Evaluation of Customer Satisfaction with Internet Banking Service Quality in the banking Industry in Ghana

A case study of Ghana Commercial Bank Ltd and Merchant Bank of Ghana Ltd

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Master program
Business Administration

Luleå University of Technology
Department of Business Administration, Technology and Social Sciences
MASTER’S THESIS

EVALUATION OF CUSTOMER SATISFACTION WITH INTERNET BANKING SERVICE QUALITY IN THE BANKING INDUSTRY IN GHANA:

A CASE STUDY OF GHANA COMMERCIAL BANK LTD AND MERCHANT BANK OF GHANA LTD

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SEPTEMBER 2011
ABSTRACT

This master’s thesis evaluates customer satisfaction with internet banking service quality in Ghana Commercial Bank (GCB) and Merchant Bank of Ghana (MBG). The main theoretical model adopted for conceptualizing the internet banking service quality dimensions for which customer satisfaction may be evaluated was the internet banking service quality dimensions identified by Ho and Lin (2010). Methodologically, the study was a cross-sectional case survey that involved the use of self-administered structured questionnaire to collect primary data from the customers of the two banks. The questionnaire administration yielded 77% and 62% response rates for GCB and MBG respectively. Data was analyzed using the SPSS 16.0.

The study found that, within GCB, satisfaction was highest for feeling of relief of customer to transact on the internet banking portal and accuracy of the online transaction process of the bank. The most dissatisfied item was reasonability of the transaction fee for this banking portal site. Between 68% and 90% of customers were dissatisfied with five dimension items, three of which relate to customer service and two relate to web design. Within MBG, more customers were satisfied with the entire internet banking service quality dimension items than dissatisfied. Customer satisfaction was highest for assurance dimension. The least satisfied quality item was in customer service, the internet banking system’s ability to guide customer to resolve problems.

It was also found that customer satisfaction with internet banking service quality of the two is significantly different, with customers of MBG significantly satisfied than those of GCB. Moreover, generally, satisfaction of internet banking service quality differs among different income groups, but not significantly different according to their gender, age, education and marital status. Finally and comparatively, only two main web design variables are the common internet banking service quality variables that are found to have significant influence in the two banks.

While the main methodological limitations of the study are noted, the study offers theoretical and managerial implications for scholars and practitioners and makes specific useful recommendations for management of each of the two banks and for future research.
ACKNOWLEDGEMENTS

First of all we thank the Almighty God for given us the strength and good health to get to a successful completion of this journey. We are indebted to our various families whose understanding, support and co-operation, made it possible for us to pursue this programme.

We also wish to thank our lecturer and supervisor, Dr. Melani Prinsloo, for her advice guidance and constant feedback which helped in the completion of this thesis.

Our gratitude also goes to Mr. Simon Gyasi Nimako who spent much of his valuable time giving us guidance and support in this work.

We also wish to appreciate respondents-customers of the two banks as well officials of the banks who granted us audience, explanations and supplied figures to assist us to come out with this work. They include Mr.Ntreh, the acting human Resource Manager of GCB by then and Mr. Benjamin B. Yinsob of MBG human resource department and the entire staff of their Research Department.
DEDICATION

Abdil Mumuni Moro Wandaogou wishes to dedicate this work to his beloved daughter Abdil Mumuni Moro Phildaus and his mother Memunatu Moro

Stephen P. Jalulah: I dedicate this piece of work to my lovely family-Deborah, Christoph and Nevaeh and also to my parents Pastor Matthew Jalulah and Mrs. Magna Jalulah.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE PAGE</td>
<td></td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>iii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>iv</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF APPENDICES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER ONE: INTRODUCTION

1.0 Introduction to the Study 1
1.1 Overview 1
1.2 Background to the Study 1
1.2.1 Ghana and ICT 3
1.3 Research Problem 6
1.4 Objective of the study 7
1.6 Justification of the Study 7
1.7 Organization of the Study 9

## CHAPTER TWO: LITERATURE REVIEW

2.0 Literature Review of Internet Banking Service Quality 10
2.1 Overview 10
2.2 Research Context 10
2.2.1 Country Background-Republic of Ghana 10
2.2.2 Overview of Ghana’s Banking Sector 11
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.3</td>
<td>Internet Banking in Ghana</td>
<td>14</td>
</tr>
<tr>
<td>2.2.4</td>
<td>Company Profile: Merchant Bank Ghana Limited</td>
<td>15</td>
</tr>
<tr>
<td>2.2.5</td>
<td>Company Profile: Ghana Commercial Bank Limited</td>
<td>17</td>
</tr>
<tr>
<td>2.2.6</td>
<td>Motivation for the Choice of the Companies</td>
<td>18</td>
</tr>
<tr>
<td>2.3</td>
<td>Service Quality</td>
<td>19</td>
</tr>
<tr>
<td>2.4</td>
<td>E-Service Quality</td>
<td>20</td>
</tr>
<tr>
<td>2.5</td>
<td>Internet Banking Service Quality (IBSQ)</td>
<td>22</td>
</tr>
<tr>
<td>2.6</td>
<td>Customer Satisfaction</td>
<td>25</td>
</tr>
<tr>
<td>2.6.1</td>
<td>Concept of Customer Satisfaction</td>
<td>25</td>
</tr>
<tr>
<td>2.6.2</td>
<td>Satisfaction Formation and Measurement</td>
<td>28</td>
</tr>
<tr>
<td>2.7</td>
<td>Conceptual Framework for the Study</td>
<td>29</td>
</tr>
<tr>
<td>2.8</td>
<td>Chapter Summary</td>
<td>33</td>
</tr>
</tbody>
</table>

**CHAPTER THREE: RESEARCH METHODOLOGY**

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>Methodology</td>
<td>34</td>
</tr>
<tr>
<td>3.1</td>
<td>Overview</td>
<td>34</td>
</tr>
<tr>
<td>3.2</td>
<td>Research Approaches</td>
<td>34</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Research Paradigm</td>
<td>35</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Research Question Crystallization</td>
<td>35</td>
</tr>
<tr>
<td>3.2.3</td>
<td>Research Control Variables</td>
<td>36</td>
</tr>
<tr>
<td>3.2.4</td>
<td>Scope of the Study</td>
<td>36</td>
</tr>
<tr>
<td>3.2.5</td>
<td>Research Application</td>
<td>36</td>
</tr>
<tr>
<td>3.2.6</td>
<td>Time Dimensions</td>
<td>36</td>
</tr>
<tr>
<td>3.2.7</td>
<td>Research Environment</td>
<td>37</td>
</tr>
<tr>
<td>3.2.8</td>
<td>Research Purpose</td>
<td>37</td>
</tr>
<tr>
<td>3.2.9</td>
<td>Summary of Research Perspectives</td>
<td>38</td>
</tr>
</tbody>
</table>
3.3 Data collection Procedures
3.3.1 Population and Sampling
3.3.2 Sources of Data
3.3.3 Data Collection Instruments
3.3.4 Final Administration of Instruments
3.4 Summary of Statistical Methods
3.4.1 Descriptive Statistics
3.4.2 Kruskal Wallis One-Way Analysis of Variance
3.5 Access Strategies
3.6 Credibility of the Research
3.6.1 Validity
3.6.2 Reliability
3.7 Chapter Summary

CHAPTER FOUR: DATA ANALYSIS
4.1 Chapter Review
4.2 Response Rate
4.3 Demographic Variables and Satisfaction
4.4 Customer Satisfaction/Dissatisfaction with Internet Banking Service (IBSQ)
4.4.1 Satisfaction with Internet Banking Service Quality of Ghana Commercial Bank Limited
4.4.2 Satisfaction with Internet Banking Service Quality of Merchant Bank Ghana Limited
4.5 Prioritizing Customer Satisfaction/Dissatisfaction of Ghana Commercial Bank Limited and Merchant Bank Ghana
4.6 Overall Satisfaction with Internet Banking Service Quality between the two banks
4.7 Influence of Internet Banking Service Quality Variables on overall satisfaction 77

4.8 Discussion of Results 79

4.8.1 RQ1: How can customer satisfaction with IBSQ of Ghana Commercial Bank and Merchant Bank of Ghana be described? 79

4.8.2 RQ2: What is the relative importance of the dimensions of ISBQ that customers are satisfied or dissatisfied with? 84

4.8.3 RQ3: Do the ratings of Satisfaction with IBSQ defer between the customers of the two banks? 87

4.8.4 Influence of Internet Banking Service Quality variables on overall satisfaction 88

4.8.5 Demographic Differences in overall Satisfaction 89

CHAPTER FIVE: SUMMARY, CONCLUSION, RECOMMENDATION 90

5.0 Overview 90

5.1 Summary of Study 90

5.2 Summary of Findings 91

5.2.1 Describing Customer Satisfaction with Internet Banking Service Quality of Ghana Commercial Bank and Merchant Bank Ghana Limited 91

5.2.2 Relative Importance of the Dimensions of Internet Banking Service Quality 92

5.2.3 Differences in Satisfaction with Internet Bank Service Quality between the Customers of the two Banks 94

5.2.4 Impact of Internet Banking Service Quality on Overall Satisfaction (OCS) 94

5.3 Theoretical Implications 95

5.4 Managerial Implications and Recommendations 96

5.4.1 To the Management of Ghana Commercial Bank Limited 96
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>The Eight Research Typologies</td>
<td>34</td>
</tr>
<tr>
<td>6</td>
<td>Response Rate</td>
<td>45</td>
</tr>
<tr>
<td>7</td>
<td>Respondents Gender</td>
<td>45</td>
</tr>
<tr>
<td>8</td>
<td>Respondents Age</td>
<td>46</td>
</tr>
<tr>
<td>9</td>
<td>Respondents Education</td>
<td>46</td>
</tr>
<tr>
<td>10</td>
<td>Respondents Income</td>
<td>47</td>
</tr>
<tr>
<td>11</td>
<td>Respondents Marital Status</td>
<td>48</td>
</tr>
<tr>
<td>12</td>
<td>Ease of Completion of Online Transaction</td>
<td>52</td>
</tr>
<tr>
<td>13</td>
<td>Ease of Logging onto the Online Portal</td>
<td>53</td>
</tr>
<tr>
<td>14</td>
<td>Ease of Understanding which Button to be Clicked</td>
<td>54</td>
</tr>
<tr>
<td>15</td>
<td>Ability of the Internet Portal in helping Customers Complete Transaction</td>
<td>54</td>
</tr>
<tr>
<td>16</td>
<td>Sufficient and Real-time Financial Information</td>
<td>55</td>
</tr>
<tr>
<td>17</td>
<td>Validity of the hyperlinks on the Bank’s Portal</td>
<td>56</td>
</tr>
<tr>
<td>18</td>
<td>Quickness of the web page on the Bank’s Portal</td>
<td>56</td>
</tr>
<tr>
<td>19</td>
<td>Quickness of the web page on the Bank’s Portal</td>
<td>59</td>
</tr>
<tr>
<td>20</td>
<td>Prompt Reception of Customer Responses</td>
<td>60</td>
</tr>
<tr>
<td>21</td>
<td>Ability to guide Customer to resolve problems</td>
<td>60</td>
</tr>
<tr>
<td>22</td>
<td>Assurance of Reliability and Credibility of Transactions</td>
<td>61</td>
</tr>
<tr>
<td>23</td>
<td>Assurance of Protection of Customer Transaction Data</td>
<td>61</td>
</tr>
<tr>
<td>24</td>
<td>Feeling of Relief of Customer to Transact</td>
<td>62</td>
</tr>
<tr>
<td>25</td>
<td>Preferential Treatment in terms of Lower Rate and Charges</td>
<td>63</td>
</tr>
<tr>
<td>26</td>
<td>Reliability of Transaction Fees charged for Banking Online</td>
<td>64</td>
</tr>
<tr>
<td>27</td>
<td>Sufficient and Complete Information Provision</td>
<td>64</td>
</tr>
<tr>
<td>28</td>
<td>Accuracy of the Online Banking Transaction Process</td>
<td>65</td>
</tr>
<tr>
<td>29</td>
<td>Satisfaction with Web Design Factors of Merchant Bank Ghana Limited</td>
<td>66</td>
</tr>
<tr>
<td>30</td>
<td>Satisfaction with Customer Service Factors (CS1-CS6) of Merchant Bank Ghana Limited</td>
<td>67</td>
</tr>
<tr>
<td>Figure 31</td>
<td>Satisfaction with Assurance Factors (AS1, AS2 and AS3) in Merchant Bank Ghana Limited</td>
<td>69</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>Figure 32</td>
<td>Satisfaction with Preferential Treatment Factors (PT1 and PT2) in Merchant Bank Ghana Limited</td>
<td>70</td>
</tr>
<tr>
<td>Figure 33</td>
<td>Satisfaction with Information Provision Factors (IP1 and IP2) in Merchant Bank Ghana Limited</td>
<td>72</td>
</tr>
</tbody>
</table>
CHAPTER ONE

1.0 INTRODUCTION TO THE STUDY

1.1 Overview
This study seeks to provide empirical evidence regarding the satisfaction of customers with internet banking service quality in two banks in Ghana and provides recommendations based on the study. In this chapter consideration is given to the background of the study, research problem, research questions, objective of the research, justification of the research as well as the few limitations for this research.

1.2 Background to the Study
Information and communications technologies (ICTs) have changed the way of conducting business transactions and meeting the growing demands of customers for most organizations (Hinson and Abor, 2004). One of the significant forces and dynamic change that is occurring in the universal business environment today is technology, and this brings in new products, service market opportunities and developing more information system that is business oriented and supports management processes such as planning, controlling and co-ordination (Liao and Cheung, 2002).

The promise of ICTs in the banking sector has been seen in terms of its potential to (Garau, 2002):
- increase customer base,
- reduce transaction costs,
- improve the quality and timeliness of response,
- enhance opportunities for advertising and branding,
- facilitate self-service and service customization, and
- improve customer communication and customer relationship management.

Most banks in the developed world and some in the developing world are now offering internet banking services with various levels of sophistication (Bawumia, 2007). For example, while some banks have adopted internet banking for communicating to customer on regarding bank statements, other banks use internet banking services to allow customers to access their bank accounts and perform other banking transactions (Bawumia, 2007). For example, banks like United Bank for Africa, Merchant Bank Ghana, ECOBANK Ghana,
Barclays Bank Ghana, among others, provide customers with a wide range of electronic products and transactions, some of which allow customers to receive their monthly bank statements via e-mail, online checking of accounts balance, online transfer of funds, the use of electronic cash systems, among others.

Banking is one service that is information intensive and an ideal centre for successful development of e-commerce because it provides the opportunity to use the internet and e-commerce to facilitate quick business transactions that results in customer satisfaction (Kardaras and Papathanassiou, 2001). For the banks, technology has emerged as a strategic resource for attaining efficiency, control operations, productivity and profitability. But on the part of customers, the underlying factors are anytime, anywhere and anyway banking transactions, and these have caused the banks to welcome technology so as to meet the increasing customer expectations (ibid).

Technology adoption by the banks has enabled the use of different technology tools in banking, which together may be categorized under a broad umbrella of electronic banking (e-banking). E-banking can be defined as the deployment of banking services and products over electronic and communication networks directly to customers (Singh and Malhotra, 2004). Yudkin (1995) maintains that so far, due to more researchers, there will be many definitions for the word or term “internet” - an example is the definition by Chaffy (2000) which define the term as a physical network that links computers across the world. These electronic and communication networks include Automated Teller Machines (ATMs), direct dial-up connections, private and public networks, the Internet, televisions, mobile devices and telephones. Among these technologies, the increasing penetration of personal computers, relatively easier access to the Internet and particularly the wider diffusion of mobile phones has drawn the attention of most banks to internet banking service. However, the continuing convergence of information, communications and media technologies is also opening up new electronic channels (such as "pod-banking") of delivering banking services (ibid).

1.2.1 Ghana and ICT

The government of Ghana has established an ICT framework to facilitate the development of ICT in all sectors of the economy. The ICT policy for Ghana’s economy is an initiative meant to prepare the economy as a way of setting an enabling platform to create a safe Information
Technology economy through the passage of a number of legislative instruments to safeguard development of the industry and to facilitating electronic commerce and internet usage in the country (Business & Financial Times, 2008). The “knowledge-based economy” agenda pursued by the government of Ghana has led to creating a National ICT policy called Ghana ICT for accelerated development (ICT4AD) policy.

The ICT policy objectives clearly establish the determination of Ghana to use ICT as a key developmental enabler. According to the document (ICT4AD, 2003), the policy has four year rolling plans and an operational life span of between 15 to 20 years. The 14 priority areas of the Policy are:

1. Accelerating human resource development
2. Promoting ICTs in education – the deployment and exploitation of ICTs in education
3. Facilitating government administration and service delivery
4. Facilitating the development of the private sector
5. Developing an export-oriented ICT products and services industry
6. Modernising agriculture and developing an agro-business industry
7. Developing a globally competitive value-added services sector – a regional business service and ICT hub
8. Deploying and spreading ICTs in the community
9. Promoting national health
10. Rapidly developing ICT and enabling physical infrastructure
11. Developing R&D, scientific, and industrial research capacity
12. Providing legal, regulatory, and institutional frameworks
13. Promoting foreign and local direct investment drive in ICTs
14. Facilitating national security and law and order

From the 14 ICT policy objectives, some such as Facilitating the development of the private sector, Rapidly developing ICT and enabling physical infrastructure, developing R&D, scientific, and industrial research capacity, providing legal, regulatory, and institutional frameworks, among others are geared towards promoting and facilitating the development of the private sector among which is the banking sector (ICT4AD, 2003).
Notwithstanding these, various investments in ICT infrastructure by existing Internet Service Providers (ISPs) and Telecommunication companies such as Vodafone Ghana, MTN, Kasapa Limited, Celltel Limited and Millicom Ghana Limited are helping to improve their service delivery and consequently cover the whole country. A Wide Area Network called the Research and Educational Network (REN) was also established in 2000 with the help of the World Bank INFODEV project where Ghanaian Universities and local research institutions such as CSIR and Ghana Atomic Energy Commission were linked to serve as nodes for the broad network. This network, among other things, is to create an enabling environment for the use of ICT, foster information exchange among local scientists and to facilitate the interactions and collaboration between researchers in institutions and the world (Kofi, 2007).

However, despite these massive investments in ICT infrastructure and ICT capacity building and its impact in attracting foreign investors to the Ghana still to a large extent, is digitally isolated from the Global Village because it lacks the critical drive and strategies to harness the full potential of ICT for the socio-economic development of the country. Some of the challenges facing the full ICT infrastructure are the high cost of Internet usage, less developed regulatory and legal framework for ICT industry, the lack of the critical mass of ICT engineers and scientists relevant for undertaking ICT related projects professionally, and effective leadership and the political will for successful ICT projects (Kofi, 2007).

Ghana is bringing on board four laws to sanitise the national Information, Communication and Technology (ICT) environment. The bills, which are: The National Information Technology Agency (NITA), Electronic Transactions, Electronic Communication and the New Telecommunications Amendment bill have undergone all the legislative rituals awaiting the approval of Cabinet. The National Communications Authority (NCA) currently regulates the telecommunications industry (NCA, 2010).

