TECHNOLOGICALSHIP IN E-BANKING SERVICES: A CONSTRAINT OR CONTRIBUTOR TO RELATIONSHIP MARKETING IN RETAIL BANKING IN EAST LONDON, EASTERN CAPE, SOUTH AFRICA

BY

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ABSTRACT

Contemporarily, one of the major business demands is to extensively understand the impact of technology on the major business strategies and practices. Technologicalship marketing, a concept investigated in this study, emanates from a symbiosis of technology and relationship marketing. *Per se,* a prevalent area of debate pertains to whether technology promotes or constrains relationships. Outstandingly, this study pursued the technologicalship marketing concept, a new and vital 21st century suggestion in literature (Zineldin, 2000:16). Secondly, against the scarcity of empirical studies in mass marketing environments, the study at hand focused on retail banking client relationships. Lastly, the proposed meta-construct hypothetical model is an essential relationship marketing instrument. The proposed model consists of four major relationship marketing construct categories, namely, personal contact, customer retention, customer switching and relational exchange. At the hand of these constructs, the research primarily aimed to determine the impact of technology on client relationships in e-banking with the focus of closing the gap prevalent in literature on whether technology constraints or supports relationship marketing.

The study focused on retail banking client relationships of the four major commercial banks in East London, Eastern Cape, South Africa. A survey was conducted of a sample of 200 clients selected using the convenience sampling method. The study hypothesised that technology is resulting in more transactional than relationship marketing in retail banking by constraining social constructions, customer retention and relational exchange, whilst, promoting customer switching mobility. Through the GLM regression analysis method, findings of the study established that technology was to a larger extent supporting relationship marketing. However, it is envisaged that technology is resulting in the disappearance of human contact which is a critical aspect of relationships. Conclusively, the researcher recommended that the only plausible strategy is to endeavour to integrate the human aspect at self-service podiums e.g. mounting of staff at ATM points, which most banks have been doing.

DECLARATION

I, the undersigned Reginald Masocha, hereby declare that this dissertation entitled *Technologicalship in E-Banking Services: A Constraint or Contributor to Relationship Marketing in Retail Banking in East London, Eastern Cape, South Africa*, is my own original work, has not been and will not be submitted or presented for the award of any other Degree, Diploma, Fellowship or other similar title.

…….. ……

Signature **Date**

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DEDICATION

This work is dedicated to my dear mother, *zvamungori Amai makandikoshera* (Mom you are special to me) and to my late father, Mapatiko, you keep me going.

To my special friend, Rejoice Netsai Ndava.

To my future wife and kids.

LIST OF ABBREVIATIONS

@	at
ATM	Automated Teller Machine
B-2-B	Business to Business
B-2-C	Business to Consumer
CBT	Computer Based Technology
CD-ROMS	Compact Disk Read Only Memory
CRM	Customer Relationship Management
DIT	Disruptive Innovation Theory
e-	Electronic
E-banking	Electronic Banking
E-business	Electronic business
E-commerce	Electronic Commerce
ECRM	Electronic Customer Relationship Management
EDI	Electronic Data Interchange
EFT	Electronic Funds Transfer
EFTPS	Electronic Funds Transfer at Point of Sale
E-Mail	Electronic Mail
E-marketing	Electronic marketing
E-Tail	Electronic Retail
GLM	General Linear Model
GPRS	General Packet Radio Service
GPS	Global Position Services
ICT	Information Communication Technology

IMP	Industrial Marketing and Purchasing (IMP) group
IT	Information Technology
IVR	Interactive Voice Response
PC	Personal Computer
PDA	Personal Digital Assistant
RM	Relationship Marketing
SMS	Short Message Service
SST	Self Service Technology
TV	Television
WWW	World Wide Web

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CHAPTER 1
INTRODUCTION TO THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

Technology is complicating the concept of relationship marketing as business enterprises are increasingly sophisticating the process of meeting customers' demands and expectations. As businesses increasingly emphasise the utilisation of the latest accessible technologies, inherent effects of persistent technological developments untenably challenge almost all firms across all industries. Since simultaneously, today's customers propensity to adopt the newest technologies for social purposes and motives is also increasing. Hence, contemporary business researchers, academics and practitioners are increasingly and persistently focusing on technological evolvements and innovativeness seeking up-to-date knowledge on technological impacts on the whole concept of business management (Brady, Fellenz & Brookes, 2008:108). In support, Porter (2001:67), in modifying the five competitive forces model, opines that IT is strengthening and weakening the bargaining power of suppliers, competitors, and customers. Durkin & Howcroft, (2003:62) and Fahy, Moloney & McAleer, (2005:iv) are of the opinion that technology is fragmenting and integrating; globalising and localising marketplaces. Albeit such efforts, unwarrantedly, consensus lacks on whether continuous technological developments are supporting or dampening elements of relationship building and maintenance in the contemporary business environments.

Ostensibly in business markets, technology is propounded to be promoting relationship management to the extent that nowadays most business enterprises are increasingly adopting technological tools in pursuit of profitable and long-term relationships (Baran, Galka & Strunk, 2008:9; Fang Wang, 2004:2; Kotler and Keller, 2006:157; Zineldin, 2000:9). Building relationships with today's scattered, dissimilar, complicated and highly demanding consumers has become essential in today's complex, wispy and interactive marketplaces (Brady, *et al.*, 2008:109). For marketers who have long strived with plausible practices of satisfying and retaining customers, technology seems a disposition of the challenges underpinning relationship marketing. While literature suggests the use of technology to be paying off in industrial markets, such

conclusions in mass markets have not yet been virtually investigated and this study strived to do so in the South African context.

On this backdrop, this study endeavoured to address the pragmatism of an emerging marketing concept, technologicalship marketing, which is defined merely as marketing largely based on technology instruments used by firms to acquire and manage their relationships. Defined more specifically and as applied in the context of this study, technologicalship marketing is a marketing realm which integrates two contemporary and critical paradigms in the marketing discourse, namely, relationship marketing and technological marketing (Shajahan, 2006:16; Zineldin, 2000:15). The most important and core aspects of relationships from the customers perspective, are personal relationships and benefits, interactions, social exchange and long term relationships. These relational and social constructs as supported by O'Malley & Tynan, (2000:804-807); Baran, *et al.,* (2008:3-10); Ritter & Walter, (2006:293-295); Veludo, Macbeth & Purchase, (2006:200) and Rao, (2002:54) were used as measures for relationships based on the perceptions, transactional behaviours and direct preferences of clients in retail banking. The study focused on South Africa's four major commercial banks in East London which are Amalgamated Banks of South Africa (ABSA), First National Bank (FNB), Nedbank and Standard Bank. The primary technological elements which were measured are banking remote services (e.g. ATMs), internet, computers, telephone and mobile communications.

This first chapter comprises the introduction and the outlook to the dissertation and, served as the research proposal. In the sections to follow, the problem statement is given. In addition, the research objectives and hypotheses, significance and originality of the research, as well as a brief overview of the literature underpinning the study are outlined. Furthermore, research delineations and demarcations pertaining to the study are also provided and a brief overview of the research methodology. Finally, the structure of the dissertation is also highlighted.

1.2 RESEARCH PROBLEM

The effect of massive technological developments and utilisation on relationship marketing has not been virtually investigated in mass marketing. Consensus lacks on whether technology renders relationship marketing strategies obsolete or enhances them in situations of mass marketing. Given the intensity of factors which constrain the customer-technology interaction, the whole concept of technologicalship marketing is subject to scrutiny in B-2-C relationships. More and more relationship marketing elements seem to be incompatible with technology, particularly where customers are unfamiliar with the application of advanced technology systems. On the other hand, for those clients acquainted with technology, opportunities exist which enhance their switching mobility in the market. All in all, it appears that retail banks are confronted with bank-client relationships that are distorted in several ways due to the presence of technology, for instance, de-personalisation of relations and the increasing distances between service-providers and clients.

In the endeavour to accomplish optimum need satisfaction for clients, the problem arises whether the increased utilisation of technology (independent variable) constrains relationships (dependent variable) in retail banking environments.

The research problem is derived from the gap that exists due to the absence of consensus between the positive and negative impacts of technology on relationship marketing which exists theoretically and pragmatically. Therefore, this research explores the compatibility and prevalence of two variables, namely, client relationship marketing and technology, focusing on e-banking. Implicitly, the pragmatism and feasibility of technologicalship marketing in mass marketing environments is therefore pursued as the central problem of this study. Intrinsic to the research problem at hand, a limited number of studies and works directly linked to technologicalship marketing were found. In essence, this study attempts to comprehend theory on the concept of

technologicalship marketing through measuring the intensity and relatedness of technological elements and relationships constructs utilising the banking environment.

1.3 RESEARCH OBJECTIVES

The study explored the following primary objective and the associated secondary objectives.

1.3.1 Primary Objective

This study primarily aims to determine the impact of technology on client relationships in e-banking with the focus of closing the gap prevalent in literature on whether technology constraints or support relationship marketing.

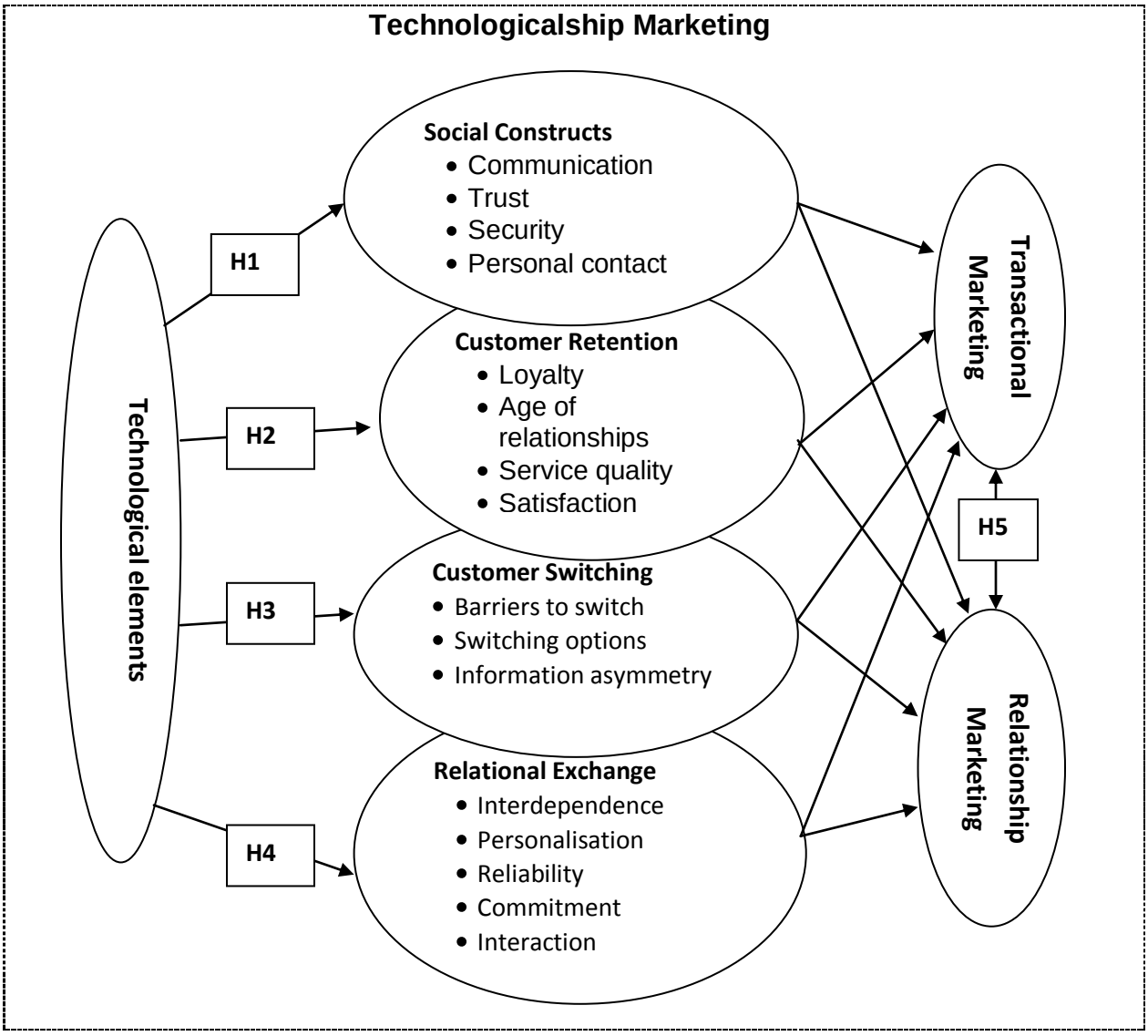
1.3.2 Secondary Objectives

- To assess the momentum of technology-based relationship marketing in e-banking services from the client's perspective in consumer markets.
- To ascertain to what extent clients utilise the various modern technologies of transacting with the four banks under study in East London for relationship purposes as compared to transactional purposes.
- To determine the subsequent impact of massive technological innovations on clients' switching mobility and the effect on relationship marketing in the banking environments.
- To establish the challenges and constraints faced by clients in technology adoption for relationship purposes.

1.4 HYPOTHESES

In pursuit of the endorsed research problem, *this study's research thesis states that instead of technology reinforcing relationships, it to a larger extent, disintegrates and weakens supplier-customers relationships in consumer markets.* In support of this thesis, the hypothetical framework outlined below, jointly with the developed hypotheses, guided the exploration of the research problem and the execution of the research.

Figure 1.1: The Research Framework



H_0: From the client's perspective, the use of modern banking technologies in service delivery, constraints social constructs in relationships.

H_1: The use of recently developed technologies enhances social elements in bank-client relationships.

H_0: From the client's viewpoint, the use of technological mediums constraints client retention in relationship marketing.

H_2: Clients perceive technology to be enhancing client retention in e-banking services.

H_0: Clients' switching between banks is enhanced by modern technologies which constraints relationships.

H_3: Recently developed technologies do not cause clients to switch easily between banks in the context of relationship marketing.

H_0: Clients consider modern e-banking technologies to be constraints to interactivity and relational elements in relationships with the bank.

H_4: Modern technologies enhance interactivity and relational relationship elements between the client and the bank.

H_0: In technological entrenched e-banking marketplaces, there is more transactional marketing than relationship marketing.

H_5: There is more relationship marketing rather than transactional marketing in e-banking technologicalship marketing.

1.5 ORIGINALITY AND SIGNIFICANCE OF THE STUDY

Several factors render this research study new and significant. Of essence, this research determined the 21st century *status quo* in technologicalship marketing on the backdrop of technological marketing and customer relationship management in the South African society. Thus, primarily the originality of this study emanates from the location and the initiative to uncover the compatibility of customer relationships and modern technologies in the marketing of banking services.

A review of literature shows that studies of a relationship orientation in technological marketing have mainly been conducted in the developed countries and no evidence of studies in the South African context could be obtained. In addition, empirical evidence on technologicalship marketing is scarce and primarily focuses on business-to-business (B-2-B) relationships. Therefore, this study focused on business-to-consumer (B-2-C) relationships. Indeed, propensities and motives for technological adoption differ widely between business/industrial customers and consumer market customers (Curry & Penman, 2004:336; Woodburn, 2002:20). With the pervasiveness of information technology, this research area and problem will continue to demand further and consistent research efforts, particularly in the financial industry.

In the contemporary era of digitalisation and computerisation of business practises, the banking industry has been identified as one of the leading industries in the usage and adoption of advanced technologies in many of its business functions. Researching on this typical leader or epicentre in technological development and adoption (banking industry) relatively demystified the concept of technologicalship marketing to other industries. This study coherently provides answers to specific technologicalship concerns, such as, determining the extent to which the general technological environment is supporting customer relationships. Persistently marketing has been lagging in innovativeness against the field of Information Communication Technologies (ICT), which has constantly and increasingly obtained sponsorship and attention from various sources ranging from individuals to governments. Consequently, these advanced ICT have primarily complicated the contemporary business environments, thus, compelling constant business research studies of this nature in order to keep track of implications of ICT (Cooper and Schindler, 2006:19; Brady, *et al.,* 2008:108-109; and Wai-Ching, 2008:59). This research serves as a future reference for marketing students and researchers as they strive for an understanding of the intensity and relational measures of key technolologicalship marketing variables.

In addition to bringing into closer focus these theoretical deficiency aspects in literature, the study provided the following specific benefits:

- *It was anticipated that findings of this study were to directly benefit the banks under study in structuring their marketing strategies, quality improvements and business processes.* The banking industry is greatly affected by technological innovations; therefore the subsequent findings and recommendations are highly essential in providing services more effectively and efficiently. On the face of customer-centric business models dominating the 21st century, understanding customers' behaviours, perceptions and expectations is very critical for businesses' success. The findings of this study serve as primary data for decision-making purposes to the management of ABSA, FNB, Nedbank and Standard Bank nationally. Likewise, this study is valuable and useful to the board of directors as it provides a wide array of information pertaining to clients' usage of and perceptions on e-banking facilities which can be used to direct the general course of banking.

- *Findings of this research are also useful for the banking sector at large in the formulation of appropriate strategies to develop client loyalty and retention strategies.* The study encompasses a predictive approach into the future and has a contemporary delineation of the underlying impacts of technology on relationship marketing. By investigating the implications of massive technology in increasingly competitive and technologically sophisticated marketplaces, this study prevails against the tendency to search for instant solutions pertaining to complex business problems, which remains rather a common phenomenon in the field of business research. The study is a pointer to the future in regard to the possible hindrances of maintaining relationships with customers because of ever-increasing technological developments which are already increasing switching and mobility capabilities of customers.

1.6 DELINEATIONS AND LIMITATIONS OF THE RESEARCH

Zineldin, (2000:16-20) and Baran, *et al.,* (2008:100) outline several forms of relationships underpinning technologicalship marketing based on customers, suppliers, distributors, and facilitators. In this dissertation, empirical data was obtained from clients and, hence, the study adopts the perspective of customers and not suppliers or employees in assessing relationships constructs in technologicalship marketing. The problem identified in this research pertains to consumer markets or B-2-C relationship marketing. As such, this study endeavoured to reach conclusions on the concept of technologicalship marketing from the perspective of e-retail banking clients.

Furthermore, the thesis to this study focuses on the concept of technologicalship marketing and, the banking sector was considered because of its leading position in technology utilisation. Thus, *though not restrictive of what technology could mean, the focus was on evaluating the impact of sell-side technologies and technology at large in the context of customer relationship marketing.* Sell-side technologies are directly linked to the interaction, communication and service delivery between suppliers and customers (Chaffey, 2004:7). Finally, the study does not attempt to be definitive rather it ponders alternative explanations based on secondary and primary research findings. The study is a continuum of efforts to research and comprehend technology-based relationship marketing literature.

1.7 LITERATURE REVIEW

This study builds on the background provided in earlier works by Zineldin (2000), Wai-Ching (2008), Brady *et al,* (2008), Durkin & Howcroft (2003) and Fang Wang (2004). However, a common gap amongst these earlier works arises as they separately consider the variables underpinning the concept of technologicalship marketing, namely, technological marketing and relationship marketing. Relationship marketing involves the interaction between buyers and sellers and focuses on maintaining relationships over time (Christopher, Payne & Ballantyne, 1991:20-21). Although there is a growing body of literature associated with relationship marketing, there is still a

myriad of unanswered questions pertaining to the area of technology (Knemeyer & Murphy, 2005:5; Zineldin & Vasicheva, 2008:114). Due to the bank-client dyadic and cliental nature of business which patronises relationship marketing, the banking industry was identified as a perfect research area for this study. Apparently, e-banking technologies have reluctantly been received by the large segment of the market (Ndubisi & Sinti, 2006:16).

Broadly, research suggests that elements such as the cost and accessibility of the computer and internet, clients reluctance, awareness of the service, security and of internet banking transactions, convenience and ease of use influence the usage of e-banking (Padachi, *et al.*, 2007:560; Wai-Ching, 2008:60). Additionally, Wai-Ching suggests that the acceptance and utilisation of e-banking is influenced by demographic traits, such as age groups and educational level. However, critical to academic work and research, relationships constructs implications on e-banking and technology at large are limited and constrain the technologicalship marketing paradigm. The above discussed factors in literature at large are unarguably transactional with a few such as trust of and satisfaction from e-banking being applicable in the relationship marketing context.

Generally, consensus in literature is that, technology promotes relationship marketing, suggesting that there is much more interaction or networking rather than transactional marketing, regardless of the type of industry (Zineldin, 2000:11-12; Rexha, Kinshott & Shang Aw, 2003:53; Baran, *et al.,* 2008:12; Durkin & Howcroft, 2003:12). As stated before, academic works on the technological impacts on relationship marketing has largely been confined to industrial markets (Durkin & Howcroft, 2003:62; Ambrose & Fynes, 2006:2). Apart from being B-2-B focused, the bulk of the located literature concluding embeddedness and reciprocity between technological marketing and relationship marketing is inherently based on the supplier's perspective. Also, these conclusions are primarily based on databases and transactional supporting technologies (Baran, *et al.,* 2008:95). This study critically investigates the relationship

between technology use and customer relationships against this general consensus in mass markets environments. Contrary to affirming long-term relationships, a growing notion in literature is that technological platforms and delivery systems are constraining relationships (Lang & Colgate 2003:26). Coherently, embedded in this study because of innovation disruptiveness is the Clayton Christensen's Disruptive Innovation Theory (DIT). According to this theory and *per se*, continuous technological transformations often disintegrate the sustainability of business strategies and practices (Padgett & Mulvey, 2007:375).

The DIT theory propels that digitalised business models and products, transcending contemporary markets, have the potential of disrupting supplier-customer relationships. Improved functionality and speed are the main characteristics of innovativeness which usually constrains traditional business models and products (Enders, Jelassi, König & Hungenberg, 2006:67). This is exhibited in shorter time-scales and reduced customer commitment, services and contact with suppliers. Also, today's broadly educated and discerning consumer and the virtual transformation of marketplaces are being affirmed and enhanced by continuous and escalating prioritisation of new technologies by businesses, customers and other stakeholders. As such, customers are gaining a wider choice of channels through which to connect with a brand and this is increasing their switching between suppliers leading to increased customers' bargaining power (Baker & Bass, 2003:1-2; Baran, *et al.,* 2008:20). The following relationship constructs as outlined in the research framework were investigated.

1.7.1 Social Constructs

Relationships are social constructions and the human-to-human interaction is a key feature for relationship marketing. Indications of technology demising the customer-supplier social relationships date back to the early 1980s. According to Durkin and Howcroft (2003:65), research findings in the early 1980s concluded on the necessity of human-to-human interaction in service delivery machines, positing that the bank-client

dyadic relationship resists the inhuman coldness of automated processes. The research at hand endeavours to attest such assertions from the customer's viewpoint. For causing de-personalisation, automation and dehumanisation of the exchange process and lengthy psychological distances between the exchange partners, technology might be viewed negatively by customers (Sizmigin, Canning & Reppel, 2005:483-484; Ritter & Walter, 2006:295; Durkin & Howcroft, 2003:64).

1.7.2 Customers' Mobility

Amid highly complex and demanding contemporary customers (Baker & Bass, 2003:1-2), e-commerce enables more detailed analysis of customers' behaviours and needs, thereby, enhancing relationship management in financial services firms (Abbott, Stone & Buttle, 2001:291). Albeit this, the same technologies strengthen clients' ability to compare services and to switch between financial services firms. These technologies, in addition, create information asymmetry and by going online, banks risk transferring control to clients. For instance, sophisticated and information-aware clients unlikely leave substantial balances in low interest bearing accounts and will move them in search of higher returns (Durkin & Howcroft, 2003:63). Porter (2001:68) argues that escalating technological developments are strengthening the bargaining power of clients, incumbents and internal competitors in the financial sector; consequently consumers can switch suppliers with just a few mouse clicks. According to Baran, *et al.,* (2008:66), CRM technologies instil focus on individual customers. While Katsioloudes, Grant & McKechnie (2007:56), posit that clients take a more substantive role in today's CRM, they are the focus and driving force of CRM in technology mediated environments. Subsequently, assertions of technology enhancing the wispiness of marketplaces and clients' fluidity and the impact thereof on client relationships are not fairly researched.

1.7.3 Customer Retention

Customer retention is regarded as the final goal of the relationship process (Fang Wang, 2004:18; Rexha, *et al.*, 2003:56-58). Successful customer retention is exhibited in long-term relationships which are prominently an antecedent of customer

satisfaction, quality and loyalty (Baran, *et al.,* 2008:319-332). E-marketing aims for cost efficiency in retaining customers, however, customers should be satisfied at all technological touch-points if retention programmes are to succeed (Baran, *et al*., 2008:357). If there is a technology mismatch between suppliers and customers, customers are likely to be dissatisfied and this is a common phenomenon in consumer markets (Han, 1997:27). Mäntyneva (2001:263), supports this viewpoint that customers touching the technology have to understand how to use it, what it can do, and what is expected of them. He further purports that from the customers' viewpoint, many CRM technologies provide little or no value to them. Abbott, *et al*., (2001) surveyed 60 heads of marketing departments of global firms across industries in the UK. They concluded that the lack of appropriate sophisticated tools is a shortcoming inhibiting customer retention in many firms.

1.7.4 Relational Exchange

Customers expect relationship building efforts as everyday part of doing business (Katsioloudes, *et al.,* 2007:57). Ritter & Walter, (2006:303) concluded that extensive use of IT can hinder relationships and technology cannot ultimately replace the relational exchange process. Their study which was based on automotive suppliers in industrial relationships in Germany, also argued that technology can be used when both parties to a relationship are actively involved and competent. Continuous interaction is essential to relationship-building and several studies augment that technology enhances interactivity in electronic marketplaces (e.g. Fang Wang, 2004:18; Zineldin & Varicheva, 2008:113). Mulligan & Gordon, (2002) studied the role of information technology in supplier-customer relationships in the USA financial service industry using a sample of employees and following a qualitative research method. In contrast, the Mulligan & Gordon (2002:36-39) study exposes several threats; *inter alia*, that the massive use of technology creates disintermediation (as firms lose client control and lack of personal touch), and cannibalism of channels and relationships. Similarly, White and Daniel (2004:450), remark that sellers believe that digital marketplaces will undermine relationships established with their customers, which are often based on human contact and communication.

1.8 RESEARCH METHODOLOGY

This research was conducted in the paradigm boundaries of positivism research models which emphasise the use of exploratory research approaches in reaching conclusions which can be generalised of the entire population in question. Positivism research models attests reality apprehensibility in theory and the researcher is objective by viewing reality through a "one way mirror" (Sobh & Perry, 2006:1195). Relative to the study at hand, Mäntyneva (2001:264) suggests the use of evaluative scales and explorative methods to identify gaps existing in relationships and technology activities. Hence, this research is explorative because it insists on diagnosing, clarifying and defining loosely available information pertaining to the problem (Cant, Garber-Nel, Nel & Kotze, 2005:30). Attainment of conclusions in this study is through the measuring of various technological and e-banking facets against relational elements identified in literature and previous studies. Chapter 5 provides a detailed account of the research steps and procedures utilised in the research under the following highlighted headings.

1.8.1 Research Design

This research is survey-based and primarily utilised quantitative data pertaining to relationship marketing and technological marketing elements. This study is extensively based on primary data to reach conclusions based on the research hypotheses and the hypothetical framework (Fig 1.1) to the study depicted on page 5. Surveys measure the what, where, when and how often respondents did or did not do something (Cant, *et al.,* 2005:89). Appropriately and *per se*, surveys are an excellent way of exploring customers' opinions, desires and attitudes pertaining to the problem (Hofstee, 2006:112).

1.8.2 Data Gathering Techniques

Assisted structured questionnaires were instituted for and to retail bank clients of ABSA, FNB, Nedbank and Standard Bank in East London. The questionnaire

contained relationships and technology measures which gauged customers' perceptions, experiences, attitudes and behaviours. To measure the intensity and relatedness of research variables efficiently and effectively, a combination of likert, semantic differential, and staple scale question formats, as well as dichotomous and checklist question formats were utilised in the research. These types of question formats enable timely collection of information and facilitate the collection of evaluative data from respondents. The questionnaires were administered at the banks' physical delivery premises, thus primarily at branches and at ATM's. This process was conducted at the three major shopping areas in East London which are: Vincent Shopping Complex, Retail Park at Beacon Bay and City Centre around the Southern end of Oxford Street. This is to cater for different population structures in East London.

1.8.3 Research Scope

As outlined in the problem statement and delineations, this research focuses on mass marketing (B-2-C) relationships. Therefore, clients doing retail banking with the aforementioned banks in East London constitute the target population of this study. The target population refers to the universe from which the sample is to be selected and all the objects which possess data on the variable under study (Wegner, 2007:212). Often and *per se*, it is rare to quantify the actual population (Cant, *et al.,* 2005:164; Tustin, Van Aardt, Van Wyk & Lightlem, 2005:346; Roberts-Lombard, 2002:103).

1.8.4 Sample Methodology

This study applied the non-probability sampling method. This method was utilised taking into cognisance the difficulty to obtain a complete sampling frame required for many of the probability sampling methods. Albeit this, probability sampling often requires researchers to undertake a postal or telephone survey delivery or might be expected to go from house to house. Amongst some of the pertinent factors which rendered non-probability sampling the most appropriate method for this study are (Wegner, 2007:212 and Cant, *et al.,* 2005:166):

- The least expensive and least time consuming of all sampling techniques.
- Used when a sampling frame is not available and the population is so widely dispersed that cluster sampling would not be possible or efficient.
- Often used in exploratory studies where information is widely fragmented.
- Accuracy of population was not the primary focus, but rather, obtaining an idea of the range of responses on ideas that people have.

A total of 200 clients from the four banks constitute the sample composition. Convenience sampling (also called *grab* or *opportunity* sampling) was used in the selection of respondents, taking into account the likelihood of poor acknowledgement and lack of cooperation at banking environments. In convenience sampling, the sample comprises subjects who are simply available in a convenient way to the researcher. This method of choosing items arbitrarily and in an unstructured manner from the frame, although almost impossible to treat rigorously, is the method most commonly employed in many practical situations (Tustin, *et al.,* 2005:346). Section 5.6 of the research methodology chapter, comprehensively discusses the sampling strategy.

1.8.6 Data Analysis

The data analysis process primarily followed the quantitative data analytical techniques such as frequencies for quantitative-based conclusions on the findings. Application of statistical methods such as regression analysis model and chi-square were utilised to establish and test the validity and correlations of variables measured by the research instrument. Assistance of the staff from the Department of Statistics at the University of Fort Hare was sought regarding data analysis in this study.

1.9 ETHICAL CONSIDERATIONS

Considering the nature of the sampling technique and the area of this study (banking arena) convenience, comfort and confidentiality of the respondents are critical ethical aspects which were highly upheld in the process of data gathering. To ensure that these aspects transpired during data collection the researcher sought due consent

from all the participants. The data collection instrument was pre-tested to validate its appropriateness in line with ethical aspects and usability in the field. Finally, in line with research objectives, the researcher was obligated not to misrepresent the respondents' opinions in the final report.

1.10 STRUCTURE OF THE PROPOSED STUDY

- Chapter one (Introduction to the Research Problem) basically outlines the background of the research and outlines the research problem.
- Chapter two (Technologicalship Marketing) reviews principal parent literature and builds a technologicalship theory framework. Contemporary literature from relationship marketing and information technology theories and concepts abounds this chapter. More importantly, the work of Zineldin 2000 (Beyond relationship marketing: technologicalship marketing) is at the centre of this chapter.
- Chapter three (E-Retail Banking:-A South African Focus) reviews literature on banking technological elements pertaining to the research. Literature on the anatomy of the South African banking environments and the challenges and complications on marketing directs discussions in this chapter.
- Chapter four (Relationship Marketing in Retail Banking) focuses on relationships variables to be included in the study as outlined in the research framework and differences between transactional marketing and relationship marketing are traced. Consumer relationship studies and theories are reviewed, based on consumer markets.
- Chapter five (Research Methodology) inclusively outlines the research design, sampling methodology, data collection and data analysis procedures.
- Chapter six (Data Analysis and Presentation) provides scientifically analysed and presented research findings.
- Chapter seven (Conclusions and Recommendations) reflects on conclusions and recommendations based on findings from literature reviewed and chapter six. Also to be outlined in chapter seven are limitations and pointers for further studies.

CHAPTER 2

TECHNOLOGICALSHIP MARKETING

2.1 INTRODUCTION

Despite the technical, methodological and philosophical upgrading which the marketing concept has undergone over the years since its inception during the late 1950s and the beginning of the 1960s, the whole marketing science and practice have been questioned in respect of its viable existence in contemporary business firms (Addis & Podestá, 2005:387;Maklan, *et al.*, 2008:221). In the face of this marketing demise, a much recently comprehended dynamic is that the symbiosis of marketing and technology generally results in business success. E-commerce has strappingly gripped marketing and is envisaged to be the root of every successful business in the future. Untenably, this has resulted in technology pervasiveness in the commercial community. On the other hand, relationship marketing surfaced as an important marketing area where firms derive sustainable competitive advantage in the 21st century. Consequently, researches on the technology-relationship marketing orientation have commanded significant research efforts in recent years.

Zineldin, (2000) termed this technology-relationship marketing symbiosis technologicalship marketing. He defines technologicalship marketing as the utilisation of technology in managing relationships between involved parties in question (Zineldin, 2000:15). Coherently, Shajahan (2006:16) simply describes technologicalship marketing as computerising and electronising relationships. Marketplaces have become highly characterised of digitalisation, globalisation, disintermediation, heightened competition and favouring re-intermediation, networking and strategic partnerships. Subsequently, the concept of technologicalship marketing is inevitably proliferated in the new economy (Fang Wang, 2004:3), and vividly abounds a large part of the contemporary marketing practices as firms strive for superiority in the face of extreme competitive environments (Zineldin, 2000; Wai-Ching, 2008; Brady, *et al.,* 2008; Durkin & Howcroft, 2003; and Fang Wang, 2004).

This chapter provides a theoretical background of the parental concept of technologicalship marketing underpinning this study. The main objective is to establish a theoretical framework of technology-relationship marketing symbiosis, particularly from the client's perspective. Prompted by the relative newness of relationship marketing and its widely purported success in technological environments, the impending discussion exploits an explorative approach to the concept of technologicalship in consumer markets specifically. Furthermore, focus is directed on revealing the complicatedness and competitiveness of advanced technological environments in the contemporary marketing context. Therefore, in this chapter, the discussion principally focuses on technology in the contemporary virtual-marketplaces as well as the impact on various stakeholders (consumers, suppliers, competitors, etc.) thereof.

2.2 AN OVERVIEW OF TECHNOLOGY IN THE 21st CENTURY BUSINESS CONTEXT

Traditionally the term technology was associated with specific areas, e.g. construction technology, medical technology or state-of-art technology (www.wikipedia.org). Similarly, technology application in the business fraternity is being identified by emerging and more specific areas such as e-CRM, e-banking, e-commerce, e-marketing, e-logistics and e-tail. In the business context, technology is also often interchangeably used with the term Information Technology (IT). Weeks, (2002:4) states that in the current business contexts such as globalisation, new economy, information era, and the digital economy, new technologies refer to information and communication technologies (ICT) and the technologies associated therewith.

With a Greek origin, the term technology emanates from *technologia* -a combination of two concepts *techne*-craft and *logia*-knowledge. Technology refers to aids of use to humanity, such as machines, hardware, methods of organisation and techniques, electronic products and systems considered as a group (www.thefreedictionary.com/technology). The mediation of any sort of business

activities through technology contemporarily has thus, prominently, been called electronic commerce (e-commerce) or electronic business (e-business) (Chaffey, 2004:7-9). It is considered essential that the term technology, as applied in the context of this dissertation, should be clarified early in this chapter to avoid coherent technology definition confusion. The technological environment encompasses all variables which contribute towards the emergence of new products and services on the market (Froneman, 2004:43).

Technology has emerged as the most powerful driving force of global transformation at the dawn of the Cyber Age across human societies. The most profound impact has been experienced by business enterprises and increasing complexity marks the emergent business environment (Rawat, 2008:1). Technology is firmly rooted in e-business in the new economy positing a revolution of industries which was not seen even in the Industrial Revolution. Industrial convergence, delivery systems convergence, industrial boundaries blurring, symmetrical business models (customer-centrism) and business/stakeholder partnerships are transformational exhibits of ongoing technological developments in the business environment (Kotler & Keller, 2006:13-14). A peculiar challenge transpiring in today's complex business environments, is that business and the target markets are constantly modifying each other and co-evolving (Rawat, 2008:1).

Transitions in business practices and forms, derivative of the technological developments of the 21st century across all industries, ideally are embedded in several demands to firms. For example, how should firms compete in the new electronic marketplaces that are developing; how can firms utilise the networks for marketing products and services; how can firms integrate the network into existing business practices (Chen, 2001:16). Consequently, firms that have been circumvented by the antecedents of real time information exchange and interactivity in marketplaces have taken e-commerce seriously.

Though many indispensable factors embed technology dominance in today's marketplaces, the response to risk and challenges of failure from obsolescence is feasibly the primary contribution to the increase in technology adoption by industries. From a marketing perspective, Weeks (2002:5) rigorously states that marketers and managers need knowledge competence in terms of recent and possible future technological developments. Technology impacts marketing in many ways such that marketers ought to have their knowledge competence extended towards the associated effects thereof. Chen, (2001:17) supports this viewpoint arguing that essentially everything that constitutes a market has been highly redefined e.g. products, industrial structures, trade and competition rules, regulations and laws within the modern and highly technological environments. Further, Chen (2001:17) insists that issues such as new networks effects on industries and the economy at large, require specialists knowledge if firms are to survive and succeed in the ever-evolving technological infrastructures. Conclusively, the strategies and rules of gaining sustainable competitive advantages within the digital economy are materially different from the past (Weeks, 2002:5). The following section delineates the technological marketing phenomenon.

2.3 TECHNOLOGICAL MARKETING ANATOMY

Before discussing the concept of technologicalship in much detail, it is crucial to firstly attempt to outline the composition of today's e-commerce technologies. The concept of e-commerce is briefly delineated preceding an overview and growth of recent e-commerce technologies. Through these sub-sections, a backdrop of the research variables and elements of technology is provided given that technology is one of the two concepts abounding the technologicalship concept in the marketplaces.

2.3.1 E-Commerce and E-Marketing

Apparently, clarity pertaining to the exisiting confusion between the terms electronic commerce (e-commerce) and electronic marketing (e-marketing) (Rao, 2002:15), is

fundamental in this dissertation. Drawing across the literature reviewed, different definitions of e-commerce were located from several authors. Prominently, where either concept has been defined, it often encapsulated the other term. This perhaps emanates from the definition of technology which is broad, and that of business which encompasses various processes with marketing being a core business function in e-commerce marketplaces. In the South African context, e-commerce has been defined as comprising all business conducted through computer networks, positing a paradigm shift - driven by a convergence of technological developments and the emergence of a knowledge economy (Weeks, 2002:107). Rao (2006:53), defines e-commerce as computer to computer, individual to computer or computer to individual business relationships, enabling an exchange of information or value.

Regardless of the author, the term e-commerce relates to the modification of business processes by technology which has manifested in firms towards the 20th century. According to Chen (2001:1), e-commerce is a multifaceted concept which basically refers to all financial and commercial transactions that occur electronically including Electronic Data Interchange (EDI), Electronic Funds Transfers (EFT) and all credit and debit card activities. This definition is more marketing oriented. With a similar standpoint, Duffy & Dale (2002:432), cite that e-commerce means enabling business partners, suppliers and customers to work together, share information and transact electronically, making a firm much more effective in creating and delivering value. More ostensibly, Kalakota and Whinston (1997:34), define e-commerce by referring to four different perspectives which are:

- *From a communications perspective:* E-commerce is the delivery of goods, services, information, or payments through computer networks or any other electronic means.
- *From a business process perspective:* E-commerce is the inclusion and utilisation of advanced technologies in conducting business transactions and workflow.

- *From a service perspective:* E-commerce is a tool which provides less cost desires for management, customers and firms at large, while improving the quality and speed of service delivery.
- *From an on-line perspective:* E-commerce provides the capability of buying and selling of products and services through the internet and other real-time networks. It provides the digital connectivity between businesses and between businesses and customers.

