will work more than this.
- As I work only on three years others will take more than three years.
- As I work only on three months other will work on six months or more.
- As I evaluated domestic bank other will work based on foreign bank.

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# Appendix- Questionnaire

| Questionnaires | Poor | Fair | Good | Very good | Excellent |
|---|---|---|---|---|---|
| Employee behavior with the customer | 1 | 2 | 3 | 4 | 5 |
| Reasonable Service Charge | 1 | 2 | 3 | 4 | 5 |
| Provide prompt and accurate service | 1 | 2 | 3 | 4 | 5 |
| Problem Solving Skills of the Employee | 1 | 2 | 3 | 4 | 5 |
| Ensuring error free record | 1 | 2 | 3 | 4 | 5 |
| Facility of utility bill Payment | 1 | 2 | 3 | 4 | 5 |
| Using modern and updated technology | 1 | 2 | 3 | 4 | 5 |
| Provide quality network for ATM service | 1 | 2 | 3 | 4 | 5 |
| Easy procedure of getting Loan | 1 | 2 | 3 | 4 | 5 |
| Customer feels safe by making transaction | 1 | 2 | 3 | 4 | 5 |
| Ensure good online banking service | 1 | 2 | 3 | 4 | 5 |
| Well organized office environment | 1 | 2 | 3 | 4 | 5 |
| Keeps promises | 1 | 2 | 3 | 4 | 5 |
| Waiting time to get service | 1 | 2 | 3 | 4 | 5 |
| Office Space | 1 | 2 | 3 | 4 | 5 |

# List of Abbreviation

| | | |
|---|---|---|
| AD | : | Authorized Dealer |
| AVP | : | Assistant Vice President |
| FDD | : | Foreign Demand Draft |
| FDI | : | Foreign direct investment |
| FDR | : | Fixed Deposit Receipt |
| GB | : | General Banking |
| SEBL | : | Southeast Bank Limited |
| SND | : | Short Note Deposit |
| STD | : | Short Term Deposit |
| SME | : | Small & Medium Enterprise |
| VAT | : | Value Added Tax |