However, most Ghanaian banks seem to be content with having a Web presence with only a few of them making strides towards full-fledged internet banking applications (Abor 2004). Existing literature has focused on e-banking in Asian countries including Malaysia (Permual, 2005; Goi, 2005; Vijayan et al., 2005); Thailand (Rotchanakitumnual and Speece, 2003) and India (Singh and Malhotra, 2004; Rao et al., 2005). The few research that have contributed knowledge on Sub-Saharan Africa include a study on regulating Internet banking in Nigeria (Ezeoha, 2005; 2006) and on the determinants of Internet and cell-phone banking adoption in
South Africa (Brown and Molla, 2005). Sub-Saharan Africa is a region in dire need of development in ICT and probably one with the greatest need of research attention. In view of the many benefits that could accrue to Ghana from successful implementation of electronic business solutions, a study that focuses on such an under-researched part of the world would be very useful to practitioners and scholars (Mbarika and Okoli, 2003). By evaluating internet service quality in Ghana and the lessons from Ghanaian Banks, this research contributes to the cumulative knowledge of internet banking service in Ghana.

Banking business organizations in today’s dynamic marketplace are shifting from original marketing philosophies and strategies to the adoption of customer centric initiatives that seek to understand, attract, retain and build long term strong relationship with profitable customers (Narver and Slater 1990, Kotler and Keller, 2006; Gronroos, 1994). The above situation has led to the growing interest in customer relationship management in many organizations, which aims at ensuring customer identification and personal interactions, customer customization which will lead to customer retention, satisfaction and profitable (Kotler and Keller, 2006; Narver and Slater 1990).

Also, the traditional product oriented financial institution is becoming increasingly customer-oriented in accordance with the basic principles of service, which focuses on customer satisfaction as its main goal. In this sense, Gilmore (1997) considers that constant customer-oriented behavior is a requisite for improving the implementation of quality in service marketing. In this sense, Barnes and Hewlett (1998) argue that, given that many financial services are parity offerings, it can be stated that a customer is unlikely to be over impressed by core product attributes when all companies are providing similar services. According to Berry et al. (1998), service quality has become a significant differentiator and the most powerful competitive weapon which many leading service organizations possess. Leading service organizations strive to maintain a superior quality of service in an effort to maintain a satisfied customer base. These and other factors such as reducing transaction costs, increasing convenience, availability and timeliness of transactions, and improving accessibility for better fund administration are the drivers of internet banking services (Brown and Molla, 2005).
1.2 Research Problem

In an era of mature and intense competitive pressures, many firms are focusing their efforts on maintaining a satisfied customer base. It is a common assertion among management and marketing theorists that service quality is essential to business success (Kristensen et al., 1992; McColl-Kennedy and Schneider, 2000; Zeithaml et al., 1996). Firms that provide superior service quality as measured by customer satisfaction also experience higher economic returns than competitors that are not so service-oriented (Aaker and Jacobson, 1994; Bolton, 1998). This is particularly true in the financial services sector where deregulation has created an environment that allows consumers considerable choice in satisfying their financial needs. In response, many financial institutions are directing their strategies towards increasing customer satisfaction and loyalty through improved service quality (Bolton, 1998).

The state of customer satisfaction with internet banking service quality has not received much attention in the literature (Abor, 2004, Gyasi and Azumah, 2009). In recent times many of the studies have looked at customer satisfaction in different industry context in Ghana (Abor, 2004, Gyasi and Azumah, 2009). There is the need to examine customer satisfaction in internet banking industry in Ghana in order to provide feedback to management and have empirical evidence on the phenomenon for better understanding. This could drive more research work in future in this area. Therefore, the main problem of this study is: How satisfied are customers with the internet banking service quality in Ghana Commercial Bank and Merchant Bank?

1.3 Objective of the Study

The main purpose of this study is to evaluate customer satisfaction with internet banking service quality in Ghana Commercial Bank and Merchant Bank of Ghana. Specifically, the objectives for this study are:

2. To identify and prioritize the dimensions of the service quality with internet service quality in the two banks.
3. To determine whether overall satisfaction with internet banking service quality differs between the two banks.

1.4 Research Questions

The study seeks to answer the following questions:

1. How satisfied are customers with internet banking service quality in Ghana Commercial Bank and Merchant Bank of Ghana?
2. What is the relative importance of the dimensions of internet service quality that customers are satisfied or dissatisfied with?
3. Do the ratings of satisfaction with internet banking service quality differ between the customers of the two banks?

1.5 Justification of the Study

Governments of developing countries including Ghana have realized that by providing internet facilities to its nationals, their sense of dignity is strengthened and this can help to empower them to participate in the economy and society as a whole (IMF, 2007). The government of Ghana, on the other hand, has made it a policy that every child from primary to Junior Secondary School (JSS) (now Junior High School, JHS) will be provided with a laptop each to enable them learn and practice information technology in earnest. ICT has been made part of the curriculum of schools in Ghana from the primary schools to the tertiary institutions. This is to enable students learn information technology. This gesture by the government of Ghana has being reciprocated by the financial sector and it has led to a very competitive and liberal provision of e-banking service to the numerous customers in the banking sector. To the extent that if a vacancy is to be filled, the applicants are expected to have some knowledge in ICT to qualify for the position or they will be trained in information technology after being offered the job. This has led to the growth and keen competition in the
financial industry. These financial institutions offer basically the same type of products to their clients. The only clear distinguishing factor among them is their commitment to maintain a satisfied customer.

Customer satisfaction is a fundamental concept in marketing and its pursuit is an important goal for businesses (Leavitt, 1983; Webster, 1994). Indeed, businesses of all sorts now devote considerable energies on tracking customer satisfaction. A whole new industry on satisfaction research and consulting has come into existence (e.g. Barsky, 1994; Hayes 1992). Leading satisfaction researchers argue that “Customer satisfaction drives future profitability”. It is a vital measure of performance for firms, industries, and national economies (Anderson et al., 1994). Heavy use of satisfaction Surveys by service industries is driven by the assumption that a satisfied customer will return for a repurchase (Jones and Sesser, 1995). It also true that customer satisfaction is crucial for banking organizations that compete on the global market and with other foreign banks that have internationalized into the Ghanaian banking industry.

1.6 Organization of the Study

The study is divided into five chapters (Figure 1). Chapter one deals with the general introduction which covers background of the study, problem statement, objectives, scope, justification and limitations of the study. Chapter two reviews the literature in relevant areas of study. Chapter three covers the methodology used to conduct the study and the organizational profiles of Ghana commercial bank and Merchant bank of Ghana. Chapter four presents the results and discussion of the data analysis. Chapter five presents the summary, conclusions, and implications of the finds to management.
Figure 1. Structure of Thesis
CHAPTER TWO

2.0 LITERATURE REVIEW OF INTERNET BANKING SERVICE QUALITY

2.1 Overview

This chapter presents a review of relevant literature that gives an overview of the research context – the banking industry in Ghana and the banks profiles. It covers service quality, e-service quality, internet banking service quality, customer satisfaction, conceptual framework for the study and summary.

2.2 Research Context

This section describes briefly the context within which internet banking service quality is studied. It gives a brief description of the banking sector and internet banking in Ghana, as well as the companies’ profiles.

2.2.1 Country Background – Republic of Ghana

The following presents brief relevant country information about Ghana.

“Ghana is in West Africa, and lies 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), with two rainy seasons, between March to July and September to October” (Addy-Nayo, 2001, pg. 24).
Table 1: Relevant Country facts (The Republic of Ghana)
Source: 2010 World Fact book and Others available at

2.2.2 Overview of Ghana’s Banking Sector Banking
The banking sector is one of the three facets of the financial services industry in Ghana that offers several banking services, such as acceptance of deposits, granting of credit facilities, and management of loans, among others. Few new products were introduced to the market in 2008. Banks focused on enhancing and promoting existing products to improve visibility. According to the GBS (2009), notable among the few products launched, were the following tailor-made products, cut to fit the needs of specific groups in the market:

- Hujjah account was created by Intercontinental Bank Ghana to enable Muslims embark on their Hajj pilgrimage.
- Edwardipawas created by Fidelity Bank to support small and medium enterprises (SMEs).
- Boafo business credit created by Société Générale-Social Social Security Bank (SG-SSB) to support SMEs.
- Diva club account – Standard Chartered Bank (SCB) – (for Women, offers discount on items bought from selected shops).
- Royal banking created by Ghana Commercial Bank Limited to provide differentiated services to the bank’s high net worth customers.

According to the GBS (2009), in response to competitive pressure in the banking industry, banks continued to make significant investments in upgrading information technology platforms by automating and centralizing various back office activities to enhance the quality of service delivery to their customers. In 2008, Standard Chartered Bank, Ecobank Ghana LTD and Ghana Commercial Bank upgraded their banking application software. In response to the increasing role of ICT in banks’ service delivery, BOG published guidelines on branchless banking in August 2008 to allow collaboration between banks, telecommunication companies and merchants to provide greater access to banking and financial services to the wider public.

Also in 2008, a common electronic platform (the e-zwich) was established to further develop the payment and settlement system by making it possible to link all banking institutions with a biometric smartcard as a vehicle for inclusion of all segments of the population.

According to the Ghana Investment Promotion Council (GIPC) in *Sector Profile of Ghana’s Financial Services Industry* (2009), developments in the banking system as of January 2008
show a continuous surge in asset growth resulting mainly from credit expansion. Banks’ deposits and borrowings were used to fund the growth in assets. Total assets of the banking industry grew on an annual basis by 46.2 per cent to GH¢7,807.0 million as of January 2008, compared with 38.1 per cent growth for same period in 2007. As of January 2008 net loans and advances had reached GH¢3,868.7 million, recording an annual growth of 59.2 per cent compared with growth of 37.6 per cent a year earlier. Banks’ investments reached GH¢1,363.1 million in January 2008 recording a year-on-year deceleration of 0.4 per cent compared with 37.5 per cent in the 12-month period to January 2007. The growth in banks’ foreign assets picked up in January 2008 reaching 54.7 per cent compared with the 20.7 per cent recorded during the same period in 2007. Credit-deposit ratio increased to 81.5 per cent as of January 2008 from 73.4 per cent in the same period in 2007 (GIPC, 2008).

In terms of market share, the industry’s total assets grew by 40% between 2007 and 2008. Ghana Commercial Bank (GCB) and Barclays Bank of Ghana Limited collectively hold 29.4% of the industry’s assets, while Merchant Bank Ghana Limited (MBG) dropped its share from 7.6 in 2007 to 5.7% in 2008 (GBS, 2009). GCB’s total deposits grew by 25% but the bank lost some of its market share despite maintaining the second position. In 2008, GCB’s savings account had the fastest growth of 73%; current account grew by 28%, time & fixed deposits fell by 21%.MBG’s financial deposit dropped from 5.7% in 2007 to 4.2% in 2008 (ibid).

In terms of profit margins, the industry’s Profit Before Tax (PBT) dropped from 30% in 2007 to 26% in 2008 - a significant rise in impairment charges and rising staff costs account for the decline. Impairment charge for the year more than doubled whilsts staff cost increased by 40%. The high inflation rates coupled with the weakening cedi might account for the worsening loan default rate. However, the industry’s net profit after tax grew by 32%. Ecobank Ghana LTD topped PBT in the industry, which resulted mainly from significant transaction gains from foreign currency trading, which doubled over the year. The bank was also successful in controlling cost as it grew its business. Its cost to income ratio averaged 52%, below the industry’s average of 63% for 2007 and 2008 (ibid). MBG ranked fifth with an increase in PBT from 17.30.4% in 2007 to 37.6% in 2008, while GCB ranked 13th with a GCB with a relatively small increase in PBT of 30.1% in 2007 to 31.4% in 2008.
2.2.3 Internet Banking in Ghana

Internet banking has emerged as a new channel for marketing banking product/services to customers in many emerging economies like Ghana. It is intended to offer customers more value such as convenience and easy access to their money and other banking information they require. In Ghana, while many banks are going electronic in the broad sense of the word, which includes the use of ATMs, Tele-banking, smart cards for banking, few banks have adopted the use of the internet channel in their electronic banking systems. Some of the banks that are operating internet banking are: Ghana Commercial Bank, Merchant Bank, Cal Bank, Barclays Bank Ghana, Bank of Baroda, Sahel -Sahara Bank Limited, Ecobank Ghana Limited, United Bank of Africa (Ghana), SG-SSB Bank Limited, Stanbic Bank Ghana Limited, GTB, Zenith Bank (Ghana) Limited, among others.

The financial sector is an example of where the relationship between buyer and seller is complicated because the services are heterogeneous (Eriksson & Mattson, 2002) and contain an extensive level of uncertainty (Eriksson & Sharma, 2003). Financial services, such as funds, placements, accounts, and mortgages, are often perceived as difficult for consumers to understand, thus complicating the consumers’ decision-making process and attaching a high perceived risk to it (Harrison, 2002). If consumers have extensive knowledge of financial services, they are more likely to use Internet-based financial services than consumers without the same level of knowledge.

As stated by Pikkarainen et al (2004), “online banking acceptance has gained special attention in academic studies during the past five years”. Studies have observed banks moving to an online mode for a number of reasons. The two key reasons, according to (ibid), are cost savings flowing to banks that provide online rather than physical services and the move to a more self-service mode because branch banking took too much time and effort. The adoption of IT, such as internet banking, has been studied through the use of various models. Recently, (ibid) applied the traditional Technology Acceptance Model (TAM) in Finland and found that perceived usefulness of information on online banking were the main factors influencing customer acceptance. With the model, it is argued that system use (i.e. actual behaviour) is determined by perceived usefulness and perceived ease of use, which are related to attitude and thereby to actual use. Also recently, Shih and Fang (2004) tested the usefulness of a number of IT adoption models to Internet banking adoption in Taiwan. These
models were the Theory of Planned Behaviour (TPB), both in pure and decomposed form, and the Theory of Reasoned Action (TRA). They concluded that both TPB and TRA produce a good fit to the data although “the decomposed TPB model has better explanatory power for behavioral intention, attitude and subjective norm than the TRA and pure TPB models” (p. 220).

2.2.4 Company Profile: Merchant Bank Ghana Limited (MBG)

The Mission Merchant Bank Ghana Limited (MBG) as a universal Bank in Ghana, Merchant Bank (Ghana) limited is committed to providing quality financial products and services to their customers across their chosen market and maintaining their place as a leading and preferred financial institution in Ghana. The company’s Vision is to become the leading, the most influential and best performing financial service provider in Ghana by 2012 and one of the leading banks in West Africa by 2015. Some of the core Values of the company are: Performance-oriented organization, all decisions and actions must be based on Unshakeable Facts, conduct business at all times with a sense of Competitive Urgency, and to maintain High Ethical Standards in all their internal and external relationships.

Merchant Bank Ghana Limited (MBG) provides a comprehensive range of banking services to its customers and clients, using its worldwide network of correspondent banks and their agencies. The range of MBG's banking services includes:

- Domestic and International Banking Operations for Corporate Customers, Small & Medium Enterprises (SMEs) and, High Net-worth Individuals;
- Treasury Services
- Money and Capital Market Operations
- Hire Purchase and Leasing Services; and
- Foreign Remittances

The Bank has two wholly owned specialized subsidiaries namely:

- Merban Investment Holdings Limited (MIHL) - dealing in Funds/Portfolio Management, Money Market Operations, Investment Advisory Services, Trustee Services and Custodial and Nominee Services;
Merban Stockbrokers Limited (MSL) - dealing in Brokerage Services, Underwriting of new Issues, and Investor Search & Joint Venture Arrangement; and

The MBG group also has the following additional specialist services tailored to meet its customers' needs:

- Registrar Services - maintaining records of Shareholders and Creditors, facilitating dividend payments to Shareholders; and
- Corporate Finance & Advisory Services (CFAS)- handling Corporate restructuring, Joint Venture Arrangement, Company Valuation, Project Finance; Funds Sourcing, Issuing House Services and General Financial Advisory Services.
- Merban Finance & Leasing Company Limited (MFL) - dealing in Hire Purchase transactions and Leasing.

The bank has taken advantage of the opportunities offered by the introduction of Universal Banking Business in Ghana and MBG has fully developed all three areas of universal banking namely; Retail, Corporate and Investment. The branch network of Merchant Bank currently stands at 20 with plans a foot to expand to 25 by 2009.

(\url{http://www.merchantbank.com.gh/subcat_select.cfm?tblNewsCatID=1&prodcatID=1})

2.2.4 Company Profile: Ghana Commercial Bank Limited (GCB)

Ghana Commercial Bank Ltd. (GCB) started in 1953 as the Bank of the Gold Coast to provide banking services to the emerging nation for socio-economic development. The Bank was to provide special attention to Ghanaian traders, business people and farmers who could not elicit support from the expatriate banks. In 1957, when Ghana attained independence, Bank of Ghana was established as the Central Bank while the Bank of the Gold Coast was renamed Ghana Commercial Bank to focus solely on commercial banking services.

The mission of GCB is to be the established leader in banking, satisfying the expectations of customers and shareholders, providing a full range of cost efficient and high quality services through the optimization of information technology and efficient branch network. The mission is expected to be achieved through:

- The provision of first class customer service.
• Focusing on our core business/competencies-commercial banking.
• Constant improvements in the use of information technology.
• Ensuring that staff are well motivated and have a conducive work environment.
• Recruiting and retaining the best human resource to carry out the Bank's mandate.
• Applying best practices in internal policies, procedures, processes and service delivery.
• Constant improvement in shareholder value.

Since then GCB branches have been opened across the length and breadth of the nation tapping the potential of the 10 regions of Ghana. The Bank had been wholly government owned until 1996 when under the Economic Recovery Programme part of the government ownership was divested. Today government ownership stands at 21.36% while institutional and individual holdings add up to 78.64%. From the one branch in the 1950s, GCB now has over 150 branches and 11 agencies throughout the country.

GCB abounds in high quality human resource, which stands at 2,101 as at the end of 2009. This is remarkable when one considers that the Bank started with a staff of 27. Currently there are professionals of various disciplines who work in tandem to achieve the objectives of the Bank. The growth of the Bank has been synonymous with its customer base. During the first five years of the Bank’s operations, their customers were mainly small Ghanaian traders (now termed SMEs) and other nationals who were expected to maintain credit balance accounts because the Bank was then not adequately capitalized. From the small trader as customer, GCB now has a customer profile that ranges from salaried workers through small and medium scale entrepreneurs to large trading concerns, quasi-governmental institutions and corporate customers.

GCB provides a wide range of products and services for the benefit to its customers. From the traditional products of the Current/Savings Accounts, GCB now offers specialized products and services including Link2Home for Ghanaians resident abroad, doorstep cash collection, loans and overdrafts. There are also investment-products like treasury bills as well as fixed and call deposits. These are cut to suit the individual needs of customers.

In addition, GCB has taken advantage of an enhanced information technology system, to
introduce Internet Banking (Commernet Plus), Royal Banking, Smart Pay (Fee Payments),
Kudi Nkosuo, GCB Inland Express Money Transfer, International Money Remittance
Payments, GCBKidistar Account and MasterCard.