2.3.2 E-Commerce Technologies

Unarguably, e-commerce systems are a complex assortment of databases, web servers, home-glued networking services and a myriad of technological instruments providing the infrastructural platform for the e-commerce phenomenon (Jhingran, 2000:1). Roberts & Mackay (1998:175), assert that electronic commerce is not just a single technology but a combination of technologies, applications, processes, business strategies and practices necessary to do business electronically. The trend is towards larger pieces of technology integrated in bundled offerings from leading software vendors, and the networking/hardware being offered through service delivery enterprises (Jhingran, 2000:1). Essentially, the internet is an anomalous development in the 21st century embroiling limitless potential for e-commerce growth. Connectivity and access to a vast array of resources make the internet an unprecedented opportunity and a powerful force driving the new networked economy (Rawat, 2008:1).

The internet and other newest technologies such as digital television, global position services (GPS), multi-functional mobile phones and intelligent home appliances, have reached critical masses and are poised to further revolutionise businesses. For instance, the website has extended the outreach of enterprises and outstandingly several technologies are converging and collaborating in transforming the business environment into a digital and information based. Chen (2001:4-5) and Chaffey (2004:69) provide examples of these e-commerce technologies as follows:

- *Content production:-* word processors, video cameras and editing softwares, music synthesizers.
- *Digitalisation:-* digital cameras, scanners, dictation softwares, 'ripper' softwares for music.
- *Storage:-* available in variety hard disk drives, flash drives, CD-ROMS, diskettes and tapes.
- *Network communications:-* internet, extranet, intranet, dedicated lines, telephone cables, mobile phones, and electricity cables.
- *Network connections:-* PC and modem, television and set top box, wireless connections e.g. Bluetooth, Infra-red and GPRS.
- *Information search and retrieval mechanisms:-* search engines and directories.
- *Display devices:-* PCs, TVs, and mobile phones.
- *Delivery and transportation mechanisms:-* faster modes of transport and internet access.

Furthermore, Chaffey (2004:69), argues that the composition of these technological instruments, prominently and collectively known as the e-commerce infrastructure, directly determines the quality and competitiveness of a firm's offering. In the midst of a fusion of these technologies, firms are faced with challenges of control in channeling the distribution of internet access, particularly considering that not all of these technologies are controlled and managed internally to the enterprise. Directly linked to this, is the difficulty of controlling the movement of customers amongst service providers on the e-commerce marketplaces.

From a broader viewpoint, the complicatedness of the e-marketplace is even more established and vigilant considering the expedition and speed of technological adoption by competitors in search for pre-eminence and competitiveness in the market. Consequently, it becomes necessary to monitor the growth and endeavour to anticipate the growth of e-commerce essentially due to its impact on the success of a

firm and its briskness in the current environments. Thus, the following section endeavours to lengthily enlighten the underlying forces on e-commerce growth.

2.3.3 The Growth of E-Commerce

Scientists, researchers and technologists have continued to develop mechanisms to respond to their physical environments as well as understanding more of it. As economic values of such efforts are evident, technological knowledge has metamorphosed from the technocrats to business people and to ordinary people or households (Boiney, 1999:1). Knowledge generation and application has been at the base of technological innovations. Anon (2001:21) and Bhatia (2007:1) state that since World War II the products of scientific research and technological innovation have become more and more deeply enmeshed in all aspects of human activity to the extent that a "knowledge society" has been observed to be emerging over the post war period. The following factors are the major factors enhancing the growth of e-commerce application in the contemporary business fraternity.

2.3.3.1 Explosion in technology knowledge

With the power of technology, businesses are in the era of knowledge explosion. In essence, knowledge explosion *vis-à-vis* technological innovations are reciprocally enhancing each other. It is believed that in the next ten years the kind of changes that may occur, will be far deeper and comprehensive than what has happened in the last fifty. Information is the key ingredient of emerging enterprises, which is leading to greater integration of all knowledge and work processes. Technologies of the new economy are creating an intelligent space where it is no longer possible for any business to ignore information-based virtual value chains (Rawat, 2008:2).

Information systems must truly add value to the organisation through the creation, capturing, distribution, application, and leveraging of knowledge - or *knowledge management* (Boiney, 1999:1). In order to comprehend the emerging complexity and select intelligent pathways, firms require not only the knowledge of technology but also

a holistic perception through unity of thought, vision and action (Rawat, 2008:1-2). Hence, the challenge of education in the new business context would be to develop new cognitive skills to manage complex organisations.

2.3.3.2 Interaction of different technologies

The advent of the computer has revolutionised every facet of social and business life. Computer-based technology (CBT) has dramatically changed and integrated associated ICT instruments, released tremendous human resources, necessitated organisational restructuring and facilitated improved performance (Zineldin & Vasicheva, 2008:118). The Internet has captured the lives of people and is posed to be even more pronounced and established in the commercial arena. The computer served as the platform for the launch of internet communication followed by the development and formation of the World Wide Web.

Since the time when business enterprises realised that they could do business on the internet, the internet has acted as a continuum of architectural and radical change where new and established technologies amalgamate. The explosion of the web and the battle for browsers drove commercial interest in the internet. Cloete & Ramburn, (2006:4), notes that an increasing variety of products and services are now provided over the internet. Consequently, *per se*, these phenomena will inherently and inexcusably optimise the utilisation of the internet and mobile banking which are the virtual and latest methods to support e-business.

2.3.3.3 Emergence of technocratic customers

Indubitably, consumers of the 21st century have revealed an increased need for technologies that support effective communication, document sharing, knowledge sharing, and decision-making among groups– particularly those separated by time and distance (Boiney, 1999:2). A considerable growth in computer literacy, the availability of computers and the reduction in the costs of PCs and internet access have

presented an ultimately different customer in the 21st century. More so, these consumers require customer satisfaction to be attained through co-creation of value. In essence, marketing contexts are changing through time and the way of reaching customers.

Business managers continue to acknowledge the dangers of technological deficiency in their relative industries as they are challenged with these typically and generally more broadly educated and discerning customers (De Klerk & Kroon, 2005:33). Giving an example of e-banking customers, Hedley, White, Petit dit de la Roche & Banerjea, (2007:33) strongly argue that customers redefine business strategies as they become savvier and increasingly demand responsiveness and transparency from suppliers. Imperatively, innovation has been driven by these consumer demands since the hype amongst firms today, is that innovation is an important survival and competitive strategy in the markets.

2.3.3.4 Internationalisation and globalisation of business

Global knowledge is doubling at an alarming rate every less than four years, while adding further impetus to the complexity of the market environment. The noticeable outcome is globalisation which basically refers to the internationalisation of commercial transactions on an integrated and borderless global marketplace. The presence of a global information infrastructure creates a new paradigm of cybernity in the business context (Rawat, 2008:2). Again, apparent is that, given the broadened opportunities and threats embodied on commercial globalisation, some form of highly sophisticated and competent systems were required by firms that adopted global trading. Thus, the technology and innovativeness hype grabbed global-oriented businesses because, without technological competence, it is practically and logically impractical for a firm to be a compliant global competitor. For instance, *inter alia*, for firms to compete in a global marketplace they should have:

- A 24 - hour order taking and customer service response capability.

- In-depth understanding of foreign environments to assess the merits of its own offerings. Through e-commerce, markets can be localised and tailored according to regions or countries.
- A global network for electronic payments and settlements.

As competition in domestic markets increased due to the entrance of global competitors, local firms were also forced to adopt the appropriate technological competence. Notably, in the South African financial sector the entrance of UK based Barclays Bank plc and Standard Chartered plc, via the acquisitions of ABSA bank, resulted in major changes from the sophistication perspective (Coetzee, 2005:1). Interestingly, multi-channel electronic channels such as the internet, telephone, automated teller machines, and self-service-terminals have invoked a culture of innovation as banks strive to competitively provide bank products. Thus, the advancement in commercial technological applications can also be a direct result of the pressure to globalise operations amongst business people.

2.3.4 Technological Impact in the Marketplaces

Generally, literature shows that firms have resorted to applying technology for differentiation, competitiveness and cost reduction. Deighton & Kornfeld (2007:7), argue that with the massive advent of interactive technologies, contemporary marketing has seized to be a matter of domination and control but rather a matter of fitting in. For instance, as the new millennium progresses the pressure for technology-backed competitiveness spreads widely across the global business fraternity. Many markets have experienced heightened and rampart levels of competition as the transitional threats and opportunities in the new economy prompted firms to greater levels of efficiency to achieve success. However, according to Kannabiran & Narayan (2005:366), the impact of e-commerce has been more apparent in the financial and the banking sector when compared with other industries. The impact of technology in the commercial arena is seen mainly in the following developments which can be attached to the new economy.

2.3.4.1 Death of distance and time

The openness and pervasiveness of e-commerce markets create conditions of perfect competition noted in the theory of economics. This paradoxical notion of symmetrical competitive marketing conditions is subject to unintended and intended technology-based intensifying rivalry amongst firms within any particular industry. There is perfect competition in the sense that e-commerce markets consists of open networks for buyers and suppliers of commodities (Ambrose & Fynes, 2006:3), information transferability between suppliers and customers (Durkin & Howcroft, 2003:62) and the demise of barriers to entry (Porter, 2001:66). Padgett & Mulvey (2007:376) state that new technology has a high potential of disrupting current markets. Time and distance have seized to offer protective boundaries to firms as it was in the traditional market environments, for innovation is particularly focused on enhancing speed and functionality.

As technology predominance increases with new versions of technologies continuously descending onto the marketplace, geographical markets are widening, while substitute goods/services and information are getting widely available (Porter, 2001:66). Businesses are no longer largely restricted to geographical areas; with worldwide opportunities and threats, the world has become the customer as well as the competitor. On the other hand, customers are increasingly getting time-starved and no longer have the patience to indulge poor performers as the former can easily switch to better service and products deliverers (Botha, Bothma, Geldenhuys, Singh, Van der Merwe, Booysen, & Fourie, 2004:13-14). Consequently, e-commerce marketplaces' wispiness and contestability make it more difficult for proprietarily maintenance of offerings and relationships.

2.3.4.2 Perspectives on the tangibles

It is adamant to attempt to predict the future with any degree of certainty, hence, marketers should embrace a continuous adaptation approach to technological challenges. Three challenges which marketers should be prepared to meet include, coping with great uncertainty and complexity; keeping track of escalating change; and

adopting new competencies (Weeks, 2002:105). Apparently, one certainty about market environments as observed in the developed world, is that of digital economies, whereby marketers should focus on seeking value in intangible assets rather than tangible assets. The key success factors for firms are more and more being discovered in ideas, virtual networks, internet and websites (Botha, *et al.*, 2004:13). Hereafter, the second aspect of this chapter, technologicalship marketing, is discussed

2.4 TECHNOLOGICALSHIP MARKETING CONTEXT

With limited works on the technologicalship concept, explicitly throughout literature, Zineldin's (2000:16) description has been widely comprehended. Notwithstanding coherence in the definition, various chronicles and orientations exist on the technologicalship concept as well as on the two concepts underpinning technologicalship marketing, namely, relationship marketing and technology. For instance, Zineldin & Vasicheva (2008:114) posit that clarity lacks on the functions and definitions of relationship marketing (RM) and customer relationship marketing (CRM).

However, even though the underlying concepts are emerging paradigms in the marketing discourse, pragmatically they are not recent. Also regardless of the various orientations in these two concepts, particularly where research variables are required, much has been written and researched on these concepts. Zineldin (2000:11) supports this viewpoint, arguing that technologicalship is not a new concept in the contemporary marketing thoughts and practise.

2.4.1 The Conception of Technologicalship Marketing

The relatedness of technology and relationship marketing has emerged as one of the most challenging phenomena in the field of marketing, perhaps as these two concepts are considerably recent marketing practices in the discourse. As firms enter the second decade of the 21st century there are unprecedented and continuous technology driven transformations in business external and internal environments which are compelling firms to prioritise new technological innovation (Zineldin & Vasicheva,

2008:118). The term technologicalship marketing, which has been postulated by Zineldin (2000) to refer to this new development, has been articulated differently in the contemporary stage of the marketing management discourse. According to Zineldin (2000:10), further to relationship marketing; technologicalship marketing exists because it is difficult to separate relationship marketing from information technology and other technological advances in the contemporary marketing practice. Ultimately, the pinnacles of contemporary marketing, *inter alia,* strategic partnerships, networking and interactivity which altogether flourish with technology, conceptually and pragmatically, entail technologicalship marketing. This inseparability of technology and relationships (technologicalship marketing) is central and holds the essence of this dissertation.

The scope of this discussion goes beyond explaining the application of technology on relationships which is prominently called eCRM (electronic Customer Relationship Management). Per se, e-CRM is somewhat a restrictive term given by some theorists as they attempt to describe this latest development in marketing. Precisely, eCRM does not mean the same thing with technologicalship marketing because primarily eCRM is a process-centric and supplier-oriented business strategy which extensively focuses on database developments and data mining. In eCRM, technology is utilised to collect information from various customer touch-points and stored in customer databases which will be integrated to front-end technologies thereby enabling firms to better understand customers and effectively serve them (Baran, *et al.*, 2008:162).

Beyond the apparent advantage-driven application of technology in relationships, innovativeness has expanded the prevalence of technology in the customer relationship context. As such, technologicalship is broader and more compulsive than this in theory and in practice. In particular, a comprehensive contextual framework of technologicalship marketing should consider the broader impact and nature of technology on relationship marketing and markets at large. This entails integrating information technology and the related technological advancements in the

technologicalship marketing context. This contextual framework is discussed in the following subsections. This model depicted in Fig 2.1 below, assists contemporary marketers who need to adequately and closely monitor factors which entail success in technologicalship.

2.4.2 Technologicalship Marketing in Practice

Technologicalship marketing is a general approach that can be used in consumer (business-consumer) markets and industrial (business-business) markets. The technology-relationship marketing integration is a deep-rooted and continuous centre of debate amongst business researchers and scholars. Brady, *et al.,* (2008:108) agree that marketing researchers, practitioners and academics have struggled with technology-oriented research and theoretical frameworks which consistently explain and prescribe technological evolvements and involvements in the marketing environments. In the current increasingly digital environment they should also endeavour to utilise this model if their strategies and positions are to be sustained in the market.

Scholars from diverse disciplines in the academic environment such as education (Khayon & Alias, 2006) have embraced and successfully applied the concept of technologicalship in their fields. Impetuously, scholars, particularly in management, must begin to take IT seriously. Zineldin & Vasicheva (2008:120) argue that in many business research studies and papers, the firm is presented detachedly and insulated from competitive market forces. Many researchers view IT as a separate supporting element in developing relationships or as a facilitative, but not as a core element that has an impact on every characteristic of all types of organisations and human behaviour (Zineldin & Vasicheva, 2008:117). Approaching technologicalship marketing from the structural perspectives primarily involves, integrating almost all the technological elements in the market and the relationships under study.

Consequently, technology is changing the type of relations and this represents one of the gaps in relationship marketing literature which this research strives to close.

Nonetheless, in the contemporary markets, firms should manage their internal relationships technologically as they adapt to external rapidity in terms of technology - driven forces. Inexcusably and unwarrantedly, firms in today's markets should appreciate and acknowledge the technologicalship paradigm, considering that increasingly many firms rely on external partners (in particular) to overcome their challenges (Yang & Wu, 2008:2). Beyond eCRM, marketers need to transform their mindset towards a holistic cyber-world, where e- or @ total relationship management approach is implemented by managers (Zineldin & Vasicheva, 2008:13).

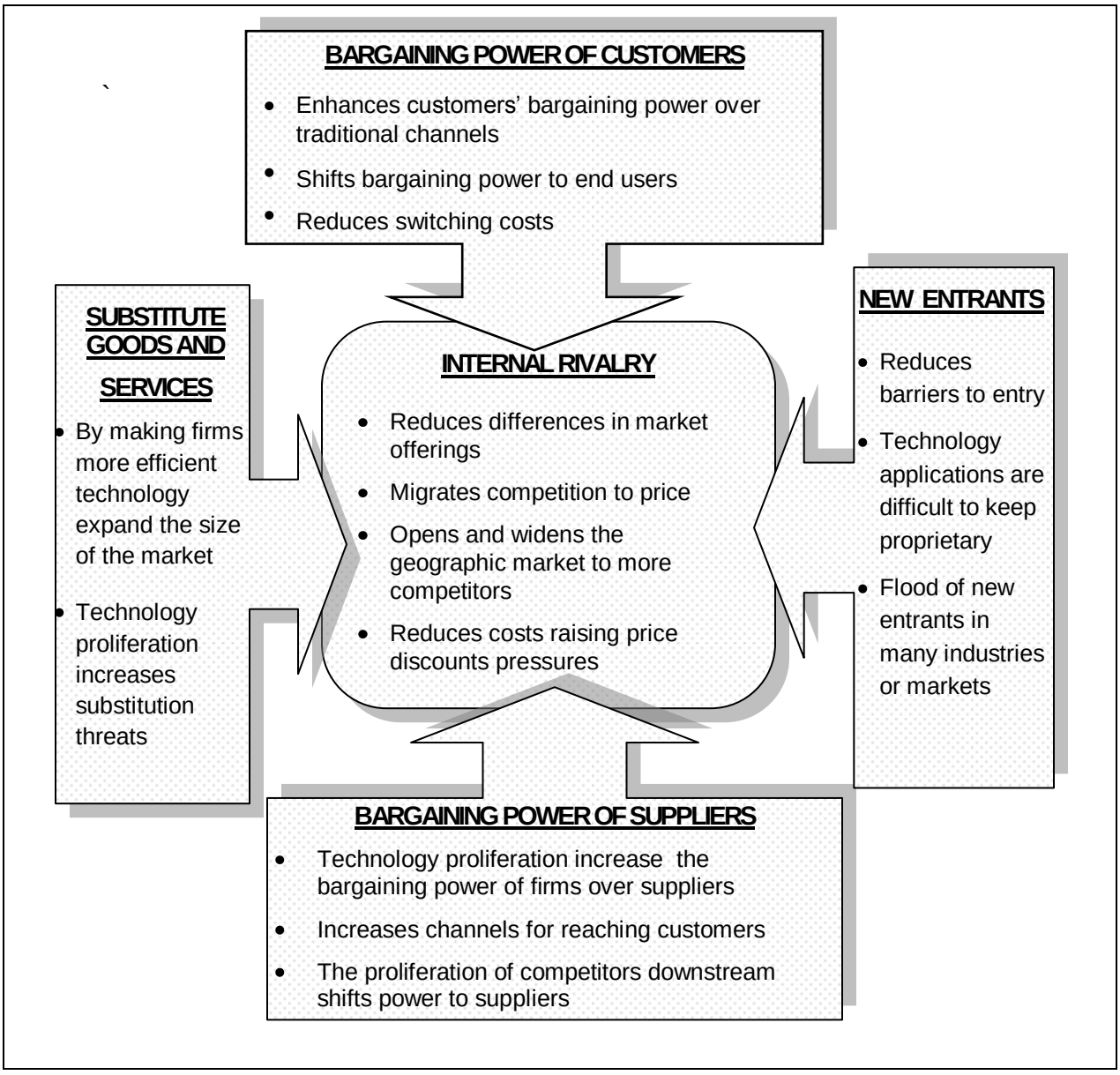
From this supplier-oriented perspective, the definition centers on the application of technology by firms in retaining and understanding customers. The assertion is that suppliers can provide enhanced customised services and products to customers resulting in a deeper relationship with the client. Unarguably, in the contemporary business environments, information technologies have permeated and pervaded the seller-buyer relationships (Ritter & Walter, 2006:293). There is an explicit and purposeful utilisation of technology by business firms in order to achieve profitable and long-term relationships with customers. This has been termed technologicalship marketing by Zineldin (2000:14-15) who argues that relationship marketing is not a complete marketing paradigm without technology.

2.4.3 Bargaining Powers in Technologicalship Marketing

Developments in ICT applications which provide linkages between customers and firms, including asynchronous and synchronous interactions, widespread computer networks and ongoing information processing applications increase the role of ICT in establishing and maintaining relationships (Brady, *et al.*, 2008:109). In this context, a revisit of Porter's five competitive forces model is conducted in analysing the impact of technology in the market environment, simultaneously building theory on the relatedness of suppliers and customers in technology environments. The task environment includes only those factors in the general environment that directly affect a firm's growth, success, and survival, thus, it encompasses the competitive and

technological forces (Hellriegel, Jackson, Slocum, Staude, Amos, Klopper, Louw and Oosthuizen, 2004:104-105).

Figure 2.1: Technology Redefinition of Business Environments



Adopted from Porter, (2001:67)

The following sub-sections examine how technology is changing the positions of the major players (customers, suppliers, competitors) in the task or micro-environment with special reference directed to the banking industry. The objective here is to delineate

the sharing of bargaining powers between customers, suppliers and competitors. As such, focus is only directed to these market elements and the other factors (new entrants, substitute goods/services) of the model are discussed under competitors.

2.4.3.1 The bargaining power of consumers

Though it is unclear which typology (industrial or consumer) of customers and the extent of behaviour as outlined in Fig 2.1 above, in internet and e-commerce interfaces, customers can easily access information about products and suppliers (Porter, 2001:66; Durkin & Howcroft, 2003:63). Customers are often referred to as end-users of technology and social constructionism purports that technology is socially constructed and depends on interpretations which are context and perspective dependent. Thereby, customers can be seen as producers of meaning related to technology, *per se*, and in the contemporary customer-centric marketing context (Lampinen, 2005:24; Lin & Hsieh, 2006:498). Consistently, Weeks (2002:5), contends that in the digital economy, strategic thinking is diverting from products or service centricity to customer centricity with customers being central to strategy formulation practice and paradigm. The following discussion attempts to assess the outcome of intertwining technology and customers.

Customers generally have seized to be only the consumers of services and products. Out of the desire to obtain higher customer satisfaction levels, customers are collaborating with producers in the production of services/goods. Lin & Hsieh, (2006:498) argue that through self-service technologies customers can create and consume goods and services without the direct assistance of representatives from the supplier. Accordingly, Hollensen (2003:398), cites that more and more customers prefer different versions of the same product or service. Customisation favours modern technologies, and it is critical for firms to identify customer needs on an individual basis.

2.4.3.2 The bargaining power of suppliers

The bargaining power of suppliers can be considered as neither high nor low in technological marketplaces. The internet offers marketers the potential to view customers on a more personalised basis that enables customers to have products as per the order from across the globe. Increasingly, banks should be tailoring products at different rates for different clients and bringing new competitive offerings to the market (Strasheim & Pitt, 2001:38). In the current period of rapid change and unavoidable competition, businesses often incorporate self-service technologies (SSTs) in their service delivery. In many instances, turning the customer into the co-producer of a service can improve both efficiency and customer satisfaction (Lin & Hsieh, 2006:499).

The obvious impact of technology on many businesses, is the addition of new channels for distributing products. Integrating recent technologies with traditional methods, creates significant advantageous value-chain benefits linking primary sources of goods and services to consumers. This can generate efficiencies in terms of reduced costs, faster throughput and better information to all members of a chain (Chen, 2001:17). Firms stand to gain substantially if they can utilise the wider pact of market which has been opening in this digital era. Often, global firms have been found to be utilising technological innovativeness as a front to enter global markets. However, this impacts negatively on industry competition.

2.4.3.3 The bargaining power of competitors

Industry competition is increasing due to global competition. For the past 50 years, firms have increased their dependence on technology (Brady, *et al,* 2008:108). Durkin & Howcroft (2003:61) posit that with banks having embraced the concept of marketing relatively recently, they are subjected to highly competitive and fragmented marketplaces characterised by increasingly empowered and financially literate consumers. The incidence of ICT in shaping exterior environments of business organisations is well illustrated by its role in removing traditional restraints of time, space and distance in terms of business activities.

Consequently, technology has profoundly reshaped marketplaces in both service and goods industries as firms are unequivocally pressured on pursuing these technology-based competitive advantages (Padgett & Mulvey, 2007:376). Weeks (2002:5) and Kaže, Baumane, Šumilo, & Škapars (2007:176), cite that competition assumes new meaning within a digital economy which is characterised by a borderless global business environment. With regards to entry in the banking industry, Kaže, *et al.*, (2007:176) argue that there has been a shift towards barriers of entry to the market in the form of technology investments and a corresponding competence in handling customer databases.

2.5 SUMMARY

In the era of massive e-transformations, disintermediation and re-intermediation because of technology, literature has lagged behind in explaining the nature of relationships. The concept of technologicalship marketing based on existing theories and literature was pursued in this chapter. To this end, the discussion ponders a holistic perspective of technologisation or cybernisation of customer relationships in the 21st century. In order to understand and research the concept of technologicalship marketing, technological elements, which are embedded in the e-commerce, should be identified, especially the possible impact of technology on the practice of relationship marketing. Hence, in literature reviewed and *per se,* technology has been described as the leading agent of change in the new economy. The following chapter will discuss e-banking with the aim of evaluating the successfulness of technology adoption from both the client and the service provider point of view.

CHAPTER 3

E- RETAIL BANKING: A SOUTH AFRICAN FOCUS

3.1 INTRODUCTION

This treatise primarily aims to establish an understanding of the impact of technology on mass market relationships through analysing e-retail banking from the clients' viewpoint. In terms of the existing literature on e-banking, much focus has been directed on describing the performance and adoption of e-banking with biases towards the supplier's side. In other words, much attention by scholars has been on the benefits of technology to the service providers in the service delivery process. Contrarily, this exposition approaches e-banking from the customer's viewpoint and more importantly examining the e-banking phenomenon rather than describing it. Particular attention is directed to customers because every marketing aspect revolves around the customer in the 21st century (Consumer centrism). Thus, only by understanding the effects of almost all marketing practises from the customer's viewpoint, can a firm obtain some degree of sustainable competitive advantage in today's business environments.

On this backdrop, based on past literature, this chapter attempts to identify e-banking tools and their usage by customers from the global and South African perspectives. A theoretical framework of e-banking services is provided in this chapter by critically discussing aspects which abounds the interaction between clients and e-banking technologies. The primary aim is to comprehensively assess and identify e-banking technological constructs measured in the research questionnaire. This discussion on the scope of technology in the banking environment unveils by giving an overview of technology on the banking concept and practice from a 21st century perspective.

3.2 AN OVERVIEW OF E- RETAIL BANKING SERVICES

Retail banking offers a vast variety of products and services including mortgage loans, automobile loans, and education loans to mass market customers or the so-called public. Gopinath (2005:1), identifies retail banking as the dealing by commercial banks with individual customers, both on liabilities and assets sides of the balance sheet. Coherently, retail banking industry refers to the banking industry that provides financial

services to the mass market-individuals or retail clients (Ahmad, 2005:318). Subsequently, the term e-retail or e-tail banking sprouts from e-banking (electronic banking) which broadly relates to the accomplishment of banking transactions through electronic systems. In general, e-banking enables customers, whether individuals or organisations, to access accounts, transact business, or convey information on products and services through a public or private network, including the internet. Largely, academia has identified strongly two aspects in the area of e-banking, namely, the development of e-banking and its global role.

3.2.1 The Growth of E-Banking

Viatcheslav (2002:7) argues that in many industries technology is being implemented as a response to clients' demands, but the dynamism of innovation in the banking industry is subtler than this. Clearly, technology has aided businesses across all industries to successfully improve customer need-satisfaction at reduced costs through substantially improving efficiency. Consequently, because of these reasons banks have outstandingly diverted their focus towards extensively computerising and electronising almost each and every aspect of their banking processes.

Simultaneously, the availability and usage of advanced and remarkable technological instruments which are fitting for e-commerce on the consumer's side has been escalating. For instance, ownership and awareness of the internet and computers is rampantly increasing amongst households, businesses and government departments. With this proliferation of internet expansion and computer usage, the electronic delivery of banking service has become the ideal medium for banks to meet client's expectations (Wai Ching, 2008:59). Thus, plausibly, there is a high predisposition that e-banking is poised to overwhelm traditional banking (branch banking) in the future. Kamel (2005:306) points that more and more developing nations have lately focused on developing their technological infrastructure with specific attention on e-banking, e-commerce and e-learning. Similarly, e-banking has escalated as a business practice in the South African financial milieu over the past decade.

Unfortunately, the pace at which user-adoption has been transpiring is unarguably a major drawback for e-banking to accomplish its desired potentials (Dube, Chituwa & Runyowa, 2009:3). This shortcoming is even more pronounced in the retail banking segment. Unlike industrial markets (business or corporate banking *per se*), and regardless of the type of industry, the retail sector has experienced low adoption of technological marketing such that most researchers and academics have seldom focused on this area. Obviously, computer ownership and the required know-how and the subsequent adoption of e-banking amongst the public fall way-far-below that of businesses and government. The advanced nature of the current e-banking methods has not perfectly squared with the relevant market characteristics amongst the public. *Inter alia,* characteristics deterring the public's e-bank adoption as well as the subsequent e-tail banking success include lack of information, motives and finance (Cloete & Ramburn, 2006:4).

3.2.2 The Global Role of E-banking

Initially, banks had substantial uncertainty towards technological developments, but since the turn of the century, they are seizing every possible technology innovation for enhanced competitive advantage and to demonstrate their improved value to the society (Kamel, 2005:308). For instance, banks have positioned themselves on the World Wide Web to seize the merits of the internet's power and reach, as well as to cope with the accelerating pace of change in the business environments. A website exploration and browsing of the banks understudy and several others (South African), reflects clearly that competition has been channeled towards e-banking portals. These websites are more and more fascinating and attractive, portraying the dedication of banks along lines of creativity, differentiation and usability.

The impact of globalisation on the banking sector is inevitable and inexcusable poised to be experienced in the near future. It is purported that global trade is fifty times greater than what it was in the 1950s (the time when e-banking began sprouting) and unarguably poised to continue growing (Aronsohn, Charif & Charif, 2006:5). Notably, e-

banking is a global link amongst financial institutions and is an integral part of a new banking strategy that utilises digital networks for the processing of digital transactions and information (Stakelbeck, 2005). Of the same viewpoint, Gates (1999:1-2), believes that in the midst of competition, where information about the market is ubiquitous globally, banks are spearheading the development of a world-class digital nervous system.

The main challenge for banks is to be firmly integrated in the global supply chain to support transactions which are increasingly happening at global levels. Consensually, banks play a major role and are at the backbone of the utilisation of technology, with transactional banking embryonic of the usage of e-banking instruments by many clients. Compliant transactional banking systems should be able to cater for clients' specific business processes and workflow, thus, more importantly require integration with customers' ICT systems. Factors such as regulation and deregulation, technological developments, consumer preferences and expectations, interactively complicate the implementation and utilisation of technology in service provision by banks. In these intermingled global revolutions of marketplaces in form of continuous technological developments, changing client needs and competition, e-banking stand to drive global banking industry and business at large (Mia, Rahman & Uddin, 2007:36). The next section opens the discussion on e-banking portals paying attention to a few ones which have attracted researchers' attention contemporarily.

3.3 E-BANKING TECHNOLOGIES

Two groups of banking technologies exist, namely: front-end and back-end technologies. Front-end e-banking technologies merely refer to products and services which clients can opt for and this include ATM cards and internet banking. Back-end e-banking consists of technologies used by financial institutions to process transactions, such as electronic cheque. Back-end technologies can be either linked or independent of a client's account (Anguelov, Hilgert, and Hogarth, 2004:1).

Initially, technology was employed by banks in order to automate the back office of banks in the 1970s, thus, computers were introduced as ledger-posting machines (Kannabiran & Narayan, 2005:365). In the context of this dissertation, described here are the most common e-banking technologies used by customers since this study primarily focuses on banking clients. A wide range of established and emerging technologies, which assist clients to accomplish their day to day financial transactions encompass our discussion, *per se,* on e-banking. Both traditional and new banking products and services are accessible on e-banking platforms utilising electronic terminals, front-end or self-service technologies (SSTs) such as ATMs, PDAs (Personal Digital assistants), computers, cellphones and telephones. Fundamentally, e-banking instruments serve clients through three distinct groups of e-banking transactions, namely, informational, electronic transfers and electronic payments.

Firstly, *informational transactions*, involve real-time information exchange between the bank and the client. Clients can obtain general information about banking products and specific information pertaining to their accounts from their e-banking connection methods. Almost all front-end banking technologies can perform this type of transactions and the general information is available to both prospective and current clients 24 hrs a day and 7 days a week. Secondly, a majority of front-end technologies can perform *electronic transfer transactions*. This refers to the eminent movement of monetary value from one account to another without visiting the branch e.g. on the internet, Electronic Funds Transfer at Point of Sale (EFTPS) and ATMs. Whereas the third category, *electronic payments*; are restricted to certain technologies because of the need for connection amongst the 3 parties involved (the two parties exchanging money and the bank). Electronic payments are widely used to support traditional payment settlements in today's e-commerce transactions (Stakelbeck, 2005).

3.3.1 Automated Teller Machine

The Automated Teller Machine (ATM), introduced in the late 1960s, is the major technology breakthrough in e-banking. Financial institutions through the ATM enable consumers to withdraw cash from their bank accounts, make deposits, check balances

and transfer funds without contacting the branch. These transactions can be performed from any ATM point and the main challenge is for banks to enhance accessibility of these points by consumers with improved efficiency. Interestingly, today, ATMs are the mostly used e-banking instrument by the public, thereby making it the leading e-tail banking tool.

Prior e-banking, empirical studies established that ATMs provide heightened convenience and accessibility which in turn has a positive effect on consumer adoption of e-banking (Wai-Ching, 2008:60). Of uttermost importance, ATMs provide major cost reductions for banks compared to branch banking. Vesala (2001:1) is of the opinion that branch or ATM proximity, their numbers, and other service quality factors can maintain pricing power for banks. Therefore, the main objective for banks should be to optimise on their ATM distribution and functionality especially against competitors. Since the introduction of ATMs, banks continuously strive to make bank products and service tradable through additional forms of self-service technologies.

3.3.2 Electronic Funds Transfer at Point of Sale and Telephone Banking

In the mid-1980s, the inception and existence of Electronic Funds Transfer at Point of Sale (EFTPS) was enthusiastically accepted by both customers and banks after the successful inveiglement of the ATM. With EFTPS, clients are able to access funds by directly debiting their bank accounts at an electronic terminal point usually positioned at points of sale such as shops and filling stations. Following EFTPS, telephone banking was introduced with most banks emphasising transacting telephonically with clients directly to live operators, rather than using automated response systems (Viatcheslav, 2002:4-5).

Telephone banking was initially restricted by a weak infrastructure for fixed telephone lines in addition to the financial incapability of bank clients. The majority of clients, particularly low income earners could not afford telephone rental. For those who did apply for a fixed line had to wait for an indefinite period of time due to a lack of capacity

to meet the demand for fixed lines. Another restriction was the initial inability of telephone banking to support fully transactions which involved movement of money in and out of accounts; for these transaction clients had to visit the branch. Hence, telephone banking merely supports informational e-banking transactions. Thus, commonly used on Interactive Voice Response (IVR) technology, telephone banking is used on fixed lines for, amongst others, the following services (Asif, 2008:24):

- ✓ account balance information,
- ✓ money transfer,
- ✓ obtaining information about financial products,
- ✓ branch location information, and
- ✓ any other general enquiries.

Nonetheless, interactivity and relational elements are somehow enhanced because the client can communicate with the bank on a regular basis. The following section focuses on internet banking.

3.3.3 Internet Banking

As banking approaches the 2nd decade of the 21st century, computer banking, now integrated with internet banking, is aptly getting more popular concurrently with mobile-banking. In the South African banking industry, the adoption of internet banking, also called on-line banking, is emblematic of the technological growth phenomenon of the 21st century. All of South Africa's four major commercial banks offer internet banking. Amongst many differing services, clients can open new accounts, pay beneficiaries, pay accounts, transfer funds, download bank statements, establish balances, apply for credit cards, order cheque books, and even request an overdraft on line. Furthermore, clients can conduct banking, share trading and business online. The websites of each commercial bank also provides information on various financial aspects as well as on the results of research conducted by them (Botha, *et al*., 2004:316). ABSA was the first to offer online transactions in 1996 with the remainder of the major commercial banks in South Africa (FNB, Nedbank and Standard Bank) following suit a year later.

As much as online banking is convenient in many aspects (no queues, no parking problems or interacting with unfriendly bank staff), many South African customers who have access to the internet choose not to bank online. Customers perceive the internet as insecure, too expensive, and requiring specialist knowledge and skills (Dube, *et al.,* 2009:4). Furthermore, it was found that banks do not offer training in the use of their e-banking services and clients seem to be ignorant of the fact that online banking brings the ATM indoors (Botha, *et al.,* 2004:316).

Latest research findings have substantiated that interactivity, content, quality designs and graphics are essential in the navigation of a website especially for banks (Wai-Ching, 2008:60).The majority of internet-banking users articulate that internet banking facilities meet basic expectations of convenience, time saving and actual website usability when compared to traditional banking (Cloete & Ramburn, 2006:5). As stated before, South African banks particularly the ones understudy, are doing well in monitoring and enhancing their websites. South African banks have continuously been competing with each other searching for ways to overcome the problematic areas associated with internet banking (Cloete & Rmaburn, 2006:4). Mostly, these solutions emancipate into further innovativeness which can be associated with the enhanced interactivity and user-friendliness of websites. For instance, Capitec bank has introduced additional technology to gain internet banking access with a unique pin number randomly generated.

In response to growing competition and the need for sustainable competitive advantage (cost reductions and differentiation of offerings) as well as maintenance of market shares, banks automated their delivery systems and rationalised their branch networks (Padgett & Mulvey, 2007:375-376; Durkin & Howcroft, 2003:63). In essence, competition is posited to have fuelled the emergence and establishment of internet e-retail banking by commercial banks. Some authors believe that, with the client being at the centre of today's competition, the internet has significantly enabled banks to retain and maintain long-term relationships with clients (Liao & Cheung, 2003:248). In South

Africa, Capitec bank rated fifth in the banking industry perfectly follows this kind of a strategy through its provision of greater economic e-banking to clients through partnerships with Pick ‘n’ Pay, Checkers, Boxer stores and PEP stores.

3.3.4 Mobile banking

Mobile banking (m-banking) is the most recent form of e-banking whereby clients can access their accounts, perform banking and bill payment transactions from different access devices such as mobile phones and digital TVs. This latest category of e-banking technologies offers guaranteed transaction delivery, security, data integrity and continuous availability as well as superior performance and response time to ensure client convenience and satisfaction. Cellphone banking apart from internet banking, is currently the way of the future (Fisher-French, 2007:1), with a large number of South Africans owning cellphones plying the potential for further developing marketing opportunities.

According to Herzberg (2003:53), the growth of m-banking is strongly related to the popular ownership and usage of mobile, personal and programmable communication devices, e.g mobile phones and PDAs. Consequently, following this linkage, internet enabled mobile devices are likely to hurt banks which fail to adopt with the pace. Moreover, the conjunction of mobile network service providers and banking institutions in m-banking has the potential to create the first-mover advantage. Subsequently, permanent competitive advantages are likely to favour banks which establish such links with industry leaders in mobile network service providers.

M-banking is more comfortable and has the potential of covering a wider array of the market. The rendering of m-banking services has no restriction of geographical, demographic or any other aspect. Rural and marginalised clients can perform banking just like their urban counterparts by utilising mobile banking. Asif (2008:23) states that m-banking can substitute branch banking infrastructure through alliances with network providers and availability of banking on clients’ mobile communication devices.

Undoubtedly, innovation such as the m-banking has significant contributions towards technologicalship marketing. Relationship constructs such as interactivity, communication, convenience and trust are broadly available in m-banking.

As the array of banking technologies has been broadly bolstered in recent years, progressively more banking services are accessible on electronic channels or real-time delivery places. The developments in technology have subsequently led to a more conscious customer. It is fundamental to have insights of the client-technology interaction within the banking scenario to understand the behaviours and attitudes of clients which are being measured by this study. *Per se*, this analysis will be approached from two angles: the clients and the service providers. Precisely, the practices of these two major players determine the successfulness of e-commerce strategies in any industry. Thus, the discussion which follows in the next section focuses on the service provider.

3.4 E-BANKING SERVICE PROVIDER'S VIEWPOINT

The sprouting of massive technology in earlier technological revolutions produced more marketer to consumer tools such as the radio, television, and database technologies. Meanwhile, recent technological developments have improved the customer's standard of living and this instigates the redefinition of the effect of technology in the marketplaces. The presence of the internet and mobile digital connectivity has eliminated the banking boundaries for clients. Banking clients are now global tyrants; they represent and possess the power of international connectivity. Other than acquiring banking services from banks in their countries of origin, they are able to foster business with other banks in other countries (Reedy & Schullo, 2004:10).

3.4.1 E-Banking in the South African Banking Industry

Having embraced the concept of e-banking, South African banks like their global counterparts are challenged by the desire to firmly utilise the technological front without distorting the way clients interact with the bank. In particular, the first decade of

the 21st century for South African banks resembles an assortment and cacophony of challenges taking into consideration the multiplicity of the demographic nature of its market, the newly democratised society and global competition. Driven by the heightened turbulence and competition emanating from prevalent trends in banking internationalisation, mergers, takeovers and consolidation of the industry, e-banking is posed to be outstanding as the dominant (if not the only) mode for future banking.

E-banking is about using the infrastructure of the digital age to create opportunities, both local and global. E-banking enables the dramatic lowering of transaction costs, and the creation of new types of banking opportunities that address the barriers of time and distance (Dube, *et al.,* 2009:3). Banking opportunities are local, global and immediate in e-banking. Banks must therefore strive to provide local and global banking services using the infrastructure of the global village. From the bank's perspective, recent e-banking channels are seldom applied only to improve client service but also to divert traffic from the branches. The risks are less, especially since the chances of assault and being exposed to the elements are reduced in the comfort and safety of their homes or offices (Botha, *et al.,* 2004:316).

The impact of technology in the banking industry is two-thronged. Firstly, it is the major instrument for change and secondly, it is a response to change. In the contemporary global context, it is imperative for firms to remain competitive and grow (Viatcheslav, 2002:7). In South Africa as is the case worldwide, banking competition is being intensified by the entrance of firms from traditionally non-financial industries. Consequently, innovativeness has been the dominating survival strategy and resulting in clients being flooded with an assortment of alternatives in terms of better products, service providers and distribution channels (Padachi, Rojid & Seetanah, 2007:559).

As channel disintermediation increases, products and services become tradable inter-industries. In fact, in the financial sector; technology has widened the platform on which financial institutions should compete, since the substitutability of financial services has been increased. Pragmatically and literally, assessment shows that

substitute services and products for banks are increasingly being offered by retailers, insurance companies, the post office, and in some cases football clubs (Falkena, Davel, Hawkins, Llewellyn, Luus, Masilela, Parr, Pieanaar, & Shaw, 2004:21). In the financial sector, technology application and utilisation is exacerbating mainly because financial products and activities are perfectly suited to the digital economy. It is stressed that electronic communication and IT predominant phenomenological developments in the 21st century (Moloney, 2000:31; Olowookere & Popo-ola, 2008:6).

3.4.2 Critical Success Factors in E-Banking Services

Banks globally realised, that by making clients access lower cost channels, it substantially reduces operating costs. Undoubtedly future banking is less and less branch based; clients will increasingly access banking services remotely (Viatcheslav, 2002:5). Consequently, first and foremost, restrained attitudes will significantly result in the demise of banks that fail to embrace technological innovations. Client satisfaction and client retention are central to the key success factors in e-banking. This entails providing quality services and products, as well as focusing on the relationship elements resulting in long-term relationships with clients. As supported by Wai-Ching (2008:60), for banks to survive in the e-banking era, the retail banks need to earn client loyalty through product features and service excellence. In this regard, for retail banks, the introduction of e-commerce brought significant changes in the building and maintenance of relationships with clients. The lack of direct human interaction in a traditionally high contact service compels the use of each service element opportunity to reinforce or establish quality perceptions for customers (Bauer, Hammerschmidt & Falk, 2004:154).

In order to effectively serve clients with meaningful experiences, today, the innovations should emphasise personalisation and interactivity. Contemporary theories and studies in the business management field make it clear that many (if not all) e-banking portals lack the above mentioned factors. Particularly, in this era of technologicalship with relationship marketing being a significant banking aspect, personalisation and

interactivity are crucial for success (Padachi, *et al.,* 2007:570; Aronsohn, *et al.,* 2006:60; Wai-Ching, 2008:60). There is a larger opportunity for maintaining relationships in e-banking, since clients can better interact with their service providers. E-banking also means developing new relationships with clients, regulatory authorities, suppliers, and banking partners with digital age tools. For example, it requires an understanding that client/bank relationships will be more personalised, resulting in novel modes of transaction processing and service delivery.

3.5 CLIENT ADOPTION OF TECHNOLOGY IN E-RETAIL BANKING

Clients differ in their readiness to adopt new technologies and relatively, Lampinen (2005:25), cites 5 types of customers: innovators, early adopters, early majority, late majority and laggards. Research suggests that client acceptance and use of e-banking technologies are related to the characteristics of both the client and the specific technology. The important question that arises is: How acquainted are retail bank clients to technology in developing countries such as South Africa? Of note, not all clients have an expectation to use technology, nor do they all feel comfortable with its use. Durkin, Jennings, Mulholland & Worthington, (2008:348) argue that, while technology has profoundly transformed the service industry, little is understood on the implications of technology on clients; their expectations, perceptions and behaviour.

3.5.1 Factors Influencing Adoption

Exponential e-banking growths are predicted where e-commerce attributes are interactively contributing towards emergence of more effective technologies. Apparently, these technologies have fatefully and reluctantly been received by a large segment of the market. The sub-sections below discuss some of the aspects which were identified as influencers of e-banking adoption by clients.

3.5.1.1 Technology prioritisation in service delivery

The retail banking client base is increasingly being serviced through technology-intensive delivery channels and more and more transactions are being conducted in electronic formats (Kannabiran & Narayan, 2005:366). Consequently, this is increasing instances were clients are option-less as they are being restricted to e-banking. Padgett & Mulvey, (2007:376) stress that if firms are to realise a competitive advantage from technology, they should understand how new technology impacts the existing market structures and how transformations to the current structures can be used to gain a sustainable competitive advantage. Similarly, Kolodinsky, Hogarth & Hilgert (2004:238), argue that increased efficiency for the banking industry and increased convenience and service for the client can be realised if there is an understanding of factors that influence acceptance of new products. This will also yield real advantages from technological advances to be embraced by the majority rather than a few techno-savvy clients.

3.5.1.2 Transactional benefits

Several empirical studies have reiterated that elements such as the cost and accessibility of computers and the internet, client's reluctance, awareness of the service, security of internet banking transactions, convenience and ease of use, influence the usage of e-banking (e.g. Padachi *et al*, 2007:560; Wai-Ching, 2008:60). More importantly, the desire for independence of time and place, as well as mobility and flexibility, are key motivators for clients to utilise e-banking methods (Mia, *et al*, 2007:39).

Unarguably most clients use e-banking for the payment of bills because of the frequency of this process and e-banking enables them to perform this procedure in the shortest time and more conveniently (Luštšik, 2003:10). In addition, e-banking technologies entail lower cost bill-paying and around-the-clock availability of financial services. Meanwhile, banking is increasingly moving to online, thus, the resulting effect of technology in bank clients is even more established and more pronounced. This

truism is substantiated by Terblanche (2005:10), who argues that the old adage 'the customer is king' has been relatively rewarded through the application of technology in the general business fraternity.

3.5.1.3 Clients technological competence and preferences

Even in developed countries such as the USA where the usage of most e-banking formats has grown rapidly, there are still some which have been received slowly (Kolodinsky, *et al.*, 2004:238). Clients' adoption and usage of technology is to a larger extent moderated by their willingness and capacity to use technology-based services as well as their personal attitudes. Broadly, some clients draw a certain amount of security from the familiarity of the banking experience. More specifically, acceptance of technology is relatively associated with perceptions of specific technologies (such as perceived use) and personal preferences such as desire for control over when a bill is settled.

3.5.1.4 Clients demographic traits

Some studies have found significant relationships between e-banking adoption and the demographics of users (e.g. Wai-Ching, 2008; Kolodinsky, *et al.*, 2004). For instance, adoption is to a large extent positively related to education and income. Wai-Ching, (2008:60) suggests that the acceptance and utilisation of e-banking are influenced by demographic traits, such as age groups and educational level. While contrarily, gender has not shown real effect on e-banking usage, although men and women reflect different adoption rates of certain computer technologies with men reflecting adoption propensity. According to a study by Irwin & Molla (2005:2), the majority of internet banking users fit the archetypal internet user-young, educated and/or middle and high income profile.

According to Karjaluoto (2002:359), occupation has a significant impact on the adoption of internet banking in South Africa, whereas, education augment a client's ability to process more complex decision-making problems (Polatoglu & Ekin,

2001:159). Coherently, due to some African cultures which still believe that women are meant to be child-bearers and are not supposed to work, men retain exclusive control over the family finances as well as being virtually the bread-winners. Subsequently, in South Africa, the adoption of e-banking may be strongly influenced by gender. Despite the expectations that women due to their emancipation from traditional dispositions and past strict cultural beliefs may be, more willing to resort to e-banking instead of internal employee face-to-face service. While elderly clients comprising the old traditional market are more loyal, the younger market, those comprising the future market are more technology savoir-faire, erratic, and vastly inclined to research and negotiate best deals (Karjaluoto, Mattila & Pento, 2002:265).

3.5.2 Benefits of E-Banking to B-2-C Clients

As the banking landscape promises to reshuffle with megatrends emerging from changing client expectations, behaviours and experiences, banks should continue providing and improving some of (if not all) the following listed benefits to clients in order to survive (Hedley, *et al.,* 2007:33).

- wider choice of banks and products which are easily accessible (greater product depth and global reach),
- increased mobility between the banks,
- being able to do banking twenty-four hours a day and seven days a week,
- low transaction costs because of highly sophisticated and cost saving technologies,
- affordability of high performance technology,
- more secure transactions as compared to traditional banking systems were passwords could be easily forged. Nowadays, authentication and authorisation security technologies offer superior protection to clients. Among security measures which are used are: public-key cryptography, cipher text, symmetric encryption, digital signature, digital certificates, and spoofing. Firewalls, secure web servers, and virtual private networks reduce the risks of outside attacks on the banking systems,

- ability to complete transactions faster and more conveniently,
- abundance of market information and knowledge from a wider spectrum of information technology which are often utilised by banks, and
- through online services, clients can co-create value through knowledge, interactions and experiences.

3.6 DRAWBACKS OF E-BANKING

This section critically assesses factors which hinder the optimisation of technology application in e-banking, particularly, the retail sector. From this backdrop, having focused on the benefits of technology to clients, attention should also be given to problems of technology to clients in e-banking milieus. Furthermore, the theory of disruptive technology (DIT theory) as comprehensively applied in the banking sector, is also discussed under this section. This is to enhance an understanding of innovativeness and its impact on traditional banking methods, specifically in relation to relationship marketing.

3.6.1 Problems of E-Banking to Clients

Coherently the choice of channels for clients has broadened and banks face challenges of how to integrate technology in a client-oriented manner within the market (Durkin & Howcroft, 2003:62). The technology-globalisation co-existence and inseparability in the contemporary business environments result in a spectrum of constraints. Noticeably, as banks enter different countries they face language barriers, cultural barriers, limited internet access, different legislation and logistical barriers. E-banking prominently faces acceptability challenges, as such, applying effective banking strategies for retaining satisfied clients in the current electronic marketplaces is a daunting task for banks.

The main drawback of technology to clients is dependency on technology for successful transactions. Thus, failure of the supporting ICT and its unavailability replicate inefficient service provision (Aronsohn, *et al.,* 2006:18). Web and computer technology may not be user-friendly and in worst cases, those clients who cannot use

a computer, might dread the use of the latest technologies (e.g. old people) and prefer internal employee face-to-face service. Thus, security fears of e-banking environments are extremely high.

Since e-banking depends on e-commerce, factors which hinder e-commerce also affect e-banking. Thus, for instance, e-commerce is not suitable for certain products and services especially were face-to-face communication is very vital. Precisely, e-business is not fully appropriate for large items, perishable products and luxurious products. Apart from this, according to an Ernest and Young research (1998), factors which demise the popularity of e-commerce amongst clients are the following (Vrechapoulos, 2000:1):

- uncomfortable in sending credit card information and concern that credit card information can be stolen,
- prefer to see/feel or fit the product before purchasing,
- cannot get enough information about products to make a decision,
- lack of trust and confidence in online merchants,
- cannot talk to saleperson,
- shipping costs too high, and
- prices are too high.

Often e-banking results in information overload to consumers. Undeniably, technological innovation has often resulted in an explosion in irrelevant, unclear and inaccurate data fragments. Hence, businesses can now retrieve, produce and distribute information easily, making it ever more difficult for the receivers of information to sieve through the cacophony of information to what is vital for decision-making purposes. This might result in unpleasant consequences for clients such as irritation from too much information. Subsequently, clients might end-up being totally or partially unreceptive and unwelcoming to all forms of communication by banks due to this information overload on electronic marketplaces (Heylighen, 1999:1).

3.6.2 Technology Disruption in E-Retail Banking Marketplaces

This section provides an initial overview of the disruptive innovation theory. As in the ordinary life, ever-increasingly destructive weapons have been developed throughout history. Likewise, many of today's innovations are disruptive technologies that are causing major changes in industrial and market structures and business models (Chaffey, 2004:32-33). Embedded in the e-banking concept are continuous transformations in the sustainability of business strategies and practices in technological environments. Cohesively, regarding disruptiveness, Clayton Christensen's Disruptive Innovation Theory (DIT) can be applied to explain the disintegration of market boundaries and closeness which are demise of relationships in e-banking services (Enders, Jelassi, König & Hungenberg, 2006:67). The two subsections below elaborate on how disruptiveness occurs in service delivery where innovation occurs.

3.6.2.1 Eccentricity of innovation and client expectations

The fundamental assumption of the DIT theory is that in most cases, technological progression evolves faster than client demand for better performance. This means that technologies that do not fulfil client's performance requirements (during their early development stages), continue to evolve and, at one point in time, overshoot the performance that clients can absorb. There are two potentials for disruptiveness to occur, either clients are over-served or under-served. In either scenario, there is a misfit between the new value network brought by the innovation and the traditional value network existing in the marketplace or industry (Enders, *et al.*, 2006:67).

A value network is the context within which a firm identifies and responds to clients' needs, solves problems, procures inputs, reacts to competitors, and strives for profit (Enders, *et al.*, 2006:67). Disruptive technologies seldom support the needs of the firm's existing and most profitable clients; instead, they result in relatively lower profit margins than sustaining innovations. Technological advances are integrating firms across borders and within the financial sector (Gordon & Mulligan, 2002:12).

Nonetheless, a one-size-fit all description is inapplicable when it comes to the implications of technology in the banking sector. The statement made by Weeks (2002:19), significantly provokes further assessment of technology in this context, "introduction of technology-based business solutions for dealing with the complexities of evolving business realities within a global economy seldom come without unintended consequences".

Anguelov, *et al.*, (2004:1) argue that as evolvement in e-banking technologies continues; the e-banking instruments have increasingly become similar in form and usability. Furthermore, this blurring of differences in e-banking instruments enhances connectivity in the marketplace. Viewing banking technologies from the perspective of this study, technology disrupts banking-supplier-client relationships. Traditionally, banking has been embedded in relationship marketing. Vesala, (2001:1) points that branch and ATM networks are shrinking in size; these phenomena provide pricing power to banks through proximity and quality services. However, the newest technologies (m-banking and internet banking) applied in the banking environments are disrupting this relationship advantage by generating a permanent increase in competition.

3.6.2.2 Technological impact on suppliers' bargaining power

Technology innovations are crucial in providing opportunities for firms to offer superior services to clients. However, Porter (2001:66) argues that internet technology tends to dampen the bargaining power of channels by providing firms with new and direct avenues to customers. Banks perform financial intermediation functions in the economy and face an apparent technological effect of channel disintermediation as they operate in the 21st century dynamic environments (Papandreou, 2006:10). Amrbose & Fynes (2006:3) ascertain that the use of technology creates disintermediation in the supply chain and/or can strengthen bonds with key chain members. In these transformations, critically, the power of new internet technologies to

integrate transactions in the value chain is blurring the differences between a commercial from an investment bank (Moloney, 2000:32).

According to the DIT theory and, *per se*, the disintegration of relationships is in the form of digitalised business models and products which are transcending contemporary markets. Improved functionality and speed are the main characteristics of innovativeness which tends to be contradictory to traditional business models and products. The more disruptive and radical the innovation is, the more potential impact the innovation will have on the market and the more potential for competitive advantage (Padgett & Mulvey, 2007:375). Consequently, firms which still rely on old models of technology will lag behind those which are more sophisticated in terms of the abovementioned efficiencies and similar techniques.

3.7 SUMMARY

This chapter has boldly exercised some special attention on competitiveness and complicatedness in e-banking arenas entailing a bias towards the client's perspective. Technological dispensations in communication and transportation have empowered today's clients and escalated them above marketers in the marketplace (Baker & Bass, 2003:1-2). Generally, the ownership of home PCs is increasing and overwhelmingly the future of banking will be carried in-doors. What it means is that by ownership of modern technologies, clients will continue determining the pace of doing business and who to trade with. Also, outstanding in the discussion is that South Africa is in many ways a leader (globally and in Africa) in the adoption and application of latest technologies driven by competitiveness in the financial services industry. Unfortunately, the factors and pace of technology adoption from the client's viewpoint do not seem to support the concept of technologicalship marketing. Most of these factors are functionality and transaction-based.

However, financial institutions and firms at large significantly need to monitor the technological environment closely and continuously, both locally and globally.

Aforementioned in the discussion is that technology is rapidly transforming aspects of business globally. Consequently, financial firms need to adapt to changing technology particularly and become firmly positioned in the global value chain as the banking industry is definitely subject to overwhelming global demands. The utilisation of sophisticated banking technologies is assisting banks in achieving this however, client's adoption of technology has not occurred in the manner which supports e-banking fully regardless of the increasing number of e-banking methods. This phenomenon is largely abounding in South Africa as well as other developing countries. Nonetheless, e-banking has been pointed to overwhelm traditional banking globally in the future.

Chapter four that follows provides a comprehensive literature framework on the nature of banking relationships. Having established what is retail banking and e-retail banking in this chapter, chapter four considers the nature of relationships characterised with e-tail banking. Subsequently, adequate enlightment on the interactivity of technology on the vital aspects of relationships should be obtained from this chapter.

CHAPTER 4

RELATIONSHIP MARKETING IN RETAIL BANKING

4.1 INTRODUCTION

Consumers of the 21st century have been described as highly assertive, largely savvy and more discerning, consequently, indisputably difficult to serve. Faced by such customers, firms have lately been encouraged to patronise relationship marketing for them to survive the heightened and extremely aggressive competition of today's marketplaces. Transformation in the nature of markets emanating from factors like globalisation, privatisation and deregulation, which occurred towards the end of the 20th century, demanded a rejuvenation of business practices. In the contemporary customer-centric business contexts, relationship marketing is an indispensable aspect of the marketing strategy and, service marketing at large. This indispensability of relationship marketing is especially rigorously abounding for firms rendering financial services which, traditionally, have been primarily driven by face-to-face and more personal relational means of transacting.

This exposition examines the feasibility of the technologicalship marketing in consumer markets of retail banking. As discussed before, technologicalship marketing primarily encompasses technological marketing and relationship marketing. What detects the existence of this dissertation is the desire to ascertain whether relationship marketing is successfully practised in the technological environments of the 21st century. The previous chapters aimed at delineating the context and background in which the study is nurtured. The nature of the research problem was enlightened in chapter one, followed by the two chapters which discussed technological marketing and e-banking contexts which both essentially resemble an environmental delineation of the research area. This chapter is unequivocally parental to the attainment of conclusions in this dissertation as it outlines the key relationship constructs abounding this study.

In addition, this chapter presents a dialysis of the relationship marketing theory as applicable to the retail banking context. Thus, chapter four robustly considers business-to-consumer (B-2-C) relationships literature. Firstly, the chapter provides an

overview of relationship marketing, followed by focusing a description and definition of retail banking relationship marketing. Secondly, the four key relationship constructs, from the customer's perspective (relational exchange, social constructs, customer retention and customer switching), as outlined in the hypothetical model to this study, are extensively delineated. Finally, an overview discussion of the differences between relationship marketing and transactional marketing is provided.

4.2 AN OVERVIEW OF RELATIONSHIP MARKETING

Zineldin & Vasicheva (2008:114) posit that clarity lacks on the functions and definitions of relationship marketing and customer relationship marketing (CRM). The debate even extends to whether relationship marketing is recent or old, as well as, whether relationship marketing is a complete or incomplete paradigm. However, Sizmign, *et al.,* (2004:482), argue that relationships between suppliers and customers have always been available in markets for as long as parties (firms and individuals) have traded their own resources in return for others. Zineldin (2000:10) acknowledges that the term relationship marketing, conceptually, has been utilised with different themes or perspectives in business management discourses. In the midst of this miscellany of perspectives, Zineldin (2000:16) propounded the term 'technologicalship marketing' which acknowledges the domination of technology and relationship marketing in the 21st century marketing context.

Consequently, it is essential that clarity pertaining to what relationship marketing refers to in this dissertation is provided in this chapter. Thus, the following section highlights the development of relationship marketing.

4.2.1 The Development of Relationship Marketing

Noticeably, marketing scholars, managers and marketers (Hakansson, 1982; Berry, 1983; Dwyer, Schurr & Oh, 1987; Grönroos, 1994a;1994b; Gummesson, 1995), increased the magnitude of attention towards relationship marketing just before the end of the 20th century. Prominently, the differences in the approach to relationship

marketing can be traced to three different schools of thought on relationship marketing: the Nordic School, the Industrial Marketing and Purchasing (IMP) Group, and the North American and Anglo-Australian (Cranfield) School (Shammout, 2007:13; Rao, 2002:40). The depiction (Table 4.1) below summarises these three relationship marketing schools of thought.

Table 4.1: Schools of Thought on Relationship Marketing

Schools	Key Issues
Nordic School	Integrate the network approach with aspects related to service relationships and relationship economics.
Industrial Marketing and Purchasing (IMP) Group	Relational exchanges are based on a series of interactions, and a close link between the concept of adoption and the process of evolving relationships.
North American and Anglo-Australian (Cranfied) School	Focus on buyer and seller in the context of organisational environment and investigate the nature of relationships in marketing.

Source: Shammout, (2007:13)

Zineldin (2000:11) acknowledges that consumer relationship marketing differs inherently between industrial and service sectors. Apart from this apparent difference emanating from different industrial sectors, there is a predisposition of approaching relationship marketing from the supplier perspective exclusively. The *Nordic School of Thought* is identified with this approach underpinning the description of relationship marketing which, *per se,* emanates from a managerial perspective. The Nordic School, which was originally conceived for services marketing research, endeavoured to explain the essence of service marketing, focusing on long-term relational exchanges in industrial marketing and services marketing. To describe relationship marketing this school emphasised issues related to long-term relational aspects of service marketing, *inter alia,* commitment, customer retention, quality and customer contact (Shammout, 2007:13; Rao, 2007:43).

Contrarily, a more balanced relationship marketing viewpoint is also considered which emphasises, *inter alia*, aspects such as interactivity, mutual benefits for and communication between the partners to a relationship (Lang & Colgate, 2003:29). This relationship marketing viewpoint considers both the suppliers and customers with the goal of building long-term and interactive relationships that benefits both partners. This viewpoint is the advancement of the *Industrial Marketing and Purchasing (IMP) group* also known as the *European IMP group.* This group of researchers propels for a mid-range perspective to relationship marketing vindicating its applicability in both the industrial and service marketing. The IMP group draw on behavioural theories from sociology and organisation theory and employ descriptive case studies of industrial purchasing scenarios. They emphasise the vitality of customer's absolute participation for relationship success (Shammout, 2007:14; Rao, 2002:42).

Lastly, *the North American and Anglo-Australian* school of relationship marketing proponents highly advocates for customer relationship management and the integration of quality management tools such as customer database management (Shammout, 2007:14). From this perspective, marketers are expected to understand the economics of customer retention and thus ensuring that the appropriate amount of money and other resources are allotted to retaining and attracting customers. Furthermore, this approach places emphasises on customer markets and internal marketing. This viewpoint is considered as the latest approach to relationship marketing and stresses the critical role played by technology in the maintenance of relationships (Rao, 2002:42).

Porter (2001:64) purports that new technologies prompt rampant experimentation which can be based on distorted signals and interpretation. The elementary introduction of technology to the whole relationship marketing discourse, exacerbated the cacophony in literature about the nature of relationships existing in the 21st century. Thus, as business enterprises enter the second decade of the 21st century the meaning of relationship marketing is still not assertively clear from the literature despite

the fact that the concept has been discussed for decades. Notwithstanding this impreciseness and the disharmony on paradigm shifts of the relationship marketing concept, relationship marketing fundamentality has reached rampart levels in the current market environments. On this backdrop, the following section attempts to define the concept of relationship marketing specifically in relation to this treatise.

4.2.2 The Definition of B-2-C Relationship Marketing

Essentially business enterprises have been encouraged to heed the customer centrism of contemporary markets and establish dyadic contacts with customers in today's wispy and competitive marketplaces in the provision of products and services. As marketing practices and strategies continue transforming towards providing customers increased bargaining power, it means a competitive strategy for a firm should be biased towards the customer. Broadly, with this critique nurtured around the customer-centrism theme, a more balanced relationship marketing definition is sought for the progression of this exposition. In essence, this definition ought to have the ideologies from the IMP group school as well as the North American and Anglo-Austrian school which have been noted as the most recent in the preceding segment on schools of thought on relationship marketing.

Unfortunately, literature lacks such a balanced definition of relationship marketing that is equally considerate of both the customer and the supplier in terms of the benefits and objectives of being in a relationship. For instance, Durkin & O'donnell (2005:862), cite that relationship marketing is popularly defined as the identification and establishment, sustaining and enhancement when necessary also "the termination of relationships with customers and other stakeholders, at a profit, so that the objectives of all parties involved are met, and that this is done by a mutual exchange and fulfillment of promises". This, the-them and us kind of approach to relationship marketing is unsustainable in the 21st century customer centric business environments where the contemporary customer demands increased value in product and service offerings.

Relationship marketing should therefore appropriately be defined for this research study. A more rational, accommodative and comprehensive definition in terms of considering both parties to a relationship is highlighted by Rao (2002:41). He defines Relationship Marketing as "*the engagement of firms proactively in creating, developing and maintaining committed, interactive and profitable exchanges with selected customers or partners over time".* This definition, though considered as the latest, lacks, to some extent, the mandatory customer-centric nature of relationships demanded by each and every customer. Hence, a more suitable definition for the 21st century customer centrism business model should be developed. In essence, it should encapsulate the following terms; commitment of firms in engaging all its customers interactively, mutually and profitably in relational exchanges over time.

4.3 E-RETAIL BANKING RELATIONSHIPS

In tracing the tradition of banking, it is inarguable that the principle of relationship marketing is pivotal for the bank-client dyadic nature of a partnership (Bauer, *et al.*, 2005:154; Harden, 2002:325). Regardless of the non-existence of a single definition of the term relationship marketing, most researchers and marketers concur that banking relationship marketing focuses on the long-standing buyer-seller interactions that transform individual and discrete transactions into relational partnerships (Durkin & O'donnell, 2005:865; Han, 2008:49). A more rational exchange definition of relationship marketing in the banking context should embed the desire of clients to have long-term dealings with the bank which are personal and mutual interactive. Over and above, it is essential that the relationship building and maintenance efforts of banks amount to relationships in the eyes of the client (Woodburn, 2002:28).

Winning a new current account client is only part of the battle; the other part is retaining them and which is crucial in determining the success of a bank's relationship strategy in the twenty-first century. Banks and their clients interact and form relationships; they create bonds that keep them together. Strong bonds are barriers to client switching but little is written about the nature of client-bank interactions and the

types of bonds that exist in the twenty-first century. From the firm's perspective, in the long run, the average cost of keeping an existing client is far less than the cost of getting a new client. It is purported that it can take up to six years before a bank can recoup the cost of acquiring a new retail bank client (Ahmad, 2005:320).

However, many consumer markets are comprised of a large number of low-involved clients, thus, mutuality and special status associated with relationship marketing are difficult to effect. Also, the relational exchanges are subtle and involve clients who are treated as passive participants in a process chiefly controlled and driven by service providers (Sizmigin, *et al.*, 2004:482). The degree to which banks should embrace remote technological platforms like the internet is a debatable issue with technology deemed negligible or certainly damaging to relationships. Conspicuously, remote channels may undermine consumers' feelings of trust and adversely affect loyalty and retention with ties between the client and financial institutions liable to demise as human interactions erode (Durkin & O'Donnell, 2005:365). In the following section, key relationship constructs are relatively discussed in detail.

4.4 KEY RELATIONSHIP CONSTRUCTS

Relationship marketing involves a vast array of constructs which can be used to describe, define, assess and measure it. Relationship marketing literature, in its abundance, lacks a comprehensive integration of these concepts, let alone, measuring them empirically. A few authors have attempted to approach relationship marketing with this broad and exhaustive perspective (e.g. Rao, 2002:24; Hennig-Thurau, *et al.,* 2002:233). This research regards this meta-construct approach to relationships as vital in enabling a vivid understanding of the impact of technology on retail banking relationships since this typology of relationships are occurring on a wider electronic platform.

Relationship constructs are either personal or social; relational exchange; customer retention and customer switching constructs. Largely, the construct categories are not

fixed; this emanates from the nature of the variables which can cause them to be drivers or outcomes of relationships (Hennig-Thurau, *et al.,* 2002:233). These selected relationship constructs, that embed the questions in the questionnaire, are discussed herewith. Thus, clarity pertaining to the contents of the questionnaire can be found in this section. The first types of constructs to be discussed are the personal and social constructs.

4.4.1 Personal and Social Constructs

The same universal social forces which shape basic human relationships and interpersonal collaborations, guide commercial relationships as well as the clients' encounter with a financial service provider (Couglan, Macredie & Patel, 2007:83-84). Similarly, Molina, Martín-Consuegra & Esteban (2007:256), state that social constructs are often defined by benefits of a social nature which adopt the nature of personal recognition by employees in direct dealings, or the construction of links and social relationships, which are gratifying for the customer. Regardless of a plethora of usability studies conducted regarding the efficacy of technology in various marketing practices (relationship marketing included), a heightening argument concern the adequacy of technology in addressing social factors. From the in-depth literature review conducted, the following variables primarily bring into being the concept of relationship marketing from a social pragmatic perspective.

4.4.1.1 Communication

Rao (2002:9) states that communication involves the formal and informal sharing of meaningful and timely information between the supplier and the customer. Communication with customers and the involving of customers in a dialogue is clearly advantageous in establishing strong market relationships (Sizmigin, *et al.,* 2005:482). Innately, for relationships of any sort to transpire and progress, there should be communication between the involved parties; consequently, communication becomes an indispensable variable in relationship marketing. In real life, communication entails customers and sellers simultaneously sending and receiving messages to create

meaning. This involves clients engaging with the bank employee on a face-to-face podium as they converse, observe and collectively produce meaning out of the communication.

The effectiveness of communication in maintaining and enhancing relationships is embedded in the quantity, quality and organisation of the messages sent to the client (Couglan, *et al.,* 2007:83). The separation between the service-provider and the client because of technology, poses a new communication challenge in the business fraternity. With clients demanding more individualised attention from service-providers, an interactive and dialogic approach to communication determines the successfulness of relationship strategies. Electronic interactions can result in faster communications and increased responsiveness (Rao, 2002:24), and succinctly, this positively impact relationship building and sustenance. However, it may be postulated that many South African firms seldom utilise this technological front to develop, maintain and upgrade electronic relationships. Here, clients would adopt a more active role in search for information relevant to their needs as well as communicating these needs to the firm through an ongoing dialogue with the firm (Rao, 2002:26).

4.4.1.2 Trust and security

Banking is basically a notion of trust. In retail banking, a bank promises superior financial services and it relies on both its service representatives (employees) and/or the bank infrastructure, including its technologies, to deliver it (Ahmad, 2005:323). Yousafzai, Pallister & Foxal, (2003:849) highlight that trust relates to client's expectations of the service-provider's behaviour in transactions based on the contextual factors inhibiting or enhancing trust. Further, they indicate that the risk associated with the expectations and willingness of partners to trust a relationship also contextualises trust in a transaction. Henceforth, trust and security are considered related (Gommans, Krishnan & Scheffold, 2001:50). Ryssel, Ritter, & Gemünden, (2004:199) argue that customer trust is a central variable in most relationships modes and defines it as the extent to which the client believes that the supplier is honest,

benevolent and competent. Trust is often described along with client satisfaction, service delivery, communication and reliability. With a similar viewpoint, Graf & Perrier, (2005:4) connote that trust is often described as a multidimensional phenomenon incorporating both credibility and benevolence as key dimensions.

The outcome of trust is proposed to be reduced perceived risk, leading to positive intentions towards adoption of e-banking. Compared to over the counter transaction, client's trust on e-banking transactions has exceptional dimensions, *inter alia,* extensive technology utilisation, distant and impersonal nature of online environment and the inherent uncertainty of being on open technological infrastructure for transactions. It is established that client trust of the transaction medium mainly depends on the medium's perceived technical competence and performance, as well as, the client's understanding of the underlying characteristics and processes that guide the medium's behaviour (Yousafzai, *et al.,* 2003:847-850). Plausibly, the timely, accurate and direct communication messages between service-providers and clients have positive impacts on trust. Whence, unarguable IT enables the service provider to process information faster, more accurately and more reliably to the client thereby rendering IT supportive to relationships *per se* (Ryssel, *et al.*, 2004:199).

Yousafzai, *et al.,* (2003:847) also argue that trust is essential when it is practically impossible to completely control the business engagements and agreements, as well as in situations where either party could take advantage of the other. As such, trust is a significant factor in any e-banking and e-commerce (at large) strategies because of the invincible lack of contact on electronic market-spaces. However, more and more banks are intensifying efforts to reduce the perceived risk of using e-banking technologies by adopting more reliable, user-friendly and outstanding functionality instruments. Coupled with an increasing technological competence and orientation amongst the large majority of clients, retail banks have the potential to build mutually valuable relationships through trust-based collaboration with clients. IT can cement relationships by closing the gap between the bank and the client e.g. global trading has been

enhanced by the use of IT and the consequent mutual closeness in relationships (Ryssel, *et al.,* 2004:199). Increasing the role of technology in a service enterprise can contribute to a reduction of costs and often an improvement in service reliability (Durkin & O' Donnell, 2005:861).

4.4.1.3 Personal contact

Durkin & Howcroft, (2003:64) cite that the anthropology viewpoint of personal relationships consider perceived honesty to be inversely related to social distance. Intrinsically, theorists agree that for B-2-C relationships, person-to-person contact is vital and introducing software and automation to relationships doom the success of relationships (Woodburn, 2002:20). Traditionally, for banks, this humanistic approach to marketing has always formed the backbone of their business with branch employees spearheading the success and strength of personal relationships. Traditionally, once a client opened an account with a bank, the two parties transacted on a very close and personal level which usually extended for years (Hayden, 2002:325). Relationship marketing researchers of that time concluded that face-to-face transactions yield benefits for the bank which are equally beneficial to the client (Sannes, 2001:142). Through person-to-person interactions, social bonds emanate from the interpersonal and friendly interactions with clients who, in turn, are encouraged to maintain the relationship (Chiu, Hsieh, Li & Lee, 2005:1683).

Relationship marketing is posited as vividly stemmed from socio-psychological theories that include interaction, network and social penetration theories. The IMP group chiefly augments the essence of social exchanges and person-to-person relationships (Ahmad, 2005:321). Word-of-mouth communication strengthens relationships and is regarded as a more reliable source than non-personal information espousing future buying decisions, especially when high risk is involved for clients during service delivery (Hennig-Thurau, *et al.*, 2002:232). With the distance from suppliers widening because of technology and competitive forces (*inter alia)*, the customer's needs for affiliation and identification with a firm in the current markets are intensifying. Bolton &

Bhattacharya, (2000:4) argue that the broadcasting media increase a sense of belongingness and identification with a firm. *Per se*, e-banking and technology in general enables enterprises to extend the social relationship with customers, thus, if they wield the ultimate and necessary communication practices and procedures e.g. regular communication.

However, there is one irreplaceable aspect of social relationship constructs, human contact. Technology is blamed for causing massive dehumanisation of services where it has been applied in service delivery. Traditionally, clients and employees of retail banks had a strong personal relationship which is the epicentre of relationship marketing. Hence, managers face an ever-increasing challenge to establish an appropriate balance between remote and personal interactions which benefits both the client and the service provider (Durkin & O'Donnell, 2005:862). Durkin & O'Dennell, (2005: 865) also argue that clients who are inhabited to personal assistance in their service encounters may be reluctant to adopt new automated service delivery innovations regardless of the presence of clear advantages.

4.4.2 CLIENT RETENTION CONSTRUCTS

Client retention from the client perspective exhibits itself primarily in client loyalty, satisfaction and service quality which extend over a long time-span. Therefore, retention is a direct measure of a bank's ability to maintain relationships with clients-the longer the better (Szuts & Toth, 2008:357). Relationship marketing strategies have frequently been regarded to be focused on client retention because retention is less costly than acquisition (Bolton & Bhattacharya, 2000:1).

4.4.2.1 Client loyalty and duration of relationships

Client loyalty is described as an outcome or driver and crucial aspect of relationship marketing, thus, in most cases it has been equated to the relationship marketing concept itself. Basically, embedding behavioural and attitudinal components, loyalty is centered on client's repeat purchase behaviour and the propensity to continue

partnering with the marketer (Hennig-Thurau, *et al.,* 2002:231). According to Chiu, *et al.*, (2005:1683), client loyalty is defined as "a deeply held commitment to repurchase or repatronise a preferred product/service consistently in the future. Virtually, in every market of the globe, marketers have increasingly developed tactics of recognition and reward to identify, maintain and increase the yield from their best clients eventually turning to be loyal marketers (Capizzi & Ferguson, 2005:72).

The duration of clients' patronisation of a bank is a crucial element of relationships and has been used by many researchers to measure relationships in the banking industry (Chakravarty, Feinberg & Rhee, 2004:513). Consumer loyalty is closely related to customer switching, satisfaction and service quality. Expressed in terms of the customer's propensity to switch, there is a negative correlation between the two mediated by customer satisfaction and/or service quality. A mediocre client seldom stays in a relationship which potently lacks satisfaction and is substantially characterised by a low standard of service quality. In e-marketplaces, there is an asymmetric relationship between e-loyalty and client satisfaction, since (dissatisfied) clients face a greater variety of choices (Gommans, *et al.*, 2001:45). Many authors have concluded that technology serves the loyalty strategy (e.g. Capizzi & Ferguson, 2005:80). Driven by technology, a satisfied client would find no reason to try other service providers (Han, 1997:28).

4.4.2.2 Service quality

Service quality refers to the measurement of the gap between expectations and perceptions of functional and technical quality. Functional quality considers client perceptions of the interaction that occurs during service delivery, whereas technical quality relates to the services that clients receive in service encounters (Liu, 2008:239). Quality is a key element of a successful relationship and the interaction process. A successful relationship is flexible and involves a customised sale and data has to be accurate, timely and easily accessible (Araslan, 2008:54). In the twenty-first century, the quality of banking service infrastructure is pivotal to the service quality, as well as,

imperative for successfulness of relationships in the contemporary marketing practices (Lang & Colgate, 2003:29; Ahmad, 2005:327).

Service quality serves as a critical yardstick of the quality of relationships between parties and due to the interactivity-nature of the majority of recent technologies, parties in some relationships have become more tightly bonded (Lang & Colgate, 2003:29). The conclusion from this perspective is that technology enhances service quality as well as the quality of relationships. Quality relates to pleasing clients and not just protecting them from annoyance (Stamoulis, Kanellis & Martakos, 2002:232). This means that client expectations which are growing as a result of the modern delivery systems should be met, accordingly, through supplier processes that render efficient and innovative transactions. This, in turn, will be rewarded by the client through more involvement in new product development, increased sales and/or further access to information (Ryssel, *et al.,* 2004:200). However, substantial technological incompatibility between the retail bank and the client may curtail cooperation and subsequently make understanding difficult between the two (Lang & Colgate, 2003:30).

4.4.2.3 Satisfaction

Satisfaction can either be affective, cognitive or cumulative: cumulative is broader and a combination of cognitive and affective satisfaction. In addition, cumulative satisfaction relates to the ultimate client experience with a firm rather than being solely transaction based (cognitive) (Rao, 2002:57). Therefore, cumulative satisfaction is a key indicator of the firm's past, present and future service-delivery performance. To achieve client satisfaction, a superior level of service and client orientation is required (Abratt & Russel, 1999:6). It is imperative that, where technology culminates in satisfied clients high incidence of loyalty, support and repeated transactions with a service provider, relationships are supported. To the contrary, client dissatisfaction emanating from technological frustrations or any other constrain, demise the likelihood of strong relationships between the service-provider and the client.