2.2.5 Motivation for the Choice of the Companies

The main motivation for the choice of GCB and MBG centers on their unique differences in
operational focus with similar internet banking platform. The two banks are both
government-owned banking institutions that have fundamentally different focus in banking.
While GCB is mainly into tradition al banking products (e.g. savings/current account) with
little investment banking service, MBG is typically into investment banking products (e.g.
Funds/Portfolio Management, Money Market Operations, Investor Search & Joint Venture
Arrangement) as well as other specialist services (e.g. Registrar Services, and Corporate
Finance & Advisory Services). It would be interesting to study how these two are able to
meet customers’ needs and wants through the use of internet banking platform and compare
the results for both managerial and theoretical implications.

2.4 Service Quality

Service quality (SQ) has received a great deal of attention in the literature from both scholars
and practitioners in business. Many studies have established that SQ is a crucial driver of
satisfaction (Grönroos, 2000; Hume & Mort, 2008; Lovelock & Wirtz, 2007;
Zeithaml & Bittner, 2003), profitability (Heskett, Sasser & Schlesinger, 1997), and a key
competitive advantage for modern business firms (Kotler & Keller, 2006; Grönroos, 2000,
2001; Voss, 2003; Voss, et al., 2004). Indeed SQ is not just a corporate offering, but a
competitive weapon which is necessary for corporate profitability and survival (Newman &
Cowling, 1996; Rosen, Karwan, & Scribner, 2003). Many authors agree that in today’s
dynamic market place and market space, organisations no longer compete only on cost but
more importantly on service/product quality.

The nature of SQ is an abstract and elusive construct because of three features that are unique
to service: intangibility, heterogeneity, and inseparability of product and consumption
(Grönroos, 2000; Lovelock & Wirtz, 2007). SQ has been defined as the difference between
customer expectations for service performance prior to service encounter and their perception of the service received (Asubonteng et al., 1996). Gefen (2002) defined SQ as the subjective comparison that customers make between the quality of service that they wish to receive and what they actually get.

Regarding the dimensions and aspects of SQ of firms, many past studies such as Grönroos (1984) and Parasuraman et al. (1988) have established different conceptualizations of the SQ construct. This has resulted in different instruments for measuring SQ. Grönroos (1984) maintains that SQ has both process and outcome dimensions that are critical to service context, which have been verified in some previous studies (Bozorgi, 2007; Gi-Du and James, 2004; Gyasi and Azumah, 2009). Parasuraman et al. (1985, 1988) develop the dimensions of SQ in their GAP and Extended GAP analyses based on which they developed that popular SERVQUAL model. The widely used SERVQUAL model consisted of five dimensions that were measured using a 22-item SERVQUAL scale. The five SERVQUAL dimensions are: Tangibles, Empathy, Assurance, Reliable, and Responsiveness: Tangibles are the physical facilities, equipment, and appearance of personnel. Empathy refers to the caring, individualized attention the firm provides its customers. Assurance means knowledge and courtesy of employees and their ability to inspire trust and confidence. Reliability is the ability to perform the promised service dependably and accurately, and Responsiveness refers to willingness to help customers and provide prompt service. The items for each of the dimensions have been modified in many previous studies to suit a particular context as noted by Parasuraman et al. (1988, p. 31) that the SERVQUAL instrument could be “adapted or supplemented to fit the characteristics or specific research needs of a particular organisation”. However, due to the differences between traditional service and electronic service, obviously SERVQUAL scale is not suitable for measuring SQ in electronic or internet environment due to the absence of staff, absence of traditional tangible elements, and self-service of customers (Li and Suomi, 2009). It has been argued in many past studies that new scales need to be developed for e-service quality (Li and Suomi, 2009; Ho and Lin, 2010).

### 2.5 E-service Quality

With the advent of the internet, the growth of internet-based services has changed the way firms and consumers interact. E-service has been an interesting and important area to scholars and practitioners alike. E-service has been defined as a web-based service or an interactive service that is delivered on the internet (Ghosh et al., 2004; Zeithaml et al., 2000). Rowley
2006) conceptualises e-service as deeds, efforts, or performances whose delivery is mediated by information technology. Generally, it can be defined as an interactive content-centered and internet-based customer service that is driven by customers and integrated with the support of technologies and systems offered by service providers, which aim at strengthening the customer-provider relationship. Given the technology quality dimensions of e-service quality that are different from the traditional service context, e-service quality has been regarded having the potential to not only deliver strategic benefits but also to enhance operational efficiency and profitability (Cronin, 2003).

A review of existing literature indicates that many past studies have found different dimensions for e-service quality that are useful for different research contexts (Li and Suomi, 2009; Ho and Lin, 2010). Dabholkar (1996) found the following Web these e-service quality aspects: site design, reliability, delivery, ease of use, enjoyment and control in the context of E-service. Zeithaml et al. (2000) found Efficiency, reliability, fulfillment, privacy, responsiveness, compensation, and e-service quality dimensions in the online retailing context.

In Yoo and Douthu (2001) ease of use, aesthetic design, processing speed, and security were the e-service quality found in online retailing context. Cox and Dale (2001) identified six e-service quality aspects, while Wolfinbarger and Gilly (2002, 2003) found these four e-service quality aspects: web site appearance, communication, accessibility, credibility, understanding and availability in online retailing. Again, Lee and Lin (2005) developed e-service model including web site design, reliability, responsiveness, trust, and personalization in the online retailing context. Furthermore, Field, Heim, Sinha (2004) identified web site design, reliability, security, and customer service e-service quality dimensions. Kim et al (2006) identified 9 e-service quality items, being: efficiency, fulfillment, system availability, privacy, responsiveness, compensation, contact, information and graphic style in online retailing.

Moreover, Zeithaml et al., (2000, 2002) proposed a 7-dimension instrument for measuring e-service quality called E-S-QUAL using the SERVQUAL in the traditional distribution channels in a study on internet service quality. Zeithaml et al (2002) again conducted a study in which they compared the SERVQUAL and the E-S-QUAL and concluded that though some traditional SERVQUAL dimensions can be applied to e-service quality, there are other
unique dimensions of the e-service quality that related to technology. The original E-S-QUAL consisted of 11 dimensions and later condensed into 7 by Parasuraman et al. (2005), which were split into core dimensions and the recovery dimensions. The core dimensions, termed E-S-QUAL, are: efficiency, system availability, fulfillment and privacy. The recovery dimensions, termed E-RecS-QUAL are: responsiveness, compensation and contact (Parasuraman et al., 2005).

Recent studies show a combination of traditional SERVQUAL and the web-interface quality dimensions. Li and Suomi (2009) proposed eight dimensions of e-service quality, which are: website design, reliability, responsiveness, security, fulfillment, personalization, information and empathy. Past studies on determinants of e-service quality adoption also indicate that e-service experience has impact on customers’ perceptions and evaluation of e-service quality (Yang and Jun, 2002). Yen (2005) maintains that the importance of attributes of online customer satisfaction depends on technology readiness. Cristbal et al. (2007) opine that the perceived web site quality and customer satisfaction is relevant to customers’ loyalty to the web site. In view of the above, e-service quality dimensions would be explored in the internet or e-banking context.

### 2.6 Internet Banking Service Quality

Internet banking could be conceptualized within the context of electronic banking. Though it has been variously defined, according to Daniel (1999) electronic banking is the delivery of banks’ information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computer and mobile phone with browser or desktop software, telephone or digital television. Electronic banking, therefore, could be categorized into PC banking, Internet banking, TV-based banking, and Telephone-based banking. It is a construct that consists of several distribution channels. Internet banking is the situation where “customers can access their bank account via the internet using a PC or mobile phone and web-browser” (Arunachalam and Sivasubramanian, 2007, p. 2). Internet banking has received considerable interest from scholars and practitioners as a result of the value and usefulness customers derive from internet banking, as well as the practical value of implications it offers marketers. According to Zeithaml et al. (1996) a bank could enhance its reputation, customer retention, get new customers and increase financial performance by delivering superior quality internet banking services to its valued customers.
Many past studies have developed various models for understanding relevant e-service quality dimensions relevant to internet banking. Joseph et al. (1999) propose six dimensions of online banking service quality including: convenience/accuracy, feedback/complaint management, efficiency, queue management, accessibility and customization. Zeithaml (2001) contends that attributes of internet service quality include: access, ease of navigation, efficiency, flexibility, reliability, personalization, security, responsiveness, assurance, site aesthetics and price knowledge. Jun and Cai (2001), in a study of online banking, found that web site design, information, ease of use, access, courtesy, responsiveness, and reliability are significant dimensions that determine service quality. Yoo and Donthu (2001) propose four dimensions, termed SITEQUAL, that include ease of use, aesthetics design, processing speed and security.

Drawing on many service quality elements identified by Grönroos (1984) and Parasuraman (1985, 1991), Broderick and Vachirapornpuk (2002) propose a five-dimension service quality model of internet banking that identifies customer expectation, customer participation, image and reputation, service encounter and service setting as significant determinants of internet banking service quality. The main methodology used was participant observation and narrative analysis of UK internet web site community.
Loonam and O’Loughlin (2009) in an explorative study in Irish online banking context found ten dimensions of online retail banking, which are: web usability, security, information quality, access, trust, reliability, flexibility, responsiveness, self-recovery, and personalization/customization. In the empirical work of Ho and Lin (2010) in an emerging economy of Taiwan Internet banking sector, they developed and validated a five dimension internet banking service quality with 17-item measurement scale for measuring the service quality in internet banking. The five emerged dimensions that were based on e-service quality model of Cristobal (2007) are: web design, customer service, assurance, preferential treatment and information provision.

Internet banking has become an avenue by which banks could deliver superior service quality as a competitive tool against industry rivals (Ranganathan and Ganapathy, 2002).
Improvement in the internet service quality could be made if customers’ satisfaction and perception of it can be measured in the first place. Effective measurement of customer satisfaction for various dimensions of internet service quality could be very useful in the allocation of resources and in the segmentation of customers (Kotler and Keller, 2006; Parasuraman et al., 1988).

2.7 Customer Satisfaction
Customer satisfaction (CS) has become a major area of marketing that has received considerable publications from practitioners and scholars in the last two decades. CS has been recognized as an important element that drives customer retention, loyalty and post-purchase behavior of customers (Kotler & Keller, 2006; Reichheld, 1996; Rust et al., 1994; Heskett et al., 1994). Many studies confirm that the measurement of CS regarding the service quality of firms is a necessary means by which organizations delve into the minds of its customers for useful feedback that could form the basis for effective marketing strategy (Zairi, 1994). Since firms exist to satisfy customers by meeting their requirements, it is crucial for banks that offer internet banking services to periodically and consistently measure the satisfaction of their customers. As customers use the banking internet services, it might be that they are not satisfied, to some extent, with certain dimensions of the service quality. For this reason this study examines customer satisfaction with various service quality dimensions.

2.7.1 Concept of Customer Satisfaction
Customer satisfaction has been defined in different context by different authors. Some definitions are given below:

- 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 judgment 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 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 & Keller, 2006 p. 144).

• “The process of customer overall subjective evaluation of the product/service quality against his/her expectation or desires over a time period.” (Gyasi & Azumah, 2009).

Parasuraman et al., (1985) noted that though satisfaction and service quality are treated as synonymous the two terms are not the same. A review of literature on CS brings to lime light some significant concepts about satisfaction that may be necessary to clarify in measuring the construct.

First, while some authors perceive satisfaction as a cumulative and others view it as 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 Wang & 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; Anderson et al., 1994a, b; cited in Wang & Lo 2002). It is argued that since cumulative satisfaction is based on a series of purchase and consumption experiences, it is more useful and reliable as a diagnostic and predictive tool than the transaction perspective that is based on a one-time purchase and consumption experience. Therefore, in this study, customer satisfaction is measured from the last twelve months of being a customer using internet banking facilities of the two banks, so CS is conceptualised as cumulative.
Again, CS may be described as a process or 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; Gyasi & Azumah, 2009). 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 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).

Recent studies have found that 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 internet banking arena, customers’ evaluation of internet banking service quality takes place primarily during the service delivery process and continues, but not just an outcome that customers strive to achieve.

2.7.2 Satisfaction Formation and Measurement
One of the most popular schools that seek to explain the satisfaction formation process is the disconfirmation theory. This theory was championed by Oliver (1980). Proponents of disconfirmation theory believe that satisfaction is formed as a result of the discrepancy between the perceived performance of a product/service and the customer’s expectation. According to this theory, customers come to the service encounter with some expectation and
by comparing their expectation with the perceived performance of the product they purchase or consume, they either confirm or disconfirm their expectation, which results in satisfaction or dissatisfaction; this is displayed in Figure 3.

![Figure 3 Expectation Disconfirmation in Satisfaction Formation](image)

Expectation disconfirmation model of satisfaction formation has been empirically tested by Khalifa and Lui (2000), Bozorgi (2007) and Gyasi and Azumah (2009). They all found among other cognitive standards like desire, expectation disconfirmation has stronger impact on customer satisfaction. Therefore, expectation disconfirmation could be used to measure overall customer satisfaction.

In measuring customer satisfaction, three broad categories have been identified, which are

- 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 (Danaher and Haddrell, 1996). 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 Parasuramanet 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’.”
Danaher and Haddrell (1996) studied a comparison of several scales simultaneously on the same respondents. They concluded that the disconfirmation scale is a preferred method in measuring customer satisfaction, and that a five-point disconfirmation scale would be an improvement over the three-point scale if high predictive validity is essential. They however noted that one setback of the five-point disconfirmation scale could be its use in telephone surveys, where respondents might have to be continually reminded of five rather than three scale points.

In this study, since personal contact was to be used and high predictive validity was a major concern, a five-point disconfirmation scale was adopted from much better expected to much worse than expected. Therefore, overall customer satisfaction and customer satisfaction with various dimensions of internet banking service quality would be measured using five-point Likert disconfirmation scales.

2.8 Conceptual Framework for the Study
In this study, based on a thorough review of literature, the models and concepts employed are presented in Figure 4. It is based on the two main constructs of this study: customer satisfaction and internet banking service quality. This is because the present study seeks to evaluate customer satisfaction with internet banking service quality in GCB and MBG. Based on existing literature review, customer satisfaction is conceptualized as cumulative in this study in that it is based on a series of internet banking service encounter experiences at least for the past twelve months (Fornell, 1992; Anderson et al., 1994a, b; cited in Wang & Lo 2002). CS is also conceptualized as a process of customer evaluation as they use the internet banking services, and that this evaluation is based on customer expectation and perceived performance of the internet banking service quality. Based on the empirically validated expectation disconfirmation model (Danaher and Haddrell, 1996), a disconfirmation scale was deemed appropriate to measure customer satisfaction.
In understanding the internet banking service quality dimensions for which customer satisfaction may be evaluated, the model of internet banking service quality identified by Ho and Lin (2010) would be adopted. This model would be adopted for three reasons.

- First, it was based on extensive literature review of Li and Suomi, (2009) and Ho and Lin, (2010).
- Second, it was based on research in an emerging economy context, which is similar to the emerging economy of Ghana.
- Third, the dimensions in the model are validated empirically as applicable to internet banking context and not just general e-service quality context.

The empirical work of Ho and Lin, (2010) was conducted in an emerging economy of Taiwan Internet banking sector, they developed and validated a five dimension internet banking service quality model that has 17-item measurement scale for measuring the service quality in internet banking. The dimensions were based on e-service quality model of Cristobal (2007). The emerged dimensions for the internet banking service quality context are: web design, customer service, assurance, preferential treatment and information provision.

1. Web design: This dimension covers the design of the web site and includes items like web content layout, content updating, navigability, and user-friendliness. These are consistent with findings of previous studies (Loiacono et al., 2000; Barnes and
Vidgen, 2002; Aladwania and Palvia, 2002; Yang and Fang, 2004; Yang et al., 2004). The indicators or items included in this dimension are:

- I can complete online transactions easily
- I can log in this portal easily
- It is easy to understand which button to be clicked for the next step
- This internet portal enables me to complete a transaction quickly.

2. Customer Service: Customer service has been recognized as an important element for enhancing service quality in online shopping and banking (Zeithaml, 2002). Elements in customer service dimension have been noted in many previous studies (Liu and Arnett, 2000; van Riel et al., 2001; Madu and Madu, 2002; Wolfinbarger and Gilly, 2003). This dimension has to do with service reliability, customer sensitivity, personalized service, and fast response to complaints. Originally, Parasuraman et al. (1985) included the following dimensions of customer service: responsiveness, courtesy, and understanding customer. The subsequent SERVQUAL scale (Parasuraman et al., 1988) included the dimensions of responsiveness (willingness to help customers) and empathy (individual attention). Courtesy was relocated into the trust dimension of SERVQUAL. Thus, consumers expect to be able to complete transactions correctly, receive personalized attention, have the product delivered on time, have their e-mails answered quickly, and gain access to information. The items for this dimension are:

- The online transaction process was accurate.
- The hyperlinks on this portal are valid.
- Web page loaded quickly on this portal site.
- Internet banking portal performs the service correctly at the first time.
- I receive prompt responses to my request by e-mail or service line.
- When problems occur, the internet banking system guides me to solve them.

3. Assurance: many previous have demonstrated that assurance is one of the critical elements of online banking service quality (Liu and Arnett, 2000; Yang et al., 2001; Zeithaml et al., 2002; Yoo and Donthu, 2001; Wolfinbarger and Gilly, 2003; Long and McMellon, 2004). The assurance dimension describes impressions by the service providers that convey a sense of security and credibility (Parasuraman et al., 1988).
Security and privacy are related items that affect the confidence to adopt online banking services (Wolfinbarger and Gilly, 2002). Items in this category include these:

- Transactions on this portal site are reliable and credible.
- My transaction data are protected by this portal site.
- I feel relieved to transact on the internet banking portal.

4. Preferential treatment: This is related to the added value of using internet banking services. Where customers perceive that the incentive of online banking is attractive then they would be more willing to use internet banking. The two items found relevant are:

- This internet banking portal provides preferential rates and charges lower fees
- The transaction fee for the internet banking is reasonable

5. Information provision: Information provision has become one of the key elements of online service quality as customer would need the right information that enables them complete online banking transactions successfully (Li and Suomi, 2009). This dimension has two items:

- This internet banking portal provides complete and sufficient information
- The internet banking portal site provides sufficient and real time financial information.

In this study, internet banking service quality is, thus, conceptualized as a construct with five dimensions that were identified in the empirical work of Ho and Lin (2010).

2.9 Chapter Summary
This chapter examines literature in the areas of customer satisfaction and internet banking service quality in the context Ghana internet banking sector. It concludes by adopting disconfirmation scales for the measurement of customer satisfaction and overall customer satisfaction and adopts Ho and Lin’s (2010) five dimension internet service quality model as the conceptual basis for understanding internet service quality dimensions for which satisfaction may be measured. In the following chapter, the methodological approaches taken for this study will be discussed.
CHAPTER THREE

3.0 METHODOLOGY

3.1 Overview
This chapter presents the methodological concerns used in conducting this research and provides a justification for steps taken. It covers the general research perspectives, data collection summary, statistical measurement methods, access strategies and credibility of the research.