It is envisaged that satisfied clients are retained and become loyal clients, meaning that satisfaction is strongly correlated to long-term relationships (Fang Wang, 2004:19). Client satisfaction significantly impacts client future behaviour. Empirically, strong evidence exists which indicate that each party's performance is fundamental in an exchange relationship so as to satisfy the other relationship associate (Rao, 2002:57). Nobody argue against the importance of client satisfaction being vital to client loyalty within the service industry. Considered both as an antecedent and mediator of vivid and long-term consumer relationships, satisfaction is a multifaceted determinant in relationship marketing. Fang Wang (2004:19), articulates that client satisfaction can be assessed from the antecedents' perspective (which include expectation, disconfirmation, performance, affect and equity) and the outcome side (which include complaining behaviour, word-of-mouth behaviour and repeated purchasing). While the first perspective represents an affective predisposition sustained by economic conditions, the latter constitutes a non-economic measure of satisfaction considering mainly the psychological factors (Rao, 2002:57).

Kotler (1998:40) states that client satisfaction is a person's feelings of pleasure or disappointment resulting from a product or service perceived performance in relation to the client's expectation. Client satisfaction also involves emotional reaction to a perceived difference in performance, appraisal and expectations which to some extent is a global evaluation of all the aspects embedding the consumer relationship. The facilitative role of technology in e-commerce inherently affects all the dimensional factors which describes the concept of satisfaction in as far as relationships are concerned. It can thus be concluded that, technology has a significant upshot to relationship marketing in e-banking environments which are utterly situational.

4.4.3 Client Switching Constructs

The issue of bank switching seems particularly amenable to an approach that integrates services relationship and economic analysis (Chakravarty, *et al.,* 2004:511). The phenomenon of client switching in retail banking relationships is increasing in the

contemporary electronic marketplaces. Generally, client switching adversely impacts the length of relationships which is the nitty-gritty of relationships. This section will consider the underlying aspects of client switching in the retail banking context as well as the consequential nature of relationships following the introduction of technology thereof. Unfortunately, the propensity of clients to switch banks is not observable (Chakravarty, *et al.,* 2004:516).

4.4.3.1 Barriers to switching

Switching barriers refer to the constraints involved during the client's process of shifting from one supplier of a service or product to another. Chiu, *et al*., (2005:1683) indicate that switching barriers relate to the structural bonding of clients in a relationship through offering benefits to target clients which are not found elsewhere. They describe switching barriers as business practices in which firms attempt to retain clients by providing valuable services that are embedded in the innovative channels, an integrated customer database and the two-way information exchange technologies. Note that, relationships can continue as a result of these barriers even when clients are dissatisfied with the services provided (Yanamandram & White, 2006:1). Fang Wang, (2004:24) identified switching costs in the form of transaction, learning and artificial or contractual. Transaction costs are costs of terminating the old relationship and starting a new relationship; learning costs emerge when clients learn new facilities and products; while artificial costs are created by the marketer's relationship investments.

Fang Wang, (2004:24) highlights that the cost of switching is an important construct in relationship marketing. He further argues that the cost of switching is positively related to loyalty and is an important mediator between consumer loyalty and its antecedents. For instance, the impact of trust and satisfaction on consumer commitment appears to be in consistence with the contingency conditions of switching cost antecedents. Structural bonding raises customer cost of switching to a competitor, as such; they provide opportunities of creating and maintaining long-term relationships (Chiu, *et al.*,

2005:1683). Consequently, in a low satisfaction relationship, switching costs can be barriers to exit for clients (Fang Wang, 2004:24). Similarly, Ngobo, (2004:1133) and Liu, (2008:238) indicate that many researchers concur on the cost of switching being a major factor contributing to the maintenance of a relationships. As a result most firms emphasise the discouraging of clients from abandoning them for other service providers through the enhancing cost of switching.

Client switching behaviour in the e-banking environment is a complex matter to investigate and, if not, the most complicated one to reach meaningful conclusions about the relationship marketing context. Technology is regarded as a barrier to exit from a relationship, with bankers thereby elongating the client's propensity to stay in a relationship (Fang Wang, 2004:24; Chiu, *et al.,* 2005:1683). Contrarily, recent technologies reduce the client's dependence on one service provider. The internet technology empowers clients to find lower cost service providers at lower costs, thus, escalating substitutability of service providers (Rao, 2002:78). In a way, how technology impacts relationships depends on the typology of clients. For instance, for the technologically elite clients, it supports their fluidity (technology empowers their choices, knowledge, and decisions) on the market thereby demising the longevity of relationships. Whilst, for the technologically deprived clients, technology becomes a barrier to switch (they are disempowered to try new things) and in turn supports long-term relationships.

4.4.3.2 Switching options

In addition to reduced search costs, technology has crumbled firms together widening the array of options for clients to partner with. It is disadvantageous for managers of financial institutions to overlook the dire need of understanding their clients considering the wideness of switching options. Unarguably, clients should be better served to avoid their switching to competitors (Chiu, *et al.,* 2005:1681). For almost each and every firm (in their respective markets), there has been an increase in the spectrum of optional competitors of their services with firms intentionally involved in practices which attract

clients and increase client loyalty. The transparency in markets, brought by the ever-evolving technological markets, increases the possibility of clients switching between service providers in pursuit of superior offerings. This is a true reflection of what is transpiring in many industries which adopted technology as a way of business or those which are virtually technological, for instance, the mobile communication industry. Also, this is the future for the financial industry with its vividness of this phenomenon being pronounced in the future.

21st century firms in the South African mobile communication industry have seen an escalation in relationship marketing (or loyalty) programs to foster client loyalty for their products. The South African three major mobile network service providers (Cell-c, Vodacom and MTN) embarked on loyalty programs which changed the switching behaviour of clients, so much so that clients in worst scenarios have been forced to use more than one cellphone. Deductively, this phenomenon can be traced to the banking industry, *per se* (Olivier, 2007). Chiu, *et al*., (2005:1682) note three types of clients in line with clients' switching behaviour in retail banking which are: loyal clients, dissatisfied switchers (clients who switch because of their unsatisfactory experiences), and satisfied switchers (clients who switch for reasons other than dissatisfaction. Regardless of the typology of the switchers and the underpinning motives thereof, relationship marketing is affected and, *per se,* the concern is about whether technology is inhibiting relationships by enhancing this switching.

4.4.3.3 Information asymmetry

Buyer behaviour is extensively dependant upon the information that exists prior and after completing a transaction. In order to make an informed decision, clients crucially require information about the price, quality, performance, specifications and circumstances of the delivery of the various retail banking service alternatives they may consider. Very adverse consequences occur if a client cannot gauge a firm's competence in line with counterpart firms in the respective industry. Strategies based on information asymmetry require that retail banks should not dispose some

information about their products. Traditionally, ambiguity was the basis for successful asymmetry strategies. With the lack of integrative communication networks such as the internet and the World Wide Web, the environment was supportive to such strategies. In turn, differentiation strategies were easier implemented in such conditions and the consequent relationship built up with clients spanned longer (Nayyar, 1990:514).

Ensuring that problems with asymmetrical information are reduced, the arrival of sms, e-mail, internet and other communication technologies brokered a new era of symmetrical information. Contrary to utilising asymmetrical strategies, retail banks are striving to eliminate ambiguity and uncertainty in marketplaces and clients require information to eradicate this equivocallity. When self-service replaces a traditional person to person encounter, the client needs full access to all relevant information. Logically, it implies that self-service banking requires banks to clearly and consistently reveal all the information about services, pricing, conditions of use and transactional fees for clients to choose among alternative services. The information asymmetry status is now *vice-versa,* thus, it is increasingly getting easy for clients to compare services offered by banks within electronic marketplaces and decisions of switching are prone to increase as clients seek superior offers from the available service providers (Sannes, 2001:142).

4.4.4 Relational Exchange Constructs

The social rules of interaction between people, cooperation and coordination enhance relational exchanges (Gaymer, 2005:12). Regarding how trade-offs exist in relationships, the impact of technology is envisaged to be two-thronged from the clients viewpoint. Thus, firstly, the introduction of technology can positively impact clients in the relationship approach, but secondly, can also diminish the client's interest in a relationship (Durkin & O'Donnell, 2005:866). The precise typology of relational exchange constructs posits an ongoing area of debate within academic works on relationship marketing featuring technology. This study identified the following facets as critical aspects embedding the concept of relational exchange: interdependence,

personalisation, reliability, commitment and interaction within a retail banking relationship affiliation. These factors are briefly described below and how technology mediates the relationship thereof:

4.4.4.1 Interdependence

The concept of interdependence refers to the collaboration of participants in a relationship and is reflected by the volume of communication as well as the mutuality influence of the decision making process. This means that there is an unconditional adaptation, trust and understanding in the relationship and there is preparedness from both parties to invest in each other (Woodburn, 2002:25). The propensity to continue in a given relationship is significantly associated with the degree of dependence in that relationship (Yanamandram & White, 2006:4). Where interdependence exists, the two parties to that relationship lean and are locked to each other, such, that terminating the relationship would result in retreat difficulty, severe time consumption and psychological and physical suffering.

Apparently, interdependence is an outcome of other relationship constructs such as trust, satisfaction, and reliability, and is strongly based on client touch-points which include delivery systems in technological marketing. Gaymer (2005:22) asserts that individuals' interpretations of occurring events in life are based on causal reasoning which regulates future personal behaviours. Interdependence embeds similar justifications as for commitment and loyalty, hence, based on marriage models relationships are pseudo-relationships if interdependence lacks between the parties involved in the relationship. Clients in pseudo-relationships may not feel threatened by the existence of technology as a distortion to personal relationships because of lack of strong rapport with the service provider (Bhappu & Schultze, 2006:375).

Past channel researches emphasised the decisiveness of relationships with intermediaries so as to promote belongingness and attachment while minimising the probability of switching (Geyskens, Steenkamp, Scheer and Kumar, 1996:306). With

technology intermediation, the fluidity and wispiness of markets has increased, consequently, subjecting retail banks to extreme substitutability and replaceability. Likewise, threats of substitution on electronic delivery systems should be placed under extreme control, since it is one aspect which often defragments client loyalty, security, trust, satisfaction and so forth on electronic service delivery podiums.

4.4.4.2 Personalisation

Personalisation, also called customisation, is principally underpinned by the notion of firms servicing clients on a more individual basis. Customisation relates to the provision of offerings which are individualised (tailor-made) in almost every aspect of the marketing mix: price, promotion, product and distribution (Vlasic & Kesic, 2007:112; Durkin & Howcroft, 2003:63). Thus, in essence, the service is streamlined per individual's expectations and requirements. Eventually this marketing phenomenon emphasises the crucial roles such as co-producer, co-creator and co-operator in the creation and provision of personalised value. Unarguably, it becomes impossible for retail banks to accomplish personalisation without creating an understanding of relationships through interacting with the client and establishing their specific needs and wants, which are bound to continually vary at any given point in time.

Consequently, in essence, the desire to accomplish customisation drives relationship marketing and concurrently exists with relationships if it is successful. In support, Durkin & Howcroft (2003:63) state, that if personalisation is done effectively it makes each client a segment in his or her own right; with a unique relationship with the supplier. Research has found a strong correlation between customisation and client satisfaction, retention, loyalty, dependence, together with the age of relationships. Consequently, the propensity of long-term relationships is very high in a more personalised dealing (Fang Wang, 2004:37). Indeed, clients are likely to feel like a partner to a relationship when they are regarded as an individual rather than just an ordinary person amongst the mass. When relationship marketing sprouted, technology had not ubiquitously pervaded marketplaces as compared to today. The

complicatedness of business was bearable, enabling salespersons to deal with clients on this personal level which was even more face-to-face. However, today, limitless competitive forces have transcended markets, such that for marketers to do it similarly, is seldom viable and plausible. In this regard, empirically, the feelings and perceptions of clients should be established around their relationships with service-providers.

Inter alia, one such restrictive force is technology which has posited extreme competition to firms, and caused the widespread, automation and fluidity of markets. Nonetheless, creating relationships (one-on-one interactions) is plausible and viable, considering that service provision tools of today are highly powerful in terms of data collection, analysis and interpretation as well as reliable communication. According to Vlasic & Kesic (2007:112), the technological front enables extensive data analysis which subsequently enables a specialised and personalised approach to be rendered to every client. Durkin & Howcroft (2003:64) opine that interactive technologies such as interactive television and m-commerce enhance and upgrade higher echelons of interaction between retail banks and clients. *Per se,* this is a higher level of interactivity and contemporarily suggestions are that interactive technologies are competent for e-based relationships (Zineldin & Vasicheva, 2008:114; Durkin & Howcroft, 2003:62).

4.4.4.3 Commitment

The success of commercial relationships requires the development and growth of commitment amongst the partners. According to Ryssel, *et al.*, (2004:199), commitment is defined as "the client's durable intention to the development and sustainability of the relationship with the service provider in the long-term". Commitment is often described together with four other relational constructs, namely: loyalty, willingness to make short-term sacrifices, long-term orientation and willingness to invest in the relationships. Grönroos, (2001:38) defines commitment as an enduring desire to maintain and develop exchange relationships, characterised by pledges and sacrifices for the long-term benefit of all parties. Unarguably, almost all enterprises would prefer dealings with clients to exist in perpetuity. For clients to remain committed

and co-existent over the long-term, it reflects compassion and congruency with the offerings as well as the embedded initiatives of the enterprises (e.g. e-banking and relationship strategies).

A relationship is developed between a client and the service provider when the former perceives or experience a mutual way of thinking between the two (Grönroos, 2001:33). Ideally, the preparedness of clients to remain loyal to one service provider, as well as their unwillingness to regard competitors' offerings, means that, there is a strong relationship between the partners. With this partnership being even sounder when the client advocates for the supplier by referring new clients to the firm. Commitment is a function of client satisfaction and quality alternatives. It can be developed through the provision of benefits superior to the alternatives, shared values, communication and goodwill (Colgate & Alexander, 1998:145). In this regard, unconcernedly concluding that technology supports relationships would be challenged by an overwhelming evidence of risk and casualties which clients often encounter with electronic delivery systems whether it is on ATMs, internet, mobile technologies and other e-banking podiums.

Terblanche (2003:34) states that the commitment phase of a relationship implies some degree of exclusivity between the parties and results in minimal information search. Notionally and unarguably, general new communication technologies (e.g. internet, mobile phones and televisions) of the new economy, enhance the quality and quantity of information available to the client in the marketspaces. As such, there is a high possibility of clients defecting to competitors who offer increased benefits through the information disclosed via an assortment of multimedia methods. Thus, conclusively it is paradoxical for marketers to rely on the notion of committed clients but their service offering fails to meet the benchmarks set by competitors in their industry. Nonetheless, a seemingly ever-standing treasure for banks, specifically, is that the recent technological methods provide extended catchments to interact with clients. With clients increasingly exhibiting the required adoption motion pertaining to retail banking

services, technologicalship marketing is likely to be enhanced by the clients' commitment and willingness to learn more and become more competent about technology, in general.

4.4.4.4 Interaction

Interactions are reciprocal actions and they are not restricted to person-to-person interactions. Interactivity, as it is commonly termed contemporarily, is at the centre of relationship marketing which is basically the nitty-gritty of relational exchange. This entail a continuous, visible and worthwhile interchange and relatedness of partners involved in a relationship. Specifically, for clients it specifically refers to economic and social bonds with a service provider. According to Han, (1997:22) the 1982 IMP Group's interaction model is the source of interaction literature between clients and seervice providers in relationship marketing. Furthermore, Han pointed out that relational exchange can be assessed based on the environmental context of interaction, level of interaction and dyadic personal level of interaction. Notionally, measuring relationships from a relational perspective, *per se*, is plausible, considering that this concept is about behaviours of the partners in a relationship (Bolton & Bhattacharya, 2000:4).

Duly, technology is pervading the environmental contexts of interaction, levels of interaction and dyadic personal levels of interaction in relationships and, *per se*, the behaviour of clients. In the twenty-first century retail banking industry, client-bank interactions do not only include face-to-face, telephone conversations, e-mails and correspondence but clients also engage in non-personal interactions with the bank's self-service technologie that use modern communication devices (Ahmad, 2005:322). Relationships involve a number of exchanges over time, and in essence, this requires a direct two-way interaction between the bank and the client. At the extreme, two-way interactions occur on a one-to-one basis (Bolton & Bhattacharya, 2000:4). The determinants of acceptable interactivity as per clients expectations today, relates to

infrastructural or environmental quality as experienced by clients in their encounters with the service provider.

4.5 TRANSACTIONAL MARKETING OR RELATIONSHIP MARKETING

Zineldin (2000:11), acknowledges that there is no consensus on whether relationship marketing is a completely new paradigm in marketing thought and practice. He cites research by Brodie, Coviello, Brookes & Little (1997) that concluded that relationship marketing was not a complete paradigm shift, revealing that transactional marketing is relevant and practiced concurrently with various types of relational marketing. This, therefore, necessitate an assessment of the possibility of having transactional marketing in e-retail banking instead of relationship marketing. The table on the following page (Table 4.2) depicts the main points of these two concepts. Inherently, Durkin & Howcroft (2003:64), argue that technology turns services into commodities resulting in more of transactional marketing than relationship marketing. Moreover, observing the increased mounting of consultants at e-delivery physical points and the presence of relationship managers whose main role is to substantiate communication, it signals that technology exclusively is not adequate for ultimate successful relationships (Coetzee, 2005:7). There is a dire need for the human factor somehow in e-banking for effective client relationships.

Many researchers concur that transactional marketing differs from relationship marketing (Rao, 2002:41). Transactional marketing entails relationships which are market-based and price-driven exchanges in which there is less or no social and special treatment of the service provider or client. The exchanges are discrete with no promise of future business between parties. An outstanding principle under transaction marketing is that competition and self-interest are the drivers of value creation. Through competition, clients have a wider choice to create a higher value offering for their self-interest. Veludo, *et al.,* (2006:200) rigourously supports this viewpoint arguing that in transactional environments cooperation would be regarded as irrational, but

only increasing transactional costs. They further ascertain that transactional relationships are adversarial in nature, whereby the traditional economic viewpoint of rational individuals as maximisers of utility, mainly underlies the interactions.

Table 4.2: Characteristics of Transactional Marketing and Relationship Marketing

TRANSACTIONAL MARKETING	RELATIONSHIP MARKETING
✓ Focus on a single sale	● Focus on customer retention
✓ Orientation on product features	● Orientation on customer value
✓ Short time scale	● Long time scale
✓ Little emphasis on customer service	● Higher customer service emphasis
✓ Limited customer commitment	● Higher focus on customer commitment
✓ Moderate customer contact	● Higher customer contact
✓ Quality is primarily a concern of production	● Quality is a concern of all

Source: Zineldin (2000:12)

From a relationship marketing perspective competition is inherently destructive, but rather, cooperation is intrinsically more productive (Veludo, *et al.,* 2006:200). The financial sector has ceaselessly embraced heightening competition, globalisation and incessant technological developments, consequently spurring an increase of links and networks within the industry (Durkin & Howcroft, 2003:61). With the digitalisation pervasiveness of the business fraternity, coupled with increasing antagonism from competitors and clients as major role players in the 21st century markets, relationship marketing is subject to scrutiny from this viewpoint (Hollensen, 2003:495). In this regards, transactional marketing is highly likely in the financial sector (retail banking in particular).

For South African banks just as their global-counterparts, electronic developments enhance the service quality but focused increasingly on transactional marketing (Abratt & Russel, (1999:6). Considering the level of competition in the industry, also that transactional marketing (as e-retail banking could be) is inherently garnished with untrustworthiness, and the nature of the transaction seen at a single point in time producing zero tolerance of the relationship (Veludo, *et* al., 2006:200). By shopping around for the best rates, clients drive the market back to a "transactional marketing" paradigm of doing business and relationships are consequently not developed (Abratt & Russell, 1999:7).

Zineldin (2000:11), asserts that IT is growing faster, enabling business-to-business, business-to-clients and one-on-one relationships to flourish in the contemporary marketing contexts. Anticipating the future type of relationships, raises important questions about relationship marketing as IT becomes an inseparable factor in business environments as the quest for clients and firms to become technologists. Already, hot debates are proliferating with questions such as: are clients alienated due to the lack of human-to-human interfaces which is detrimental resulting from the automation and mechanisation of salesman's duties in service delivery (Durkin & Howcroft, 2004:64). Consequently, as technology plausibly demises the existence of relationship marketing, firms may be ignoring real problems while focusing on solving inexistent relationships' problems through the application of advanced technologies (Porter, 2001:64).

4.6 SUMMARY

This chapter elaborated on the nature of relationships in the contemporary business environments with larger focus directed to banks. Banking relationships in the twenty first century are detrimental to electronisation and mechanisation of the human aspect, and it is yet to be determined ultimately if other relational constructs are also considered. This chapter also endeavored to provide an elucidation on the major constructs underlying the relational concept. Ultimately, there is a trade-off debate on

the rational and relational impacts of technology on personal relationships. The rational perspective postulates that in electronic markets clients will have a large pool of service providers without exhibiting loyalty to a single service provider. This denotes an undersocialised human contact. Thereby cautiously put, relationally technology can be supportive to clients' interaction and exchange on electronic markets and consequently enhancing relationships (Schultze, 2002:505).

Lastly, the chapter revisited a nitty-gritty aspect in the relationship marketing literature on whether relationship marketing exists in exclusivity from transactional marketing- a rather more traditional adjunct of relationship marketing. The move from transactional marketing to relationship marketing demands that banks are informed about its clientele and their needs and that they effectively cross-market throughout the banking group to the clients (Abratt & Russel, 1999:10). This is significantly challenging for banks to attain in mass markets (retail banking) and will require plenty of initiatives for banks to achieve perfect relationship marketing. Conclusively, concurrently the notion of transactional marketing prevalence in retail or e-retail banking should not be regarded as trite.

The following chapter (Chapter 5) outlines the research methodology applied in this study. It is essential for the purpose of conducting effective research especially the gathering of reliable empirical data.

CHAPTER 5
RESEARCH METHODOLOGY

5.1 INTRODUCTION

Often management and particularly marketers, make decisions in business environments fraught of extensive uncertainties and incomplete information (Martins, Loubser & van Wyk, 1996:87). This dissertation investigates the impact of technology on relationships, specifically, establishing whether technology constrains or supports client relationships in the environments e-retail banking. Marketing research through scientific proven methods has largely been utilised to find pertinent information towards marketing management problems. Abstractly, research design also called *research methodology* represents the blueprint utilised in atttaining the objectives of the research and answering the questions emanating from the management problems (Martins, *et al.*, 1996:11).

Malhotra (1999:83) describes a research design as the foundation for conducting the project. Henceforth, this chapter details the various objective principles and procedures embroiled in the research methodology which the researcher pursued in order to attain scientifically arguable findings and conclusions on the hypotheses propounded in chapter one. Significantly, this chapter justifies and discusses in considerable depth the chosen elements of the research methodology applied in this study. *Inter alia*, the population descriptions and sampling techniques by which the data was obtained are discussed as well as the procedures for data analysis, reliability and validity tests. In cognisance to research integrity requisites, ethical research procedures are also explained, therein. All in all, this chapter is devoted to provide an outlook for research findings and presentations in chapter 6. Section 5.2 below deals with the focus of the study.

5.2 FOCUS OF THE STUDY

The scope or focus of the research refers to the boundaries and margins which physically and conceptually delineate the source and location of the elements of the study which are suppose to provide the required data (Cant, *et al.*, 2005:45-46). This study was conducted in the city of East London located in the Eastern Cape province

of South Africa. In East London the research focused on the three major shopping areas in East London which are: Vincent Shopping Complex, Retail Park at Beacon Bay and City Centre around the Southern end of Oxford Street. The research endeavoured to assess the problem at hand encapsulating the variedness of retail banking clients across socio-economic variables. Therefore, vigilant selection of the area of study was important so as to accommodate the diversity present in the South African banking clients. Since the study followed a convenience sampling technique, formidably representation and randomness was to be enhanced through the physical demarcation of the survey area. The city of East London was selected because its population encompasses variety in terms of demographic composition.

Four banks were selected for this dissertation, namely, ABSA, FNB, Nedbank and Standard Bank. The four commercial banks were selected primarily because they dominate the South African banking industry and are in the forefront of e-banking adoption. These banks which are prominently known as the 'big four' have branches located in most areas of South Africa, particularly urban areas. Virtually, the researcher deemed the information obtained from the ATM's of these banks situated in the above shopping areas of study satisfactory, to be applicable to the whole of the South African banking industry.

The study is client-oriented and with special attention directed towards the general public. As such, to answer the research problem, information was obtained from the clients supporting the retail banking sector of the banks. Thus, the data collected reflects the viewpoints of the banking clients who patronised the specific ATM's during the data collection period. A population also called universe is the aggregate of all the elements being studied. Precisely, it refers to the sample frame which is a listing of elements from which the sample is drawn. Often in practice researchers seldom find complete listings of all the elements to a study (Martins, *et al.*, 1996:251; 252). The survey population for this study relates to the aggregate number of clients banking with

the abovementioned banks in the study survey area as described in above. The actual population number for this study would be practically difficult if not impossible to obtain.

5.3 RESEARCH METHODOLOGY

Research methodology is made up of procedures (with a much wider scope) and the underlying philosophical concepts which encapsulate the practical procedures followed in any research study (Cooper & Schindler, 2003:2). Research paradigm and type are the primary conceptual techniques underpinning the idea of research design. These are discussed below in section 5.3 and beyond.

5.3.1 Research Paradigm

The concept of research paradigm is core in all areas of research study (Mangan, Lalwani & Gardner, 2004:566). Sobh & Perry, (2006:1194) and Mangan, *et al.*, (2004:566) indicate that a research paradigm is described as an overall worldview and scientific framework within which a researcher operates conceptually but which differs amongst researchers. In essence, once a research paradigm has been selected, it acts as a "set of lenses" for the researcher to utilise. Thus the researcher will view the fieldwork within a particular set of established assumptions, thus integrating the abstract efficacy of the paradigm in the practical application of conducting rigorous research (Krauss, 2005:759). Epistemology and ontology essentially underlie the phenomenon of paradigm in research studies. Ontology is about what is the reality, whereas epistemology addresses how the knowledge of reality is obtained specifically referring to the relationship between the researcher and the findings (Sobh & Perry, 2006:1194).

Within a broader spectrum of paradigms applied in social science, *inter alia,* realism, interpretive, constructivism, critical theory, phenomenological and positivism, the latter was chosen. This study is thus nurtured under the positivism research approach/ boundaries. Positivism predominates in scientific research and holds that the goal of knowledge is to describe the phenomena that we experience. Mangan, *et al.,*

(2004:566) assert that paradigm-wise research in the business and management arena is positioned under along objective-subjective axis. Following a positivist epistemology entails the separation of the researcher from the world they ought to study. While in other paradigms, researchers participate to some extent in the real life world resulting in subjectivity rather than objectivity of the researchers' orientation epistemologically. Furthermore, according to the positivist epistemology, science is the pathway to reality and the apprehensible understanding of the world so that it might be predicted and controlled (Krauss, 2005:760).

Krauss (2005:760), strongly argues that with positivism, the empirical results attests whether theory does fit the facts well and if not so, the theory must be revised to better predict reality. Coherently, the study at hand primarily challenges the common marketing assertions about the goodness of technology in supporting relationship marketing emanating from the pessimistic viewpoint and posing a future oriented and participatory research approach against the pervasiveness of technology (Maklan, Knox & Ryals, 2008:221). The conclusions to this dissertation are comprehensively based on primary data. This type of data is collected specifically to address the research objective when the value of secondary research is inadequate for the research objectives (Tustin, *et al.*, 2005:89).

Consistently, positivists believe in empiricism-nurtured scientifically in measuring the cause and effect, with deductive reasoning being used to postulate theories that can be tested (Krauss, 2005:760). Positivism, further, contends that empirical methods are objective and researchers are value-neutral (do not influence what is being investigated), uses scientific language and move beyond ordinary and subjective descriptions. Hence, this approach has been widely used for business school research (Sobh & Perry, 2006:1196) and because this research aims to empirically investigate the causal relationships among the underpinning constructs the positivism paradigm was deemed to be appropriate.

5.3.2 Research Method

Researches can be categorised as, descriptive, exploratory or causal, depending on the main purpose. The researcher identified the explorative methodology genre as the most appropriate type based on the nature of the research problem. Foremost, this study strives through a recent, sparse and ambiguous literature background. Essentially rendering it highly original considering that no researcher had yet attempted to conduct a study in the area of technologicalship marketing could be located. Explorative research design is a method often used when the problem is unclear or the subject is new to researchers. Importantly, explorative then results in a grasp of the phenomena of interest and for advancing knowledge through an enhanced theory building. Henceforth, consistently with the nature of the research problem and the paradigm boundaries in which the study is nurtured, the explorative format enables flexibility and dynamism of methodology application in the study (Malhotra, 1999:85).

Furthermore, explorative research is best suited to give a superior understanding of a particular aspect and forms the basis of subsequent, conclusive research design methodologies- namely descriptive or causal design (Bekkestua, 2003). Exploratory studies are undertaken to enhance and comprehend the nature of a problem, since very few studies might have been conducted (Mason, 2006:255). Although much has been written about the two variables underpinning the study, namely technology and relationship marketing, very little has been written about the combination of the two especially in an e-banking setting. Therefore, research of an exploratory nature is recommended to develop an understanding of the problem. Conceptually, the improvisation of exploratory research where gaps exists between two concepts is supported by Mason, (2006:257) & Mantyneva, (2001:264).

5.4 THE SURVEY METHOD

An explorative study which follows a positivist paradigm and utilises raw data to explain the research problem methodologically lends to a quantitative research

(Krauss, 2005:760). The study at hand followed a quantitative research method. This method primarily uses numerical and statistical techniques to attest such conclusions. Quantitative research is advantageous because researchers can measure consumer behaviour, attitude and characteristics. Fundamentally, quantitative research involves the collection of raw data from a large sample size with the intention of generalising the results to a wider population as well as future courses of action. The major objective of quantitative research is to develop and employ mathematical models, theories and/or hypotheses pertaining to a natural phenomenon (Martins, *et al*., 1996:125; Malhotra, 1999:148).

Quantitative based studies are abounded by the willingness of the researcher to develop pertinent and precise statements or attribute causal relationships between variables of curiosity. Empirical techniques are coherently utilised in a combination of deductive order so as to attain a rigorous explanation of the philosophy underpinning the study. Utilising quantitative research assists the researcher to establish statistical attestation on the strengths of relationships between constructs. Despite of the quantitative research design's inadequacy in generating theory and providing strong in-depth explanations of qualitative enquiry, it is still useful in hypotheses verification, reliability and validity tests (Shammout, 2007:90).

In addition, this methodology has been successfully used in similar studies of client-service provider relationships in e-banking environments (see Henning-Thurau, *et al.,* 2002; Colgate & Lang, 2003; Ryssel, *et al.*, 2004). Following the rigorousness of evidence which emanates from quantitative research, the researcher reckoned the exploratory-quantitative combination appropriate and vivid to explore the relatedness of technology and relationship marketing. Quantitative methods revolve from organised methods for combining deductive logic with precise empirical observations of individual behaviour in order to unearth and verify a set of probabilistic causal laws that can be used to predict general patterns of human activity (Shammout, 2007:90).

Surveys may be in four major modes: telephone interviews, personal interviews, mail interviews, and electronic interviews. The study at hand, applied personal interviews and in particular mall intercept interviews, since there are various forms of personal interviews, *inter alia,* door-to-door, self-administered and/or computer assisted. Regardless of the form, major surveys are demised by the prominence of unwillingness or inability of respondents to provide the desired data. Also, the wording of questions appropriately is not an easy task. Nonetheless, the use of this survey approach is ubiquitous in marketing research and, comparatively face-to-face communication is commonly regarded as the most effective way to enhance a high response rate in research (Malhotra, 1999:178-179).

During a survey, respondents are requested to answer a variety of questions regarding their behaviour, intentions, attitudes, awareness, motivations and demographic and lifestyle characteristics. This versatility of the method and the facility to enable the gathering of quantitative data from respondents primarily guided the choosing of the survey technique. *Per se,* the effectiveness of accomplishing the research objectives is also substantiated by less variability in the responses which emanates from the use of fixed-response questions. This structured or a somewhat standardised format of the survey data collection technique makes it simple and fast to administer and so is the coding, analysis, and interpretation of the data (Malhotra, 1999:178). The following section focuses on the process of designing the data collection instrument.

5.5 THE RESEARCH INSTRUMENT

Questionnaires were used in the data gathering process. A questionnaire is defined as a “reformulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives” (Shammout, 2007:107). Questionnaires are classified in two types. Firstly, according to the structure and intention of the questioning process: whether they are disguised or undisguised (disguised questionnaires hide the purpose of the study) and structured or unstructured (structured questionnaires are in standardised or predetermined questioning and answering formats). Secondly, questionnaires are classified according

to the survey method through which they will be administered (Churchill & Brown, 2004:225-231). *Per se,* the method used is personal interviews (see section 5.5.4), as such, interviewer assisted questionnaires were utilised for the purpose of data gathering in this study. The questionnaire was utilised because of its effectiveness in gathering large volumes of empirical data from large samples, as well as the timely collection of predetermined data (Shammout, 2007:107).

5.5.1 Instrument Design

Accoding to Malhotra (1999:chap 10), questionnaires should be skilfully and systematically designed guided by the subsequent effects of a poorly designed instrument. If so happened, a poorly designed questionnaire provides irrelevant and sometimes misleading data to the researcher (Tustin, *et al.*, 2005:387). Contrarily, a well-designed questionnaire motivates respondents to provide optimum responses, eliminates or at least minimises errors associated with data gathering and subsequently enhancing the quality of the research findings. Form and layout are of significance to the researcher in obtaining the desired data as well as the attainment of the goal of useful research. All in all, the information required, area of research, nature of respondents and the data gathering technique should be carefully and strictly considered when designing a questionnaire.

On the above backdrop, the questionnaire used in this thesis was extensively theory based and aimed to fit the requirements of the data analysis strategy. Methodologically, the use of multi-item scaled questions (particularly likert scales) in the testing of hypotheses was consistent with the data analysis. As a result, the majority of the questions contained in the questionnaire were 5-point likert scale questions, a few checklist questions as well as some dichotomous questions. These types of questions specify the set of response alternatives and response format. In summary, to effectively formulate a questionnaire for the research problem at hand, a series of steps recommended and prescribed in literature about effective questionnaire design were optimally followed (Malhotra, 1999:295). These steps are as follows:

- **Step 1:** Specifying the information needed in the research.
- **Step 2:** Specifying the type of interviewing method to be used in the research.
- **Step 3:** Determine the content of individual questions.
- **Step 4:** Design the questions to overcome the respondent's inability and unwillingness to answer**.**
- **Step 5:** Decide on the question structure.
- **Step 6:** Determine the question wording.
- **Step 7:** Arrange the questions in proper order.
- **Step 8:** Identity the form and layout.
- **Step 9:** Specify the information needed.
- **Step 10:** Eliminate bugs by pretesting.

5.5.2 Operationalisation of Constructs

This dissertation is a meta-construct study which is mainly centred on investigating client relationships in mass-market and technology-mediated environments. From the conducted literature review, four main latent variables or construct categories were used to measure relationships between parties in market-spaces by various authors and researchers. Latent variables are unobservable factors to a concept, *per se,* relationship marketing and transactional marketing. These categories are, social or personal, relational exchange, client retention and client switching or mobility. These concepts have to be and were defined in such a way that they can be measured, thus operationalisation. For instance, interaction measures the extent of relational exchanges between the parties involved. Table 5.1 blow, details the complete process of operationalisation and the conception of the items found in the questionnaire.

In operationalising these constructs, variables used in prior relationship marketing researches were selected from the literature to determine the content of the four stated relationship marketing definition categories. As determined by the extent to which they represented definitions and dimensions of the relationship constructs, thirteen variables were identified during the literature review (See section 5.4), with twelve

being finally used for the empirical research. Thus, each construct was measured at the hand of three variables. As discussed in the previous chapter most of these variables are interconnected and several relationship marketing studies have found significant correlations between the variables highlighted in table 5.1 (Shammout, 2007:25; Rao, 2002:131; Henning-Thurau, *et al.*, 2002:235; Wang, 2004:58).

Table 5.1: Total Questionnaire Items used in this Study

Construct	Questionnaire items	Source
Social Constructs		
Communication	A8, C14	Rao (2002); Couglan, *et al.,* (2007)
Trust and Security	C7.8	Yousafzai, *et al.*, (2003); Gommans, Krishnana & Scheffold, 2001; Ryssel, *et al.,* (2004)
Personal Contact	B4,C7.5, C11, C10,	Durkin & Howcroft, (2004); Ambrose & Fynes, (2006); Lang & Colgate, (2003); Ahmad, (2005)
Customer Retention Constructs		
Satisfaction	C7.1, C16	Rao (2002), Lang & Colgate, (2003); Molina, *et al.,* (2007)
Customer Loyalty	B1, C12, C17, C24	Rao, (2002); Ryssel, *et al.,* (2004)
Service Quality	C7.3, C18,	Bhappu & Schultze, (2006); Lang & Colgate,(2003)
Customer Switching Constructs		
Barriers to Switch	C7.6, C20,	Yousafzai, *et al.*, (2003); Fang Wang, (2004);
Switching Options	B2, C13, C21	Mulligan & Gordon, (2002)
Information Asymmetry	C7.4, C23	Han, (1997); Sizmigin, (2003)
Relational Exchange		
Commitment	B3, B5, C7.2, C19,	Rao, (2002); Ryssel, *et al.,* (2004)
Personalisation	C9, C22, C8,	Peters, (1997); Sizmigin, (2003)
Interaction	B6, C7.7, C15	Fang Wang, (2004); Vlesic & Kesic, (2007)

5.5.3 Instrument Testing

This section explains the procedures which were applied in the pretesting of the questionnaire. Pretesting is defined as the administration of a questionnaire on a small portion of respondents from the sample frame in order to identify and eliminate potential problems (Malhotra, 1999:315). This stage involved pretesting and revising of the questionnaire in order to provide data of sufficient quality and quantity so as to satisfy the objectives of the research in the end (Shammout, 2007:111). Pretesting has long been identified as an essential and effective step to conduct before carrying out the final data gathering procedure. However, Tustin, *et al.*, (2005:413), argue that where items that have been successfully tested in previous questionnaires are used, they need not to be retested. Nonetheless, with the instrument having been comprised of several items which were adopted from previous studies, the researcher deemed pretesting a requisite process in this study, primarily due to bountiful merits embroiled in pretesting a questionnaire.

Inter alia, some of the advantages emanating from pretesting are: it is an inexpensive insurance for the success of the questionnaire and the research (Tustin, *et al.,* 2005:413) and it is an enabler for the final processes of data coding and analysis (Malhotra, 1999:316). In this study, the pilot survey interviewed 15 respondents with the intention of obtaining initial data from the research population. Secondly, 5 academics from the subject of business management were utilised and 5 others from other fields of social sciences were also consulted in scrutinising the research instrument. The administration of the questionnaire to the 15 respondents from the sample frame was to establish the usability of the questionnaire in the area of study. The scrutiny by the academicians from the area of business management was to establish the consistency of the instrument against business research standards. Beyond the business perspective, the content of the questionnaire was also tested for its variedness especially from a social perspective. Hence, the other 5 academics were experts from humanities and social sciences subjects. As such, a series of stages were involved in the process of revising the questionnaire in terms of its content and

layout. Subsequently, several changes were made before the final survey was conducted.