3.2 Research Approaches
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 (Cooper & Schindler, 2006; Saunders et al. 2000). A methodology is therefore shaped by the perspectives the researcher chooses to approach a study. Many authors such as Abili (2009) and Copper & Schindler (2006) agree that research design is usually shaped by the perspectives and can be broadly grouped under eight typologies (Figure 5). This sub-section explains the research approaches in this study under the eight typologies.

Figure 5: The Eight Research Typologies

Source: Based on (Cooper and Schindler, 2006)
3.2.1 Research Paradigm
Kuhn (1970 cited in Neuman & Cowling 1996) has it that research paradigm “means a basic orientation to theory and research”. Neuman (2006) also defines research paradigm as “a general organizing framework for theory and research that includes basic assumptions, key issues, and models of quality research and methods for seeking answers”. In terms of research paradigm a research can be qualitative or quantitative. Cooper & Schindler (2006) describes quantitative research as involving measurement of variables and the delivery of findings in numerical form in which research findings are described by text of significance, confidence intervals, and mathematically demonstrated relationships. Qualitative research is a paradigm which is conducted to find out what people do, think, know and feel. Such a study aims at understanding and explaining a phenomenon that focuses on “why” and “how” questions as well as in-depth and detailed “what” questions.
This study is based on both qualitative and quantitative paradigms. On one hand, words will be used in explaining and describing how customer satisfaction can be described in internet banking in Ghana, which makes it a qualitative research. On the other hand some numerical data will be collected and analyzed such as the number of customers who are satisfied and those who are not satisfied with internet banking service quality.

3.2.2 Research Question Crystallization
According to Cooper & Schindler (2006), based on research question crystallization, there are two types of research design, namely: Exploratory Research and Formal Research. In an exploratory research the purpose is usually seek to explore the nature of a situation as it exist in a particular environment, which usually involves the use of unstructured questions to gather enough data about the phenomenon under consideration. On the other hand, Cooper & Schindler (2006) define formal study as involving a well-structured study that seeks to test hypothesis or specific questions.
This study is a formal one. This is because it goes beyond exploration of facts; it has well-structured systematic procedures that seek to answer some research questions.

3.2.3 Researcher Control of Variable
In terms of Researcher Control of variables research may be experimental or non experimental. In experimental research the researcher is able to manipulate variables while in
non-experimental the researcher has no control over the variables (Abili, 2009; Cooper & Schindler, 2006; Saunders et al., 2000). In this study since the researcher has no control of variables, the study is non-experimental.

3.2.4 Scope of the Study
In terms of scope of the study, research can be a statistical study or case study. A statistical study is one that focuses on the breadth of an issue by testing hypothesis quantitatively upon which generalizations are made about the entire population (ibid). Case study on the other hand involves a study that focuses on an in-depth contextual analysis of few events. In case study the researcher decides which population or its sections or aspects to study. This study is a case survey because it is focused specifically on customers of Ghana Commercial Bank and Merchant Bank Ghana Limited.

3.2.5 Research Application
According to research application a study can be basic/pure study or an applied study. A basic research is a study that focuses on theory development and refinement while an applied study is a study whose finding are used to addressing specific needs or solving problems (Cooper & Schindler, 2006; Saunders et al. 2000). In this study, the findings will be used to help improve upon the management decisions and strategy regarding effective strategies for achieving and improving customer satisfaction with different internet banking service dimensions in the two companies. Therefore, the study is an applied study.

3.2.6 Time Dimensions
According to time dimension, research can be cross-sectional study or longitudinal study. According to Cooper & Schindler (2006), a cross sectional study is carried out once and represents a snap-shop of one point in time, while a longitudinal study is a study repeated over an extended period. This study is a cross-sectional because it is carried out at one point in time only.
3.2.7 Research Environment

Research environment, according to Cooper & Schindler (2006) and Abili (2009), can be field research, library research, simulation and laboratory. Therefore, a field research is the one in which the researchers source of data collection is some specific respondents who the researcher has to find and collect data from.

This study is a field research because the researcher would collect field data from a sample of customers involved in internet banking in the two companies in Ghana.

3.2.8 Research Purpose

Many authors such as Abili (2009), Cooper & Schindler (2006), Maholtra & Birks (2007) and Saunders et al., (2000) agree that in terms of purpose research can be categorized into descriptive, explanatory, or exploratory. In a descriptive study, the researcher attempts to describe the existing situation or the characteristics of certain existing variables to discover associations among different variables, and usually answers what, where, when, how many and how questions (Cooper and Schindler, 2006). In an explanatory study, the researcher seeks to examine the causal relationship that exists between variables in a particular research context, while in an exploratory study the researcher seeks to find out about what exist and what people think and feel about a phenomenon in a particular context. Descriptive study can further be categorized into survey, causal and relational study. A survey is a study that seeks to ask for the opinion, attitude, and feelings of a target population.

This study is typically a descriptive study and specifically a survey. It is a descriptive study because it seeks to give a better picture of the dimensions of internet service quality for which customer are satisfied or dissatisfied in GCB and MBG; it will therefore answer “how” and “what” questions. Specifically, this descriptive study is a survey because it seeks the opinions of customers regarding their satisfaction.
4.2.9 Summary of Research Perspectives

A summary of the research typologies identified and justified above are summarized below:

<table>
<thead>
<tr>
<th>Typologies</th>
<th>Type Of Research Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher Control of Variables</td>
<td>Non – experimental</td>
</tr>
<tr>
<td>Research Application</td>
<td>Applied Research</td>
</tr>
<tr>
<td>Time Horizon</td>
<td>Cross – Sectional</td>
</tr>
<tr>
<td>Research Environment</td>
<td>Library and Field research</td>
</tr>
<tr>
<td>Research Paradigm</td>
<td>Deductive: Qualitative and Quantitative</td>
</tr>
<tr>
<td>Research Question Crystallization</td>
<td>Formal Study</td>
</tr>
<tr>
<td>Scope of the Study</td>
<td>Case Survey</td>
</tr>
<tr>
<td>Purpose of Research</td>
<td>Descriptive and Survey</td>
</tr>
</tbody>
</table>

Table 2: Summary of Research Approaches

3.3 Data Collection Procedures

3.3.1 Population and Sampling

The target population consists of 600 internet banking customers of GCB and 400 internet banking customers of MBG as of December, 2009. Out of these, a sample size of 100 respondents from each company would be selected due to cost and time constraints. In selecting the 200 respondents, a purposive sampling method was used to consciously select customers who meet the criteria of having used internet banking services for the past twelve months.

3.3.2 Sources of Data

In this study qualitative and quantitative data include data from both primary and secondary sources in order to answer the research questions objectively. According to Malhotra & Birks (2007, p. 94), “Primary data is a data originated by the researcher for the specific
purpose of addressing the research problem.” It is what the researcher originally collects from the sample or target population. In this study the primary data used are those responses of customers accessed via a questionnaire survey. “Secondary data are data collected for some purpose other than the problem at hand (Malhotra & Birks, 2007 p. 94). Secondary data for this study are collected from the directories of company used for the study, and published online articles in refereed journals.

3.3.3 Data Collection Instrument

According to many scholars, in the use of survey strategy, the main instruments used are self administered/interviewer, administered or structured/unstructured interviews and questionnaires or a combination of both (Saunders et al., 2000; Cooper & Schindler, 2006; and Malhotra & Birks, 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, in this study, a self-administered, structured questionnaire are used to collect data from respondents (Appendix A and B). The purpose of the questionnaire is to have insight into customers’ satisfaction with internet banking service quality in GCB and MBG, and finally to collect some data on respondents bio-data.

The self-administered questionnaire comprises of mainly five dimensions with 17 items for internet banking service quality dimensions developed by Ho and Lin, 2010. These items of the questionnaire had been pre-tested and validated in previous studies (Cristobal, 2007; Ho and Lin, 2010). The Cronbach’s alpha reliability value for the items of the instrument for each construct ranges from 0.751 to 0.823; it is 0.898 for the whole scale, and therefore, these items in the measurement scale are considered to possess high-internal consistency and reliability among the items (Ho and Lin, 2010, p. 13).

The questionnaire also has one item that measures the overall satisfaction with the internet banking service quality by asking respondents to rate their satisfaction with internet banking service quality using a disconfirmation scale: Much worse than expected (1), worse than expected (2), equal to expectation (3), better than expected (4) and much better than expected (5). In all, (17) items asked about satisfaction with five dimensions of internet banking service quality adapted from Ho and Lin (2010), one (1) item related to overall customer
satisfaction with internet banking service quality, and five (5) items related to the respondents characteristics: gender, age, education, income, and marital status.

3.3.5 Final Administration of Instruments
Finally, the questionnaire is administered to the target sample through personal contact by the researcher. Informed consent information (Appendix C), which is a document that explains the purpose of the questionnaire and assures respondents of anonymity and confidentiality, was attached to the questionnaire for the respondents.

3.4 Summary of Statistical Methods
The following statistical methods are used in the analysis phase of this study:

3.4.1 Descriptive Statistics: Data is analyzed using descriptive statistics such as the frequencies, mean, standard deviation, range, standard error of the mean, and sum. These would be presented in tables and charts.

3.4.2 Kruskal Wallis one-way analysis of variance: To test whether overall satisfaction with internet banking service differ between the two companies, a non-parametric measure, the Kruskal-Wallis one-way analysis of variance is used since it uses the rankings of scores on variables rather than the actual observations to test for differences across different sample of respondents for each network operator within the industry. A significance level of 0.05 would be chosen. All data were analysed using SPSS 16.0 (SPSS, 2008).

3.5 Access Strategies
Informed consent information is attached to each questionnaire explaining the purpose and nature of the study as well as asking their permission to respond to the questionnaire for this study (Appendix C). Respondents are also assured of anonymity and confidentiality of their responses. All documents such as professional and academic articles and other published papers collected are duly acknowledged in the reference list.
3.6 Credibility of the Research

Scientific methodology needs to possess the characteristic of credibility in terms of validity and reliability, which are important at every stage of the research work.

3.6.1 Validity

Validity refers to whether the statistical instrument measures the purpose it is intended to measure, i.e. accuracy of measurement (Saunders et al. 2000). 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 exists between the variables and the proposed measure (Sullivan, 2001 cited in Gyasi and Azumah, 2009). This type of validity is highly subjective and thus does not provide enough proof of validity. Therefore it was logical to study customer satisfaction with internet banking service quality using questionnaire-based instrument in a survey that involves two cases of companies – MBG and GCB.

- **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 (Sullivan, 2001 cited in Gyasi and Azumah, 2009). It is usually achieved by seeking opinion of other investigators or experts. The questionnaire for this study has been proven valid in previous studies (Cristobal, 2007; Ho and Lin, 2010).

- **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 (ibid). 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 instruments that have been developed and used in several studies of customer satisfaction and internet banking service quality in developing countries (Danaher and Haddrell, 1996; Ho and Lin, 2010; Cristobal, 2007; Oliver, 1980, Parasuraman et al., 1988; Khalifa & Liu, 2002; Gyasi& Azumah, 2009). 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 dimensions of internet banking service quality from theories of internet banking service quality (Ho and Lin, 2010; Cristobal, 2007).

- **External validity**: This refers to the extent to which the results of a study could be generalized. In this work, to ensure external validity, the findings and results will be interpreted in the context of Ghana Commercial bank and Merchant Bank Ghana.

### 3.6.2 Reliability

Reliability refers to whether a measurement instrument is able to yield consistent results each time it is applied (Saunders et al., 2000). It is the property of a measurement device that causes it to yield similar outcome or results for similar inputs. This implies that responses to a reliable survey will vary because respondents have different opinions, not because the questionnaire items are confusing or ambiguous. In this study since the reliability of the instrument has been examined in previously validated studies, it was deemed reliable for this study.

The study continues with analysis of data and discussion of the results in the next chapter.

### Chapter Summary

The study involves a survey of customers’ evaluation of internet banking service quality of MBG and GCB in Ghana. Data collection would be done by means of administration of questionnaire to the respondents. Data would be analyzed both qualitative and quantitatively to show a within case and cross case analysis for the two banks.
CHAPTER FOUR

4.0 EMPIRICAL FINDINGS AND ANALYSIS

4.1 Chapter Overview
This chapter consists of empirical data presentation and discussion. Empirical data is presented under these main headings:

- Respondents’ characteristics,
- Customer satisfaction/dissatisfaction (CS/D) with internet banking service quality of Ghana Commercial Bank and Merchant Bank of Ghana,
- Prioritising of the dimensions of the intent banking service quality in the two banks,
- Overall customer satisfaction (OCS) with internet banking service quality differs between the two banks.

The discussion part analyses the results and findings to answer the research questions.

4.2 Response Rate
Of the 100 questionnaire sent for each of the two banks, 77 questionnaire were returned for GCB and 62 for MBG respectively, representing 77% and 62% response rates for GCB and MBG respectively (Figure 6).

Source: author’s field data 2010

Figure 6: Response Rate
4.3 Respondents Demographics
The characteristics of the respondents are presented in Table 3 for the two banks.

4.3.1 Respondents’ gender

For GCB, in terms of gender, 48.9% of the respondents were males and 59.1% were females. For MBG, in terms of gender, 56.5% of the respondents were males and 43.5% were females.

Figure 7: Respondents’ gender

For GCB, 11.7% of the respondents were below 25 years and 33.8% were between 25 and 35 years and between 36 and 45 years respectively, while 20.6% were between 46 and 55 years. For MBG 14.5% of the respondents were below 25 years and 43.5% were between 25 and 35 years.

Figure 8: Respondents’ Age
years, 25.8% between 36 and 45 years, 11.3% between 46 and 55 years, while 4.8% were above 55 years. This implies that majority of the respondents were in the economically active population (25 – 45 years).

![Pie chart showing respondents' education distribution.](image)

**Figure 9: Respondents’ education**

All respondents were educated with majority of them (75.3%) having tertiary education, while 7.8% had Senior High School (SHS) and 16.9% had post-SHS education. Once again, all respondents from MBG were educated with majority of them, 83.9%, having tertiary education, while 8.1% had Senior High School (SHS) and post-SHS education respectively.

![Pie chart showing respondents' income distribution.](image)

**Figure 10: Respondents’ income**

For GCB, in terms of monthly income, 29.9% of them earned below GH¢100, 33.8% earned between GH¢101 to GH¢500, while 18.2% earned between GH¢501 to GH¢1,000 and GH¢1,001 – 1,500 respectively. For MBG, in terms of monthly income, 6.5% of them earned...
below GH₵100, 50% earned between GH₵101 to GH₵500 and 37.1% earned GH₵501 to GH₵1,000, while 19.4% earned between GH₵1,001 - 1500 and above GH₵1500 respectively.

Figure 11: Respondents’ marital status

For GCB 70.1%, 28.6% are single and 1.3% had other marital status while for MBG 58.1% of respondents the bank are married, 35.4% are single and 6.5% had other marital status.

Summary of respondents’ data characteristics

A summary of the respondents’ data is presented in Table 3.0. It depicts a fairly balanced gender distribution; with most of the respondents are females for GCB and most of them are males for MBG. It also depicts that majority of the respondents were in the economically active population (25 – 45 years). All the respondents are educated with majority of them with tertiary or higher education. Most of customers earn between GH₵101 to GH₵500 monthly income which could be described as considerably low. In terms of marital status, the respondents consist of more married persons than single persons and very small percentage of other marital status. Thus, generally, the respondents from each of the banks depict considerably similar characteristics. Differences in satisfaction based on the demographic variables are discussed shortly after the summary of the demographic variables in Table 3.1.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>GCB Frequency</th>
<th>GCB Percentage</th>
<th>MBG Frequency</th>
<th>MBG Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>37</td>
<td>48.1</td>
<td>35</td>
<td>56.5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>40</td>
<td>51.9</td>
<td>27</td>
<td>43.5</td>
</tr>
<tr>
<td>Age</td>
<td>Below 25</td>
<td>9</td>
<td>11.7</td>
<td>9</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td>25-35</td>
<td>26</td>
<td>33.8</td>
<td>27</td>
<td>43.5</td>
</tr>
<tr>
<td></td>
<td>36-45</td>
<td>26</td>
<td>33.8</td>
<td>16</td>
<td>25.8</td>
</tr>
<tr>
<td></td>
<td>46-55</td>
<td>16</td>
<td>20.8</td>
<td>7</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>55+</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Education Level</td>
<td>SHS</td>
<td>6</td>
<td>7.8</td>
<td>5</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Post SHS</td>
<td>13</td>
<td>16.9</td>
<td>5</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Tertiary</td>
<td>58</td>
<td>75.3</td>
<td>52</td>
<td>83.9</td>
</tr>
<tr>
<td>Income (GH₵)</td>
<td>Below 100</td>
<td>23</td>
<td>29.9</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>101-500</td>
<td>26</td>
<td>33.8</td>
<td>23</td>
<td>37.1</td>
</tr>
<tr>
<td></td>
<td>501-1000</td>
<td>14</td>
<td>18.2</td>
<td>12</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
<td>1001-1500</td>
<td>14</td>
<td>18.2</td>
<td>12</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
<td>Above 1500</td>
<td>-</td>
<td>-</td>
<td>11</td>
<td>17.7</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Married</td>
<td>54</td>
<td>70.1</td>
<td>36</td>
<td>58.1</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>22</td>
<td>28.6</td>
<td>22</td>
<td>35.4</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>1</td>
<td>1.3</td>
<td>4</td>
<td>6.5</td>
</tr>
</tbody>
</table>

*Source: author’s field data, 2010.*

**Table 3.0: Demographic profile of Respondents**
### 4.3 Demographic variables and Satisfaction

Table 3.1 depicts the difference in satisfaction based on demographic variables. It presents data on the frequency count, Chi-square Tests, and their significance regarding satisfaction rating of respondents according to their gender, age, education level, income and marital status. This is to test whether, generally, there is any significant difference between the satisfaction ratings according to respondents’ demographics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Customer Satisfaction Rating</th>
<th>Chi-Square Test (Kruskal-Wallis)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MW</td>
<td>WE</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 25</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>25-35</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>36-45</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>46-55</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>56+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHS</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Post SHS</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Tertiary</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Income (GHC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 100</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>101-500</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>501-1000</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>1001-1500</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Above 1500</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Single</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: *p< 0.05

| Table 3.1: Summary of difference in satisfaction based on demographic variables |
| Source: Authors’ Field Data, 2010 |

The results indicate that, generally, differences in satisfaction of internet banking service quality significantly differs among only income groups, but not significantly according to gender, education, income and marital status. Specifically, according to income groups, the
results show that respondents who earn between GH¢ 100 and GH¢1,500 are more satisfied than those in the lowest and highest income groups.