5.5.4 Final Survey Administration

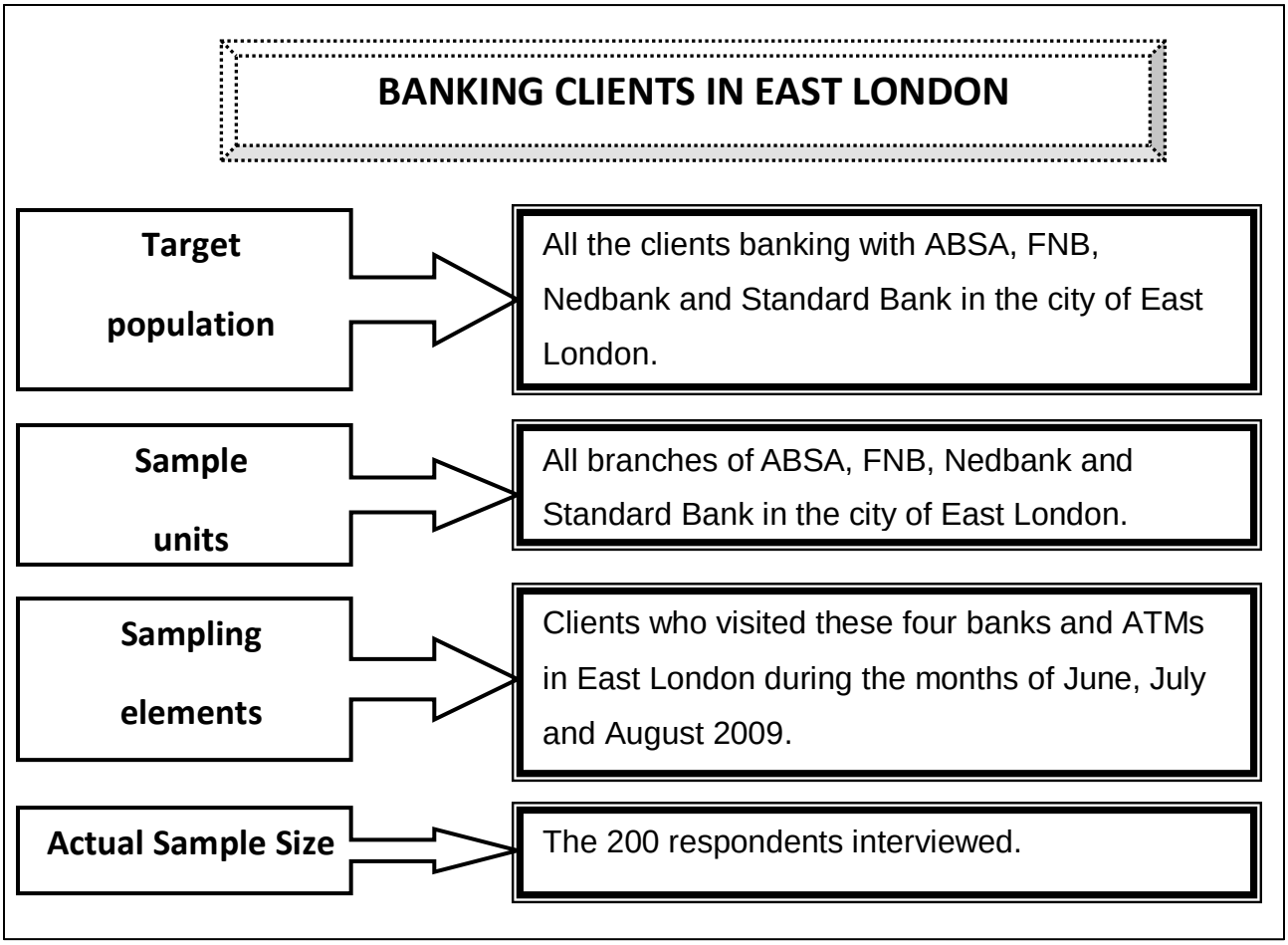
After the research instrument was finalised, the researcher proceeded to conduct the final survey. Structured personal interviews which involved the respondents completing the questionnaire in the presence of a trained interviewer or fieldworker were used in this study. According to Churchill & Brown (2004:231), this data gathering format involves a direct face-to-face conversation between the interviewer and the respondent or interviewee. The use of an undisguised questionnaire was not adequate to address the technicality problems of the subject of research and accordingly the use of self-administered questionnaires was deemed ineffective in the provision of reliable data. Misinterpretations are prominent when dealing with technical terms, as such the presence of the interviewers was required for clarity and consistent interpretation of the questions.

The researcher obtained assistance with the fieldwork process from eight fieldworkers. These additional fieldworkers were masters' students at University of Fort Hare, East London campus from the Department of Business Management and the Department of Economics. All the fieldworkers had prior experience with the survey method and were also debriefed by the researcher on areas of concern with each of them attempting the questionnaire prior the execution of the data collection tasks. The geographical spread of the survey, number of respondents, timing and the type of the interview are some of the reasons which necessitated the recruitment of field workers (Tustin, *et al.*, 2005:429). Due to time constraints at banking points, the data collection was timed around the time when most banks experience high client traffic towards month end. Thus, it was easier to intercept clients whilst they were queuing at ATMs and at branches. The data was collected during the months of June, July and August 2009.

5.6 SAMPLING STRATEGY

A sampling strategy relates to the plan by which the researcher endeavours to choose a representative portion of the population of study. Researchers often use sampling instead of conducting censuses (researching the entire population) because of the prominent implausibility of carrying out a survey of the total population. Where sampling is done, the sample should be as representative as possible to the whole population in terms of the critical aspects of research. Henceforth, this section details the procedures and practices which were deemed optimal in producing a representative sample by the researcher. Figure 5.2 below diagrammatically illustrates how the sampling strategy was iimplemented.

Figure 5.1: Target Population, Sample Units, Sample Elements and Actual Sample Size for the Study



5.6.1 Sampling Type

Broadly, sampling techniques can be categorised as either probability or non-probability. Probability sampling is more vigilant and effective than non-probability sampling as with regards to the representativeness of the sample to the population (Cooper & Schindler, 2003:193; Bryman & Bell, 2003:93). In probability sampling, each member of the target population has a *known, non-zero* chance of being included in the sample (Churchill & Brown, 2004:403). Nonetheless, this treatise utilises non-probability sampling regardless of its subtleness in representativeness.

5.6.2 Sampling Technique

As discussed in chapter one, in determining the final sample elements for this study, 'convenience sampling' was used in this study. *Per se,* purposive sample was the sample type which was used in this dissertation. This sampling method was regarded as adequately vigilant in providing answers to this particular research study with the necessary effectiveness which a sample strategy should provide in a particular scenario. Convenience sampling (also called *grab* or *opportunity* sampling) was used in the selection of respondents, taking into account the likelihood of poor acknowledgement and lack of cooperation at banking environments. A convenience sample is used when you simply interrupt people, who are prepared to stop, or when you wander around a business premise, asking people you meet whether they will answer your questions. Malhotra (1996:366) describes purposive sample as a form of convenience sampling whereby population elements are purposely chosen at the discretion of the researcher. In other words, the sample comprises subjects who are simply available in a convenient way to the researcher.

5.6.3 Sample Size and Composition

To determine the appropriate size for a study, one has to primarily consider the nature of the population and the purpose of the study (Roberts-Lombard, 2006:87). In non-probability sampling the sample size is determined by financial resources available and

the number of subgroups to be analysed (Cant, *et al.,* 2005:178). The sample size constituted a total of 200 clients compiled as follows:

- ABSA Bank-58;
- Standard Bank-54;
- FNB-52;
- Nedbank-36.

The sample representation amongst the banks is proportional to the number of branches per bank in South Africa totalling, 2607 (Information presented on the banks' websites, December 2007). Furthermore, the researcher was obligated to maintain a fair representation of the population across the above noted ethical categories. The survey process rigorously considered the South African population structure in the sample representation per bank which is as follows: 79.7% Blacks; 9.1% Whites; 8.8% Coloureds; and 2.4% Indians.

5.7 DATA PREPARATION AND ANALYSIS

Data preparation and analysis broadly encompass processes which include *data preparation* (which focuses on enhancing the quality of the gathered data) and *data transformation* (which aims at deducing and inducing insights from the data coming through from data preparation). This stage mainly entails comprehensively integrating while defragmenting the collected data towards highlighting useful information and suggesting relevant conclusions. This phase in data preparation and analysis explain the underlying processes of the contents of Chapter Six which follows after this chapter.

5.7.1 Data Preparation

Prominently, data preparation involves three distinctive processes which are often conducted almost simultaneously, namely, editing, coding and data entry (Tustin, *et*

al., 2005:452). Below is a discussion on how these phases were implemented in this research.

5.7.1.1 Data editing

Once the questionnaires were completed by the respondents in the field, they were validated for errors and omissions. According to Cooper & Schindler (2003:236), editing involves an extensive critical examination of the completed questionnaires against a compliance criterion so as to deal with unduly completed questionnaires before they can be part of the findings. This process, as well, aims at enhancing the number of usable questionnaires for the final stages of data analysis. Malhotra, (1996:472) emphasises that the first stage of data preparation is to check for acceptability of the questionnaire. Thus, this step should be executed as soon as the fieldworker has received the questionnaire from the respondent (Tustin, *et al.*, 2005:452).

5.7.1.2 Data coding

Coding is a technical process whereby codes (usually numbers) are assigned to the respondents' answers prior to their entry into the computer language for further processing. The coding process for structured questionnaires is often regarded as anticipatory (Malhotra, 1996:477). However, the finalisation of this process is usually (as in this research) completed when data is about to be entered. A clear understanding of the statistics to be applied and the relationship with the hypotheses of the research is very essential when coding the responses to the questions in the questionnaire. Hence, as recommended, the first stage in this phase was to design a coding manual (Tustin, *et al.,* 2005:457). Malhotra, (1996:478) describes a codebook as a guiding instrument which contains instructions and the necessary information about variables in the questionnaire.

An overriding factor in the creation of the coding manual was the effect of each response to the element of relationship marketing as guided by the constructs

identified in this research, namely, client retention, client mobility, relational exchange and client switching. Thus, if a response to a question was the highest in affecting the existence of relationship marketing positively, it was allocated the highest code. This has an effect in most of the statistical analysis which were applied in this research, especially towards interpreting the significance of relationships between the variables. Hence, to determine whether a response had a positive or negative effect on relationship marketing, the results of literature review were extremely essential. For instance, a question on clients' switching due to technology has a negative impact on technologicalship marketing. Hence a "No" response would have a higher code than a "Yes" response. On the other hand, a question on clients' increasing interactivity with the bank due to technology meant that a "No" response meant a negative impact on technologicalship marketing and a lower valued code than that of a "Yes" answer, was assigned.

5.7.1.3 Data entry

Data entry refers to the process of transforming data or responses obtained from the questionnaires into a computer or electronic format. This process can be attained through various ways, *inter alia,* optical scanning, direct punching into statistical software packages such as SPSS, or using spreadsheet software (Churchill & Brown, 2004:520). Data entry, also referred to as transcribing, was conducted through Microsoft Excel Spreadsheets (MS Excel). MS Excel is a very crucial and common tool for entering and manipulating data. The need for extreme cautiousness during this process was upheld by having the researcher completing this process individually. The data was concurrently cleaned as each questionnaire was entered. Whilst, prior to sending the data for final data analysis, the frequency counts or analyses were performed using Excel as a final check of blunders which often occur during the data entry process. This process of frequency count, checks for primarily completeness and correctness of the data entry and enables corrections before final data analysis can be conducted (Churchill & Brown, 2004:526).

5.7.2 Data Analysis

Data analysis involves modelling and transforming data using primarily a wide range of statistical techniques which are prominently categorised as descriptive and/or inferential statistics (Malhotra, 1996:469). To effectively conduct data analysis (with due consideration of the tardiness of this process) various computer statistical softwares are utilised nowadays and this usually requires the exceptional skill and knowledge of statisticians. Henceforth, to a larger extent, the data analysis stage for this research was accomplished with extensive support from statisticians in the Department of Statistics at the University of Fort Hare. The broad categories of data analysis involve descriptive, inferential and confirmatory statistics. These statistical techniques, as well as the computer applications utilised in this study, are discussed under this section.

5.7.2.1 Descriptive statistics

Descriptive statistics provides a summary and the basic overview of a sample or population (Tustin, *et al.,* 2005:103) and usually enables the computation of inferential statistics which are briefly discussed below under section 5.7.2.2. Statistica, NCSS 2007 and Microsoft Excel Version 2007 were the primary software packages which were used in the processing of descriptive statistics. The statistics which were utilised in this analysis include measures of central tendency (mean, mode, median), measures of spread or variation (variance and standard deviation) and measures of shape of the distribution. These statistics are easily interpretable as they describe data by investigating the distribution of scores per each variable (Churchill & Brown, 2004:545).

5.7.2.2 Inferential statistics

With inferential statistics, the researcher endeavours to reach conclusions which are beyond what is obtained from descriptive statistics. Inferential statistics investigate questions, models (relationships between variables) as well as hypotheses (significance testing). This research used non-probability sampling and the population

parameters were not the primary concern. Instead, the study aims to test a certain theory; hence, inference of population parameters from sample statistics was not conducted. Consequently, inference statistical analysis was conducted exclusively to attain concrete conclusions about the findings regarding the proposed theory. Various statistics of fitting and testing hypotheses were used in the endeavour to reach conclusions from the data with regards to the research hypotheses. *Inter alia*, cronbachs' alpha, F-statistic, Pearson correation coefficient and chi-square test were conducted. The following section considers the statistical assessment of the measurement instrument.

5.8 EVALUATION OF THE MEASUREMENT INSTRUMENT

This section focuses on a briefing of the procedures undertaken to enhance the reliability and validity of the measurement instrument developed and the unidimensionality of the hypothetical model proposed. An effective instrument should meet the essential criteria for reliability and validity. Several statistical techniques assess the distribution of responses along a questionnaire item and its correlation with other items. Table 5.2 below summarises the main reliability and fit indices used in this study.

Table 5.2: Summary of Reliability and Fit Indices Used in this Research

Name	**Abbreviation**	**Type**	**Acceptable level in this research**
Coefficient alpha	*A*	Unidimensionality	α >0.7 adequate
Chi-square (with associated degrees of freedom and probability of significant different)	X^2 (df, *p*)	Model fit	*p*>0.05 (at α equals to 0.05 level)

Source: adopted from Rao, (2002); Shammout, (2007); Fang, (2004)

This dissertation adopts those measures prominently utilised in marketing research to evaluate measurement scales (Rao, 2002:168; Wang, 2004:56; Shammout, 2007:130). Chi-square (X^2) and cronbach's alpha were used to ascertain convergent validity and goodness of fit or commonality of the findings. Chi-square which is the commonly used measure of overall fit, tests whether the matrix of implied variance and covariance (∑) is significantly different to the matrix of empirical sample variance and covariance (S). It calculates the discrepancy between ∑ and S. If probability (P) is greater than .05 this indicates an insignificant discrepancy between ∑ and S. Thus, the actual and predicted input matrices are not statistically different. However, this statistical index is too sensitive to large samples, usually above 200. Thus, it is seldom used solely to reject or accept a model. Usually, marketing researchers substantiated the chi-square with other fit indices (Shammout, 2007:131).

5.8.1 Reliability of the Measurement

Reliability refers to the stability of replicated measurements (Wang, 2004:52). The results of Cronbach tests are shown in the following chapter. Cronbach's (1951), method of calculating coefficient alpha (α) has been prominently regarded as a technique of estimating the internal consistency of individual constructs (Shammout, 2007:135; Plewa, 2005:127). Although there are no stringent rules about the acceptable value, any value above 0.7 is regarded as the optimum in this study (Wai-ching, 2008:26). Reliability focuses on the extent of random error which is usually the source of inconsistent results from repeated measurements of a scale or instrument. Hence, reliability can be described as the extent to which measures are free from random error, $\mathcal{X}_R$. If $\mathcal{X}_R$=0, the measure is perfectly reliable (Malhotra, 1996:304).

Terreblanche & Durrheim (2002:117) opine that subject error and subject bias are the major detriments to the reliability of data. Hence, the researcher can improve reliability by minimising the subject error and bias (Cooper and Schindler, 2003:218). The large sample size in this study also minimised subject bias while instrument testing was used to minimise subject error. The use of large and cross-sectional samples has been advocated for in reducing subject bias. Churchill & Brown (2004:532) note that properly

conducted sample surveys yield useful information estimates, though not exact values. Coherently, the use of multiple indicators and clear statements in the questionnaire were used to enhance the reliability of the study (Rao, 2002:143).

5.8.2 Validity of the Measurement

Validity of a scale or measure reveals the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured. Perfect validity requires that there is no measurement error rather than systematic or random error. *External* validity refers to the generalisability of this research to the target population while *internal validity* concerns the relationship among the variables, whether it is genuine. Three evaluation criteria are essential in the validity of a measurement: content validity, criterion validity, and construct validity (Malhotra, 1996:306). Validity assessment was followed in this study in an attempt to eliminate or neutralise systematic and random errors that are prominent in surveys (Rao, 2002:152). Of the three procedures of ascertaining validity, the researcher used content and construct validity and these two receive further exposure in the table below.

Table 5.3: Types of Validity

Types of validity	Definition	Assessment Strategy
Content or face validity	The degree to which the instrument investigate the intended concept (Cooper & Schindler, 2003:211; Rao, 2002:152).	• Literature review • Feedback from experts • Pretesting of questionnaire
Construct validity	The degree to which a construct achieves empirical and theoretical meaning (Terreblanche & Durheim, 2002:83; Shammout, 2007:135)	• Clear statement and multiple indicators in the questionnaire • Pretesting of questionnaire amongst subject experts as well as other fields such as social sciences.

5.9 ETHICAL CONSIDERATIONS

The final section of this chapter discusses the ethical research obligation to ensure that no harm occurred to any party as a result of this research study. According to Polonsky & Waller (2005), (in Shammout, 2007:140), researchers need to understand the basics of ethical research and how this might affect the research project. Consistently, the authority to conduct research subsequently entails the researcher's responsibility to protect the interest of both the sponsor and the respondents (Rao, 2002:152). Primarily, the objectives and procedures as well as the nature of this study were devised in a way that no potential harm would result thereof. Ethical surveying was accomplished through ensuring that respondents were encouraged to, and they were not coerced nor pressured offensively to participate in the study.

The researchers also ensured that the participation of respondents was based on informed consent. Thus, the right of respondents not to be misrepresented or exploited was upheld through giving the correct information about the purpose of the research in any way. They were also informed that they were not obligated to complete the questionnaire and that they could stop the interview willingly as it suit them. The researcher adopted the following specific steps from Shammout (2007:140-141) in order to duly consider confidentiality and anonymity ethical requirements:

i. The names of the respondents were not asked anywhere in the questionnaire.
ii. The anonymity of respondents was preserved by not asking the respondents their physical addresses.
iii. Personal information was not presented individually but as sample summaries.
iv. Raw data was exclusively used for the stated research purposes and not for any other purposes.
v. And finally, the completed questionnaires were destroyed once the data transcribing was completed and backed up.

5.10 SUMMARY

This chapter elaborated on the research techniques and procedures utilised in this study. Of essence, the chapter justifies the appropriateness of the quantitative and survey driven method in reaching conclusions with regards to the hypotheses formulated for this study. Apart from the survey method, the discussion also comprehensively explained the rationale behind the sample used for data gathering as well as selected methods for data collection. Accordingly, the necessary steps which are required for an effective data gathering such as instrument testing were also discussed. Also important, the chapter focused on ethical considerations issues. The research methodology discussed in this chapter emanated from an extensive consultation of secondary sources i.e. textbooks, journals, internet and past dissertations. The primary aim was to devise a research design which produces reliable and useful conclusions found in the last chapter of this dissertation. Most importantly and specifically, the subsequent stages and chapters heavily depend on the effectiveness of the procedures encompassed in this chapter. The following chapter focuses on data analyses and the logical presentation of the data gathered at the hand of the questionnaires.

CHAPTER 6
DATA ANALYSIS AND FINDINGS

6.1 INTRODUCTION

In this chapter the findings from the empirical research are presented. Chapter six primarily discusses the statistical procedures applied to the gathered data in order to address the research hypotheses, and subsequently, the research problem. The presentation of findings is coherently attained through the utilisation of various graphical formats such as pie charts, graphs and tables. To advance the subsequent meaningfulness of the research results, the chapter is logically structured by means of the hypotheses and the hypothetical model outlined earlier on in this dissertation. Firstly, the biographical information of the respondents is presented. Then, the major findings, as per the four constructs surveyed in this research (social constructs, client retention, client mobility and relational exchange), are presented under different but composite sections. Section 6.2 below, presents the biographical information of the respondents.

6.2 BIOGRAPHICAL INFORMATION OF THE RESPONDENTS

This section presents demographic information i.e. gender, age, educational, marital status as well as race and income groups of the respondents. This information pertains to section A of the questionnaire (see Addendum 1). Also included in this section, is the behavioural information with regards to banking choices and ownership of communication technologies.

6.2.1 Demographic Information

As indicated in Table 6.1 below, there is a very slight difference of gender representation in the final sample. Gender representation is an almost 50-50 proportion with 101 males and 99 females. Of the 200 respondents, only 37.5% were not in possession of a tertiary qualification. The results from the sample show that 26.5% and 36% held a diploma or degree, respectively. Interestingly, the modal marital status from the findings is for people who are single. Respondents who were single constituted 58.5%, of the sample. The representation for married, divorced and widowed respondents were 33.5%, 6% and 2%, respectively. There were slight

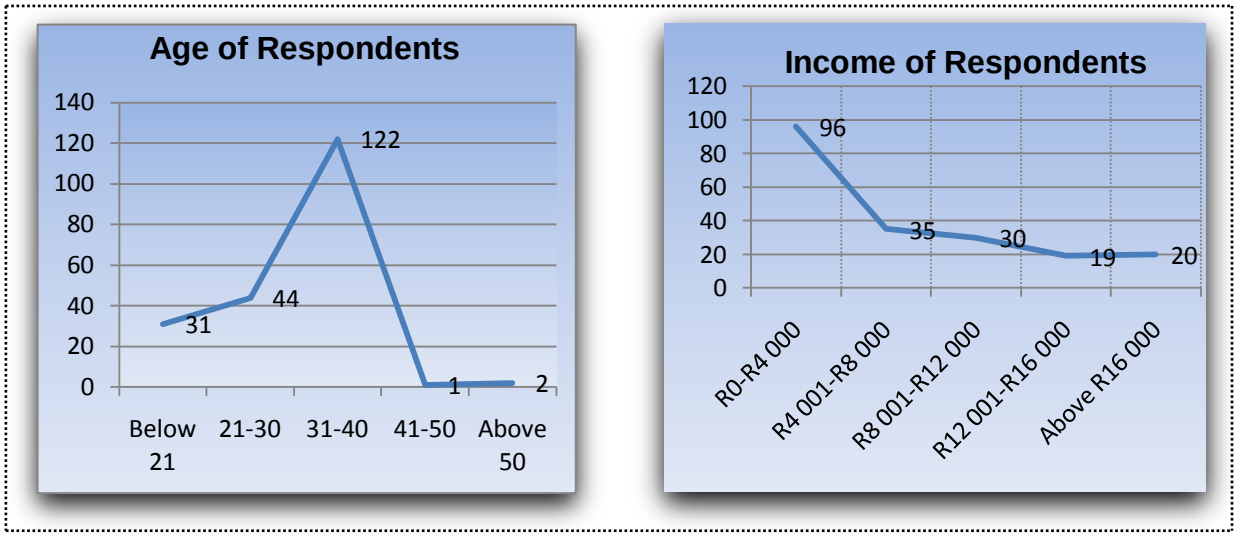
deviations in representation per racial group from what was originally contemplated. The South African population structure in the sample representation per bank was supposed to be as outlined in the initial stages of the research, thus: 79.7% Blacks; 9.1% Whites; 8.8% Coloureds; and 2.4% Indians. This information could not be provided per bank, but as a sample holistic representation which is: 67% Blacks; 8% Indians; 15.5% Whites; and 9.5% Coloureds.

Table 6.1: Sample Demographic Representation

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Gender				
Male	101	50.50	101	50.50
Female	99	49.50	200	100.00
Education				
High School	75	37.5	75	37.5
Diploma	53	26.5	128	64
Degree	72	36	200	100
Marital Status				
Single	117	58.50	117	58.50
Married	67	33.50	184	92.00
Divorced	12	6.00	196	98.00
Widowed	4	2.00	200	100.00
Race				
Black	134	67.00	134	67.00
Indian	16	8.00	150	75.00
White	31	15.50	181	90.50
Coloured	19	9.50	200	100.00
Age				
Below 21	31	15.50	31	15.50
21 to 30	44	22.00	75	37.50
31-40	122	61.00	197	98.50
41-50	1	0.50	198	99.00
Above 50	2	1.00	200	100.00
Income (R)				
R0-R4 000	96	48.00	96	48.00
R4 001-R8 000	35	17.50	131	65.50
R8 001-R12 000	30	15.00	161	80.50
R12 001-R16 000	19	9.50	180	90.00
Above R16 000	20	10.00	200	100.00

The majority of the respondents were younger than 40 years and earned less than R8 000 per moonth. The modal age group for the sample was the 31-40 years, while the income modal group was the 0-R4 000. The age and income distributions within the sample are indicated by Figure 6.1 below.

Figure 6.1: Age and Income of the Respondents



6.2.2 Behavioural Information

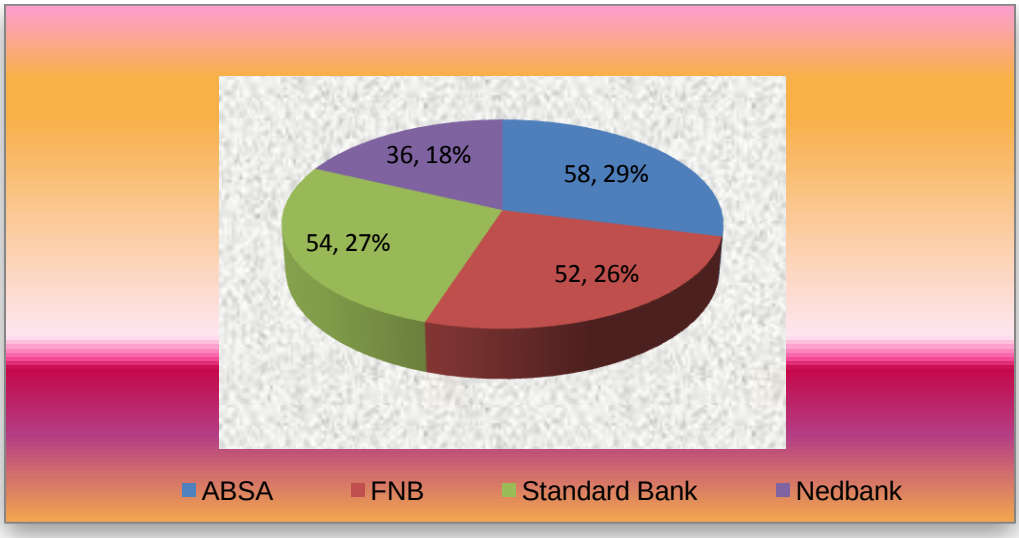
Besides, the demographic information presented in the preceding section, this section presents additional information that pertains to other variables which were used to describe and classify the sample elements. Client behaviour analysis of banking and e-banking (in specific) in this survey was conducted through measuring the usage and attitude towards banks and the various banking delivery systems. Essentially, most of the variables discussed in this section, constitute the primary independent variables which are utilised for testing the hypotheses in this study. Section 6.2.2.1 below discusses bank representation and banking behaviour amongst the respondents.

6.2.2.1 Respondents' distribution between banks

As stressed in the initial stages of the research, respondents' representation by banks was predetermined and there was no deviation with regard to this requirement so as to

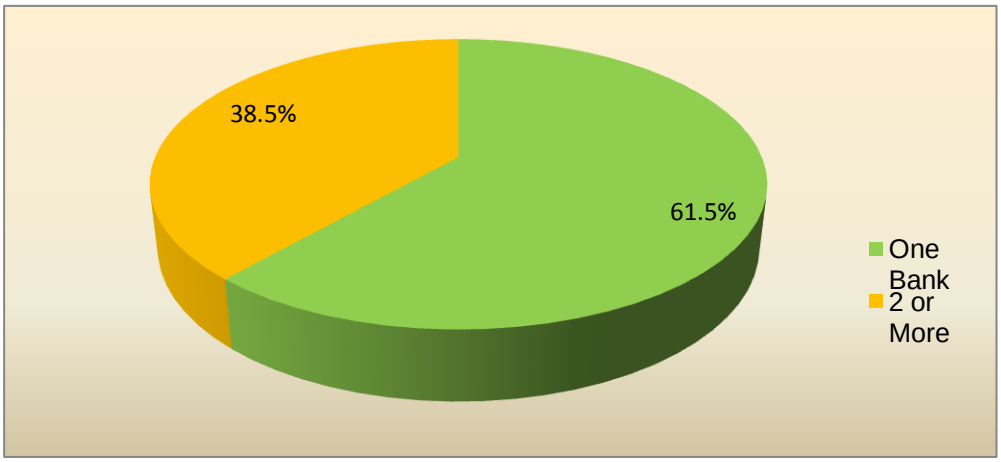
enhance the representativeness and validity of findings. The distribution of the respondents between banks is presented in Figure 6.2 below.

Figure 6.2: Sample Distribution between Banks



Apart from identifying respondents according to their bank of first choice, they were also asked to indicate whether or not they had accounts with any other bank. On the basis of these findings it can be concluded that the majority of retail banking clients were only supporting one bank. As shown in Figure 6.3 below, 61.5% of the respondents indicated that they do their banking with a single bank, whilst, only 38.5% of the respondents had bank accounts with two or more banks.

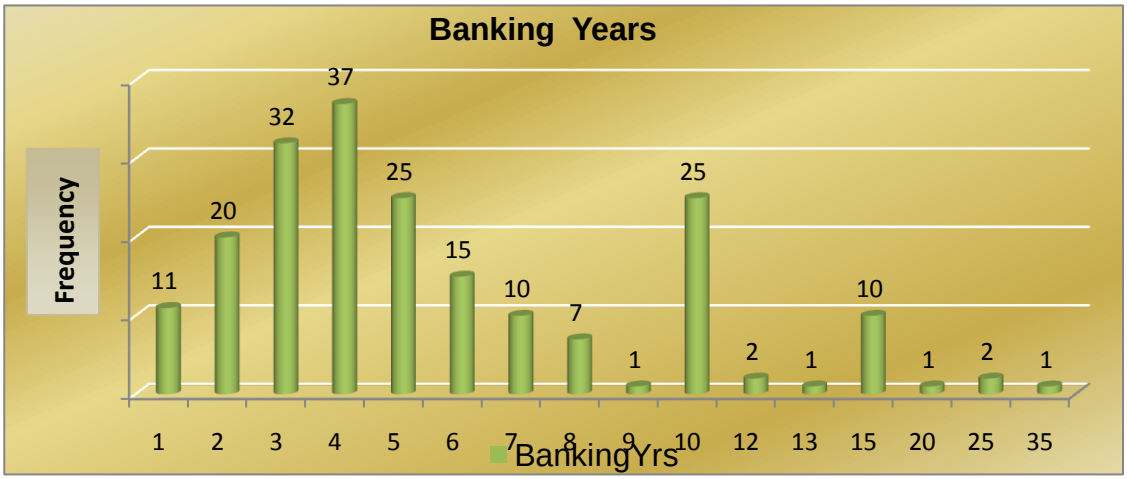
Figure 6.3: Patronising Different Banks



6.2.2.2 Respondents' banking patronage

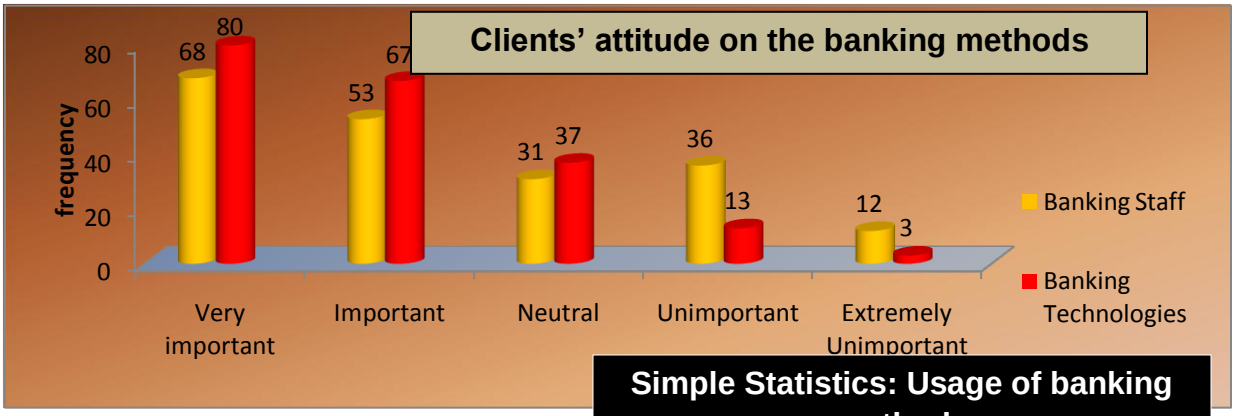
The findings show that the average duration of bank patronage by the respondents was 5.94 years, whilst 1 year and 35 years represented the minimum and maximum periods, respectively. The data set reflects a relatively normal distribution pattern in the duration of patronage with a standard deviation of 4.6 years from the mean. The modal length of bank patronage by the respondents is 4 years with a frequency of 37 responses. Figure 6.4 below highlights the frequency distribution for this variable.

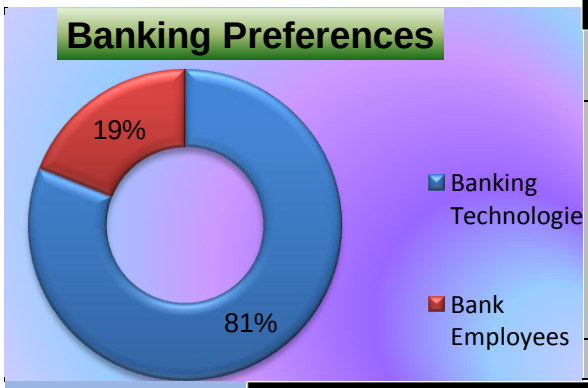
Figure 6.4: Duration of Banking Patronage



Besides the duration of banking patronage, respondents were also required to indicate their usage of the banking service delivery channels, as well as, their attitudes towards these delivery systems. Questioned on their preferences for face-to-face service versus electronic banking, the results reveal that 81% of respondents preferred e-banking and 19% preferred personal banking service. The following depiction (Fig 6.5) highlights this information together with the rankings and weighted ratings of usage and preferences on each of the noted service delivery channels. Comparatively, technology-based banking methods generally have a higher significance and prevalence amongst the respondents than traditional methods.

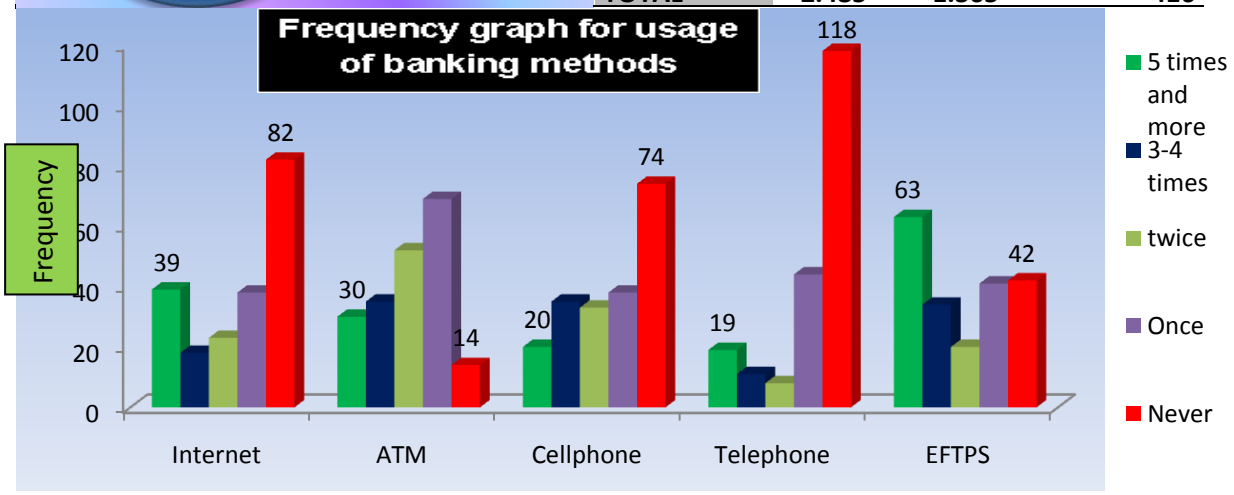
Figure 6.5: Respondents Usage of and Preferences for Banking Methods





Simple Statistics: Usage of banking methods

Banking Method	Mean	Std Dev	Mode	Sum
UseEFTPS	3.17	1.56737	5	635
UseAtm	2.99	1.18614	2	598
UseInternet	2.47	1.55925	1	494
UseCell	2.44	1.39524	1	489
UseBranch	2.00	1.17980	2	401
UseTeleph	1.84	1.29978	1	369
TOTAL	**2.485**	**1.365**		**416**



Note: Usage of banking methods was measured as times in a typical week. Never was rated as 1; once as 2, twice as 3; 3- 4 times as 4; and 5 times or more as 5.

Telephone and branch banking which are the traditional methods, *per se*, have the lowest patronage from the respondents. On average, respondents utilise of these methods once in a typical week. Interestingly, the most recent e-banking methods

(cellphone and internet) have the same usage incidence, of once per week though largely higher based on frequencies. All in all, responses showed that in a normal week, as much as 59% and 40% respondents do not at all utilise telephone and branch banking, respectively. Accordingly, in a typical week, 41% and 37% do not use internet and cellphone banking, respectively. Contrarily, the modal usage rate for EFTPS is 5 times or more and that for ATMs is at least once in a typical week. While, on average these two methods were being used at least twice in a typical week.

Consistently, the study reveals that this usage pattern favouring e-banking is also supported by the attitudes of the respondents. The above diagram (Fig 6.5) indicates that the e-banking method is regarded as more important than branch banking. The contrary is also supported. The contrast ratings of the likert scale consistently review that e-banking is more important than branch banking to respondents when they are conducting their personal banking. Marginally, only 7% of the respondents negatively connoted e-banking as compared to 24% who did so, for branch banking. Amongst 74% of the respondents who highlighted that e-banking was important in conducting their personal banking, 40% of them specifically considered it as extremely important. Whereas, of the 60% respondents who held branch banking as important specifically 34% pointed that branch banking was extremely important.

6.3 DESCRIPTIVE RESEARCH FINDINGS

This section presents the key research findings following the hypotheses propounded earlier on in this critique. Thus, the key research constructs of the research guide the structure of this discussion and the presentation of these findings follows a uniform pattern through and through in this section. Firstly, a detailed diagrammatical illustration of the construct components is given, followed by some descriptive analysis of the findings. Section 6.3.1 below, describes data analysis on the social construct.

6.3.1 Social Construct Analysis

Communication, trust, security and personal factors constitute the social construct in this study. Under this construct, the survey investigated respondents on their attitudes, behaviours and opinions regarding possible technological constraints to social constructions in relationships. The diagram below illustrates the framework in which this hypothesis was investigated.