4.4 Customer Satisfaction/Dissatisfaction with Internet Banking Service Quality (IBSQ)

Understanding customer satisfaction (CS) provides useful feedback and implications for management strategy (Kotler and Keller, 2006). To describe CS, customers were asked to rate their satisfaction with the internet banking service quality ranging from much worse than expected to much better than expected on a numerical scale of 1 to 5 respectively. The results of the respondents rating are presented in Table 4 for both GBC and MBG.

For lack of space and for simplicity, in the graphs the following abbreviations will be used: MW—Much Worse Than, W—worse Than Expected, E—Equal to Expectation, B—Better Than Expected, MB—Much Better Than Expected.

4.4.1 Satisfaction with IBSQ of GCB

*Ease of completion of online transactions*

First of all, for the first web design factor (WD1) as shown in Figure 12, 13% of the customers rated their satisfaction with the ease of completion of online transactions as worse than expected, 59.7% rated it as equal to expectation, while 26% and 1.3% rated it as better than and much better than expected respectively.
Regarding the second web design factor (WD2) as shown in Figure 13, 16.9% of the customers rated their satisfaction with the ease of logging onto the online portal as worse than expected, 61% rated it as equal to expectation, while 20.8% and 1.3% rated it as better and much better than expected respectively.

Figure 12: *Ease of completion of online transactions*

*Ease of logging onto the online portal*

Regarding the second web design factor (WD2) as shown in Figure 13, 16.9% of the customers rated their satisfaction with the ease of logging onto the online portal as worse than expected, 61% rated it as equal to expectation, while 20.8% and 1.3% rated it as better and much better than expected respectively.
Figure 13: *Ease of logging onto the online portal*

*Ease of understanding which button to be clicked for the next step on the online portal*

Regarding the third web design factor (WD3) as shown in Figure 14, 13% of the customers rated their satisfaction with the ease of understanding which button to be clicked for the next step on the online portal as worse than expected, 62.3% rated it as equal to expectation, while 23.4% and 1.3% rated it as better and much better than expected respectively.
Figure 14: *Ease of understanding which button to be clicked*

*Ability of the internet portal in helping customers’ complete transaction*

For the ability of the internet portal in helping customers complete transaction (WD4) as in Figure 15, 22.1% of the customers described it as worse than expected, 59.7% rated it as equal to expectation, while 16.9% and 1.3% rated it as better and much better than expected respectively.
Sufficient and real time financial information provided by the internet banking portal site

Again, for the first customer service factor (CS1) as shown in Figure 16, 15.6% of the customers rated their satisfaction with it as worse than expected, 62.3% rated it as equal to expectation, while 18.2% and 3.9% rated it as better than and much better than expected respectively.

![Figure 16: Sufficient and real time financial information](image)

Validity of the hyperlinks on the bank’s portal

For the second customer service factor (CS2) as shown in Figure 17, 11.9% of the customers rated their satisfaction with the validity of the hyperlinks on the bank’s portal as worse than expected, 70.1% rated it as equal to expectation, while 16.9% and 1.3% rated it as better than and much better than expected respectively.
Regarding the third customer service factor (CS3) as shown in Figure 18, 29.9% of the customers rated their satisfaction with quickness of the web page on the bank’s portal as much worse than expected, 48.1% rated it as worse than expected, 18.2% rated it as equal to expectation while 3.9% rated it as better than expected.

Figure 18: *Quickness of the web page on the bank’s portal*
<table>
<thead>
<tr>
<th>ID</th>
<th>DIMENSION ITEMS</th>
<th>MUCH WORSE THAN EXPECTED</th>
<th>WORSE THAN EXPECTED</th>
<th>EQUAL TO EXPECTATION</th>
<th>BETTER THAN EXPECTED</th>
<th>MUCH BETTER THAN EXPECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GCB</td>
<td>MBG</td>
<td>GCB</td>
<td>MBG</td>
<td>GCB</td>
<td>MBG</td>
</tr>
<tr>
<td>WD1</td>
<td>Easy completion of online transactions.</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>5</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WD2</td>
<td>Easy logging on bank’s online portal.</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WD3</td>
<td>Easy understanding which button to be clicked for the next step.</td>
<td>-</td>
<td>1</td>
<td>10</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WD4</td>
<td>Ability of this internet portal in helping customer to complete a transaction quickly.</td>
<td>-</td>
<td>-</td>
<td>17</td>
<td>7</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS1</td>
<td>Sufficient and real time financial information provided by the internet banking portal site.</td>
<td>-</td>
<td>-</td>
<td>12</td>
<td>6</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS2</td>
<td>Validity of the hyperlinks on the bank's portal.</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>4</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3</td>
<td>Quickness of the Web page on bank's portal site loading.</td>
<td>29.9%</td>
<td>(4.8%)</td>
<td>37</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS4</td>
<td>Ability of the bank's banking portal to perform service correctly at the first time.</td>
<td>1.3%</td>
<td>(1.6%)</td>
<td>13</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS5</td>
<td>Prompt reception of responses to customer</td>
<td>37.7%</td>
<td>(46.8%)</td>
<td>36</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Int. Banking Service Quality of GCB and MBG</td>
<td>Scale: much worse than expected (1) much better than expected (5)</td>
<td>GCB (n = 77)</td>
<td>GBG (n = 62)</td>
<td>GCB (n = 77)</td>
<td>GBG (n = 62)</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>CS6</td>
<td>Internet banking system’s ability to guide customer to resolve problems</td>
<td>30</td>
<td>9</td>
<td>35</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>AS1</td>
<td>Reliability and credibility of transactions on the banking portal</td>
<td>-</td>
<td>-</td>
<td>12</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>AS2</td>
<td>Protected/security of customer transaction data by the banking portal</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>3</td>
<td>46</td>
</tr>
<tr>
<td>AS3</td>
<td>Feeling of relief of customer to transact on the internet banking portal</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>PT1</td>
<td>Offering preferentially lower fees/ rates and charges on this internet banking portal</td>
<td>4</td>
<td>1</td>
<td>49</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>PT2</td>
<td>Reasonability of the transaction fee for this banking portal</td>
<td>48</td>
<td>10</td>
<td>21</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>IP1</td>
<td>Complete and sufficiency of the information the internet banking portal provides</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>IP2</td>
<td>Accuracy of the online transaction process of the bank</td>
<td>1</td>
<td>4</td>
<td>29</td>
<td>15</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 4 Satisfaction with Internet Banking Service Quality of GCB and MBG

Source: author’s field data, 2010.
**Ability of the portal service to deliver service correctly at the first time**

Regarding the fourth customer service factor (CS4) as shown in Figure 19, 1.3% of the customers rated their satisfaction with ability of the portal service to deliver service correctly at the first time as much worse than expected, 16.9% rated it as worse than expected, 64.9% rated it as equal to expectation while 16.9% rated it as better than expected.

![Figure 19: Quickness of the web page on the bank’s portal](image)

**Prompt reception of customer responses**

For customer service factor in terms of prompt reception of customer responses (CS5) as shown in Figure 20, 37.7% of the customers described their satisfaction as much worse than expected, 46.8% rated it as worse than expected, 11.7% rated it as equal to expectation while 3.9% rated it as better than expected.
Figure 20: Prompt reception of customer responses

Internet banking system’s ability to guide customer to resolve problems

For the sixth customer service factor, internet banking system’s ability to guide customer to resolve problems (CS6) as in Figure 21, 39% of the customers described their satisfaction as much worse than expected, while 45.5% and 15.6% rated it as worse and equal to expectation respectively.

Figure 2: Ability to guide customer to resolve problems
Assurance of reliability and credibility of transaction on the banking portal

Moreover, for assurance of reliability and credibility of transaction on the banking portal (AS1) as shown in Figure 22, 15.6% of the customers rated their satisfaction as worse than expected, 51.9% rated it as equal to expectation, 27.3% rated it as better than expected while 5.2% described it as much better than expected.

Figure 22: Assurance of reliability and credibility of transaction

Assurance of protection of customer transaction data

For assurance of protection of customer transaction data, (AS2) as in Figure 23, 7.8% of the customers rated their satisfaction as worse than expected, 59.7% rated it as equal to expectation, 28.6% rated it as better than expected while 3.9% described it as much better than expected.

Figure 23: Assurance of protection of customer transaction data
**Feeling of relief of customer to transact on the internet banking portal**

For feeling of relief of customer to transact on the internet banking portal, (AS3) as in Figure 24, 1.3% of the customers rated their satisfaction as worse than expected, 33.8% rated it as equal to expectation, 24.7% rated it as better than expected while 40.3% described it as much better than expected.

![Figure 24: Feeling of relief of customer to transact](image)

**Preferential treatment in terms of lower rates and charges for online banking**

Furthermore, regarding preferential treatment in terms of lower rates and charges for online banking (PT1) as shown in Figure 25, 5.2% of the customers described their satisfaction as much worse than expected, 63.3% rated it as worse than expected while 31.2% rated it as equal to expectation.
Figure 25: Preferential treatment in terms of lower rates and charges

Reasonability of transaction fees charged for banking online

The second preferential treatment item in reasonability of transaction fees charged for banking online (PT2) as shown in Figure 26, 62.3% of the customers described their satisfaction as much worse than expected, 27.3% rated it as worse than expected, while 7.8% and 2.6% rated it as equal to expectation and better than expected respectively.
Finally, for information provision regarding the sufficiency and completeness of information provided by the banking portal (IP1) as shown in Figure 27, 2.6% of the customers described it as worse than expected, 51.9% rated it as equal to expectation, while 39% and 6.5% described it as better and much better than expected respectively.

**Figure 26: Reasonability of transaction fees charged for banking online**

**Information provision regarding the sufficiency and completeness of information on portal**

**Figure 27: Sufficient and complete information provision**
Accuracy of the online banking transaction process

The last item of information provision is accuracy of the online banking transaction process (IP2), for this item as shown in Figure 28, 1.3% of the customers rated their satisfaction as worse than expected, 37.7% described it as equal to expectation, while 35.1% and 26% rated it as better and much better than expected respectively.

![Figure 28: Accuracy of the online banking transaction process](image)

4.4.2 Satisfaction with IBSQ of MBG

Web design factors (WD1-WD4)

Charts showing all web design factors (WD1- WD4) are presented in Figure 29 and summarized in Table 4. The following explains the data.

Ease of completion of online transactions

First of all, for the first web design factor (WD1) 8.1% of the customers rated their satisfaction with the ease of completion of online transactions as worse than expected, 43.5% rated it as equal to expectation, while 37.1% and 11.3% rated it as better than and much better than expected respectively.
Ease of logging onto the online portal

Regarding the second web design factor (WD2), 11.3% of the customers rated their satisfaction with the ease of logging onto the online portal as worse than expected, 53.2% rated it as equal to expectation, while 22.6% and 12.9% rated it as better and much better than expected respectively.

Ease of understanding which button to be clicked

Regarding the third web design factor (WD3), 1.6% and 6.5% of the customers rated their satisfaction with the ease of understanding which button to be clicked for the next step on the online portal as much worse and worse than expected respectively, 51.6% rated it as equal to expectation, while 25.8% and 14.5% rated it as better and much better than expected respectively.

Ability of the internet portal in helping customers’ complete transaction

For the ability of the internet portal in helping customers complete transaction (WD4), 11.3% of the customers described it as worse than expected, 48.4% rated it as equal to expectation, while 32.3% and 8.1% rated it as better and much better than expected respectively.

![Figure 29: Satisfaction with Web Design Factors of MBG](image-url)
Customer service factors (CS1 – CS6)

All customer service factors (CS1- CS6) are presented in Figure 30 and summarized in Table 4, followed by their explanations.

Figure 30: Satisfaction with Customer service factors (CS1 – CS6) of MBG

Sufficient and real time financial information

Specifically, for the first customer service factor (CS1), 9.7% of the customers rated their satisfaction with it as worse than expected, 45.2% rated it as equal to expectation, while 33.9% and 11.3% rated it as better than and much better than expected respectively.
**Validity of the hyperlinks on the bank’s portal**

For the second customer service factor (CS2), 6.5% of the customers rated their satisfaction with the validity of the hyperlinks on the bank’s portal as worse than expected, 59.7% rated it as equal to expectation, while 30.6% and 3.2% rated it as better than and much better than expected respectively.

**Quickness of the web page on the bank’s portal**

Regarding the third customer service factor (CS3), 4.8% of the customers rated their satisfaction with quickness of the web page on the bank’s portal as much worse than expected, 37.1% rated it as worse than expected, 30.6% rated it as equal to expectation while 22.6% and 4.8% rated it as better and much better than expected respectively.

**Ability of the portal service to deliver service correctly at the first time**

Regarding the fourth customer service factor (CS4), 1.6% of the customers rated their satisfaction with ability of the portal service to deliver service correctly at the first time as much worse than expected, 12.9% rated it as worse than expected, 48.4% rated it as equal to expectation while 24.2% and 12.9% rated it as better and much better than expected.

**Prompt reception of customer responses**

For customer service factor in terms of prompt reception of customer responses (CS5), 19.4% of the customers described their satisfaction as much worse than expected, 22.6% rated it as worse than expected, 17.7% rated it as equal to expectation while 8.1% rated it as better than expected.

**Internet banking system’s ability to guide customer to resolve problems**

For the sixth customer service factor, internet banking system’s ability to guide customer to resolve problems (CS6), 14.5% of the customers described their satisfaction as much worse than expected, 32.3% rated it as worse than expected, 27.4% rated it as equal to expectation, while 16.1% and 9.7% rated it as better and much better than expected.
Assurance factors (AS1 – CS3)

All Assurance factors (AS1- AS3) are presented in Figure 31 and summarized in Table 4. The explanation of the table and diagram follows.

![Bar chart showing satisfaction with Assurance factors (AS1, AS2, and AS3) of MBG]

<table>
<thead>
<tr>
<th>Assurance Factors</th>
<th>WE 8.10%</th>
<th>EE 40.30%</th>
<th>BE 30.60%</th>
<th>MBE 21%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS1</td>
<td>4.80%</td>
<td>37.10%</td>
<td>35.50%</td>
<td>22.60%</td>
</tr>
<tr>
<td>AS2</td>
<td>3.20%</td>
<td>29%</td>
<td>38.70%</td>
<td>29%</td>
</tr>
</tbody>
</table>

**Figure 31: Satisfaction with Assurance factors (AS1, AS2, and AS3) of MBG**

**Assurance of reliability and credibility of transaction on the banking portal**

Specifically, for assurance of reliability and credibility of transaction on the banking portal (AS1), 8.1% of the customers rated their satisfaction as worse than expected, 40.3% rated it as equal to expectation, 30.6% rated it as better than expected while 21% described it as much better than expected.

**Assurance of protection of customer transaction data**

For assurance of protection of customer transaction data, (AS2), 4.8% of the customers rated their satisfaction as worse than expected, 37.1% rated it as equal to expectation, 35.5% rated it as better than expected while 22.6% described it as much better than expected.
Feeling of relief of customer to transact on the internet banking portal

For feeling of relief of customer to transact on the internet banking portal, (AS3), 3.2% of the customers rated their satisfaction as worse than expected, 29% rated it as equal to expectation, 38.7% rated it as better than expected while 29% described it as much better than expected.

Preferential Treatment factors (PT1 and PT2)

All preferential treatment factors (PT1 and PT2) are presented in Figure 32 and summarized in Table 4.

![Figure 32: Satisfaction with Preferential Treatment factors (PT1 and PT2) in MBG](image-url)
**Preferential treatment in terms of lower rates and charges for online banking**

Regarding preferential treatment in terms of lower rates and charges for online banking (PT1), 1.6% of the customers described their satisfaction as much worse than expected, 32.3% rated it as worse than expected, 38.7% rated it as equal to expectation, while 12.9% and 14.5% rated it as better and better than expected respectively.

**Reasonability of transaction fees charged for banking online**

The second preferential treatment item in of reasonability of transaction fees charged for banking online (PT2), 16.1% of the customers described their satisfaction as much worse than expected, 24.2% rated it as worse than expected, 27.4% rated it as equal to expectation, while 19.4% and 12.8% rated it as better and much better than expected respectively.

**Information Provision (IP1 and IP2)**

All information provision factors (IP1 and IP2) are presented in Figure 33 and summarized in Table 4.

![Figure 33: Satisfaction with Information Provision factors (IP1 and IP2) in MBG](image)
**Sufficient and complete information provision**

Finally, for information provision regarding the sufficiency and completeness of information provided by the banking portal (IP1), 6.5% of the customers described it as worse than expected, 37.1% rated it as equal to expectation, while 40.3% and 16.1% described it as better and much better than expected respectively.

**Accuracy of the online banking transaction process**

The last item of information provision is accuracy of the online banking transaction process (IP2), for this item 6.5% of the customers rated their satisfaction as worse than expected, 24.2% described it as equal to expectation, while 37.1% and 32.2% rated it as better and much better than expected respectively.

The discussion of these results which highlights significant patterns is presented in the discussion session in this chapter.

### 4.5 Prioritizing Customer Satisfaction/Dissatisfaction of GCB and MBG

In order to be able to identify the relative importance of the rating of customer satisfaction/dissatisfaction with the internet banking service quality (IBSQ) of the two banks, the means and standard deviations of the satisfaction ratings are analyzed and presented in Table 5.