Table 6.2: The Social Construct Research Framework

Construct	Questionnaire item	Legend in data analysis
Communication	**A8:** Ownership of communication technologies **C14:** Volume of communication through the technologies	Commchannels Commlevel
Trust and Security	**C7.8:** E-banking is secure and trustworthy **B6.5:** Usage of branch banking	Raisesecu Use Branch
Personal Contact	**B4:** Importance of face-to-face contact when conducting banking. **C7.5:** Does e-banking remove the need for bank employees. **C11:** E-banking increases the distance between the client and the bank. **C10:** E-banking disadvantages clients than bank staff	Faceimportanc NoEmployee Closeness Depersonalisatn

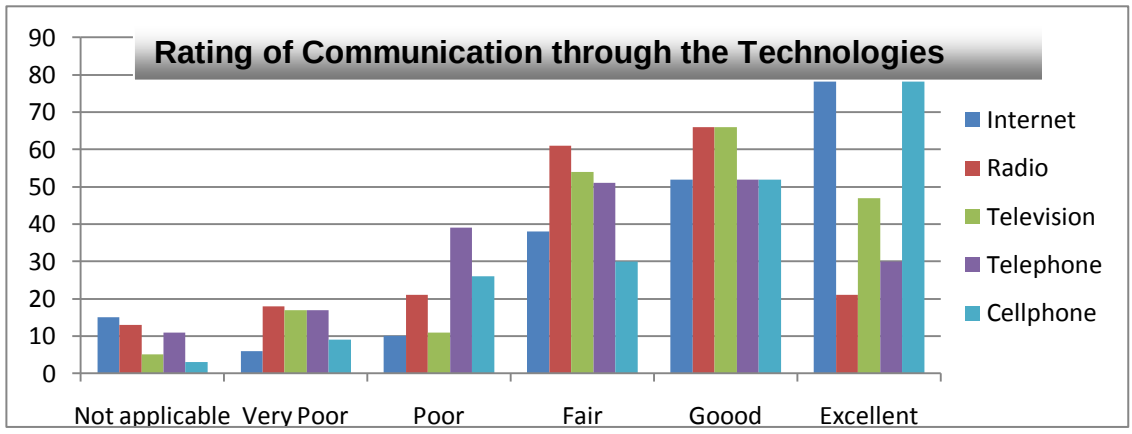
6.3.1.1 Ownership and usage of communication technologies

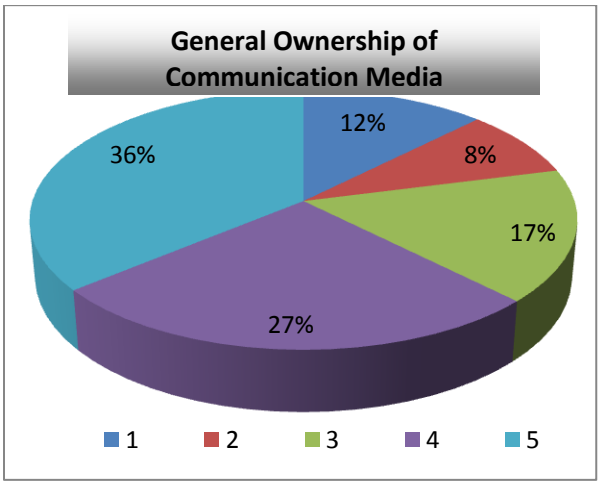
Generally, the survey indicates that communication is somewhat existing in e-banking environments. The findings show that on average 36% of the respondents owned or had access to all the noted communication channels with 27% owning on average four of these technologies. In addition, the results reveal that at least 12% of the respondents own or can access the internet, radio, television, telephone and with even 100% of the respondents being in possession of mobile phones. The respondents' average rating of the volume of information communicated by banks through these channels is 13% excellent, 41% good, 26% fair, 16% poor and 4% very poor.

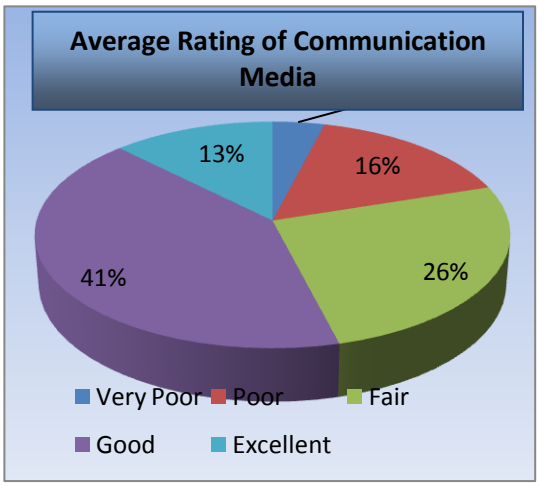
Using the modal analysis, the findings further reveal that of the noted communication technologies-internet and television communication media score high in reaching the communication expectations of the respondents. Modally, 61% of the respondents rated internet banking information as good to excellent and 57% did so on television

banking communication. Trailing television and internet media in terms of being rated as good or excellent are the mobile phones and radio media with 56% and 44% respectively. Figure 6.6 below, diagrammatically summarises the findings of the research on the prevalence of communication in technologicalship contexts.

Figure 6.6: Ownership and Usage of Communication Technologies





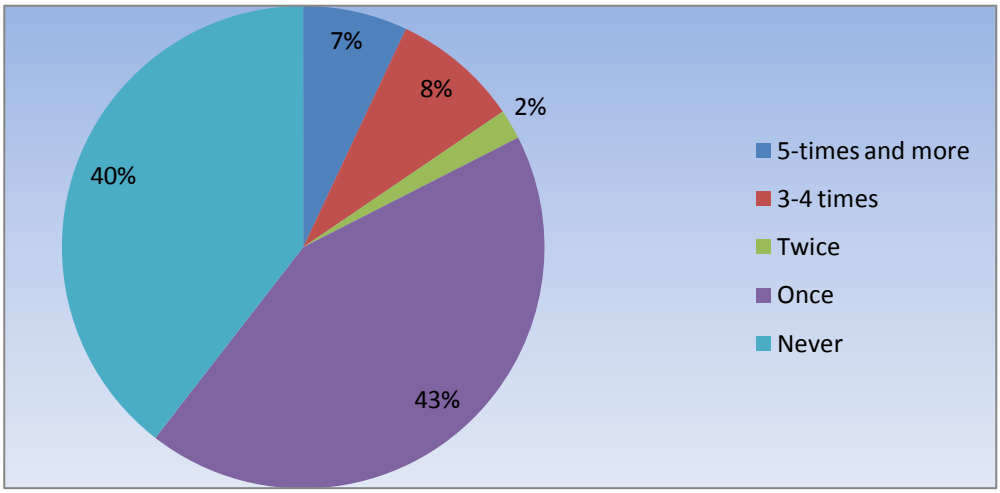


6.3.1.2 Trust and security

At least 50% of the respondents in retail banking agree that the utilisation of e-banking raises trust and security. 31% of the respondents consider e-banking as insecure with the remaining percentage being neutral. These findings are to a larger extent supported by the patronisation of branch banking by respondents, as reflected by Figure 6.7 below. Fundamental insights of e-banking trusts can as well be drawn from

previous sections on the usage of e-banking and its preference by respondents. Comparatively, 81% of the respondents prefer e-banking (see Fig 6.5), signalling that their trust for e-banking podiums is high. This seems to have an effect on the patronage of branch banking whereby as much as 40% do not visit the branch at all in a typical week, whereas, generally, respondents use EFTPS five or more times in a typical week, much higher than branch banking.

Figure 6.7: Patronisation of Branch Banking



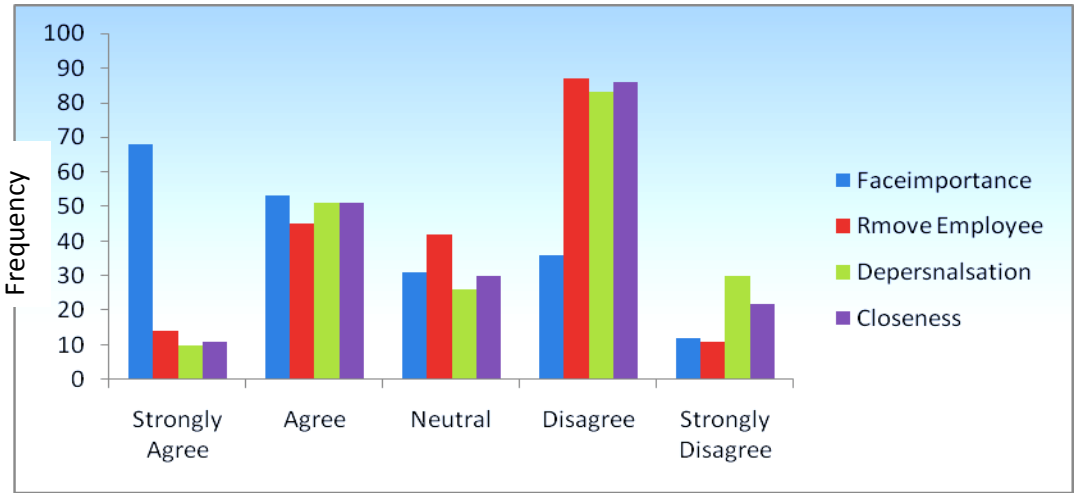
6.3.1.3 Personal contact

The research findings suggest a twofold impact of technology on this research construct. Firstly, the survey indicates that the human to human contact is still an essential aspect of relationships in banking environments. The majority of the respondents denied that e-banking can perfectly substitute face-to-face contact and remove employees. As is shown by Figure 6.8 below, 60% of the respondents regarded the human contact as important when conducting banking. In support, of the respondents, 49% disagree, 30% agree and 21% are neutral that e-banking removes the need for bank employees.

Secondly, the results depicted in Figure 6.8 below show that the majority of respondents disagree that they are disadvantaged in being serviced by machines, nor experience a diminished sense of closeness to the bank. *Per se*, at least 54% of the

respondents specifically disagree that there is dehumanisation and creation of social distance in e-banking relationships. The following section focuses on the client retention construct.

Figure 6.8: Personal Contact in e-Banking



6.3.2 Client Retention Construct Analysis

Research findings on the fundamental factors of client retention also prominently regarded as relationship marketing are discussed herein and Table 6.3 below, underlines the factors which constituted analysis for the client retention construct in this study. Investigating the client retention construct primarily meant adopting a behavioural approach.

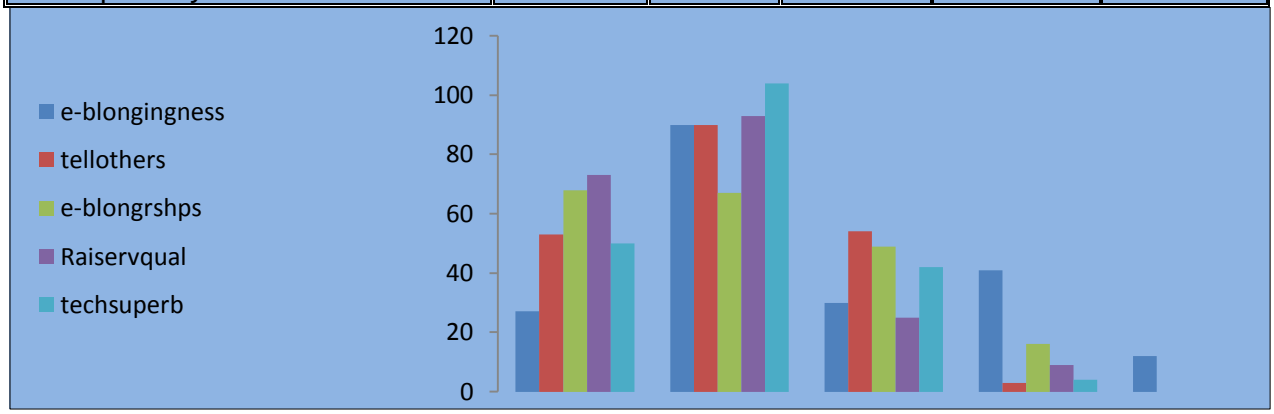
Table 6.3: The Client Retention Research Framework

Factor	Questionnaire item	Legend in data analysis
Satisfaction	**C7.1:** E-banking increase client satisfaction **C16:** Clients always receive high client satisfaction from e-Banking	RaiseSatis Satislevel
Client Loyalty	**C12:** E-banking effect on belongingness of clients to the bank **C17:** Clients' advocacy of the bank to others. **C24:** Impact of technological sophistication on the willingness of clients of a long-term relationship.	E-belonginss Tellothers E-blongrshps
Service Quality	**C7.3**: E-banking increases the quality of service. **C18:** Clients preparedness to confirm the superb of e-bank facilities.	RaiseServqua Techsuperbness

From the results obtained, there is a considerable association between satisfaction, client loyalty and service quality. As reflected in Figure 6.9 below, respondents' perceptions and behaviour indicate that technology consistently and positively influence client retention factors in relationships.

Figure 6.9: Client Retention Constructs

Theme	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Client satisfaction					
E-banking increase client satisfaction	43%	42%	12%	4%	1%
E-banking always provides a high degree of client satisfaction.	21%	50%	25%	5%	1%
Client loyalty					
E-banking effect on belongingness of clients to the bank	14%	45%	15%	21%	6%
Clients' advocacy of the bank to others	23%	45%	27%	2%	0%
Technological sophistication on the willingness of clients for a long-term relationship.	34%	34%	25%	8%	0%
Service Quality					
E-banking increases the quality of Service	37%	47%	13%	5%	0%
Clients' preparedness to confirm the superiority of e-bank facilities.	25%	52%	21%	2%	0%



6.3.2.1 Satisfaction

As shown in Figure 6.9 above, the satisfaction factor was addressed using two questions which questioned the opinions and experiences of respondents regarding the extent of satisfaction associated with e-banking. Conclusively, satisfaction is high

in e-banking since as much as 85% of the respondents interviewed, noted that the banks' technological facilities positively affect client satisfaction. When cross examined with client loyalty and service quality factors, the uniformity pattern of client retention variables is first noticed at this juncture. Thus, except for one question which had 6% of the respondents strongly disagreeing; all the other questions addressing the retention construct were either having 1% or 0% strongly disagree responses.

6.3.2.2 Client loyalty

As depicted in Figure 6.9 on the previous page, client loyalty within a technologicalship context was investigated through three survey questions in this research. The first question determines the effect of e-banking on clients' sense of belongingness to the bank. 59% of the respondents disagreed that technology diminishes their sense of belongingness to the bank while 27% agreed. The last two questions assessed the influence of technology on customer loyalty as measured by the willingness and preparedness of respondents to patronise e-banking. Interestingly, responses for both questions are almost similar i.e. exactly 68% of the respondents agree that they would continue utilising e-banking services and advocate it to friends and relatives. Likewise, no respondent strongly argued that they envisaged neither discontinuing patronising e-banking nor negatively advocating it to others.

6.3.2.3 Service quality

With respect to service quality, most respondents acknowledge the essence of technology in improving the quality of a relationship. Only five percent of the respondents specifically denoted that e-banking does not enhance the quality of interaction during transactions. Contrarily, quite significantly, as much as 4 out 5 respondents (84%) agree that generally the experience of banking is of high quality. Consistently, respondents exhibited somewhat similar assertions regarding the effect on satisfaction obtained from the use of advanced technologies in e-banking and the quality of banking services. As reflected in Figure 6.9 on the previous page.

6.3.3 Client Switching Construct Analysis

Client switching factors generally explain the mobility of clients between service providers. High client mobility negatively connotes the well-being of relationship marketing. The research findings generally suggest a trade-off impact of technology on client switching in e-banking environments. Table 6.4 below, shows the framework in which this finding was achieved.

Table 6.4: Client Switching Research Framework

Construct	Questionnaire item	Legend in data analysis
Barriers to Switch	C7.6:E-banking removes barriers to switch between banks. C20: E-banking results in a substantial switching cost	Removeswitchbarr Switchcost
Switching options	B2: Switching options available C13: Current clients' perceptions on having more banks. C21: Switching difficulty in e-banking markets	Otherbnks Morebanks Switchdiff
Information asymmetry	C7.4: Technology increases information on banks C23: E-banking removes information asymmetry	Raiseservinfor Switchinknwldg

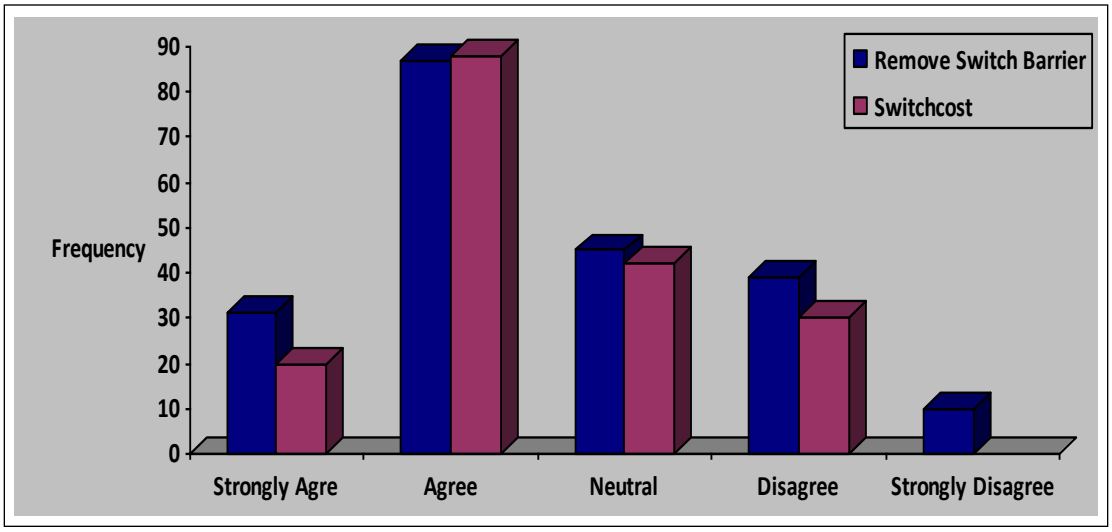
6.3.3.1 Barriers to switch

Generally, clients perceive the technological environment as relatively conducive for movement of clients between banks. However, a slightly lower and almost equal fraction of respondents assert that there are substantial costs associated with switching banks. Figure 6.10 below, indicate that the majority (59%) of the respondents agree that e-banking removes switching barriers, while, 54% believed that there are substantial costs in switching banks. In this regard, the former finding constraints, while the latter, promotes relationships within an e-banking context. .

6.3.3.2 Switching options

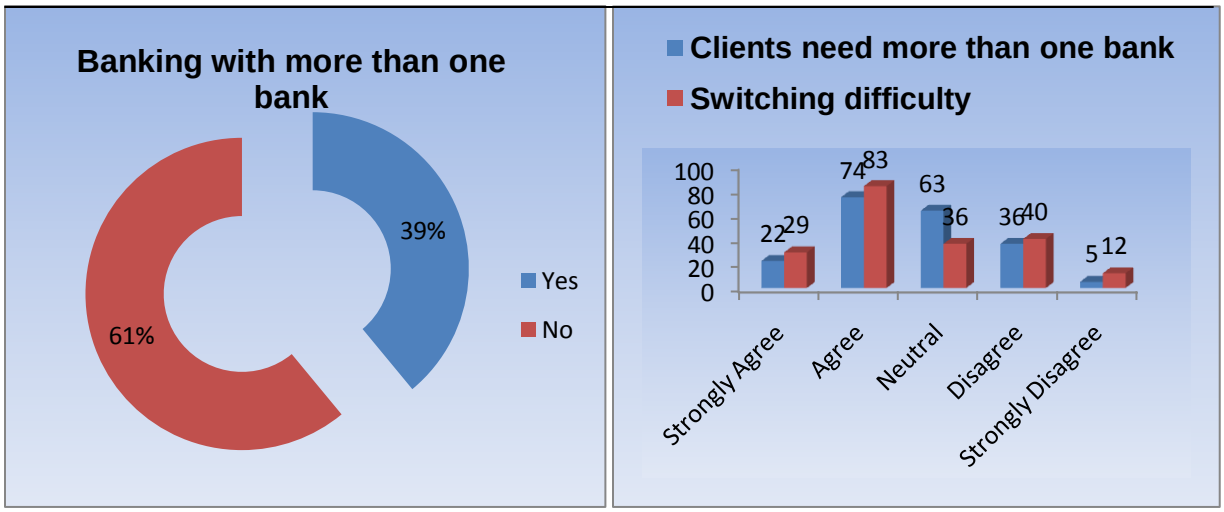
With regards to switching options, only 39% of the respondents surveyed had the switching potential by having accounts with more than one bank. Thus, the greater portion of clients (61%) only bank with one bank. Also, the attitudes and perceptions of clients provide a similar finding about switching options.

Figure 6.10: Responses on Switching Barriers



Though somewhat higher, approximately 48% of the clients opine that having two or more bank accounts is the modern way of banking. Consistently, slightly more than 50 percent (56%) of the respondents revealed that it was difficult for them to switch between banks even if they wanted to do so. Figure 6.11 below, summarises this information.

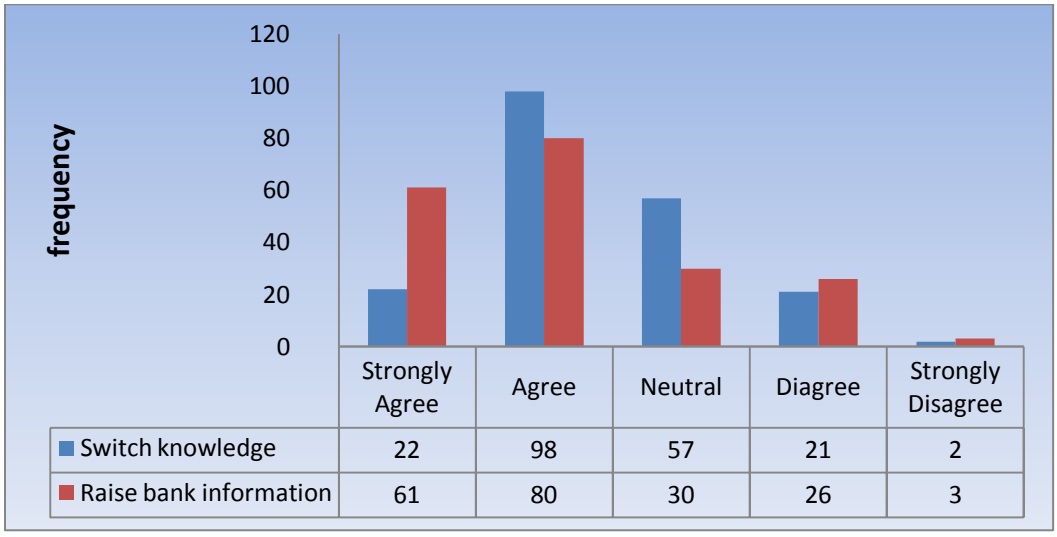
Figure 6.11: Findings on Client Switching Options



6.3.3.3 Information asymmetry

Information asymmetry seems to have been significantly reduced in the contemporary electronic marketplaces. The findings of this study reveal that the majority (71%) of the respondents agree that e-banking increases information on financial institutions. Only, 15% of the respondents support the notion of inadequate information on financial institutions. Consistently, the second variable used to measure information asymmetry, namely, the conversance of clients about developments in the banking industry, established similar findings. Sixty percent 60% of the respondents agree that they were well conversant with the functioning of the banking industry to make informed switching decisions whilst only 11% disagree. The bar chart in Fig 6.12 below, reflects the findings of this study on information asymmetry.

Figure 6.12: Findings on Information Asymmetry



6.3.4 Relational Exchange Construct Analysis

The extent to which relational exchange factors materialised in e-banking environments was measured through investigating the commitment levels of respondents to e-banking usage. Furthermore, a twofold perspective on the nature of relationships in technologicalship marketing, as prescribed by interactivity and personalisation, also determine the successfulness of relational exchange in

technologicalship partnerships. Firstly, before the findings are presented, the construct's research framework is provided in Table 6.5 below.

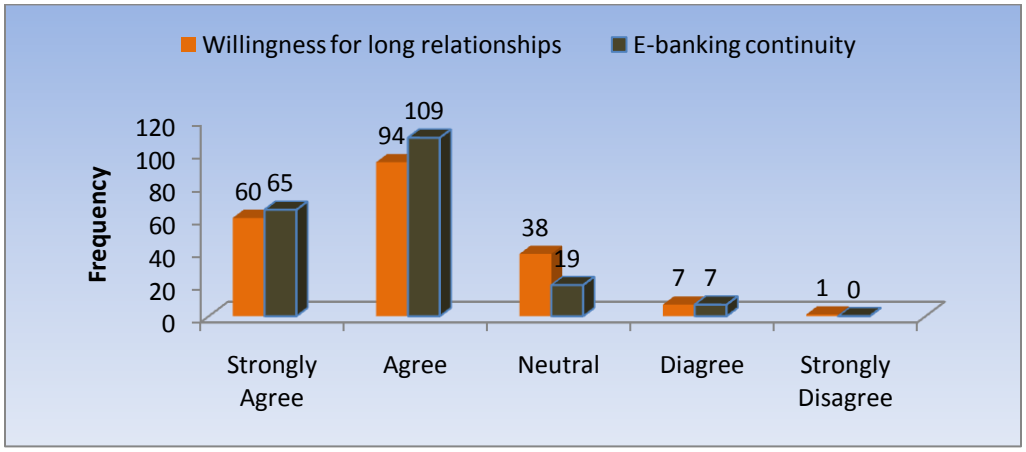
Table 6.5: Relational Exchange Research Framework

Construct	Questionnaire item	Legend in data analysis
Commitment	C7.2: E-banking increases the desire for clients to maintain relationships with the bank. C19: Preparedness to continue patronising e-banking.	longr-ships e-bnkpatron
Personalisation	C9: There is closeness of personal expectations and results from e-banking. C22: There is differentiation of e-banking services compared to branch banking. C8: Clients' influence over e-banking services	closee-bexp e-bank-differe noinflu-over-e-b
Interaction	C7.7: E-banking increases interaction with the bank. C15: Level of interaction with e-banking services.	raiseintera interectionlevel

6.3.4.1 Commitment

As shown in Table 6.5 above, two questions in the questionnaire measured client commitment. Figure 6.13 below, shows that the majority of the respondents agree that e-banking significantly promote client commitment to long-term banking relationships.

Figure 6.13: Responses on Client Commitment



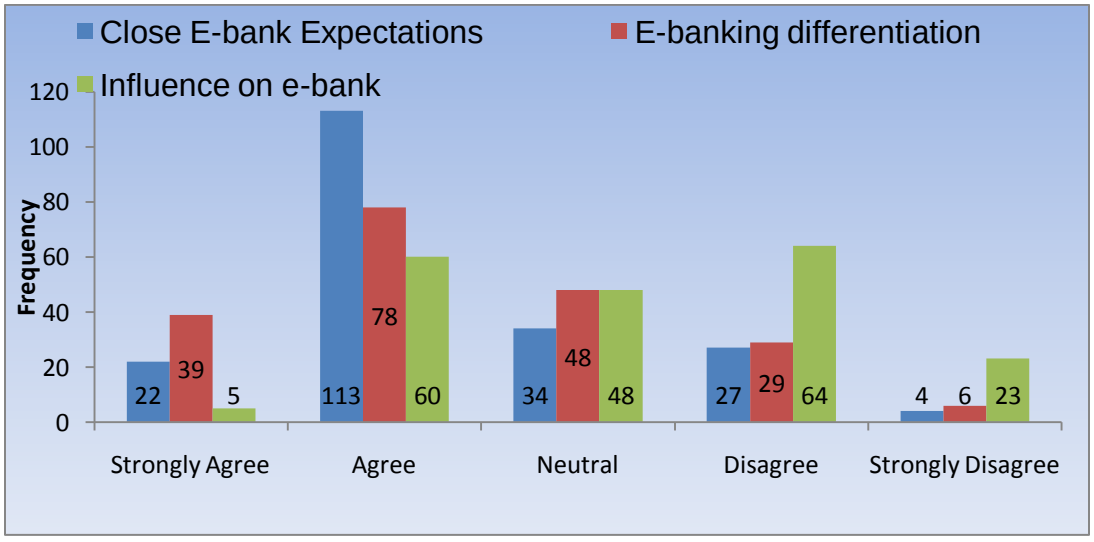
Seventy seven percent (77%) of the survey respondents argue that e-banking increases the client's desire to maintain relationships with the bank while, in contrast, only a marginal proportion of four percent negatively opine to this notion. Likewise, the findings resolutely suggest that the greater majority of respondents (87%) are prepared

to continue patronising electronic banking methods. Whilst, only 4% argued that they were not prepared to continue utilising e-banking podiums.

6.3.4.2 Personalisation

Research findings in this category are concerned with the extent of customisation in the services provided through e-banking delivery systems. The central theme in this construct lies in the ability of e-banking to meet the expectations and needs of clients on an individualised basis. Sixty eight percent (68%) of the respondents concur that there is a close connection between their expectations and actual services provided by e-banking. In support, 59 percent of the respondents indicated that e-banking provides more differentiated services compared to those offered by the banks' employees. However, only one third of the respondents (33%) consented that they can influence services provided through e-banking systems whilst, 44% cannot. Thus, to a greater extent e-banking podiums are generally meeting the personalisation relationship pinnacle. These findings are reflected in Figure 6.14 below.

Figure 6.14: Responses on E-Banking Personalisation

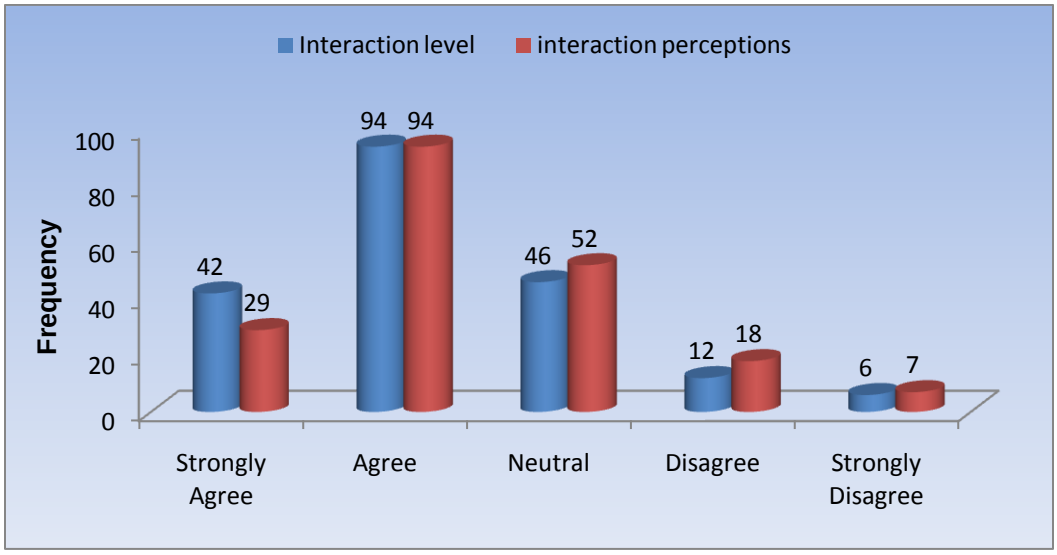


6.3.4.3 Interaction

With regards to interaction, opinions and experiences of clients on interaction levels were explored. *Per se,* 62% of the respondents were of the opinion that e-banking

raises the interaction levels between the client and the bank. Coherently, all in all, almost 68% of the respondents agreed that pragmatically their interaction level with e-banking podiums is high. Figure 6.15 demonstrates these findings.

Figure 6.15: Clients' Responses on E-banking Interactivity



6.4 INFERENTIAL DATA ANALYSIS

This section presents research findings from the several inferential statistical techniques which were conducted to reach reliable conclusions on the information gathered. Reliability, undimensionality, correlations and hypothesis testing through regression and chi-square were applied. Preliminary analyses involve the establishment of relationships in the items contained in each of the four research constructs. Correlation coefficient and cronbachs alpha are used to make inferences about the correlations and consistency in the items measuring the constructs. The aim of correlation analysis *also known as the pearson correlation coefficient* is to investigate the relationship between two variables. Specifically, a correlation coefficient determines the degree to which variation in one variable is related to variation in another variable (Mahotra, 1996:575). As stated before, cronbachs alpha measures the replicability and consistency of the findings generated by a measuring instrument.

For decisions on the rejection or acceptance of the null hypotheses, the chi-square test and the *F*-tests in the General Linear Model (GLM) of regression were used. The chi-square test compares count data while the F-ratio test compares two variances and tells if they are significantly different. The chi-square measure the association of two variables and the decision is based on the null hypothesis that the two variables are not associated when tested at significance level alpha 0.05. A crucial requirement for GLM is that the data set should satisfy the chi-square distribution. Thus for chi-square the hypothesis interpretation will be:

If p-value(s) < α, reject Ho and If p-value(s) > α, accept Ho

The F test tests the null hypothesis in that an individual predictor in the model does not explain a significant proportion of the variance, given the other variables in the model. It involves specifying the critical F-value and comparing it with the test statistic. If the test statistic is larger than the critical F*-value there is a statistically significant chance (at *p-values* <0.05*)* that the variance in the dependent variable is depended on the stated independent variable/s. Thus for the F-statistic:

If F > F*, reject Ho. If F < F*, accept Ho.

Section 6.4.1 below, focuses on the interpretation of the first hypothesis.

6.4.1 First Hypothesis Analysis

As reflected by the table below, the correlation coefficient and cronbachs alpha provide adequate evidence to conclude that technology is affecting the social construct factors in a uniform way. The construct cronbachs alpha of 0.8093 as well as the item to total alphas of 0.8043 both above 0.8, meaning that the items in the questionnaire measuring the social construct are reliable and adequately address internal consistency of the construct.

Table 6.6: Social Construct Correlation Matrix and Cronbachs Alpha

	Cr to total	Alpha (α)	Comm Channl	Comm Level	Raise secu	Use Branch	Face Imptant	Rmove Employ	Close Ness
Comm channl	0.5023	0.810	1						
Comm Levl	0.5455	0.811	0.117	1					
Raise Secu	0.4525	0.812	0.225**	0.360**	1				
Use Branch	0.1292	0.820	0.200**	0.29**	0.150*	1			
Face Imptant	0.072	0.822	-0.000	0.018	0.010	0.350**	1		
Rmove Employ	0.0682	0.821	0.074	0.135	0.155*	0.338**	-0.070	1	
Close Ness	0.0678	0.821	-0.003	-0.1179	-0.122	-0.37**	0.240**	-0.137	1
Deper Sonal	0.0627	0.821	0.020	-0.24**	-0.102	-0.49**	0.265**	-0.167*	0.67**
Construct: Cronbachs Alpha = 0.8093				*Standardized Cronbachs Alpha = 0.8043*					

**. Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

The correlation coefficient analysis indicates that, generally, the variables used to research the social construct were statistically significant and positively correlated at alpha level 0.01. The correlation analysis replicates that there is a significant and positive association (r=0.67; p=<.0001) of the effects of e-banking between depersonalisation and closeness in relationships. Thus, as respondents deny that technologicalship is characterised by depersonalisation so do they disagree that there is lack of closeness due to technology in relationships. Generally, these two variables are negatively associated with the rest of the variables measuring the social construct except for the importance of contact face-to-face. Thus, overall, as respondents agree to the other variables they disagreed to the importance of face-to-face contact as well as the lack of humanisation and closeness in technologicalships. For instance, significant negative correlations exist between closeness and the use of branch banking (r=-0.37; p=<.0001) as well as depersonalisation and patronage of branch banking. Another interesting finding relates to the existence of a significant association (r=0.35; p=<.0001) between the importance of face-to-face contact when conducting branch banking and the usage of branch services.

The null hypothesis for the first hypothesis states that: *from the client's perspective, the use of modern banking technologies in service delivery, constraints social constructions in relationships.* The chi-square tests show that, statistically all the noted independent variables are significantly associated to the dependent variables in this construct. The GLM analysis indicates that the F-value for the variables measured under the social construct are significant. *Per se,* the independent variables or predictors in the regression model refer to the technological elements namely the usage of e-banking methods as well as ownership and usage of communication technologies. Thus, behavioural findings contained in section 6.2.2 comprise the predictor variables for the regression model stated below:

$$Y= \alpha+\beta_1 X_1+\beta_2 X_2+\ldots\ldots\beta_k X_k+E$$

Where Y represents the dependent variable and X_i is the ith independent variable.

α is a constant

β_i denotes the weight of the i^{th} independent variable

E denotes the prediction or estimation error.

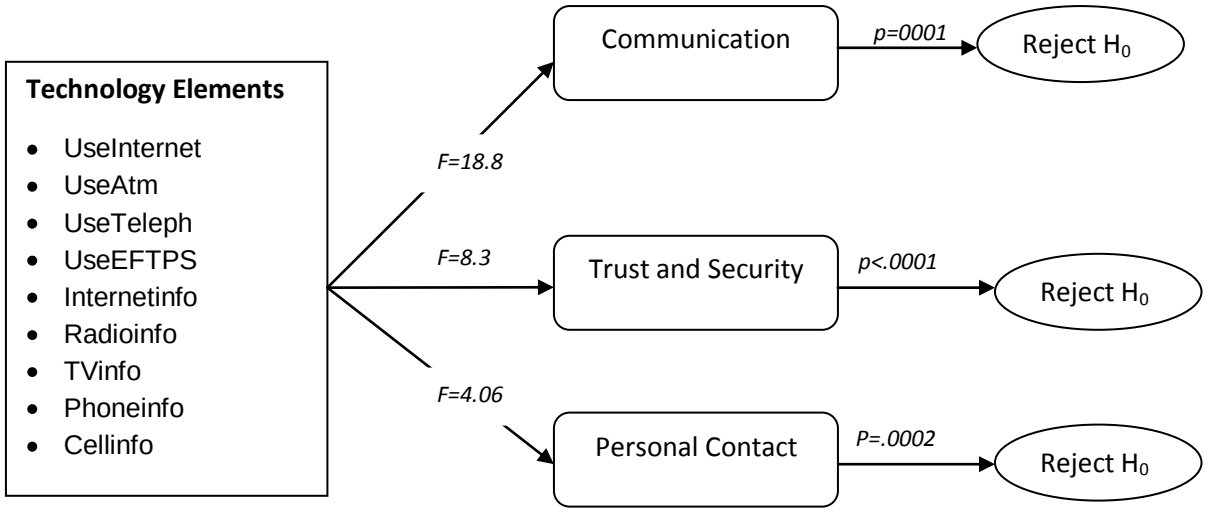
Apart from reporting the F-value, another vital statistic reported and recommended for regression models of many independent variables is R-squared (R^2). This is also called predictive accuracy and it reflects the percentage of variance in the dependent variable explained by the independent variable(s) (Allua & Thompson, 2009:170). Figure 6.16 highlights the extracted results derived for the first hypothesis from the chi-square and regression analysis procedures discussed herein.

The relationship between technology and communication was found to be significant (F: 18.8, P > F: <0.0001). Similarly, the interaction between technology, trust and security was significant (F: 8.3, P > F: <0.0001) whereas, the association of personal contact and technology (F: 4.06, P>F: 0.0002) is also statically significant. This means that there is statistical evidence to substantiate that the dependent variable (social construct) is somewhat influenced by at least one technological factor. An $R^2 = 0.324$ shows that approximately 32% of the variance in the social construct emanates from the technological elements predictor variables.

Figure 6.16: First Hypothesis Chi-Square and Regression Output Extracts

Variables	*Df*	*Chi-square*	*P-value*
Ownership of communication technologies - communication level	20	117.388	0.0000
Usage of communication technologies and closeness	16	27.037	0.0410
Usage of ATM's on trust and security	16	60.377	0.0000
Usage of EFTPS on trust and security	16	45.499	0.0001
Usage of communication technologies on trust and security	16	41.731	0.0003
Usage of ATMs and depersonalisation	16	39.750	0.0008

Regression Model for Social Construct



R^2=0.324

Section 6.4.2 focuses on the testing of hypothesis two.

6.4.2 Second Hypothesis Analysis

The second null hypothesis states *that from the clients' viewpoint, the use of technological mediums negatively affects client retention in relationship marketing*. This hypothesis was investigated at the hand of three variables, namely, satisfaction, service quality and client loyalty. As the correlation matrix for these variables depicts (see Table 6.7 below), there is a statistically significant and positive correlation of all the items measuring the client retention construct. However, there is a weak though positive relationship (r=0.201: p=0.061) between the impact of technology on clients' sense of belongingness to the bank and their perceptions on e-banking being superb.

Likewise, correlation analysis findings highlight that, statistically a slightly weak and positive correlation (r=0.173: p=0.014) exists between the propensity of clients to stay in a relationship with a bank and their sense of belongingness to the bank in the presence of e-banking. Furthermore, for e-banking, the analysis highlights that extremely significant and excellent correlations exist between:

- clients satisfaction levels and their propensity to advocate for the bank (r=0.551: p=<.0001),
- perceived increase of satisfaction and perceived increasing service quality (r=0.575: p=<.0001),
- perceptions on technology superiority and increasing clients propensity to advocate for the bank (r=0.459: p=<.0001), as well as,
- perceived increase of satisfaction and actual satisfaction obtained (r=0.448: p=<.0001).

In Table 6.7 below, the construct cronbachs alpha of 0.69 is also shown though slightly lower than the threshold alpha value in this research which is 0.7. However, this value is still within the acceptable range cited in other studies, (Wang, 2004:57).