<table>
<thead>
<tr>
<th>LABEL</th>
<th>DIMENSION ITEM</th>
<th>GCB n = 77</th>
<th></th>
<th></th>
<th>MBG n = 62</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rank</td>
<td>Mean</td>
<td>SD.</td>
<td>Rank</td>
<td>Mean</td>
<td>SD.</td>
</tr>
<tr>
<td>AS3</td>
<td>Relief of customer to transact on the portal.</td>
<td>1</td>
<td>4.04</td>
<td>0.90</td>
<td>2</td>
<td>3.95</td>
<td>0.91</td>
</tr>
<tr>
<td>IP2</td>
<td>Accuracy of the online transaction process</td>
<td>2</td>
<td>3.86</td>
<td>0.82</td>
<td>1</td>
<td>3.94</td>
<td>0.85</td>
</tr>
<tr>
<td>IP1</td>
<td>Complete and sufficiency of the information provided.</td>
<td>3</td>
<td>3.49</td>
<td>0.66</td>
<td>4</td>
<td>3.76</td>
<td>0.86</td>
</tr>
<tr>
<td>AS2</td>
<td>Protected/security of customer transaction data.</td>
<td>4</td>
<td>3.29</td>
<td>0.67</td>
<td>3</td>
<td>3.66</td>
<td>0.83</td>
</tr>
<tr>
<td>AS1</td>
<td>Reliability and credibility of transactions.</td>
<td>5</td>
<td>3.22</td>
<td>0.77</td>
<td>5</td>
<td>3.65</td>
<td>0.91</td>
</tr>
<tr>
<td>WD1</td>
<td>Easy completion of online</td>
<td>6</td>
<td>3.16</td>
<td>0.65</td>
<td>6</td>
<td>3.52</td>
<td>0.80</td>
</tr>
<tr>
<td>Dimension</td>
<td>Description</td>
<td>Mean</td>
<td>SD</td>
<td>Median</td>
<td>Mean</td>
<td>SD</td>
<td>Median</td>
</tr>
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<td>-----------</td>
<td>----------------------------------------------------------------------------</td>
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<td>-----</td>
<td>--------</td>
<td>------</td>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>WD3</td>
<td>Easy understanding which button to be clicked for the next step.</td>
<td>7</td>
<td>3.13</td>
<td>0.64</td>
<td>8</td>
<td>3.47</td>
<td>0.82</td>
</tr>
<tr>
<td>CS1</td>
<td>Sufficient and real time financial information provided.</td>
<td>8</td>
<td>3.10</td>
<td>0.70</td>
<td>7</td>
<td>3.45</td>
<td>0.88</td>
</tr>
<tr>
<td>CS2</td>
<td>Validity of the hyperlinks on the bank's portal.</td>
<td>9</td>
<td>3.08</td>
<td>0.58</td>
<td>12</td>
<td>3.37</td>
<td>0.85</td>
</tr>
<tr>
<td>WD2</td>
<td>Easy logging on bank’s online portal.</td>
<td>10</td>
<td>3.06</td>
<td>0.66</td>
<td>9</td>
<td>3.37</td>
<td>0.79</td>
</tr>
<tr>
<td>WD4</td>
<td>Completing a transaction quickly.</td>
<td>11</td>
<td>2.97</td>
<td>0.67</td>
<td>10</td>
<td>3.34</td>
<td>0.92</td>
</tr>
<tr>
<td>CS4</td>
<td>Perform service correctly at the first time.</td>
<td>12</td>
<td>2.97</td>
<td>0.63</td>
<td>11</td>
<td>3.31</td>
<td>0.64</td>
</tr>
<tr>
<td>PT1</td>
<td>Offering preferentially lower fees/ rates and charges</td>
<td>13</td>
<td>2.26</td>
<td>0.55</td>
<td>13</td>
<td>3.06</td>
<td>1.05</td>
</tr>
<tr>
<td>CS3</td>
<td>Quickness of the Web page on bank's portal site loading.</td>
<td>14</td>
<td>1.96</td>
<td>0.80</td>
<td>15</td>
<td>2.89</td>
<td>1.27</td>
</tr>
<tr>
<td>CS5</td>
<td>Prompt reception of responses to customer request</td>
<td>15</td>
<td>1.82</td>
<td>0.79</td>
<td>17</td>
<td>2.85</td>
<td>0.99</td>
</tr>
<tr>
<td>CS6</td>
<td>Guide customer to solve them when problem occur.</td>
<td>16</td>
<td>1.77</td>
<td>0.71</td>
<td>16</td>
<td>2.74</td>
<td>1.19</td>
</tr>
<tr>
<td>PT2</td>
<td>Reasonability of the transaction fee for this banking portal site.</td>
<td>17</td>
<td>1.51</td>
<td>0.75</td>
<td>14</td>
<td>2.73</td>
<td>1.20</td>
</tr>
</tbody>
</table>

Scale: much worse than expected (1) to much better than expected (5).

Source: author’s field data, 2010.

**Table 5: Relative Importance of Satisfaction/Dissatisfaction with IBSQ**

For MBG, the highest rated dimension of internet banking service quality in terms of mean customer satisfaction is accuracy of the online transaction process (IP2), followed by customer feeling of relief to transact business on the internet banking portal (AS3), Protected/security of customer transaction data, Complete and sufficiency of the information provided, Reliability and credibility of transactions, Easy completion of online transactions, Sufficient and real time financial information provided, Easy understanding which button to be clicked for the next step, Easy logging on bank’s online portal, Completing a transaction quickly, Perform service correctly at the first time, Validity of the hyperlinks on the bank's portal, Offering preferentially lower fees/ rates and charges, Reasonability of the transaction fee for the banking portal site, Quickness of the Web page on bank's portal site loading,
Guide customer to solve them when problem occur, while the least rate item is: Prompt reception of responses to customer request.

The discussion of these results which highlights significant patterns in a cross-case and within case analysis is presented in the discussion session in this chapter.

4.6 Overall satisfaction with internet banking service quality between the two banks

In order to compare overall satisfaction between the two banks, customers were asked to indicate their overall satisfaction with the internet banking service quality for their respective banks on a scale ranging from much worse than to much better than expected, coded as 1 to 5 respectively. Since the scale response are categories in nature, a Kruskal Wallis one-way-analysis of variable was used to determine whether any significant difference in the rating of customer satisfaction/dissatisfaction with the internet banking service quality (IBSQ) of the two banks.

The results of the analysis are summarized in Table 6.
Table 6: Chi-square tests of Satisfaction between the two Banks

Table 6 indicates that, 10.4% of the respondents described their overall satisfaction with the internet banking service quality for GCB as worse than expected, 63.6% of them rated their overall satisfaction as equal to expectation while 26.0% rated it as much better than expected.

For MBG, Table 6 indicates that, 1.6% of the respondents described their overall satisfaction as much worse than expected, 11.3% rated it as worse than expected, 58.1% rated it as equal to expectation, 19.4% rated it as better than expected, while 9.7% rated it as much better than expected.
The Table further indicates that with mean overall satisfaction of 2.84 for GCB and 3.24 for MBG respectively, the chi-square value is 10.008 with degree of freedom of 1, which results in a smaller p-value of 0.002 that is lower than the significance level (p < 0.05). The meaning of this is that there is a significant difference in the overall customer satisfaction of the two banks regarding their internet banking service quality. Therefore, using the significance of the means, it could be deduced with 95% confidence that customers of MBG are more satisfied than those of GCB.

### 4.7 Influence of Internet Banking Service Quality Variables on Overall Satisfaction

<table>
<thead>
<tr>
<th>Label</th>
<th>Variables</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
<th>Adj R²</th>
<th>F value, DF, (Sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>GCB Beta</td>
<td>MBG Beta</td>
<td>GCB</td>
<td>MBG</td>
</tr>
<tr>
<td></td>
<td>(Constant)</td>
<td>.150</td>
<td>.638</td>
<td>.691</td>
<td>0.644</td>
</tr>
<tr>
<td></td>
<td>WD1 Easy completion of online transactions.</td>
<td>.302</td>
<td>.260</td>
<td>.507</td>
<td>.009*</td>
</tr>
<tr>
<td></td>
<td>WD2 Easy logging on online portal.</td>
<td>-.089</td>
<td>.175</td>
<td>.482</td>
<td>.031*</td>
</tr>
<tr>
<td></td>
<td>WD3 Easy understanding which button to be clicked for the next step.</td>
<td>-.090</td>
<td>-.244</td>
<td>.482</td>
<td>.031*</td>
</tr>
<tr>
<td></td>
<td>WD4 Ability of this internet portal in helping customer to complete a</td>
<td>.357</td>
<td>.282</td>
<td>.002*</td>
<td>.022*</td>
</tr>
<tr>
<td></td>
<td>transaction quickly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS1</td>
<td>Sufficient and real time financial information provided by the internet banking portal site.</td>
<td>.205</td>
<td>.307</td>
<td>.064</td>
<td>.021*</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>CS2</td>
<td>Validity of the hyperlinks on the bank's portal.</td>
<td>-.107</td>
<td>-.035</td>
<td>.278</td>
<td>.766</td>
</tr>
<tr>
<td>CS3</td>
<td>Quickness of the Web page on bank's portal site loading.</td>
<td>.010</td>
<td>.064</td>
<td>.923</td>
<td>.633</td>
</tr>
<tr>
<td>CS4</td>
<td>Ability of the bank's banking portal to perform service correctly at the first time.</td>
<td>.188</td>
<td>.225</td>
<td>.128</td>
<td>.056</td>
</tr>
<tr>
<td>CS5</td>
<td>Prompt reception of responses to customer request.</td>
<td>.056</td>
<td>.056</td>
<td>.628</td>
<td>.677</td>
</tr>
<tr>
<td>CS6</td>
<td>Internet banking system’s ability to guide customer to resolve problems</td>
<td>-.077</td>
<td>-.106</td>
<td>.480</td>
<td>.393</td>
</tr>
<tr>
<td>AS1</td>
<td>Reliability and credibility of transactions on the banking portal.</td>
<td>.000</td>
<td>-.046</td>
<td>.995</td>
<td>.696</td>
</tr>
<tr>
<td>AS2</td>
<td>Protection/security of customer transaction data by the banking portal.</td>
<td>.195</td>
<td>.109</td>
<td>.053</td>
<td>.313</td>
</tr>
<tr>
<td>AS3</td>
<td>Feeling of relief of customer to transact on internet banking</td>
<td>-.082</td>
<td>-.023</td>
<td>.343</td>
<td>.826</td>
</tr>
<tr>
<td>PT1</td>
<td>Offering preferentially lower fees/ rates and charges</td>
<td>-.064</td>
<td>.186</td>
<td>.540</td>
<td>.254</td>
</tr>
<tr>
<td>PT2</td>
<td>Reasonability of the transaction fee for this banking portal site.</td>
<td>.199</td>
<td>.024</td>
<td>.080</td>
<td>.886</td>
</tr>
<tr>
<td>IP1</td>
<td>Complete and sufficiency of the information the internet banking portal provides.</td>
<td>.030</td>
<td>-.066</td>
<td>.796</td>
<td>.572</td>
</tr>
<tr>
<td>IP2</td>
<td>Accuracy of the online transaction process of the bank.</td>
<td>.070</td>
<td>-.120</td>
<td>.564</td>
<td>.382</td>
</tr>
</tbody>
</table>

Collinearity Statistics– VIF(GCB) Range 1.5 – 3.7; VIF (MBG) Range 2.5 – 6.0
*Significant at 0.05

Table 7: Regression analysis of IBSQ variables and Overall Satisfaction (OCS)
Table 7 depicts a regression model showing the impact of 17 variables of IBSQ on overall customer satisfaction (OCS) for GCB and MBG. In the model, for GCB, only two variables significantly affect OCS ($p > 0.05$); these are Easy completion of online transactions (WD1) and Ability of the internet portal in helping customer to complete a transaction quickly (WD4). For MBG, only four variables significantly affect OCS at 0.05. These variables are Easy completion of online transactions (WD1), Easy understanding which button to be clicked for the next step (WD3), Ability of this internet portal in helping customer to complete a transaction quickly (WD4), and sufficient and real time financial information provided by the internet banking portal site (CS1).

The overall model estimates for GCB is significant ($F = 9.104, df = 17, \text{sig.} = 0.000$) and for MBG the overall model is significant ($F = 10.062, df = 17, \text{sig.} = 0.000$). The implication is all the variables collectively impact OCS, but individually only a few significantly impact OCS.

The Table also indicates in the note that though the overall model is significant, Multi-collinearity may be a problem since the Variance Inflation Factor (VIF) for each variable for both companies is greater than one.

### 4.8 DISCUSSION OF RESULTS

The following discussion is done in the light of the research questions (RQ) set for this study. It analyses both within and cross-case analysis of the two banks: GCB and MBG.

#### 4.8.1 RQ1: How can Customer satisfaction with internet banking service quality of Ghana commercial Bank and Merchant Bank of Ghana be described?

For the purpose of clarity in describing customer satisfaction for each dimension item within and between the cases, dissatisfaction would be described as by adding both ratings for much worse than expected (1) and worse than expected (2), while satisfaction would be described by adding ratings for equal to (3), better than (4) and much better than expected (5).

**Within case analysis for GCB**

For GCB, satisfaction with ease of completing of online transactions (WD1) is could be described as high since only 13% indicated that they are not satisfied while the rest (87%) maintained that they are
satisfied. For ease logging on bank’s online portal (WD2), only 16.9% were dissatisfied the rest (83.1%) were satisfied, so satisfaction could be described as high for this dimension. For ease of understanding which button to be clicked for the next step (WD3), only 13% were dissatisfied while majority (87%) were satisfied, so customers could be said to be more satisfied for this item. Regarding, the ability of the internet portal in helping customer to complete a transaction quickly (WD4) 22.10% of customers were dissatisfied while 77.90% were satisfied, therefore customers appear to be more satisfied with this dimension item than dissatisfied.

For customer service factor (CS1), being sufficiency of and real time financial information provided by the internet banking portal site, 15.60% of the respondents were dissatisfied while 84.40% were satisfied, which could be described as high satisfaction for this item. Regarding the validity of the hyperlinks on the bank's portal (CS2), customers were more satisfied since only 11.70% of them were dissatisfied while 88.30% were satisfied. For the quickness of the Web page on bank's portal site loading (CS3), customers were more dissatisfied than satisfied since 78.00% were dissatisfied while only 22.00% were satisfied. For the ability of the bank's banking portal to perform service correctly at the first time (CS4), more customers were satisfied (81.80%) than dissatisfied (18.20%).

For prompt reception of responses to customer request (CS5), customers were more dissatisfied (84.50%) than they were satisfied (15.50%). Then for the last customer service factor, being the internet banking system’s ability to guide customer to resolve problems (CS6), more customers were dissatisfied (84.50%) than satisfied (15.50%).

Regarding the assurance factor which is the reliability and credibility of transactions on the banking portal (AS1) received less dissatisfaction rating (15.60%) than satisfaction rating(84.40%). For protection/security of customer transaction data by the banking portal site (AS2), more of the customers were satisfied (92.20%) than dissatisfied (7.80%). For AS3, which is feeling of relief of customer to transact on internet banking, more customers were satisfied (98.70%) than dissatisfied (1.30%).

Moreover, for the first preferential treatment dimension which is offering preferentially lower fees/ rates and charges (PT1) more customer were dissatisfied (68.80%) than satisfied (31.20%). For reasonability of the transaction fee for this banking portal site (PT2), apparently more customers were dissatisfied (89.60%) than satisfied (10.40%).
Finally, for both information provision dimensions which are the provision of complete and sufficiency of the information the internet banking portal provides (IP1) and accuracy of the online transaction process of the bank (IP2), customer were more satisfied (97.40% and 98.70% respectively) than dissatisfied (2.60% and 1.30%) respectively.

Summary of the main points of discussion for GCB is presented in Table 8.

<table>
<thead>
<tr>
<th>ID</th>
<th>DIMENSION ITEMS</th>
<th>GCB (n = 77)</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DISSATISFIED</td>
<td>SATISFIED</td>
</tr>
<tr>
<td>WD1</td>
<td>Easy completion of online transactions.</td>
<td>13%</td>
<td>87%</td>
</tr>
<tr>
<td>WD2</td>
<td>Easy logging on online portal.</td>
<td>16.90%</td>
<td>83.10%</td>
</tr>
<tr>
<td>WD3</td>
<td>Easy understanding which button to be clicked for the next step.</td>
<td>13%</td>
<td>87%</td>
</tr>
<tr>
<td>WD4</td>
<td>Ability of this internet portal in helping customer to complete a transaction quickly.</td>
<td>22.10%</td>
<td>77.90%</td>
</tr>
<tr>
<td>CS1</td>
<td>Sufficient and real time financial information provided by the internet banking portal site.</td>
<td>15.60%</td>
<td>84.40%</td>
</tr>
<tr>
<td>CS2</td>
<td>Validity of the hyperlinks on the bank's portal.</td>
<td>11.70%</td>
<td>88.30%</td>
</tr>
<tr>
<td>CS3</td>
<td>Quickness of the Web page on bank's portal site loading.</td>
<td>78.00%</td>
<td>22.00%</td>
</tr>
<tr>
<td>CS4</td>
<td>Ability of the bank's banking portal to perform service correctly at the first time.</td>
<td>18.20%</td>
<td>81.80%</td>
</tr>
<tr>
<td>CS5</td>
<td>Prompt reception of responses to customer request.</td>
<td>84.50%</td>
<td>15.50%</td>
</tr>
<tr>
<td>CS6</td>
<td>Internet banking system’s ability to guide customer to resolve problems</td>
<td>84.50%</td>
<td>15.50%</td>
</tr>
<tr>
<td>AS1</td>
<td>Reliability and credibility of transactions on the banking portal.</td>
<td>15.60%</td>
<td>84.40%</td>
</tr>
<tr>
<td>AS2</td>
<td>Protection/security of customer transaction data by the banking portal site.</td>
<td>7.80%</td>
<td>92.20%</td>
</tr>
<tr>
<td>AS3</td>
<td>Feeling of relief of customer to transact on internet banking</td>
<td>1.30%</td>
<td>98.70%</td>
</tr>
<tr>
<td>PT1</td>
<td>Offering preferentially lower fees/ rates and charges</td>
<td>68.80%</td>
<td>31.20%</td>
</tr>
<tr>
<td>PT2</td>
<td>Reasonability of the transaction fee for this banking portal site.</td>
<td>89.60%</td>
<td>10.40%</td>
</tr>
<tr>
<td>IP1</td>
<td>Complete and sufficiency of the information the internet banking portal provides.</td>
<td>2.60%</td>
<td>97.40%</td>
</tr>
<tr>
<td>IP2</td>
<td>Accuracy of the online transaction process of the bank.</td>
<td>1.30%</td>
<td>98.70%</td>
</tr>
</tbody>
</table>

Source: Author’s Field data, 2010.

Table 8: Within Case Analysis of Satisfaction for GCB
Significantly, it could be deduced from the discussion summarized in Table 8 that, out of the 17 dimension items, more customers of GCB were dissatisfied with five dimension items while most of the respondents are satisfied with the rest of the 12 dimension items. Out of the five dimension items that customers are dissatisfied, three are related to customer service:

- Quickness of the Web page on bank's portal site loading;
- Prompt reception of responses to customer request;
- Internet banking system’s ability to guide customer to resolve problems;

and two are related to the two items of preferential treatment:
- Offering preferentially lower fees/ rates and charges
- Reasonability of the transaction fee for this banking portal site.

**Within case analysis for MBG**

For MBG, for all the 17-dimension items, most customers were satisfied than dissatisfied. However, for five dimension items, between 30% and 40% of customers were dissatisfied, which needs to be noted by management of the bank. These five dimensions included three items related to customer service, which are:

- Quickness of the Web page on bank's portal site loading;
- Prompt reception of responses to customer request;
- Internet banking system’s ability to guide customer to resolve problems; and

two are related to the two items of preferential treatment:
- Offering preferentially lower fees/ rates and charges
- Reasonability of the transaction fee for this banking portal site.