Table 6.7: Client Retention Construct Correlation Matrix and Cronbachs Alpha

	Cr to Total	Alpha (α)	Incr Satis	Satis lvel	Eblong Rshps	Tell Others	Eblong Nss	Raisvqu al
IncrSatis	0.400	0.815	1					
Satslvel	0.534	0.812	0.448**	1				
Eblongrshps	0.271	0.845	0.372**	0.325**	1			
Tellothers	0.021	0.822	0.240**	0.551**	0.209**	1		
Eblongnss	0.358	0.816	0.373**	0.310**	0.173*	0.131**	1	
Raiseservqua	0.455	0.813	0.575**	0.384**	0.232**	0.291**	0.334**	1
Techsuperbnes	0.259	0.817	0.256**	0.343**	0.267**	0.459**	0.201	0.364**
Cronbachs Alpha= 0.6879			*Standardised Cronbachs=0.8193*					

**. Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Figure 6.17: Second Hypothesis Chi-Square and Regression Output Extracts

Variables	Df	Chi-square	P-value
Ownership of communication technologies – satisfaction level from e-banking	16	29.27	0.0222
Usage of communication technologies- propensity to stay with the bank	12	34.71	0.0005
Usage of ATM's - propensity to tell others.	12	23.89	0.0210
EFTPS use -views on e-banking superiority	12	20.98	0.0506
Communication level- e-bank belongingness	16	51.16	0.0000
Usage of ATMs- Increase satisfaction	16	17.98	0.3250

Regression Model for Client Retention Construct

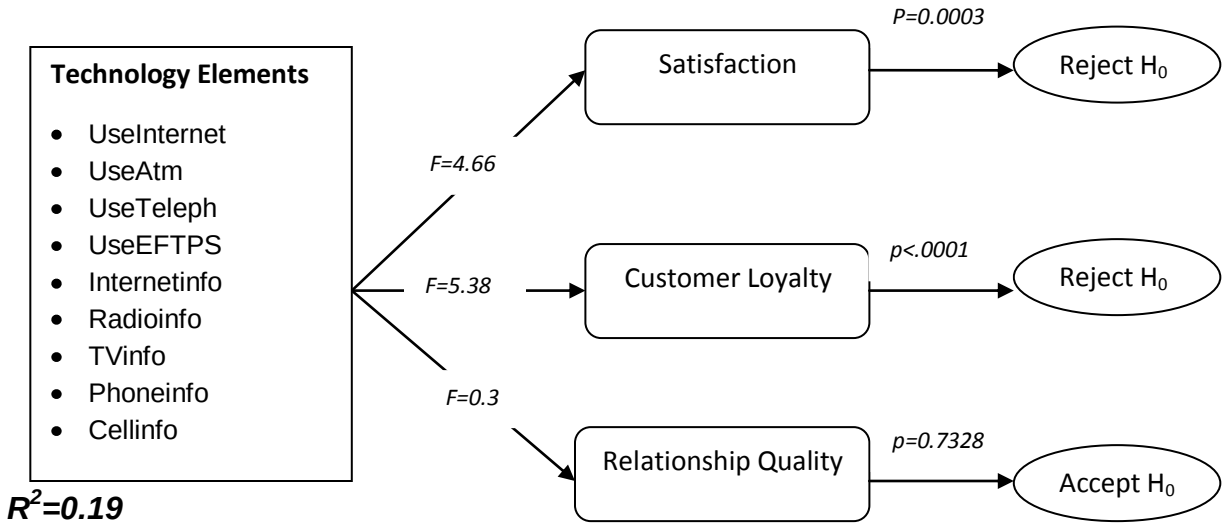


Figure 6.17 above, reflects the results of the two hypothesis testing methods (chi-square and glm). Therein, both methods resulted in a slight failure to reject the null hypothesis. The chi-square procedure plausibly highlights that, tested at 95% confidence level (α=0.05), there are reservations on the existence of an association between the usage of e-banking and the views of clients on the superiority of e-banking. Whilst, regression analysis *per se*, reflects that there is a 19% (R^2=0.19) probability that the variation in the retention constructs is explained by technology in e-banking relationship marketing, an insignificant F-statistic (F: .03, P>F: 0.7328) result indicates that the dependency of relationship quality on technology is extremely low. Nonetheless, the second hypothesis is also rejected, since, only eight (8) out of the

eighty (80) chi-square tests of associations between the independent and the dependent variables in this construct, were statistically insignificant and unassociated.

6.4.3 Third Hypothesis Analysis

The overall association of client switching attributes with all the other relationship marketing constructs is negative as shown by the cronbachs to total values ranging between r=-0.116 and -0.44. Coherently, this highlights a logically and statistically reliable basis to conclude that the questionnaire appropriately satisfies reliability. Likewise, internal consistency of the switching construct exists based on the cronbachs of 0.74 alpha value and the standardised cronbachs alpha of 0.75. As highlighted in Table 6.8 below, the results of the correlation matrix, generally, signify positive relationships amongst the variables measuring the client switching construct.

Table 6.8: Switching Construct Correlation Matrix and Cronbachs Alpha

	Cr to Total	Alpha (α)	RemvswitchBarri	Swch cost	Other Bnks	More Bnks	SwitchDiff	Raiseservinfo
Remvswitch Barri	-.353	0.83	1					
Swchcost	-0.44	0.81	-0.06697	1				
Otherbnks	-.116	0.82	0.200**	-0.018	1			
Morebnks	-.172	0.83	0.272**	-0.137	0.258**	1		
Switchdiff	-0.40	0.81	-0.040	0.654**	0.037	-0.0193	1	
Raiseservinfo	-.299	0.83	0.369**	0.005	0.240**	0.116	0.061	1
Swtchknwldg	-.270	0.83	0.149*	-0.262**	0.105	0.256**	-0.149*	0.194**
Construct Cronbachs Alpha = 0.740392 Standardised Cronbachs Alpha = 0.747401								

**. Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

By and large, statistically significant and positive associations exist amongst variables measuring the client switching construct in the questionnaire. As depicted by the size of the correlation vaues in this construct there is high correlation on:

- switching costs and switching barriers (r=0.654: p=<.0001),
- remove switching barriers and raise service information (r=0.369: p=<.0001),

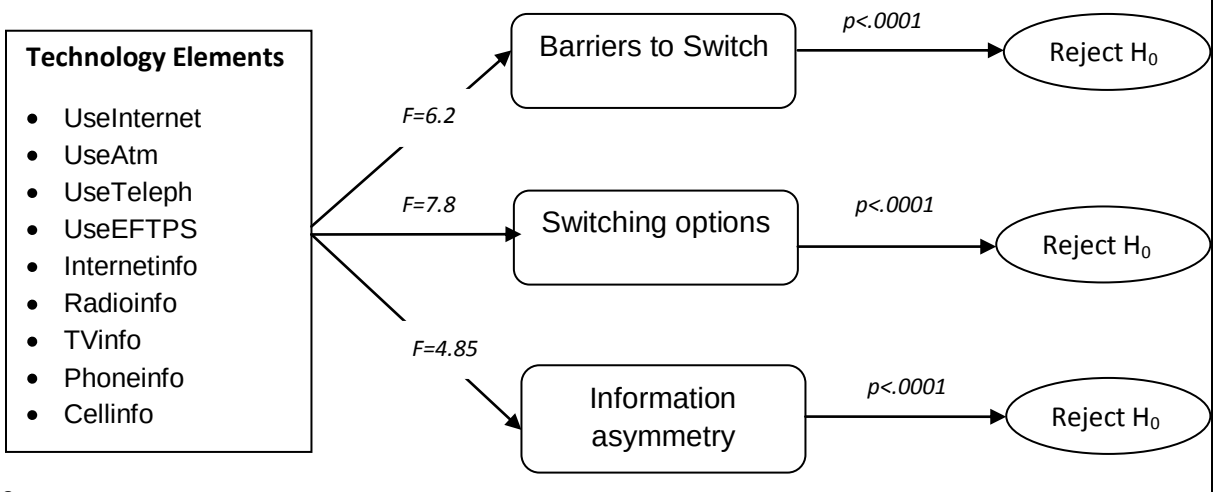
- having more bank accounts and removing switching barriers (r=0.272 p=<.0001), as well as,
- banking with more than one bank and improved service information.

Although, statistically insignificant, negative correlations exist between switching costs and removing barriers (-0.067), ownership of more bank accounts (morebnks) (r=-0.018), opinions towards having more bank accounts (r=-0.137). Whilst, statistically significant negative correlations exist between switching knowledge and switching costs (r=-0.262), switching knowledge (-0.149). Based on these results, it appears logical to pursue GLM analysis for this construct as indicated in Figure 6.18 below.

Figure 6.18: Third Hypothesis Chi-Square and Regression Output Extracts

Variables	***Df***	***Chi-square***	***P-value***
Ownership of communication technologies – Remove switching barriers	16	32.82	0.0078
Usage of communication technologies- Raise switching knowledge	16	57.88	0.0000
Usage of ATM's-Switching costs	16	43.56	0.0002
Usage of EFTPS-More banks	16	22.23	0.1360
Usage of communication technologies-Raise service knowledge	16	52.68	0.0000
Usage of ATMs-Other banks	16	8.30	0.4038

Regression Model for Client Switching Construct



R^2= 0.26

Using the regression method of hypothesis testing, all the paths specified for the client switching construct resulted in the rejection of the third hypothesis. *This hypothesis states that modern technologies negatively affect relationships through enhancing clients' switching ability between banks.* By order of magnitude of dependency, regression evidence suggests that technology is more significantly interactive with switching options (F: 7.8, P > F: <0.0001), followed by barriers to switch (F: 6.2, P > F: <0.0001) then information asymmetry (F: 4.85, P > F: <0.0001). The variance of client switching attributes according to the R^2 statistic, explained by technology, is approximately 26%.

Consistently, the chi-square procedure also reflects a significant association between technological elements and the switching construct attribute in relationship marketing. Out of the 70 association tests between the technological variable measures which include usage of e-banking technologies and the switching-construct dependent variable measures, only 10 associations were statistically insignificant and not associated. Utilising the chi-square significance testing with 95% confidence, the third hypothesis is as well plausibly rejected.

6.4.4 Fourth Hypothesis Analysis

For the relational exchange construct, the correlation matrix reflects that all but one set of combinations were positively correlated. The correlation matrix depicted in Table 6.9 below, highlights that the influence of clients through e-banking is negatively and lowly correlated with e-banking interactivity potential at r=-0.024 and p=0.73. Although, significance for correlations portrayed in this construct as well as the cronbachs relationship to total are generally lower compared to the other constructs, sufficient evidence exists for utilisation of GLM on hypothesis testing. Substantially, the cronbachs alpha of the entire questionnaire items satisfies reliability of the findings with the lowest alpha (α) value being 0.81. Furthermore, consistency exists in the entire

construct as reflected by the construct cronbachs alpha of 0.86 and the standardised cronbachs alpha of 0.8728, respectively.

Table 6.9: Relational Exchange Construct Correlation and Cronbachs Alpha

	Cr to Total	Alpha (*α*)	Long R-ships	E-bnk cont	Close E-exp	E-bank Differe	Noinflu-over-e-b	Raise Intera
LongR-ships	0.444	0.81	1					
E-bankcont	0.371	0.82	0.277**	1				
CloseE-exp	0.229	0.82	0.152	0.130*	1			
E-bankDiffere	0.402	0.81	0.261**	0.388**	0.040	1		
Noinflu-over-eb	0.172	0.82	0.148	0.003	0.099	0.049	1	
Raiseintera	0.393	0.81	0.368**	0.106	0.135*	0.238**	-0.024	1
InterectnLevel	0.594	0.81	0.406**	0.436**	0.321**	0.313**	0.068	0.300**
Construct Cronbachs Alpha= 0.8595 Standardised Cronbachs Alpha 0.8728								

**. Correlation is significant at the 0.01 level (2-tailed)

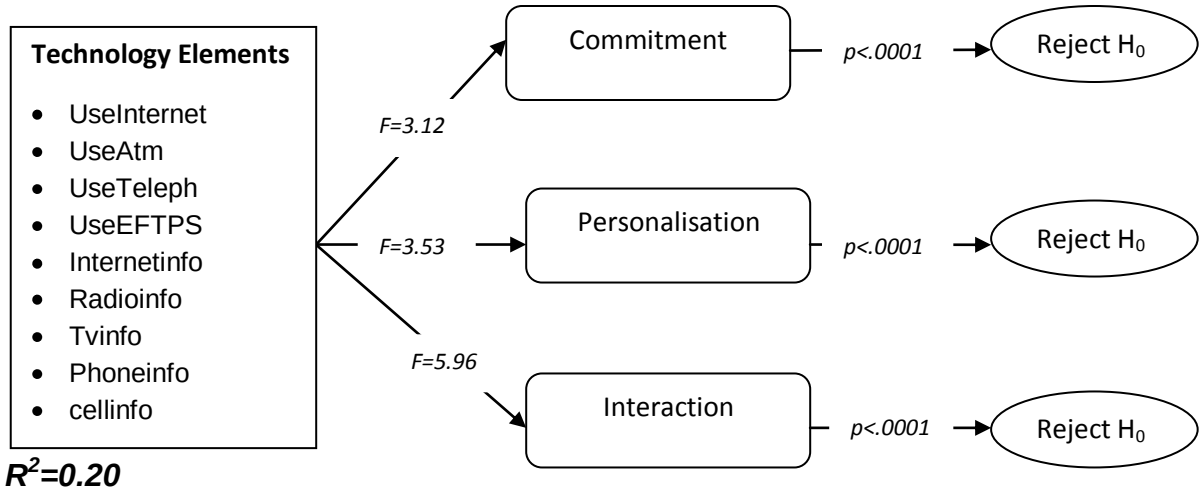
* . Correlation is significant at the 0.05 level (2-tailed)

The fourth hypothesis states that *clients consider modern e-banking technologies to be constraints to interactivity and relational elements in relationships with the bank*. The chi-square test of independence in the relational exchange construct resulted in 11 of the 90 associations being insignificant. This means that plausibly the null hypothesis which says that relational exchange factors are not associated to technological elements is rejected. Based on the regression model this plausible association is supported as shown in Figure 6.19 below. Using the regression analysis there is a significant interaction between technology and interaction (F: 5.96, P > F: <0.0001), commitment (F: 3.53, P > F: <0.0001) and personalisation (F: 3.53, P > F: <0.0001). On average, this dependence of relational exchanges on technology according to the R^2 means that the variance of 20% in relational exchange attributes in relationships certainly is not a consequence of chance. Thus, to some extent, technological factors influence commitment of clients to the bank, as well as personalisation and interactivity on e-banking podiums.

Figure 6.19: Fourth Hypothesis Chi-Square and Regression Output Extracts

Variables	*Df*	*Chi-square*	*P-value*
Ownership of communication technologies – Raise interaction	16	28.88	0.0247
Usage of communication technologies- Interaction level	16	74.47	0.0000
Usage of ATMs-No influence over e-banking	16	78.23	0.0000
Usage of EFTPS-E-bank continuity of use	12	26.39	0.0094
Communication level- Long banking relationships	16	33.79	0.0057
Usage of ATMs-Close banking expectations	16	23.00	0.1135

Regression for Hypothetical Relational Exchange



R^2=0.20

6.4.5 Fifth Hypothesis Analysis

The fifth hypothesis proposed that in technological entrenched e-banking marketplaces, there is more transactional marketing than relationship marketing. This position is analysed based on the results of the four preceding hypothesis tests. It provides the overall and key analysis of the research through aggregating the tests in the other hypotheses. All in all, the chi-square procedure of the entire dependent variables and the independent variables produced 64 insignificant associations out of 248 associations. This means that 74% test of associations were statistically significant enabling at p=<0.05 and the hypothesis is strongly rejected. As evidenced in Table 6.10 below, the regression procedure also proves a strong interaction of technology and the relationship constructs. Since all the other hypotheses were rejected then the

fifth hypothesis is also rejected as it depends on the outcome from the other hypotheses.

Table 6.10: Fifth Hypothesis Regression Summary

Construct	Cronbachs Alpha	R^2	F-Value	Decision
Hypothesis 1: Social Construct	0.8093	0.32	10.38	*Rejected*
Hypothesis 2: Client Retention	0.7379	0.19	3.45	*Rejected*
Hypothesis 3: Switching Construct	0.7403	0.26	6.28	*Rejected*
Hypothesis 4: Relational Exchange	0.8595	0.20	4.20	*Rejected*
(TOTAL) *Hypothesis 5**:* Transactional marketing vs Relationship marketing	**0.9096**	**0.24**	**6.1**	***Rejected***

6.5 SUMMARY

This chapter presented the research survey findings. The chapter delineates the findings according to the hypotheses postulated regarding the four main constructs in this research, namely, social construct, client retention, client switching as well as relational exchange constructs. Also generated from the research survey, this chapter provides the description of the sample participants as well as their banking and e-banking behavioural patterns, of which, the behavioural information crucially enabled the testing of the hypotheses. Inferences and deductions were conducted in order to establish the degree to which the prevalence of e-banking and technological pervasiveness amongst clients are impacting their attitudes, perceptions and experiences in the context of relationships with the banks. Interestingly, all the hypotheses were rejected. This literally means that technology is positively impacting relationships with the banks. The following chapter provides a more comprehensive and extensive discussion of conclusions drawn from these findings and results. Equally important, the next chapter ultimately posits conclusions and recommendations on the aspect of technologicalship marketing as inspired by this research.

CHAPTER 7
CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

Following a thorough and effortful secondary research, the nitty-gritty concepts of technologicalship marketing in e-banking were identified and comprehensively discussed in chapter two, three and four. The literature review phase of the study focused on the technological elements and relationship marketing. For relationship marketing, personal contact, client retention, client switching and relational exchange constructs, pinnacle the discussion. Essentially, these constructs formed the four hypotheses as well as the research findings therein. From these four hypotheses, the fifth hypothesis emerged ultimately endeavouring to address the gap pertaining to whether relationship marketing or transactional marketing underlies electronic and technological embedded relationships (technologicalship marketing).

In order to amply research the above problematic aspects of relationship marketing, chapter five discussed the research methods and procedures which were utilised in this research study to attain the findings discussed in the previous chapter (chapter six). Henceforth, this chapter focuses on discussing the research conclusions pertaining to the research hypotheses postulated in the preliminary stages of this dissertation. Equally important, the recommendations and areas of further research emanating from the conclusions, thereof, also embed the focus of this chapter, as well as, the limitations and assumptions of the study. The following section focuses on the conclusions of the research on a hypothesis per hypothesis basis.

7.2 CONCLUDING REMARKS

This section aims to discuss final conclusions on the objectives and hypotheses of the study at the hand of the research findings as is substantiated by the results of the regression analysis and chi-square. The regression analysis used the F-statistic to measure the predictors (technological elements) effect on the dependent variables (relationship marketing constructs). Each F statistic is a ratio of mean squares. The numerator is the mean square for the term. The denominator is chosen such that the expected value of the numerator mean square differs from the expected value of the

denominator mean square only by the effect of interest. The effect for a random term is represented by the variance component of the term. The effect for a fixed term is represented by the sum of squares of the model components associated with that term divided by its degrees of freedom. Therefore, a high F statistic indicates a more significant effect (Hirschey, 1995:181).

On the other hand, the chi-square also substantiated the decisions on the rejection or failure to reject the null hypothesis. This was measured at significance level $p>0.05$ (at α equals to 0.05 level). The conclusions are also comprehended with empirical studies to establish possible consistency and differences as well as any possible subsequent impact to understanding the area of study. The first hypothesis is discussed below and the sequence of the hypothesis as they were analysed will be followed.

7.2.1 Technology on Social Constructs in Banking Relationships

This conclusion pertains to the first hypothesis, namely, *from the clients' perspective, the use of modern banking technologies in service delivery constraints social constructs in relationships*. This hypothesis investigated the impact of technology utilisation by banks on social constructs, *per* se, communication, personal contact as well as trust and security. These social constructs are essential for an ideal relationship from the client's perspective, such that their nonexistence result in clients feeling alienated. Duly, this section aims to answer the question of whether or not clients feel alienated because of technology usage in service delivery. Accordingly, this finding enables the attainment of the fourth secondary objective which aimed at establishing the challenges and constraints faced by clients in technology adoption for relationship purposes. From the beginning, it was presumed that technology primarily results in the dehumanisation and disintegration of relationships, particularly, personal constructions.

The results significantly support the rejection of the first hypothesis. The hypothesis testing phase established a significant relationship between technology and social

constructs. With the highest regression R^2 of 0.324 and average F-statistic value of 10.38 (when compared to other variables in this study), social constructs variable is the mostly affected dependent factor of relationship marketing. Primarily, this emanates from an extensive interaction and influence of technology elements on the communication variables (F=18.8) followed by trust and security (F=8.3). Consistently, a study by Mehdi, (2006:76) established that internet applications are certainly capable of enhancing an interactive communication with clients. Thus, conclusively, retail banking clients consider communication, trust and security as significantly supported by technology in electronic marketplaces.

For the personal contact construct, a relatively weaker F-statistic emanates from a two-thronged impact of technology on personal aspects of relationships. Though slightly lower, the personal contact element of social constructions' analysis still supported the rejection of the hypothesis. The F statistic of 4.06 indicates the existence of a relatively significant link between technological utilisation and personal contact variables. Firstly, consistent to Larpsiri & Speece (2004:399), respondents in the current study confirmed that human contact is still crucial in contemporary technology-backed relationships. This finding negates technologicalship marketing wellbeing. The majority of e-banking clients (60%) presume that face-to-face contact is still critical, whilst, 49% disagree that self-service technologies eliminate the need for bank employees in technologicalship marketing. This finding has an effect of failing to reject the null hypothesis in this study. On the contrary, Ahmad (2005:328), states that other clients do not even require face-to-face human services, to complete banking transactions. Accordingly, at least 54% of the clients disagree that they are disadvantaged and there is dehumanisation as well as creation of social distance in technologicalship. This leads to the enhancement of social constructions and, subsequently, relationships in technologicalship marketing.

7.2.2 Technology on Client Retention in Banking Relationships

The second hypothesis states that "*from the client's viewpoint, the use of technological mediums negatively affects client retention in relationship marketing".* The subsequent attestation for this statement was that technology is promoting client satisfaction and

loyalty which, in turn, enhance client retention. Thus, the second hypothesis was rejected. This means that the utilisation of modern technologies complements relationships with clients in mass marketing environments of retail banks. Ahmad (2005:319) states that, beneath higher client retention lies a strong correlation between client loyalty and client satisfaction. Additionally, several studies elaborated the satisfaction-loyalty relationship for products and services, brands and retailers and considered the interaction between these (Mai & Ness, 1999:860). Significantly, *per se,* this research finding maintains and supports a similar conclusion that client loyalty and client satisfaction are significantly associated (Fang Wang, 2004:64).

This finding simultaneously addresses the first secondary objective which aimed to assess the momentum of technology-based relationship marketing in e-banking services consumer markets from the client's perspective. With regards to client satisfaction, the majority of clients agree that e-banking and the associated technologies increase client satisfaction and always provide a high degree of client satisfaction. Consistently, for client loyalty, e-banking does not diminish the belongingness of most clients to the bank, their propensity to advocate for their banks to others as well as their willingness for long-term relationships. Finally, for relationship quality, e-banking increases the quality of service and does not demise the clients' preparedness to confirm the superiority of e-bank facilities.

Disappointedly, the latter client retention variable (relationship quality) has an insignificant interaction with technological elements with an F-statistic of 0.3 and p value 0.7328. Nonetheless, the majority of clients consider that their experience in e-banking environments is high. *Per* se, high positive perspectives asserting that e-banking increases the quality of services and hence, many clients were prepared to attest that their banks e-banking facilities are superb, plausibly suggest that technology promotes the quality of interactions and the subsequent relationships.

7.2.3 Technology on Client Switching in Retail Banking Relationships

Intense competitiveness coupled with the homogeneity of financial products makes the banking industry susceptible to client switching (Chakravarty, *et al.*, 2004:510). The fourth secondary objective research for this research was to determine the subsequent impact of massive technological innovations on clients' switching mobility and the effect on relationship marketing in the banking environments. This objective was extensively addressed through the third hypothesis which states that "*clients' switching between banks is enhanced by modern technologies which negatively affect relationships".* Whilst pursuing this hypothesis, consistently, the first secondary objective is also addressed to some extent. This objective aims to assess the momentum of technology-based relationship marketing in e-banking services, from the client's perspective, in consumer markets.

Interestingly, in technological mass markets, technology is significantly related to client switching constructs as indicated during the third hypothesis stage. The regression analysis R^2 indicates that 26% of the variance in switching responses is influenced by the technological elements. Consequently, the third hypothesis was rejected statistically. However, a review of descriptive findings portrays that the majority (59%) of all the respondents believe that e-banking removes switching barriers, with 71% of them indicating that e-banking increases information on financial institutions, and with 60% stating that they were well conversant of the developments in the banking industry to make informed switching decisions. In a nutshell, e-banking environments present a considerably higher switching potential for clients. This is consistent, in part, with the sentiments echoed by Durkin & Howcroft (2003:63), who argue that technologies give clients the power to compare and switch from one service firm to another.

The research findings show that overall switching in e-banking is not as intense as initially suggested. In this regard, important highlights from the findings affirm that the majority of the clients:

- find it difficult to switch banks even if they wanted,
- do not contemplate banking with more than one bank, and
- perceive that there are substantial switching costs on e-banking podiums.

Thus, conclusively, the current client switching behaviour as well as the environment, scantly evidences the conclusion that the adoption of advanced information technologies is increasing the mobility and switching capacity of clients between banks and, hence disrupting the practice of relationship marketing.

7.2.4 Technology on Relational Exchanges in Retail Banking Relationships

This section discusses conclusions pertaining to the impact of technology on relational exchange constructs which enabled the investigation of the fourth hypothesis. This hypothesis states that *"clients consider modern e-banking technologies to be constraints to interactivity and relational elements in relationships with the bank"*. Also, the information obtained thereon, facilitated the attainment of the first and fourth secondary objectives. The first secondary objective relates to the assessment of the momentum of technology-based retail bank relationships from the client's perspective in East London. The fourth secondary objective aims to ascertain constraints faced in achieving successful relationships in technological environments.

The desire for both parties to benefit from an exchange is central to relational exchanges of all sorts, including the technology mediated (Peters, 1997:213). From the testing of the fourth hypothesis, statistical significance was established between technology and all the three relational exchange constructs, namely, commitment, personalisation and interactivity. Thus, the fourth hypothesis was rejected. Evidently, the findings conclude that in technology-based relationships, commitment, personalisation and interactivity were supported. Consequently, recently developed technologies provide one-to-one and interactive marketing. Thus, with clients preferring the technological interfaces, technologicalship marketing exists. With regards to commitment, this finding is consistent with Ryssel, *et al.*, (2004:204), who

found the existence of high commitment in technology-based business to business relationships.

From direct measurements pertaining interactivity levels perceptions amongst the respondents, evidence high interactivity. Similarly, the use of e-banking self-service such as the EFTPS, ATMs and internet, evidence the existence of high interactivity behaviour. Interestingly, this highest usage prevalence of EFTPS in e-retail banking, followed by ATMs, seems to suggest that whatever the factors that influence e-banking adoption are, today's clients prefer technologies which are neither too recent nor too sophisticated. Unfortunately, most of the clients perceive that they do not possess the power to influence the services they receive in e-retail banking. This inhibits the extent of personalisation or customisation of services which is very crucial in the contemporarily prominent one-on one relationship marketing. This result is consistent with Vlasic & Kesic (2007:125) study which established no statistical evidence of personalisation in industries such as insurance, retailing, automobile and catering. They suggest that lack of education amongst consumers on the benefits of personalisation could be the reason for low personalisation.

7.2.5 The Extent of Technologicalship Marketing: Transactional or Relationship

The fifth hypothesis postulates that "*in technological entrenched e-banking marketplaces, there is more transactional marketing than relationship marketing".* In this context the study, initially, in chapter one, the research presumed that massive technology use and development will result in the disappearance of relationship marketing in the future. While, presently, modern technologies result in short term relationships and, as such, this enhances transactional marketing. Consequently, this study proposed that there is much more transactional marketing rather than interactive or networking in e-retail banking client relationships. Furthermore, the study presupposed that with competitors and clients bargaining power enhanced through technology, retaining clients has become a greater challenge for service providers

because of new technologies which are escalating the switching capabilities of clients between service providers as well as dehumanising and disintegrating the human aspect of relationships.

With the rejection of all the four preceding hypothesis subsequently underpinning the rejection of the fifth hypothesis, all the above statements and notions were accordingly repudiated. This conclusion also answers the second objective which aimed to ascertain to what extent clients utilised the various modern technologies of transacting with the four banks under study in East London for relationship purposes as compared to transactional purposes. In the context of this study, there is more relationship marketing than transactional marketing in technologicalship marketing. Thus, overall findings established that clients consider e-banking and its related technologies friendly, trustworthy and secure. Furthermore, clients are highly loyal to and interacting with e-banking. Consequently, client satisfaction on e-banking is high and, consistently, their switching propensity is low.

The findings of this study transcend a possible notion that technology-embedded markets might be characterised by more transactional marketing than relationship marketing (Durkin & Howcroft. 2003:64). In a transactional relationship framework, clients will only use technology for the purpose of efficiency, convenience and timer rather than for relationship purposes. In addition, cooperation, commitment, trust and interactivity as well as lengthy relationships will not be existent (Veludo, *et al.*, 2006:200); rather, switching, adversary and competition will be the hallmarks of the technology-based typology of relationships (Veludo, *et al.*, 2006:200; Abratt & Russell, 1999:7). Thus, conclusively, this research supports that beyond relationship marketing, technologicalship marketing exists (Zineldin, 2006:16 and Zineldin & Vasicheva, 2008:117). Since, most of the relationship marketing variables, as defined by the four constructs categories devised in this study, were found to be thriving in technological environments.

7.3 RECOMMENDATIONS

Recommendations should follow logically from the conclusions and findings and must be presented with reasons for in-depth detail (Tustin, *et al.*, 2005:728). Recommendations quite importantly concern the essence of the research and decision making and plausible suggestions from the research based on the experience and knowledge gained throughout the life of the research. However, an ongoing argument exists on whether recommendations do form part of a research study (Tustin, *et al*., 2005:729). The following recommendations sprout from the main threats and discoveries emanating from the conduct of this study. These recommendations are given from the two-pronged perspective, namely, bank management and marketers. The following section focuses on recommendations to banks.

7.3.1 Recommendations to Bank Management

The following recommendations are propounded for banks so as to effectively manage relationships in technological marketing with regards to the areas identified in this study.

7.3.1.1 Depersonalisation and dehumanisation in technologicalship marketing

The lack of the personal contact phenomenon was found to be one of the threats in technologicalship marketing. In literature, it is envisaged that technology is resulting in the disappearance of human contact which is a critical aspect of relationships. However, it is highly unlikely that dehumanisation of technology-based relationships will result in clients feeling alienated in virtual marketplaces. Still, it is undeniable that firms should endeavour to ascertain and address the precise needs and expectations of clients on an individual basis. This relates to the transcending need for superior client value through customisation in contemporary markets. As a result, the only plausible strategy is to endeavour to integrate the human aspect at some self-service podiums. For instance, the mounting of staff at ATM points, which most banks have been doing, is very vital in this regards. Again, the introduction of voice or audio

functions on ATMs, which are in local languages, might enhance the usability and user-friendliness of ATMs. This can also be applied on internet points.

7.3.1.2 Client mobility

The research established that fluidity and wispiness of e-marketplaces was not resulting in clients willing to switch banks as shown by the switching propensity embedded in most of the clients banking with one bank. In this regards, the research particularly discovered that information asymmetry is disappearing in technological marketplaces. Hence, the most probable reason for clients' unpreparedness to switch, in the face of technologically enabling platforms, is the level of satisfaction gained from e-banking and the banks at large. Consequently, it becomes obvious that if a bank falters in its service delivery, clients are highly likely to switch to other banks. In this regard, it is recommended that banks should maintain high service quality. This is the hallmark of client satisfaction and a sustainable barrier for clients' propensity to switch banks. It is envisaged that satisfied client is a retained client, thus, establishing a long-term relationship (Aronsohn, *et al.*, 2006:61).

7.3.1.3 Clients e-banking adoption

Factors such as clients' lack of knowledge, insecurity and threats of technologies have been identified, in this study, as the prominent drawbacks of clients' adoption of technologies. To enhance clients' adoption of modern banking technology, banks need to consider enhancing awareness and education on the usage of these modern advanced technologies. Banks may improvise on educating clients on the uses of cellphone and internet banking through communication mediums such as TV, radio and the internet. Likewise, benefits of utilising e-banking should be made more visible to clients through lower charges. This should encourage clients' adoption and convenience on the usage of banking technologies. Consistently, this will enable firms to subsequently benefit from their technological investments and expenditure.

7.3.1.4 E-banking accessibility

Inaccessibility of many of the e-banking delivery systems has been also identified as a threat hindering the thriving of e-banking development from the client perspective. Accordingly, banks need to consider enhancing the accessibility of the e-banking podiums so as to reach up to a wider spectrum of clients. For instance, banks may need to increase the distribution of ATMs and make them more universally accessible to clients. With regards to EFTPS, banks need to expand point-of sale to small shops (Masocha, Chiliya & Zindiye, 2009:412). The following section focuses on recommendations to marketers.

7.3.2 Recommendations to Marketers

The following recommendations relate to marketers and possible suggestions to the area of marketing.

7.3.2.1 Technologicalship pervasiveness

The pervasiveness of technology is increasing at an unprecedented pace; consequently, technologicalship marketing is highly proliferated as the future for marketing. It is extremely essential that gaps which exhibit future growth and directions of the marketing realm should be identified, articulated and reiterated. An earlier research study in 2009 by Masocha, *et al.*, (2009:413) established that contemporary bank marketing efforts, especially internet and mobile banking, were not all inclusive in reaching all clients. The same findings were also highlighted in the Mobility 2007 survey (Gordon, 2007:19), which established that of the 32 million total South African cellphone owners, 85 % had bank accounts but only 17% used cellphone banking. Considering that the pervasiveness of technologicalship marketing is inexcusably to reign in the future, pre-emptiness in technological innovation and adoption will provide sustainable competitive advantages to firms.

7.3.2.2 Strategic formulation

Per se, the researcher propounds that, marketers should consider the formulation of strategies which curtail and synthesise the reinforcement of all the possible technologies available for banks and firms, at large. As questions continuously arise on the essence of marketing management within business enterprises, only suitable theoretical and competitive propositions will render marketing relevant against the contemporary business demands. Proactive strategic formulation and interpretive dynamic strategy will assist with describing how organisations react to inside and outside environments. Lynch (2009), opines that proactive dynamics influence events rather than describe external business environments. Earlier strategies were more analytical than opportunity based; modern strategies should include opportunities as part of strategy. Thus, marketers should improvise extensively on aggressive competitive strategies which are innovatory in nature.

7.3.2.3 Technologicalship and brick and mortar

Apart from focusing on self-service delivery systems, as the only platform for technologicalship marketing, technology can be used to enhance the brick and mortar environments to make them more attractive and automated. This can substantially improve the appearance and attractiveness of banks, *per se*. It is more appropriate to consider the holistic approach to marketing management in all situations. As much as marketers advocate for all the possible substantiation of e-services with human contact facets, so should traditional environments be coupled with technological elements. A combination of technologicalship and the traditional methods is highly likely to ultimately provide a universal offering at the branches. Hence, marketers should devise more of such approaches in the contemporary context.

7.4 LIMITATIONS AND ASSUMPTIONS

The following are the limitations encapsulated in the conduct of this study. The study primarily has limitations emanating from the use of convenience sampling which is a

non-probability method. In convenience sampling there is no randomness and the likelihood of bias is high. This has negative repercussion of failure to perfectly generalise the findings of the research to the whole population. However, this method is often the only feasible one, particularly for students or others with restricted time and resources, and can legitimately be used provided its limitations are clearly understood and stated. The use of convenience sampling is appropriate since this research prevails in such restrictive conditions with also high chances of non-response due to fear of high crimes at banking points in South Africa. Hence, to mitigate this limitation the researcher made use of a large sample size, based on the assumption that this would enhance the representativeness of the sample.

Broadly, the research and conclusions attained are based on the assumption that the East London population is a fair representation of the South African retail banking market. For as long as the sample elements selection adhered to the parameters stated in the racial demographic structures, the representation requirement should be automatically addressed. As stated before, there were some slight deviations from this demographic representativeness requisite, however, this ought not to impel the generalisability of the findings greatly. The usefulness and significance of conducting the research still transcends the drawback posed by this setting.

Furthermore, another significant drawback was the technicality nature of the research subject. A couple of limitations and assumptions emanate thereabout. Foremost, the survey was conducted under the auspices of a twenty-first century bank clients who were aware of the banking options at their disposal. Thus, there are high possibilities of misinterpretations of the contents and purpose of the research. Unarguably, technological competence and awareness amongst the general public is significantly acclimatised to personal well-being and egoism. For this reason, the rejection of the hypothesis is significantly deterred by this egoism factor whereby most respondents might have wrongly misrepresented facts and responded that they are familiar and conversant with e-banking, whence, the opposite would be true.

Despite the efforts to simplify the data collection process and eliminate possible errors as much as possible, several limitations crippled the quality of the process. Firstly, the area of study was in East London whilst the researcher was based in Alice, and this required extensive travelling on the part of the researcher. Travelling was, further, complicated by the fact that the researcher did not have a motor vehicle and had to rely on public transport. The cost of empirical research was high as it included transport, accommodation and food. Consequently, assistance was obtained from other business management and economics postgraduate students in data collection. Secondly, the language barrier still surfaced in the process as most of these students could not speak several local languages fluently, which has a potential demise on the quality of the research findings.

7.5 AREAS FOR FURTHER RESEARCH

Unarguably, a principal insight obtained in this research is that relationship marketing in marketspaces is embodied with various challenges and unresolved matters. In particular, banks, researchers, academicians and the businesses at large, continue to struggle with appropriate relationship marketing definition and strategies as well as measuring the relationship marketing concept. This research provides a very crucial framework in attempting to resolve some, if not all, of the above problematic areas in the context of technologicalship marketing. Today, banks struggle with developing, deploying and measuring relationship marketing programs on cyberspaces. For individual banks, this research posits a detailed structural approach of developing, deploying and measuring relationship marketing in technological environments. To a larger extent, the study can be effectively utilised by banks in future to research on technologicalship marketing. The questionnaire and factor breakdown provided are extensive instruments which can be utilised by firms to measure their successfulness. Findings of this study provide a point of reference for banks.

For future marketing students and researchers, this study points towards the development of a framework of measuring the entire concept of relationships and its intensity in technologicalship marketing. Apart from, the conceptual work by Zineldin, (2000), no direct empirical study on technologicalship marketing could be located thereon as informed by the process of literature review. Consequently, the research instrument and research framework proposed in this study can be applied in the area of business-business technologicalship and establish its pragmatism. The study does not offer definitive answers on the concept of technologicalship marketing in mass markets. The researcher is of the view that the findings on the concept can differ significantly depending on the sophistication and wealth of clients. For instance, the research framework developed can be instrumental in developed countries such as the USA and UK e-retail banking markets.

Conclusively, this kind of research can potentially be more valuable and enlightening for banks and relationship marketing researchers if the population can be further delimited. Essentially, particular insights can be obtained if the same research framework can be applied to a more defined demographic retail bank market segment based on age, race, income, gender or education. As noted during the literature review these factors impact technological adoption and thereby the readiness to engage in electronic banking markets. Eventually and certainly, the results to be obtained herewith on technologicalship marketing pragmatism are likely to be different.

7.6 CONCLUSION

Initially, five hypotheses and objectives were postulated in chapter 1. This chapter marked the end of the dissertation by endeavoring to bring together everything the study focused on. Thus, in this chapter, the discussion aimed to discuss concluding remarks as transpired by the findings of the empirical research as well as the preceding secondary research during literature review. Auspiciously, the discussion reviews that the study managed to realise all its objectives and hypotheses. Plausibly, the level of e-banking sophistication has a significant impact on the willingness of

clients to maintain relationships with a bank. Apart from the conclusions, the chapter also encapsulates recommendations and areas for further research as well as the limitations of the research. The limitations highlighted, were mainly emanating from resource constraints and the sampling method utilised. Recommendations were directed to banks as well as to marketers on the possible ways to approach future challenges. Finally, plausible future directions of research were pointed out in order to breed and cultivate research continuity on the fundamental concept of technologicalship marketing.

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ADDENDUM 1

QUESTIONNAIRE

University of Fort Hare
Together in Excellence

This survey is conducted under the auspices of the Department of Business Management at the University of Fort Hare for research and curriculum advancement. The main objective of this study is to assess the implications of technology on client relationships in e-banking services in the South African context. *E-banking refers to the various electronic banking instruments mainly ATMs, Internet Banking, Mobile Banking and Electronic Funds Transfer at Point of Sale (EFTPS*). You are kindly requested to offer 10 minutes of your time and complete this questionnaire. Your responses will be treated with the necessary professionalism and ethical correctness. Confidentiality is guaranteed and your responses will be exclusively used for the purposes of this research.