Summary of the main points of discussion for MBG is presented in Table 9.
### Table 9: Within Case Analysis of Satisfaction for MBG

<table>
<thead>
<tr>
<th>ID</th>
<th>DIMENSION ITEMS</th>
<th>MBG</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DISSATISFIED</td>
<td>SATISFIED</td>
</tr>
<tr>
<td>WD1</td>
<td>Easy completion of online transactions.</td>
<td>8.1</td>
<td>91.9%</td>
</tr>
<tr>
<td>WD2</td>
<td>Easy logging on online portal.</td>
<td>11.3</td>
<td>88.7%</td>
</tr>
<tr>
<td>WD3</td>
<td>Easy understanding which button to be clicked for the next step.</td>
<td>8.1</td>
<td>91.9%</td>
</tr>
<tr>
<td>WD4</td>
<td>Ability of this internet portal in helping customer to complete a transaction quickly.</td>
<td>11.3</td>
<td>88.7%</td>
</tr>
<tr>
<td>CS1</td>
<td>Sufficient and real time financial information provided by the internet banking portal site.</td>
<td>9.7</td>
<td>90.3%</td>
</tr>
<tr>
<td>CS2</td>
<td>Validity of the hyperlinks on the bank's portal.</td>
<td>(6.5%)</td>
<td>93.5%</td>
</tr>
<tr>
<td>CS3</td>
<td>Quickness of the Web page on bank's portal site loading.</td>
<td>(41.9%)</td>
<td>58.1%</td>
</tr>
<tr>
<td>CS4</td>
<td>Ability of the bank's banking portal to perform service correctly at the first time.</td>
<td>(14.5%)</td>
<td>85.5%</td>
</tr>
<tr>
<td>CS5</td>
<td>Prompt reception of responses to customer request.</td>
<td>42.0%</td>
<td>58.0%</td>
</tr>
<tr>
<td>CS6</td>
<td>Internet banking system’s ability to guide customer to resolve problems</td>
<td>46.8%</td>
<td>53.2%</td>
</tr>
<tr>
<td>AS1</td>
<td>Reliability and credibility of transactions on the banking portal.</td>
<td>(8.1%)</td>
<td>91.9%</td>
</tr>
<tr>
<td>AS2</td>
<td>Protection/security of customer transaction data by the banking portal site.</td>
<td>(4.8%)</td>
<td>95.2%</td>
</tr>
<tr>
<td>AS3</td>
<td>Feeling of relief of customer to transact on internet banking</td>
<td>(3.2%)</td>
<td>96.8%</td>
</tr>
<tr>
<td>PT1</td>
<td>Offering preferentially lower fees/ rates and charges</td>
<td>33.9%</td>
<td>66.1%</td>
</tr>
<tr>
<td>PT2</td>
<td>Reasonability of the transaction fee for this banking portal site.</td>
<td>40.3%</td>
<td>59.7%</td>
</tr>
<tr>
<td>IP1</td>
<td>Complete and sufficiency of the information the internet banking portal provides.</td>
<td>(6.5%)</td>
<td>93.5%</td>
</tr>
</tbody>
</table>

*Source: Author’s Field data, 2010.*
**Cross-case analysis of the two banks**

Comparing customer satisfaction with internet banking service quality in the two banks, some significant patterns could be drawn. First of all, on their similarities, most customers of both banks indicated that they were satisfied with all four web design factors, all information provision items, and all three assurance items of the internet banking service quality provided. Secondly, the five factors that received considerable dissatisfaction ratings (between 30% and 40%) for MBG, were the same factors that customers were dissatisfied for GCB.

On the differences in satisfaction for the 17 dimensions items of internet banking service quality, the customers were typically dissatisfied with five dimension items and satisfied with 12 items for GCB, while for MBG, the customers were typically satisfied with all the dimension items.

Thus, customers of the two banks exhibit similar characteristics regarding their satisfaction and dissatisfaction with the dimensions of internet banking service quality.

**4.8.2 RQ2** *What is the relative importance of the dimensions of internet service quality that customers are satisfied or dissatisfied with?*

A careful study of the empirical results presented in Table 5 reveals significant patterns in the relative importance of customer satisfaction of internet banking service quality for the two banks.

**Within case analysis for GCB**

Within GCB, three main patterns emerged. First of all, the three highly rated dimensions items with means above 3.45 respectively are: Relief of customers to transact on the internet banking portal (AS3), accuracy of online transaction and completeness (IP2) and sufficiency of the information the internet banking portal provides (IP1).

Secondly, the next moderately high rating dimensions with means between 3.4 and 2.5 are nine items, which are respectively as follows: Protection of customer transaction data (AS2), Reliability and credibility of transactions (AS1), ease in completion of online transaction (WD1), ease in understanding which button to click (WD3), sufficient and real time financial information provided (CS1), validity of...
the hyperlinks on the bank's portal (CS2), Ease in logging on bank’s online portal (WD2), completing a transaction quickly (WD4), and perform service correctly at the first time (CS4).

Then, the last pattern of satisfaction rating involves those items that received fairly low satisfaction or high dissatisfaction ratings with mean rating between 2.5 and 1.5. These are respectively as follows: (PT1) Offering preferentially lower fees/ rates and charges, (CS3) Quickness of the Web page on bank's portal site loading, (CS5) Prompt reception of responses to customer request, (CS6) guide customer to solve them when problem occur, and (PT2) Reasonability of the transaction fee for this banking portal site.

**Within case analysis for MBG**

Within MBG, two main patterns emerged. First of all, the eight highly rated dimensions items with means 3.45 and above are respectively as follows: Relief of customer to transact on the portal (AS3), Accuracy of the online transaction process (IP2), Complete and sufficiency of the information provided (IP1), Protection of customer transaction data (AS2), Reliability and credibility of transactions (AS1), Ease of completion of online transactions (WD1), Ease of understanding which button to be clicked for the next step (WD3), and sufficient and real time financial information provided (CS1).

Secondly, the rest of the nine dimension items received a moderately high satisfaction rating with mean rating between 3.4 and 2.5. These are respectively as follows: Validity of the hyperlinks on the bank's portal (CS2), Easy logging on bank’s online portal (WD2), completing a transaction quickly (WD4), perform service correctly at the first time (CS4), Offering preferentially lower fees/ rates and charges (PT1), Quickness of the Web page on bank's portal site loading (CS3), Prompt reception of responses to customer request (CS5), Guide customer to solve them when problem occur (CS6), Reasonability of the transaction fee for this banking portal site (PT2).

**Cross- case analysis for GCB and MBG**

Comparing customer satisfaction with internet banking service quality dimensions in the two banks, some significant patterns could be drawn. First of all, generally, the rankings of the satisfaction ratings
show similar patterns for the two banks. For the both banks, items ranking from first to fifth are a combination of the same items of:

- AS3  Relief of customer to transact on the portal
- IP2  Accuracy of the online transaction process
- IP1  Completeness and sufficiency of the information provided
- AS2  Protection of customer transaction data
- AS1  Reliability and credibility of transactions

Also, ranking from sixth to twelfth are a combination of the same items of:

- WD1  Ease of completion of online transactions
- WD3  Ease of understanding which button to be clicked for the next step
- CS1  Sufficient and real time financial information provided
- CS2  Validity of the hyperlinks on the bank's portal
- WD2  Ease of logging on bank’s online portal
- WD4  Completing a transaction quickly
- CS4  Perform service correctly at the first time.

Again, ranking from thirteenth to seventeenth items are a combination of the same items of:

- PT1  Offering preferentially lower fees/ rates and charges
- CS3  Quickness of the Web page on bank's portal site loading.
- CS5  Prompt reception of responses to customer request
- CS6  Guide customers to solve them when problem occur
- PT2  Reasonability of the transaction fee for this banking portal site.

Moreover, the four dimension items that received the same ranking in both banks are as follows:

- AS1  Reliability and credibility of transactions – 5th ranking
- WD1  Easy completion of online transactions - 6th ranking
- PT1  Offering preferentially lower fees/ rates and charges - 13th ranking
- CS6  Guide customer to solve them when problem occur - 16th ranking
Regarding the differences, the only notable differences relate to the highest and lowest ranked items. It is observed that while for GCB the highest rated satisfaction item is: “Relief of customer to transact on the portal (AS3)” followed by “accuracy of the online transaction process (IP2)”, it was a reverse of ranking order for MBG, where the highest rated satisfaction item was “accuracy of the online transaction process (IP2)” followed by “Relief of customer to transact on the portal (AS3)”.

Again, while for GCB, the least rated dimension is “Reasonability of the transaction fee for this banking portal site (PT2)”, for MBG it is “Prompt reception of responses to customer request by email and or service line”.

4.8.3 RQ3 Do the ratings of satisfaction with internet banking service quality differ between the customers of the two banks?

In Table 6 the results reveal that customer satisfaction with internet banking service quality of the two is significantly different ($p < 0.05$), and that customers of MBG are significantly more satisfied than those of GCB. This result is different from other studies such as Migdadi (2008) that found that there were no significant differences between internet banking service quality of two retail banks.

Several factors could explain the differences in customer satisfaction with internet banking service quality between MBG and GCB. One strong possibility is that, based on the Table 9, MBG seems to be providing better internet banking services than GCB is doing in the area of offering preferential lower rates. This is supported by the fact that the while about 68% of customers of GCB were dissatisfied with the online rates or charges given them for online transactions, about 66% of customers were satisfied with the online rates as for internet banking services for MBG.

Another possibility is that MBG appears to have web page opening faster than that of GCB, thereby easing online transaction. This is supported by the fact that 58% of customers were satisfied with quickness of the Web page on bank's portal site loading while the opposite was the case for GCM, 78% of their customers were dissatisfied with the quickness of the web page for online transactions.

Again, the differences in customer satisfaction with the bank could be strongly linked to the fact that GCB does not seem to be doing well in two important customer service factors, which are: Prompt reception of responses to customer request and Internet banking system’s ability to guide customer to
resolve problems. For each of these two factors 84.5% of customers indicate that they were dissatisfied with regarding the bank’s internet banking services. The picture was totally different for MBG, 58% and 54% were rather satisfied for the two factors respectively.

4.8.4 Influence of IBSQ variables on Overall Satisfaction

In Table 7, the overall model estimates for GCB is significant (F = 9.104, df = 17, sig. = 0.000) and for MBG the overall model is significant (F = 10.062, df = 17, sig. = 0.000). The implication is that all the variables collectively impact OCS, but individually only a few significantly impact OCS. The Table also indicates in the note that the overall model is significant, and since the Variance Inflation Factor (VIF) for each variable for both companies is greater than one but less than 10, Multi-collinearity may not really be a problem.

More specifically, the regression shows that out of the 17 variables of IBSQ, for GCB, only two variables significantly affect OCS (p > 0.05); these are: Easy completion of online transactions (WD1) and Ability of the internet portal in helping customer to complete a transaction quickly (WD4). Again, for MBG, only four variables significantly affect OCS. These variables are: Easy completion of online transactions (WD1), Easy understanding which button to be clicked for the next step (WD3), Ability of this internet portal in helping customer to complete a transaction quickly (WD4), and Sufficient and real time financial information provided by the internet banking portal site (CS1).

Thus, only two main web design variables: Easy completion of online transactions (WD1) and Ability of the internet portal in helping customer to complete a transaction quickly (WD4) are common internet banking service quality variables that are found to have significant influence in the two banks. This finding is consistent with many other studies such as Rod, Ashill, Shao and Carruthers (2009) who found, among others, that web design factors are strong predictors of customer satisfaction. Again, in a UK context, Jayawardhena and Foley (2000b) found that web site features such as speed, web site content and design, navigation, interactivity and security all influence user satisfaction.
4.8.5 Demographic differences in Overall Satisfaction

According to Table 3, generally, differences in satisfaction of internet banking service quality significantly differs among only income groups, but not significantly according to gender, education, income and marital status. The results further suggest that respondents who earn between GH¢ 100 and 1500 are more satisfied than those in the lowest and highest income groups.

Since customer satisfaction with internet banking service quality differs according to income, it implies that income could be an important predictor of customer satisfaction and that the management of the banks could develop internet banking services to suit different income groups. It is important to note that in a developing country like Ghana, where the per capita income is relatively low, consumers are always price conscious because, other things being equal, they consumers would desire, prefer and expect the banks to deliver not only quality internet banking services, but also, and more importantly, affordable internet banking services since their income is relative low.

The next chapter, five, summarizes the study, and discusses implications for management.
CHAPTER FIVE
SUMMARY, CONCLUSION, RECOMMENDATIONS

5.0 Overview

This chapter summaries the study and its main findings, discusses the management and theoretical implications, and makes appropriate recommendations for each of the companies.

5.1 Summary of Study

The main purpose of this study is to evaluate customer satisfaction with internet banking service quality in Ghana Commercial Bank and Merchant Bank of Ghana. Specifically, it sought to evaluate customer satisfaction/dissatisfaction regarding dimensions of internet banking service quality of Ghana Commercial Bank and Merchant Bank of Ghana, to identify and prioritize the dimensions of the service quality with internet service quality in the two banks, and to determine whether overall satisfaction with internet banking service quality differ between the two banks.

The main theoretical model adopted for conceptualizing the internet banking service quality dimensions for which customer satisfaction may be evaluated was the internet banking service quality dimensions identified by Ho and Lin (2010). This model was adopted for three reasons. It was based on an extensive literature review, it was based on research in Taiwan, an emerging economy context which is similar to the emerging economy of Ghana, and the dimensions in the model have been validated empirically as applicable to internet banking context and not just general e-service quality context. Based on Ho and Lin (2010), the main dimensions for the internet banking service quality context are: web design, customer service, assurance, preferential treatment and information provision, and it has 17 items in all.

Methodologically, the study was a cross-sectional case survey that involved the use of self-administered structured questionnaire to collect primary data from the customers of the two banks. Of the 100 questionnaire sent for each of the two banks, 77 questionnaire were returned for GCB and 62 for MBG respectively, representing 77% and 62% response rates for GCB and MBG respectively. Data was analyzed using the SPSS 16.0.
5.1 Summary of findings

Based on an objective analysis of the results, the following are the main findings of the study:

5.1.1 Describing customer satisfaction with internet banking service quality of Ghana commercial Bank and Merchant Bank of Ghana

Within Case: GCB

1. Within GCB, of the 17 internet banking service quality dimension items, between 68% and 90% of customers were dissatisfied with five dimension items, three of which relate to customer service and two relate to web design. The most dissatisfied item was: Reasonability of the transaction fee for this banking portal site.

2. Customers were satisfied with 12 dimension items, and satisfaction was highest for Feeling of relief of customer to transact on internet banking and Accuracy of the online transaction process of the bank.

Within case: MBG

1. Within MBG, more customers were satisfied with the entire internet banking service quality dimension items than dissatisfied.

2. Customer satisfaction was highest (96.8% of customers) for assurance, specifically: Feeling of relief of customer to transact on internet banking. The least satisfied quality item was in customer service, specifically it was: Internet banking system’s ability to guide customer to resolve problems.

Cross-case analysis of the two banks

1. It was found that, similarly, most customers of both banks (between 55% and 98%) indicated that they were satisfied with all four web design factors, all information provision items, and all three assurance items of the internet banking service quality provided.

2. Again, similarity-wise, it was found surprisingly that, five factors that received considerable dissatisfaction ratings (between 30% and 40%) for MBG also received more ratings of customer
dissatisfied for GCB. These factors are customer service and preferential treatment for online
rate/charges, specifically:
   a. Quickness of the Web page on bank's portal site loading.
   b. Prompt reception of responses to customer request
   c. Internet banking system’s ability to guide customer to resolve problems
   d. Offering preferentially lower fees/ rates and charges
   e. Reasonability of the transaction fee for this banking portal site.
3. While the entire internet banking service quality dimension items received greater percentage of
satisfaction rating than dissatisfied for MBG, only 12 items received greater percentage of
satisfaction ratings than dissatisfaction rating for GCB.

5.1.2 Relative importance of the dimensions of internet service quality

Within Case: GCB

1. It was found that the most highly rated internet banking service quality items respectively are:
   a. Relief of customers to transact on the internet banking portal (AS3),
   b. Accuracy of online transaction and completeness (IP2), and
   c. Sufficiency of the information the internet banking portal provides (IP1).
2. The least rated internet banking service quality items are respectively as follows:
   a. Offering preferentially lower fees/ rates and charges(PT1),
   b. Quickness of the Web page on bank's portal site loading (CS3),
   c. Prompt reception of responses to customer request (CS5),
   d. guide customer to solve them when problem occur(CS6), and
   e. Reasonability of the transaction fee for this banking portal site(PT2).

Within case: MBG

1. It was found that, the eight highly rated dimensions items respectively are as follows:
   a. Relief of customer to transact on the portal (AS3),
   b. Accuracy of the online transaction process (IP2),
   c. Complete and sufficiency of the information provided (IP1),
   d. Protection of customer transaction data (AS2),
e. Reliability and credibility of transactions (AS1),
f. Ease of completion of online transactions (WD1),
g. Ease of understanding which button to be clicked for the next step (WD3), and
h. Sufficient and real time financial information provided (CS1).

2. It was also found that the rest of the nine dimension items received a moderately high satisfaction rating. These are respectively as follows:
   a. Validity of the hyperlinks on the bank's portal (CS2),
   b. Easy logging on bank’s online portal (WD2),
   c. Completing a transaction quickly (WD4),
   d. Perform service correctly at the first time (CS4),
   e. Offering preferentially lower fees/ rates and charges (PT1),
   f. Quickness of the Web page on bank's portal site loading CS3),
   g. Prompt reception of responses to customer request (CS5),
   h. Guide customer to solve them when problem occur (CS6),
   i. Reasonability of the transaction fee for this banking portal site (PT2).

Cross-case analysis of the two banks

1. It was found that, while for GCB the highest rated satisfaction item is: “Relief of customer to transact on the portal (AS3)” followed by “accuracy of the online transaction process (IP2)”, it was a reverse of ranking order for MBG, where the highest rated satisfaction item was “accuracy of the online transaction process (IP2)” followed by “Relief of customer to transact on the portal (AS3)”.

2. Again, while for GCB, the least rated dimension is “Reasonability of the transaction fee for this banking portal site (PT2)”, for MBG it is “Prompt reception of responses to customer request by email and or service line”.

88
5.1.3 Differences in satisfaction with internet banking service quality between the customers of the two banks?

1. It was found that customer satisfaction with internet banking service quality of the two is significantly different, with customers of MBG are significantly more satisfied than those of GCB. This result is different from other studies such as Migdadi (2008) that found that there were no significant differences between internet banking service quality of two retail banks.

2. It was found that the difference could be explained by three possible reasons, being that MBG seems to be providing better internet banking services than GCB in areas such as:
   a. Offering preferential lower rates
   b. Quickness of the web page for online transactions
   c. Prompt reception of responses to customer request and Internet banking system’s ability to guide customer to resolve problems.

3. Generally, satisfaction of internet banking service quality differs among different income groups, but not significantly different based on gender, age, education and marital status.

5.1.4 Impact of Internet Banking Service Quality (IBSQ) on Overall Satisfaction (OCS)

Regarding, the influence of Internet Banking Service Quality (IBSQ) variables on Overall Satisfaction (OCS), the findings are that all the variables collectively impact OCS within each of the two banks.

1. Individually, for GCB, only two variables significantly impact OCS, these are:
   a. Easy completion of online transactions (WD1) and
   b. Ability of the internet portal in helping customer to complete a transaction quickly (WD4).

2. Again, for MBG, only four variables significantly affect OCS. These variables are:
   a. Easy completion of online transactions (WD1),
   b. Easy understanding which button to be clicked for the next step (WD3),
   c. Ability of this internet portal in helping customer to complete a transaction quickly (WD4), and
   d. Sufficient and real time financial information provided by the internet banking portal site (CS1).
3. Comparatively, only two main web design variables are common internet banking service quality variables that are found to have significant influence in the two banks:
   a. Easy completion of online transactions (WD1) and
   b. Ability of the internet portal in helping customer to complete a transaction quickly (WD4).

5.2 Theoretical Implications

Many previous studies have examined customer satisfaction with internet banking service quality in many industry contexts (Broderick and Vachirapornpuk, 2002; Cristobal, 2007, Loonam and O’Loughlin, 2009; Joseph et al., 1999; Zeithaml, 2001; Jun and Cai, 2001; Yoo and Donthu 2001). This study contributes to the global body of knowledge in the area of customer evaluation of internet banking service quality by examining the phenomenon in the context two banks in an emerging economy, Ghana. Notably, the study found that assurance, defined to cover online security, is the most important internet banking service quality item, specifically, relief of customer to transact on the internet banking portal. This contradicts the finding of Rod, Ashill, Shao and Carruthers, (2009), who found that assurance dimension could be dropped since it was not a significant quality dimension in online banking, which they defined differently to mean the knowledge and courtesy of administrators. Furthermore, the study provides evidence that customer satisfaction and its relative importance may significantly differ from one internet banking service provider to the other in the same industry context. Also, it has particularly provided insight into the effect of internet banking service quality on overall user satisfaction. It provides evidence that the provision of superior customer service and the giving of preferential rates for online services are two most important factors that could influence user satisfaction with internet banking service quality in emerging economies like Ghana. This calls for further and future research agenda for scholars and practitioners, particularly, in examining the impact of these two most important predictors of user satisfaction in similar industry context in other emerging economies.

This study, again, increases extant knowledge on the subject of customer satisfaction with internet banking service quality in Ghana, which has not received much attention in the literature (Abor, 2004; Gyasi and Azumah, 2009). In this study, customer satisfaction with IBSQ is described in two leading banks in Ghana, GCB and MBG; this is an important contribution to internet banking service quality
literature and provides empirical evidence based on which debate and discussion could be made by scholars and practitioners.

Furthermore, the study contributes to the literature on the difference in satisfaction based on consumer demographic variables such as gender, age, income, education and marital status. It highlights the significant demographic variables such as income that are likely to influence customer satisfaction regarding internet banking service quality in developing countries.

5.3 Managerial Implications and Recommendations

5.3.1 To the Management GCB

1. Prevent potential and existing customer switching

The difference in customer overall evaluation of internet banking service quality between the two banks has important implications for the management of GCB. It implies that since the internet banking quality service quality meets customers’ expectation more in MBG than GCB, it can lead to potential and actual customers switching from GCB to MBG for better internet banking service quality as more and more customer talk about their dissatisfaction with GCB’s internet banking service quality. Many studies have shown that word-of-mouth communication has the potential of, not only discouraging other customers from patronizing a product/service but also it has the ability to attract other new customer to a superior service provider (Blodgett et al., 1995; Bougie, Pieters and Zeelenberg, 2003; Jones, McCleary, and Lepisto, 2002; Singh and Wilkes, 1996).

As a result, it is recommended that to prevent customer switching, the management of GCB need to ensure that, generally, their internet banking service quality meets and exceeds customers’ expectation, which has the ability to increase the cost of switching to other banks like MBG for internet banking services.
2. Influence customer satisfaction through web page design

Since the study found two most important factors that significantly influence overall customer satisfaction in GCB, the management of the bank could influence customer overall satisfaction by focusing attention on these two items, which are:

   a. Easy completion of online transactions (WD1) and
   b. Ability of the internet portal in helping customer to complete a transaction quickly (WD4).

These two factors are both web design factors. Management need to keep improving upon the web design of the internet banking portal to make it more easy for customers complete online transactions and do so as quickly as possible in order to avoid wasting customers’ time for online transactions as a result of the web page design.

3. Reduce customer dissatisfaction through customer service and preferential online charges

Since the study found that more customers of GCB were dissatisfied with five dimension items, three of which are related to customer service and two relate to preferential treatment for online charges, it is recommended that management of GCB focus attention on improving these important quality items for their internet banking services:

- **Quickness of the Web page on bank's portal site loading:**
  This has to do with the speed of the online system, so management would need to increase the speed or bandwidth for effective browsing and opening of pages; especially pages with video and pictures require high bandwidth.

- **Prompt responses to customer request:**
  This relates to customer relationship. This requires training more responsible and efficient customer service staff that would be able to handle customer request promptly.

- **Internet banking system’s ability to guide customer to resolve problems:**
  Customer may have many problems in accessing and utilising online banking portals, it is the responsibility of the management to ensure that all diverse customer problems are attended to by technicians with expert knowledge that resolves the problems for customers.

- **Offering preferentially lower fees/ rates and charges:**
  This is very important as customers would expect that with advancement in technology, the cost of online transaction would be moderately cheap to encourage them to continue online banking in an emerging economy like Ghana.
Management should make online banking rates/fees and charges lower to attract more online customers.

- **Reasonability of the transaction fee for this banking portal site.**
  This item also relates to the price paid for online banking services. Customers expect to have a reasonable transaction fees. Reasonability is perceived in terms comparability of the cost-benefit analysis of the customer for the overall online banking services. Management of GCB should ensure that the transaction fees are more reasonable. This could be achieved by involving customers in pricing decisions as this may help reveal many reasonable considerations that customers may expect from the bank regarding online transaction fees.

4. **Focus on customer priority for Assurance and Information Provision**
   Since the study showed that customer priority of internet banking service quality was high for some variables, it implies that the management should pay more attention to the IBSQ items that received the highest ratings among the customers. In this regard, management of GCB should focus and give priority to these items in providing internet banking services to its customers:
   a. Relief of customers to transact on the internet banking portal (AS3)
      Thus make customer more relief to transact business on the internet portal.
   b. Accuracy of online transaction and completeness (IP2),
      Thus, ensure that online transactions are free from mistakes and errors.
   c. Sufficiency of the information the internet banking portal provides (IP1).
      Thus, provide adequate information on the internet banking portal.

5. **Segmenting customers based on income earned**
   Since the study revealed that satisfaction differences exists among different income groups it implies that customers could be segmented based on distinct income earning groups. Again, it is recommended that management of GCB should do further studies to gather more information on income differences among their customers to have other distinct groups among the customers that could be used as basis for market segmentation.
5.3.2 To the Management MBG

1. Use IBSQ as competitive advantage

The difference in customer overall evaluation of internet banking service quality (IBSQ) between the two banks has important implications for the management of MBG. It implies that since MBG has significantly higher IBSQ that meets customers’ expectation more than GCB, it can be used as a competitive tool to attract potential customers to MBG. As customers become more and more conscious of their internet banking needs and requirements and which banks to get them from, delivering high IBSQ could be used to entice potential and/or prospective customers to the internet banking services of the bank.

One way to attract new customers is by promoting viral marketing among the bank’s existing customers. Thus, it is recommended that the management of MBG initiates and promote and sustains viral marketing strategies that ensure that existing customers communicate the IBSQ they experience to other prospective online and offline customers. This word-of-mouth communication has could attract other new customer to a superior service provider (Blodgett et al., 1995; Bougie, Pieters and Zeelenberg, 2003; Jones, McCleary, and Lepisto, 2002; Singh and Wilkes, 1996).

2. Influence customer satisfaction through web page design and customer service

Since the study found four most important factors that significantly influence overall customer satisfaction in MBG, the management of the bank could influence customer overall satisfaction by focusing attention on these four items, which are:

- Easy completion of online transactions (WD1),
- Easy understanding which button to be clicked for the next step (WD3),
- Ability of this internet portal in helping customer to complete a transaction quickly (WD4), and
- Sufficient and real time financial information provided by the internet banking portal site (CS1).

These four factors are web design factors and customer service. Management need to keep improving upon the web design of the internet banking portal to make it more navigable, provide sufficient and real time information to customers, and make it more easy for customers complete
online transactions and do so as quickly as possible in order to avoid wasting customers’ time for online transactions as a result of the web page design.

3. **Reduce customer dissatisfaction through customer service and preferential online charges**
   Although, the study found that more customers of MBG were satisfied with all the IBSQ items, it was noted that some 30% to 40% of the customers showed dissatisfaction for five dimension items, three of which are related to customer service and two relate to preferential treatment for online charges.

   It is, therefore, recommended to management of MBG to focus attention ensure that there is almost no significant customer dissatisfaction for these important quality items for their internet banking services:

   - *Quickness of the Web page on bank's portal site loading;*
     This has to do with the speed of the online system, so management would need to increase the speed or bandwidth for effective browsing and opening of pages, especially pages with video and pictures require high bandwidth.

   - *Prompt responses to customer request;*
     This relates to customer relationship. This requires training more responsible and efficient customer service staff who would be able to handle customer request promptly.

   - *Internet banking system’s ability to guide customer to resolve problems;*
     Customer may have many problems in accessing and utilising online banking portals, it is the responsibility of the management to ensure that all diverse customer problems are attended to by technicians with expert knowledge that resolves the problems for customers.

   - *Offering preferentially lower fees/ rates and charges;*
     This is very important as customers would expect that with advancement in technology, the cost of online transaction would be moderately cheap to encourage them to continue online banking in an emerging economy like Ghana.

     Management should make online banking rates/fees and charges lower to attract more online customers.

   - *Reasonability of the transaction fee for this banking portal site.*
     This item also relates to the price paid for online banking services. Customers expect to have a reasonable transaction fees. Reasonability is perceived in terms comparability of the cost-
benefit analysis of the customer for the overall online banking services. Management of MBG should ensure that the transaction fees are more reasonable. This could be achieved by involving customers in pricing decisions as this may help reveal many reasonable considerations that customers may expect from the bank regarding online transaction fees.

4. **Focus on customer priority for Assurance, Information Provision and Web design**

   Since the study showed that customer priority of internet banking service quality was high for some variables, it implies that the management should pay more attention to the IBSQ items that received the highest ratings among the customers. In this regard, management of MBG should focus and give priority to these items in providing internet banking services to its customers:
   
   a. Relief of customer to transact on the portal (AS3),
   b. Accuracy of the online transaction process (IP2),
   c. Complete and sufficiency of the information provided (IP1),
   d. Protection of customer transaction data (AS2),
   e. Reliability and credibility of transactions (AS1),
   f. Ease of completion of online transactions (WD1),
   g. Ease of understanding which button to be clicked for the next step (WD3), and
   h. Sufficient and real time financial information provided (CS1).

5. **Possible market segmentation based on customer income**

   It is equally recommended to MBG that since the study indicated that satisfaction differences exists among different income groups it means that customers could be segmented based on distinct income earning groups. It is also recommended that management of MBG should do further study to gather more information on income differences among their customers to have other distinct groups among the customers that could be used as basis for market segmentation.
5.4 Conclusion

In conclusion, this study sought to evaluate and describe customer satisfaction with internet banking service quality in Ghana Commercial Bank and Merchant Bank of Ghana. Through existing marketing literature and empirical evidence, the study concludes that more customers are satisfied with most dimensions of internet banking service quality in GCB and MBG. Typically, overall customer satisfaction differs between customers of the two banks, and that satisfaction for IBSQ of MBG is significantly higher than that of GCB. Relief of customers to transact on the internet banking portal (AS3) appears to be highest priority of the customers in engaging in online transaction in internet banking in Ghanaian online banks. The study also concludes that, collectively IBSQ predicts Overall customer satisfaction (OCS) in internet banking services of the two banks, and that the two most important common predictors of OCS are the web design factors.

5.5 Recommendation for future research

This study was a cross sectional case survey, used self-administered questionnaire to collect empirical data and analyzed data using descriptive and quantitative methods. It is recommended that future research could use different methodology such as critical incidence technique and focus on extending the study across many similar banks in different countries and different service contexts. In this regard the following areas could be studied:

i. Customer perception of internet banking service quality of universal and community/rural banks in Ghana.


iii. Resolving customer complaints in internet banking services
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APPENDIX A

QUESTIONNAIRE FOR CUSTOMERS

PREAMBLE

Dear Customer, this questionnaire is designed to collect information regarding your feelings about the internet banking service quality you receive from Ghana Commercial Bank. All information you give will be used for only academic purpose. So please be sincere with your responses. It will take about 5 to 10 minutes to complete this questionnaire.

SECTION A

1. For the past 12 months have you used the internet banking services of Ghana Commercial bank?
   [   ] YES  [   ] NO

2. If YES, which of the banking services do you use?
   ...............................................................................................................................................
   ...............................................................................................................................................
   ...............................................................................................................................................

3. Overall, tell how satisfied or dissatisfied you are with the internet banking service delivery of Ghana Commercial Bank by ticking the face that best describes your opinion.

   | Much worse | worse than | Equal to | better than | Much better |
   | than expected | expected | expectation | expected | than expected |
   | 1 | 2 | 3 | 4 | 5 |
**SECTION B**

The following are statements about the internet service quality provided by the internet banking portal site of Ghana Commercial Bank Limited. For each of the questions tell how the internet banking services you receive from the bank compare with your expectation. Use this scale:

1 – Much worse than expected  
2 – Worse than Expected  
3 – Equal to Expectation  
4 – Better than expected  
5 – Much better than expected

<table>
<thead>
<tr>
<th>Statement</th>
<th>Tick only one option 1 – 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How easy is it to complete online transactions?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>2. How easy is it to log on in this bank’s online portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>3. How easy is it to understand which button to be clicked for the next step?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>4. How is the ability of this internet portal in helping you to complete a transaction quickly?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>5. The internet banking portal site provides sufficient and real time financial information.</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>6. How valid are the hyperlinks on this GCB’s portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>7. How quick does the Web page on this portal site load?</td>
<td>1  2  3  4  5</td>
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<tr>
<td>8. How is the ability of this Internet banking portal to perform service correctly at the first time?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>9. How promptly do you receive responses to your request by e-mail or service line?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>10. When problems occur, how able does the internet banking system guide you to solve them?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>11. How reliable and credible are transactions on this banking portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>12. How protected are your transaction data by this banking portal site?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>13. How relieved are you to transact on the internet banking portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>14. How do the rates and charges on this internet banking portal provide preferentially lower fees to you?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>15. How reasonable are the transaction fee for this banking portal site?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>16. How complete and sufficient is the information this internet banking portal provides?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>17. How accurate is the online transaction process of GCB?</td>
<td>1  2  3  4  5</td>
</tr>
</tbody>
</table>
SECTION C

1. Please indicate your gender. [ ] male [ ] female

2. Please what is your age group?
   [ ] below 25 yrs [ ] 25 – 35 yrs [ ] 36 – 45yrs [ ] 46 – 55yrs [ ] 56 +

3. What is your highest academic or professional qualification?
   [ ] WASSCE/SSCE [ ] Technical/Vocational Certificate [ ] Diploma/HND
     [ ] Bachelor’s degree [ ] Post graduate/Master’s degree [ ] PhD [ ] Post-Doctoral [ ] other, please specify............

4. What is the range of your monthly income?
   [ ] Less than GH¢100 [ ] GH¢100 – 500 [ ] GH¢501 -1000
     [ ] GH¢1001 - 1500 [ ] GH¢1501 and above

5. Please indicate your marital status. [ ] married [ ] single [ ] other, please specify

Thank you for taking time to complete this questionnaire!
APPENDIX B

QUESTIONNAIRE FOR CUSTOMERS

PREAMBLE

Dear Customer, this questionnaire is designed to collect information regarding your feelings about the internet banking service quality you receive from Merchant Bank. All information you give will be used for only academic purpose. So please be sincere with your responses. It will take about 5 to 10 minutes to complete this questionnaire.

SECTION A

1. For the past 12 months have you used the internet banking services of Merchant Bank Ghana?
   [ ] YES [ ] NO

2. If YES, which of the banking services do you use?
   ............................................................................................................................................
   ............................................................................................................................................
   ...........................................................................................................................................

3. Overall, tell how satisfied or dissatisfied you are with the internet banking service delivery of Merchant Bank Ghana by ticking the face that best describes your opinion.

   Much worse than expected | worse than expected | Equal to expectation | better than expected | Much better than expected

   1 | 2 | 3 | 4 | 5
**SECTION B**

The following are statements about the internet service quality provided by the internet banking portal site of Merchant Bank Ghana Limited. For each of the questions tell how the internet banking services you receive from the bank compare with your expectation. Use this scale:

- **1** – Much worse than expected  
- **2** – Worse than Expected  
- **3** – Equal to Expectation  
- **4** – Better than expected  
- **5** – Much better than expected

<table>
<thead>
<tr>
<th>Statement</th>
<th>Tick only one option 1 – 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How easy is it to complete online transactions?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>2. How easy is it to log on in this bank’s online portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>3. How easy is it to understand which button to be clicked for the next step?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>4. How is the ability of this internet portal in helping you to complete a transaction quickly?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>5. The internet banking portal site provides sufficient and real time financial information.</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>6. How valid are the hyperlinks on this internet banking portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>7. How quick does the Web page on this portal site load?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>8. How is the ability of this Internet banking portal to perform service correctly at the first time?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>9. How promptly do you receive responses to your request by e-mail or service line?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>10. When problems occur, how able does the internet banking system guide you to solve them?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>11. How reliable and credible are transactions on this banking portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>12. How protected are your transaction data by this banking portal site?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>13. How relieved are you to transact on the internet banking portal?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>14. How do the rates and charges on this internet banking portal provide preferentially lower fees to you?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>15. How reasonable are the transaction fee for this banking portal site?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>16. How complete and sufficient is the information this internet banking portal provides?</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>17. How accurate is the online transaction process?</td>
<td>1  2  3  4  5</td>
</tr>
</tbody>
</table>
SECTION C

1. Please indicate your gender. [ ] male [ ] female

2. Please what is your age group?
   [ ] below 25 yrs [ ] 25 – 35 yrs [ ] 36 – 45yrs [ ] 46 – 55yrs [ ] 56 +

3. What is your highest academic or professional qualification?
   [ ] WASSCE/ SSCE [ ] Technical/Vocational Certificate [ ] Diploma/HND
   [ ] Bachelor’s degree [ ] Post graduate/Master’s degree [ ] PhD [ ] Post-Doctoral [ ] other, please specify............

4. What is the range of your monthly income?
   [ ] Less than GH¢100 [ ] GH¢100 – 500 [ ] GH¢501 -1000
   [ ] GH¢1001 - 1500 [ ] GH¢1501 and above

5. Please indicate your marital status. [ ] married [ ] single [ ] other, please specify

Thank you for taking time to complete this questionnaire!
APPENDIX C

INFORMED CONSENT

I am pleased to inform you that you have been selected as a respondent in a study about customer satisfaction with service quality of the internet banking of this (bank’s name).

I am a student of Lulea University of Technology, Sweden. The outcome of this study will be used for only academic purpose, specifically to write a thesis for a master’s degree.

A questionnaire is designed to collect information about your opinion on your satisfaction with the service quality of the internet banking portal of this bank (bank’s name).

I guarantee that your 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.

I would be grateful if you could complete the questionnaire attached to this letter, which will take about ten (10) minutes to do so. I would need the completed questionnaire at most in a week’s time.

Thank you

ABDIL MUMUNI MORO WANDAOGOU

STEPHEN PAMPIIN JALULAH

Contact Email: melanisstudentsthesis@gmail.com