Name: **Reginald Masocha**

Signature: **.....**

SECTION A: PERSONAL INFORMATION *(Put an X next to the appropriate option)*

A1. Gender Male…….. Female……

A2. Education High School……..Diploma……..Degree……

A3. Marital Status Single…….Married…….Divorced……..Widowed…….

A4. Race Black…...Indian……..White……Coloured……Other (specify)……

A5. Age Below 21…… 21 to 30……..31 to 40……41 to 50…….. Above 50……

A6. Income Group(R) 0-4000…..4001-8000…..8001-12000…..12001-16000…..Above 16000.....

A7. Which bank do you bank with? **ABSA**…..**FNB**……**Nedbank**….**Standard**……**Other (specify)**.....

A8. Do you own any of the following communication devices? (*Select as many as you own)*

Radio…….		***Internet……***		***Telephone …..***	
Television….		***Cellphone……***		***PDAs……..***	

SECTION B: BANKING INFORMATION AND E-BANKING USAGE EXPERIENCES

B1. How long have you been banking with the bank you have selected? Approximately…….years

B2. From the list below, which other bank/s do you hold an account with?

~~**Not Applicable**~~		**ABSA**		**Postbank**		**Standard**			
FNB		**Investec**		**Nedbank**		**Capitec**		**Other (Specify)**	

B3. Indicate your preference for conducting a transaction?

Banking technologies		Bank employees	

B4. How important is face-to-face contact with bank staff when conducting your personal banking?

Very Important		***Important***		***Neutral***		***Unimportant***		***Extremely Unimportant***	

B5. How important is e-banking in conducting your personal banking?

Very Important		***Important***		***Neutral***		***Unimportant***		***Extremely Unimportant***	

B6. In a typical week how often do you use the following banking methods? (*Put X in the appropriate block).*

	5 times and More	**3-4 times**	**Thrice**	**Once**	**Never**
Internet banking					
Use of ATM's					
Cellphone banking					
Telephone banking					
Patronise the physical Branch					
Electronic Transfer at Point of Saleand withdrawal					

SECTION C: RELATIONAL, SOCIAL AND CUSTOMER RETENTION AND SWITCHING

B7. To what extent do you agree that e-banking (**internet, ATMs and Mobile**) does the following?

	Strongly agree	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**
Increase customer satisfaction					
Increase your desire to maintain relationships with the bank					
Increase the quality of the service					
Increase the service information about banks					
Remove the need for bank employees					
Remove barriers for you to switch from one bank to another					
Increase your interaction with the bank					
Are secure and trustworthy					

B8. I feel that I have no influence over services and transactions provided by e-banking instruments.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B9. There is a close connection between my expectations and the results I get from e-banking services.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B10. The use of technology disadvantages me in being serviced by machines rather than banking personnel.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B11. The use of technology in financial service delivery takes away my closeness to the bank.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B12. The use of e-banking service delivery systems diminishes my sense of belongingness to my bank.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B13. In modern society, consumers must have bank accounts with more than one bank.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B14. Rate the volume of information communicated by your bank through the following media.

Medium	**Excellent**	**Good**	**Fair**	**Poor**	**Very Poor**	**Not Applicable**
Internet						
Radio						
Television						
Telephone calls						
Mobile phones						

B15. Overall, I would say the level of my interaction with the bank's e-banking instruments is high.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B16. The use of my bank's e-banking facilities always provides me with a high degree of satisfaction.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B17. I will encourage friends and relatives to use my bank because of its excellent technologies.

Strongly		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B18. I would recommend my bank as the best in terms of technology in the banking industry.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B19. I am prepared to continue using the banking technologies.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B20. It would cost me a substantial amount of money to switch from my bank to another one.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B21. It would be difficult for me to switch from my bank to another one, even if I wanted to.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B22. E-banking provides more differentiated services compared to that offered by the bank's employees.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B23. I am well conversant about developments in the banking industry to make informed switching decisions if so decided.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

B24. The level of technological sophistication is essential for a long-term relationship with my bank.

Strongly Agree		***Agree***		***Neutral***		***Disagree***		***Strongly Disagree***	

.....Thank you for your cooperation.....

Enjoy your banking

ADDENDUM 2: Frequency Distribution

Frequency Table Report

Page/Date/Time 1 13/10/2009 17:14:57
Database

Frequency Distribution of Gender

Gender	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
Male	101	101	50.50	50.50	||||||||||||||||||
Female	99	200	49.50	100.00	||||||||||||||||||

Frequency Distribution of Education

Education	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	35	35	17.50	17.50	|||||||
2	55	90	27.50	45.00	||||||||||
3	110	200	55.00	100.00	||||||||||||||||||||||

Frequency Distribution of Marital_Status

Marital_Status	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	117	117	58.50	58.50	||||||||||||||||||||||
2	67	184	33.50	92.00	||||||||||||
3	12	196	6.00	98.00	||
4	4	200	2.00	100.00		

Frequency Distribution of Race

Race	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	134	134	67.00	67.00	||||||||||||||||||||||||||
2	16	150	8.00	75.00	|||
3	31	181	15.50	90.50	||||||
4	19	200	9.50	100.00	|||

Frequency Distribution of Age

Age	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	31	31	15.50	15.50	||||||
2	122	153	61.00	76.50	||||||||||||||||||||||||
3	44	197	22.00	98.50	||||||||
4	1	198	0.50	99.00		
5	2	200	1.00	100.00		

Frequency Distribution of Income

Income	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	96	96	48.00	48.00	||||||||||||||||||
2	35	131	17.50	65.50	|||||||
3	30	161	15.00	80.50	||||||
4	19	180	9.50	90.00	|||
5	20	200	10.00	100.00	||||

Frequency Distribution of X1st_Bank

<table>
<tr><th>X1st_Bank</th><th>Count</th><th>Cumulative Count</th><th>Percent</th><th>Cumulative Percent</th><th>Graph of Percent</th></tr>
<tr><td>1</td><td>58</td><td>58</td><td>29.00</td><td>29.00</td><td>|||||||||||</td></tr>
<tr><td>2</td><td>52</td><td>110</td><td>26.00</td><td>55.00</td><td>||||||||||</td></tr>
<tr><td>3</td><td>36</td><td>146</td><td>18.00</td><td>73.00</td><td>|||||||</td></tr>
<tr><td>4</td><td>54</td><td>200</td><td>27.00</td><td>100.00</td><td>||||||||||</td></tr>
</table>

Frequency Distribution of X8Radio

<table>
<tr><th>X8Radio</th><th>Count</th><th>Cumulative Count</th><th>Percent</th><th>Cumulative Percent</th><th>Graph of Percent</th></tr>
<tr><td>1</td><td>36</td><td>36</td><td>18.00</td><td>18.00</td><td>|||||||</td></tr>
<tr><td>2</td><td>164</td><td>200</td><td>82.00</td><td>100.00</td><td>||||||||||||||||||||||||||||||||</td></tr>
</table>

Frequency Distribution of X8Internet

<table>
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<tr><td>1</td><td>99</td><td>99</td><td>49.50</td><td>49.50</td><td>|||||||||||||||||||</td></tr>
<tr><td>2</td><td>101</td><td>200</td><td>50.50</td><td>100.00</td><td>||||||||||||||||||||</td></tr>
</table>

Frequency Distribution of X8Telephone

<table>
<tr><th>X8Telephone</th><th>Count</th><th>Cumulative Count</th><th>Percent</th><th>Cumulative Percent</th><th>Graph of Percent</th></tr>
<tr><td>1</td><td>88</td><td>88</td><td>44.00</td><td>44.00</td><td>|||||||||||||||||</td></tr>
<tr><td>2</td><td>112</td><td>200</td><td>56.00</td><td>100.00</td><td>||||||||||||||||||||||</td></tr>
</table>

Frequency Distribution of X8Television

<table>
<tr><th>X8Television</th><th>Count</th><th>Cumulative Count</th><th>Percent</th><th>Cumulative Percent</th><th>Graph of Percent</th></tr>
<tr><td>1</td><td>44</td><td>44</td><td>22.00</td><td>22.00</td><td>||||||||</td></tr>
<tr><td>2</td><td>156</td><td>200</td><td>78.00</td><td>100.00</td><td>|||||||||||||||||||||||||||||||</td></tr>
</table>

Frequency Distribution of X8Cellphone

<table>
<tr><th>X8Cellphone</th><th>Count</th><th>Cumulative Count</th><th>Percent</th><th>Cumulative Percent</th><th>Graph of Percent</th></tr>
<tr><td>2</td><td>200</td><td>200</td><td>100.00</td><td>100.00</td><td>||||||||||||||||||||||||||||||||||||||||</td></tr>
</table>

Frequency Distribution of UseInternet

<table>
<tr><th>UseInternet</th><th>Count</th><th>Cumulative Count</th><th>Percent</th><th>Cumulative Percent</th><th>Graph of Percent</th></tr>
<tr><td>1</td><td>82</td><td>82</td><td>41.00</td><td>41.00</td><td>||||||||||||||||</td></tr>
<tr><td>2</td><td>38</td><td>120</td><td>19.00</td><td>60.00</td><td>|||||||</td></tr>
<tr><td>3</td><td>23</td><td>143</td><td>11.50</td><td>71.50</td><td>||||</td></tr>
<tr><td>4</td><td>18</td><td>161</td><td>9.00</td><td>80.50</td><td>|||</td></tr>
<tr><td>5</td><td>39</td><td>200</td><td>19.50</td><td>100.00</td><td>|||||||</td></tr>
</table>

Frequency Distribution of UseAtm

UseAtm	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	14	14	7.00	7.00	||
2	69	83	34.50	41.50	||||||||||||
3	52	135	26.00	67.50	|||||||||
4	35	170	17.50	85.00	||||||
5	30	200	15.00	100.00	|||||

Frequency Distribution of UseCell

UseCell	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	74	74	37.00	37.00	|||||||||||||
2	38	112	19.00	56.00	||||||
3	33	145	16.50	72.50	|||||
4	35	180	17.50	90.00	||||||
5	20	200	10.00	100.00	||||

Frequency Distribution of UseTeleph

UseTeleph	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	118	118	59.00	59.00	|||||||||||||||||||||
2	44	162	22.00	81.00	|||||||
3	8	170	4.00	85.00	|
4	11	181	5.50	90.50	||
5	19	200	9.50	100.00	|||

Frequency Distribution of UseEFTPS

UseEFTPS	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	42	42	21.00	21.00	|||||||
2	41	83	20.50	41.50	|||||||
3	20	103	10.00	51.50	||||
4	34	137	17.00	68.50	|||||
5	63	200	31.50	100.00	|||||||||||

Frequency Distribution of internet_info

internet_info	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
0	15	15	7.50	7.50	|||
1	6	21	3.00	10.50	|
2	10	31	5.00	15.50	||
3	38	69	19.00	34.50	||||||
4	52	121	26.00	60.50	|||||||||
5	79	200	39.50	100.00	||||||||||||||

Frequency Distribution of radio_info

radio_info	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
0	13	13	6.50	6.50	||
1	18	31	9.00	15.50	|||
2	21	52	10.50	26.00	||||
3	61	113	30.50	56.50	|||||||||||
4	66	179	33.00	89.50	||||||||||||
5	21	200	10.50	100.00	||||

Frequency Distribution of tv_info

tv_info	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
0	5	5	2.50	2.50	|
1	17	22	8.50	11.00	|||
2	11	33	5.50	16.50	||
3	54	87	27.00	43.50	|||||||||
4	66	153	33.00	76.50	||||||||||||
5	47	200	23.50	100.00	||||||||

Frequency Distribution of phone_info

phone_info	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
0	11	11	5.50	5.50	||
1	17	28	8.50	14.00	|||
2	39	67	19.50	33.50	|||||||
3	51	118	25.50	59.00	|||||||||
4	52	170	26.00	85.00	|||||||||
5	30	200	15.00	100.00	|||||

Frequency Distribution of cell_info

cell_info	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
0	3	3	1.50	1.50	|
1	9	12	4.50	6.00	|
2	26	38	13.00	19.00	|||||
3	30	68	15.00	34.00	|||||
4	52	120	26.00	60.00	|||||||||
5	80	200	40.00	100.00	||||||||||||||

Frequency Distribution of CommChannels

CommChannels	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	25	25	12.50	12.50	|||||
2	17	42	8.50	21.00	|||
3	33	75	16.50	37.50	||||||
4	53	128	26.50	64.00	|||||||||
5	72	200	36.00	100.00	||||||||||||

Frequency Distribution of CommLevel

CommLevel	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	8	8	4.00	4.00	|
2	32	40	16.00	20.00	||||||
3	52	92	26.00	46.00	|||||||||
4	83	175	41.50	87.50	|||||||||||||||
5	25	200	12.50	100.00	|||||

Frequency Distribution of raise_secu

raise_secu	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	14	14	7.00	7.00	||
2	47	61	23.50	30.50	||||||||
3	38	99	19.00	49.50	|||||||
4	76	175	38.00	87.50	||||||||||||||
5	25	200	12.50	100.00	|||||

Frequency Distribution of Face2faceimportance

Face2faceimportance	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	68	68	34.00	34.00	||||||||||||
2	53	121	26.50	60.50	|||||||||
3	31	152	15.50	76.00	||||||
4	36	188	18.00	94.00	||||||
5	12	200	6.00	100.00	||

Frequency Distribution of Remove_employee

Remove_employee	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	11	11	5.53	5.53	||
2	87	98	43.72	49.25	||||||||||||||||
3	42	140	21.11	70.35	||||||||
4	45	185	22.61	92.96	||||||||
5	14	199	7.04	100.00	||

Frequency Distribution of depersonalisatn

depersonalisatn	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	10	10	5.00	5.00	||
2	51	61	25.50	30.50	|||||||||
3	26	87	13.00	43.50	|||||
4	83	170	41.50	85.00	|||||||||||||||
5	30	200	15.00	100.00	||||||

Frequency Distribution of closeness

closeness	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	11	11	5.50	5.50	||
2	51	62	25.50	31.00	|||||||||
3	30	92	15.00	46.00	||||||
4	86	178	43.00	89.00	||||||||||||||||
5	22	200	11.00	100.00	||||

Frequency Distribution of UseBranch

UseBranch	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	79	79	39.50	39.50	|||||||||||||||
2	86	165	43.00	82.50	|||||||||||||||||
3	4	169	2.00	84.50		
4	17	186	8.50	93.00	|||
5	14	200	7.00	100.00	||

Frequency Distribution of IncreaseSatis

IncreaseSatis	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	1	1	0.50	0.50		
2	7	8	3.50	4.00		
3	24	32	12.00	16.00	||||
4	83	115	41.50	57.50	||||||||||||||||
5	85	200	42.50	100.00	||||||||||||||||||

Frequency Distribution of satis_level

satis_level	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	1	1	0.50	0.50		
2	9	10	4.50	5.00		
3	49	59	24.50	29.50	|||||||||
4	99	158	49.50	79.00	||||||||||||||||||
5	42	200	21.00	100.00	||||||||

Frequency Distribution of Banking_Yrs

Banking_Yrs	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	11	11	5.50	5.50	||
2	20	31	10.00	15.50	||||
3	32	63	16.00	31.50	||||||
4	37	100	18.50	50.00	|||||||
5	25	125	12.50	62.50	|||||
6	15	140	7.50	70.00	|||
7	10	150	5.00	75.00	||
8	7	157	3.50	78.50		
9	1	158	0.50	79.00		
10	25	183	12.50	91.50	|||||
12	2	185	1.00	92.50		
13	1	186	0.50	93.00		
15	10	196	5.00	98.00	||
20	1	197	0.50	98.50		
25	2	199	1.00	99.50		
35	1	200	0.50	100.00		

Frequency Distribution of e_b_belonginss

e_b_belonginss	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	12	12	6.00	6.00	||
2	41	53	20.50	26.50	||||||||
3	30	83	15.00	41.50	||||||
4	90	173	45.00	86.50	||||||||||||||||||

5	27	200	13.50	100.00	|||||

Frequency Distribution of tell_others

tell_others	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
2	3	3	1.50	1.50	|
3	54	57	27.00	28.50	|||||||||
4	90	147	45.00	73.50	||||||||||||||||||
5	53	200	26.50	100.00	|||||||||

Frequency Distribution of e_b_longrshps

e_b_longrshps	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
2	16	16	8.00	8.00	|||
3	49	65	24.50	32.50	||||||||
4	67	132	33.50	66.00	||||||||||||
5	68	200	34.00	100.00	||||||||||||

Frequency Distribution of Raise_servqua

Raise_servqua	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
2	9	9	4.50	4.50	|
3	25	34	12.50	17.00	|||||
4	93	127	46.50	63.50	||||||||||||||||
5	73	200	36.50	100.00	|||||||||||||

Frequency Distribution of techsuperbness

techsuperbness	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
2	4	4	2.00	2.00	|
3	42	46	21.00	23.00	||||||||
4	104	150	52.00	75.00	|||||||||||||||||||
5	50	200	25.00	100.00	|||||||||

Frequency Distribution of Remove_switch_barr

Remove_switch_barr	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	31	31	15.50	15.50	||||||
2	87	118	43.50	59.00	|||||||||||||||
3	42	160	21.00	80.00	||||||||
4	30	190	15.00	95.00	||||||
5	10	200	5.00	100.00	||

Frequency Distribution of switch_cost

switch_cost	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	8	8	4.00	4.00	|
2	39	47	19.50	23.50	|||||||
3	45	92	22.50	46.00	||||||||
4	88	180	44.00	90.00	||||||||||||||||
5	20	200	10.00	100.00	||||

Frequency Distribution of otherbnks

otherbnks	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	77	77	38.50	38.50	||||||||||||||
2	122	199	61.00	99.50	||||||||||||||||||||||||
5	1	200	0.50	100.00	|

Frequency Distribution of more_banks

more_banks	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	22	22	11.00	11.00	||||
2	74	96	37.00	48.00	|||||||||||||
3	63	159	31.50	79.50	|||||||||||
4	36	195	18.00	97.50	|||||||
5	5	200	2.50	100.00	|

Frequency Distribution of switch_diff

switch_diff	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	12	12	6.00	6.00	||
2	40	52	20.00	26.00	||||||||
3	36	88	18.00	44.00	|||||||
4	83	171	41.50	85.50	|||||||||||||||
5	29	200	14.50	100.00	|||||

Frequency Distribution of Raise_servinfor

Raise_servinfor	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	61	61	30.50	30.50	|||||||||||
2	80	141	40.00	70.50	|||||||||||||||
3	30	171	15.00	85.50	||||||
4	26	197	13.00	98.50	|||||
5	3	200	1.50	100.00	|

Frequency Distribution of switchin_knwldg

switchin_knwldg	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	22	22	11.00	11.00	||||
2	98	120	49.00	60.00	||||||||||||||||||
3	57	177	28.50	88.50	||||||||||
4	21	198	10.50	99.00	||||
5	2	200	1.00	100.00	|

Frequency Distribution of long_R_ships

long_R_ships	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	1	1	0.50	0.50	|
2	7	8	3.50	4.00	|
3	38	46	19.00	23.00	|||||||
4	94	140	47.00	70.00	||||||||||||||||
5	60	200	30.00	100.00	|||||||||||

Frequency Distribution of e_bank_cont

e_bank_cont	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent

<table>
<tr><td>2</td><td>7</td><td>7</td><td>3.50</td><td>3.50</td><td>|</td></tr>
<tr><td>3</td><td>19</td><td>26</td><td>9.50</td><td>13.00</td><td>|||</td></tr>
<tr><td>4</td><td>109</td><td>135</td><td>54.50</td><td>67.50</td><td>|||||||||||||||||||||</td></tr>
<tr><td>5</td><td>65</td><td>200</td><td>32.50</td><td>100.00</td><td>|||||||||||||</td></tr>
</table>

Frequency Distribution of PrefferedBanking

<table>
<tr><th></th><th></th><th>Cumulative</th><th></th><th>Cumulative</th><th>Graph of</th></tr>
<tr><th>PrefferedBanking</th><th>Count</th><th>Count</th><th>Percent</th><th>Percent</th><th>Percent</th></tr>
<tr><td>1</td><td>38</td><td>38</td><td>19.00</td><td>19.00</td><td>|||||||</td></tr>
<tr><td>2</td><td>162</td><td>200</td><td>81.00</td><td>100.00</td><td>||||||||||||||||||||||||||||||||</td></tr>
</table>

Frequency Distribution of E_bankingimportance

<table>
<tr><th></th><th></th><th>Cumulative</th><th></th><th>Cumulative</th><th>Graph of</th></tr>
<tr><th>E_bankingimportance</th><th>Count</th><th>Count</th><th>Percent</th><th>Percent</th><th>Percent</th></tr>
<tr><td>1</td><td>3</td><td>3</td><td>1.50</td><td>1.50</td><td>|</td></tr>
<tr><td>2</td><td>13</td><td>16</td><td>6.50</td><td>8.00</td><td>||</td></tr>
<tr><td>3</td><td>37</td><td>53</td><td>18.50</td><td>26.50</td><td>|||||||</td></tr>
<tr><td>4</td><td>67</td><td>120</td><td>33.50</td><td>60.00</td><td>|||||||||||||</td></tr>
<tr><td>5</td><td>80</td><td>200</td><td>40.00</td><td>100.00</td><td>||||||||||||||||</td></tr>
</table>

Frequency Distribution of CloseE_b_exp

<table>
<tr><th></th><th></th><th>Cumulative</th><th></th><th>Cumulative</th><th>Graph of</th></tr>
<tr><th>CloseE_b_exp</th><th>Count</th><th>Count</th><th>Percent</th><th>Percent</th><th>Percent</th></tr>
<tr><td>1</td><td>4</td><td>4</td><td>2.00</td><td>2.00</td><td>|</td></tr>
<tr><td>2</td><td>27</td><td>31</td><td>13.50</td><td>15.50</td><td>|||||</td></tr>
<tr><td>3</td><td>34</td><td>65</td><td>17.00</td><td>32.50</td><td>||||||</td></tr>
<tr><td>4</td><td>113</td><td>178</td><td>56.50</td><td>89.00</td><td>||||||||||||||||||||||</td></tr>
<tr><td>5</td><td>22</td><td>200</td><td>11.00</td><td>100.00</td><td>||||</td></tr>
</table>

Frequency Distribution of interection_level

<table>
<tr><th></th><th></th><th>Cumulative</th><th></th><th>Cumulative</th><th>Graph of</th></tr>
<tr><th>interection_level</th><th>Count</th><th>Count</th><th>Percent</th><th>Percent</th><th>Percent</th></tr>
<tr><td>1</td><td>6</td><td>6</td><td>3.00</td><td>3.00</td><td>|</td></tr>
<tr><td>2</td><td>12</td><td>18</td><td>6.00</td><td>9.00</td><td>||</td></tr>
<tr><td>3</td><td>46</td><td>64</td><td>23.00</td><td>32.00</td><td>|||||||||</td></tr>
<tr><td>4</td><td>94</td><td>158</td><td>47.00</td><td>79.00</td><td>||||||||||||||||||</td></tr>
<tr><td>5</td><td>42</td><td>200</td><td>21.00</td><td>100.00</td><td>||||||||</td></tr>
</table>

Frequency Distribution of e_bank_differe

<table>
<tr><th></th><th></th><th>Cumulative</th><th></th><th>Cumulative</th><th>Graph of</th></tr>
<tr><th>e_bank_differe</th><th>Count</th><th>Count</th><th>Percent</th><th>Percent</th><th>Percent</th></tr>
<tr><td>1</td><td>6</td><td>6</td><td>3.00</td><td>3.00</td><td>|</td></tr>
<tr><td>2</td><td>29</td><td>35</td><td>14.50</td><td>17.50</td><td>|||||</td></tr>
<tr><td>3</td><td>48</td><td>83</td><td>24.00</td><td>41.50</td><td>|||||||||</td></tr>
<tr><td>4</td><td>78</td><td>161</td><td>39.00</td><td>80.50</td><td>|||||||||||||||</td></tr>
<tr><td>5</td><td>39</td><td>200</td><td>19.50</td><td>100.00</td><td>|||||||</td></tr>
</table>

Frequency Distribution of raise_intera

<table>
<tr><th></th><th></th><th>Cumulative</th><th></th><th>Cumulative</th><th>Graph of</th></tr>
<tr><th>raise_intera</th><th>Count</th><th>Count</th><th>Percent</th><th>Percent</th><th>Percent</th></tr>
<tr><td>1</td><td>7</td><td>7</td><td>3.50</td><td>3.50</td><td>|</td></tr>
<tr><td>2</td><td>18</td><td>25</td><td>9.00</td><td>12.50</td><td>|||</td></tr>
<tr><td>3</td><td>52</td><td>77</td><td>26.00</td><td>38.50</td><td>||||||||||</td></tr>
<tr><td>4</td><td>94</td><td>171</td><td>47.00</td><td>85.50</td><td>||||||||||||||||||</td></tr>
<tr><td>5</td><td>29</td><td>200</td><td>14.50</td><td>100.00</td><td>|||||</td></tr>
</table>

Frequency Distribution of No_influ_over_e_b

No_influ_over_e_b	Count	Cumulative Count	Percent	Cumulative Percent	Graph of Percent
1	23	23	11.50	11.50	||||
2	64	87	32.00	43.50	|||||||||||
3	48	135	24.00	67.50	||||||||
4	60	195	30.00	97.50	|||||||||||
5	5	200	2.50	100.00	|

ADDENDUM 3: GLM Regression Output

Analysis of C-Sections
The GLM Procedure

Class Level Information

Class	Levels	Values
CommChannels	5	1 2 3 4 5

Dependent Variable: CommChannels

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	99.2197783	9.9219778	6.84	<.0001
Error	189	274.2802217	1.4512181		
Corrected Total	199	373.5000000			

R-Square	Coeff Var	Root MSE	CommChannels Mean
0.265649	33.00452	1.204665	3.650000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	49.59284445	49.59284445	34.17	<.0001
UseAtm	1	7.01997649	7.01997649	4.84	0.0291
UseCell	1	3.63897674	3.63897674	2.51	0.1150
UseTeleph	1	1.86549826	1.86549826	1.29	0.2583
UseEFTPS	1	9.96591915	9.96591915	6.87	0.0095
internetinfo	1	0.01842748	0.01842748	0.01	0.9104
radioinfo	1	23.11422856	23.11422856	15.93	<.0001
tvinfo	1	3.33471253	3.33471253	2.30	0.1312
phoneinfo	1	0.16602421	0.16602421	0.11	0.7356
cellinfo	1	0.50317048	0.50317048	0.35	0.5567

Analysis of C-Sections
The GLM Procedure

Class Level Information

Class	Levels	Values
CommLevel	5	1 2 3 4 5

Number of Observations Read	200
Number of Observations Used	200

Dependent Variable: CommLevel

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	192.2421646	19.2242165	195.00	<.0001
Error	189	18.6328354	0.0985864		
Corrected Total	199	210.8750000			

R-Square	Coeff Var	Root MSE	CommLevel Mean
0.911640	9.167438	0.313985	3.425000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	51.63036356	51.63036356	523.71	<.0001
UseAtm	1	1.96020003	1.96020003	19.88	<.0001
UseCell	1	17.47721516	17.47721516	177.28	<.0001
UseTeleph	1	0.20482128	0.20482128	2.08	0.1511
UseEFTPS	1	0.15837823	0.15837823	1.61	0.2065
internetinfo	1	58.63765665	58.63765665	594.78	<.0001
radioinfo	1	38.71330127	38.71330127	392.68	<.0001
tvinfo	1	7.28963753	7.28963753	73.94	<.0001
phoneinfo	1	6.82854829	6.82854829	69.26	<.0001
cellinfo	1	9.34204257	9.34204257	94.76	<.0001

Class Level Information

Class	Levels	Values
raisesecu	5	1 2 3 4 5

Number of Observations Read 200
Number of Observations Used 200

The GLM Procedure

Dependent Variable: raisesecu

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	74.7562902	6.7960264	6.68	<.0001
Error	188	191.2387098	1.0172272		
Corrected Total	199	265.9950000			

R-Square	Coeff Var	Root MSE	raisesecu Mean
0.281044	30.98546	1.008577	3.255000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	41.10921603	41.10921603	40.41	<.0001
UseAtm	1	1.04521787	1.04521787	1.03	0.3120
UseCell	1	1.21431744	1.21431744	1.19	0.2760
UseTeleph	1	3.96363206	3.96363206	3.90	0.0499
UseEFTPS	1	3.00477909	3.00477909	2.95	0.0873
internetinfo	1	12.11462551	12.11462551	11.91	0.0007
radioinfo	1	0.81728866	0.81728866	0.80	0.3712
tvinfo	1	2.30411998	2.30411998	2.27	0.1340
phoneinfo	1	0.89348058	0.89348058	0.88	0.3499
cellinfo	1	5.39762430	5.39762430	5.31	0.0223
CommChannels	1	2.89198865	2.89198865	2.84	0.0934

Class Level Information

Class	Levels	Values
Face2faceimportance	5	1 2 3 4 5

Number of Observations Read 200
Number of Observations Used 200

Dependent Variable: Face2faceimportance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	68.0114219	6.1828565	4.51	<.0001
Error	188	257.7835781	1.3711892		
Corrected Total	199	325.7950000			

R-Square	Coeff Var	Root MSE	Face2faceimportance Mean
0.208755	49.72305	1.170978	2.355000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	7.28534765	7.28534765	5.31	0.0223
UseAtm	1	10.07545798	10.07545798	7.35	0.0073
UseCell	1	14.21012547	14.21012547	10.36	0.0015
UseTeleph	1	8.92987860	8.92987860	6.51	0.0115
UseEFTPS	1	16.85413749	16.85413749	12.29	0.0006
internetinfo	1	6.65536339	6.65536339	4.85	0.0288
radioinfo	1	1.17855203	1.17855203	0.86	0.3551
tvinfo	1	0.31721394	0.31721394	0.23	0.6311
phoneinfo	1	0.08257747	0.08257747	0.06	0.8064
cellinfo	1	1.77947069	1.77947069	1.30	0.2561
CommChannels	1	0.64329718	0.64329718	0.47	0.4942

Class Level Information

Class	Levels	Values
Removeemployee	5	1 2 3 4 5

Number of Observations Read 200
Number of Observations Used 199

Dependent Variable: Removeemployee

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	35.7148833	3.2468076	3.20	0.0005
Error	187	189.7725539	1.0148265		
Corrected Total	198	225.4874372			

R-Square	Coeff Var	Root MSE	Removeemployee Mean
0.158390	35.73437	1.007386	2.819095

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	6.55428261	6.55428261	6.46	0.0119
UseAtm	1	0.28629751	0.28629751	0.28	0.5959
UseCell	1	0.18597772	0.18597772	0.18	0.6691
UseTeleph	1	4.75500838	4.75500838	4.69	0.0317
UseEFTPS	1	3.17972186	3.17972186	3.13	0.0783
internetinfo	1	0.00375392	0.00375392	0.00	0.9516
radioinfo	1	0.00668104	0.00668104	0.01	0.9354
tvinfo	1	9.46613251	9.46613251	9.33	0.0026
phoneinfo	1	1.88373238	1.88373238	1.86	0.1747
cellinfo	1	8.72922272	8.72922272	8.60	0.0038
CommChannels	1	0.66407261	0.66407261	0.65	0.4196

Class Level Information

Class	Levels	Values
depersonalisatn	5	1 2 3 4 5

Number of Observations Read	200
Number of Observations Used	200

Dependent Variable: depersonalisatn

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	44.6793623	4.0617602	3.42	0.0002
Error	188	223.4006377	1.1883013		
Corrected Total	199	268.0800000			

R-Square	Coeff Var	Root MSE	depersonalisatn Mean
0.166664	32.44322	1.090092	3.360000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	15.22984912	15.22984912	12.82	0.0004
UseAtm	1	14.10625452	14.10625452	11.87	0.0007
UseCell	1	1.25651484	1.25651484	1.06	0.3051
UseTeleph	1	6.40204294	6.40204294	5.39	0.0214
UseEFTPS	1	2.63999096	2.63999096	2.22	0.1378
internetinfo	1	1.63145934	1.63145934	1.37	0.2428
radioinfo	1	0.46675715	0.46675715	0.39	0.5316
tvinfo	1	0.03825658	0.03825658	0.03	0.8578
phoneinfo	1	0.06687562	0.06687562	0.06	0.8127
cellinfo	1	1.75209616	1.75209616	1.47	0.2262
CommChannels	1	1.08926506	1.08926506	0.92	0.3396

Class Level Information

Class	Levels	Values
closeness	5	1 2 3 4 5

Number of Observations Read	200
Number of Observations Used	200

Dependent Variable: closeness

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	57.7379191	5.2489017	5.06	<.0001
Error	188	195.0170809	1.0373249		
Corrected Total	199	252.7550000			

R-Square	Coeff Var	Root MSE	closeness Mean
0.228434	31.00431	1.018491	3.285000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	8.14886549	8.14886549	7.86	0.0056
UseAtm	1	24.69618163	24.69618163	23.81	<.0001
UseCell	1	1.32447697	1.32447697	1.28	0.2599
UseTeleph	1	17.91059302	17.91059302	17.27	<.0001
UseEFTPS	1	4.60294739	4.60294739	4.44	0.0365
internetinfo	1	0.20679549	0.20679549	0.20	0.6558
radioinfo	1	0.24612273	0.24612273	0.24	0.6268
tvinfo	1	0.39941492	0.39941492	0.39	0.5357
phoneinfo	1	0.10500454	0.10500454	0.10	0.7507
cellinfo	1	0.09243191	0.09243191	0.09	0.7656
CommChannels	1	0.00508501	0.00508501	0.00	0.9443

Class Level Information

Class	Levels	Values
UseBranch	5	1 2 3 4 5

Dependent Variable: UseBranch

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	102.7159000	9.3378091	10.07	<.0001
Error	188	174.2791000	0.9270165		
Corrected Total	199	276.9950000			

R-Square	Coeff Var	Root MSE	UseBranch Mean
0.370822	48.02080	0.962817	2.005000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	32.56951118	32.56951118	35.13	<.0001
UseAtm	1	33.13147694	33.13147694	35.74	<.0001
UseCell	1	5.01308629	5.01308629	5.41	0.0211
UseTeleph	1	21.67680197	21.67680197	23.38	<.0001
UseEFTPS	1	1.36621131	1.36621131	1.47	0.2263
internetinfo	1	0.89745922	0.89745922	0.97	0.3264
radioinfo	1	2.09678516	2.09678516	2.26	0.1343
tvinfo	1	0.02030274	0.02030274	0.02	0.8825
phoneinfo	1	2.43433562	2.43433562	2.63	0.1068
cellinfo	1	0.02486010	0.02486010	0.03	0.8701
CommChannels	1	3.48506952	3.48506952	3.76	0.0540

Class Level Information

Class	Levels	Values
IncreaseSatis	5	1 2 3 4 5

Dependent Variable: IncreaseSatis

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	21.6095139	1.9645013	3.22	0.0005
Error	188	114.7104861	0.6101622		
Corrected Total	199	136.3200000			

R-Square	Coeff Var	Root MSE	IncreaseSatis Mean
0.158520	18.51016	0.781129	4.220000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	9.09086520	9.09086520	14.90	0.0002
UseAtm	1	4.05310331	4.05310331	6.64	0.0107
UseCell	1	0.91603476	0.91603476	1.50	0.2220
UseTeleph	1	1.31201376	1.31201376	2.15	0.1442
UseEFTPS	1	0.64032057	0.64032057	1.05	0.3070
internetinfo	1	1.22166470	1.22166470	2.00	0.1587
radioinfo	1	2.64633798	2.64633798	4.34	0.0386
tvinfo	1	1.42049566	1.42049566	2.33	0.1287
phoneinfo	1	0.25887444	0.25887444	0.42	0.5156
cellinfo	1	0.01811725	0.01811725	0.03	0.8634
CommChannels	1	0.03168622	0.03168622	0.05	0.8200

```
                    Class Level Information
                Class           Levels    Values
                satislevel           5    1 2 3 4 5

                                  Sum of
Source                     DF       Squares   Mean Square  F Value  Pr > F
Model                      11    35.9338561     3.2667142     6.39  <.0001
Error                     188    96.1461439     0.5114157
Corrected Total           199   132.0800000

         R-Square     Coeff Var      Root MSE    satislevel Mean
         0.272061      18.52677      0.715133           3.860000

Source                     DF     Type I SS   Mean Square  F Value  Pr > F
UseInternet                 1   18.71651771   18.71651771    36.60  <.0001
UseAtm                      1    2.69832623    2.69832623     5.28  0.0227
UseCell                     1    4.37761009    4.37761009     8.56  0.0039
UseTeleph                   1    1.44339999    1.44339999     2.82  0.0946
UseEFTPS                    1    1.12549079    1.12549079     2.20  0.1396
internetinfo                1    0.61655613    0.61655613     1.21  0.2736
radioinfo                   1    2.65003186    2.65003186     5.18  0.0240
tvinfo                      1    1.06813023    1.06813023     2.09  0.1501
phoneinfo                   1    0.05877674    0.05877674     0.11  0.7350
cellinfo                    1    2.89544299    2.89544299     5.66  0.0183
CommChannels                1    0.28357337    0.28357337     0.55  0.4574

                    Class Level Information
                Class              Levels    Values
                e_bbelonginss           5    1 2 3 4 5
                Number of Observations Read         200
                Number of Observations Used         200

Dependent Variable: e_bbelonginss
                                  Sum of
Source                     DF       Squares   Mean Square  F Value  Pr > F
Model                      11    75.3604521     6.8509502     7.14  <.0001
Error                     188   180.4345479     0.9597582
Corrected Total           199   255.7950000

        R-Square     Coeff Var      Root MSE    e_bbelonginss Mean
        0.294613      28.85633      0.979673              3.395000

Source                     DF     Type I SS   Mean Square  F Value  Pr > F
UseInternet                 1   11.97920074   11.97920074    12.48  0.0005
UseAtm                      1   33.83506853   33.83506853    35.25  <.0001
UseCell                     1    0.09483190    0.09483190     0.10  0.7536
UseTeleph                   1    5.08840310    5.08840310     5.30  0.0224
UseEFTPS                    1    3.12117451    3.12117451     3.25  0.0729
internetinfo                1    2.88462137    2.88462137     3.01  0.0846
radioinfo                   1    6.04583431    6.04583431     6.30  0.0129
tvinfo                      1   11.20960190   11.20960190    11.68  0.0008
phoneinfo                   1    0.35650871    0.35650871     0.37  0.5429
cellinfo                    1    0.33779995    0.33779995     0.35  0.5537
CommChannels                1    0.40740704    0.40740704     0.42  0.5155

                    Class Level Information
                Class           Levels    Values
                tellothers           4    2 3 4 5
                Number of Observations Read         200
                Number of Observations Used         200

Dependent Variable: tellothers
                                  Sum of
Source                     DF       Squares   Mean Square  F Value  Pr > F
Model                      11    24.2303327     2.2027575     4.38  <.0001
Error                     188    94.5246673     0.5027908
Corrected Total           199   118.7550000
```

R-Square	Coeff Var	Root MSE	tellothers Mean
0.204036	17.88342	0.709077	3.965000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	4.23956037	4.23956037	8.43	0.0041
UseAtm	1	0.27372666	0.27372666	0.54	0.4615
UseCell	1	5.76614659	5.76614659	11.47	0.0009
UseTeleph	1	0.55375652	0.55375652	1.10	0.2953
UseEFTPS	1	0.01263637	0.01263637	0.03	0.8742
internetinfo	1	5.31126836	5.31126836	10.56	0.0014
radioinfo	1	5.25387361	5.25387361	10.45	0.0014
tvinfo	1	0.18667473	0.18667473	0.37	0.5430
phoneinfo	1	0.10905825	0.10905825	0.22	0.6419
cellinfo	1	0.43559194	0.43559194	0.87	0.3532
CommChannels	1	2.08803930	2.08803930	4.15	0.0430

Class Level Information

Class	Levels	Values
e_blongrshps	4	2 3 4 5

Number of Observations Read	200
Number of Observations Used	200

Dependent Variable: e_blongrshps

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	32.8041265	2.9821933	3.80	<.0001
Error	188	147.3508735	0.7837812		
Corrected Total	199	180.1550000			

R-Square	Coeff Var	Root MSE	e_blongrshps Mean
0.182088	22.49846	0.885314	3.935000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	11.97290749	11.97290749	15.28	0.0001
UseAtm	1	1.27680230	1.27680230	1.63	0.2034
UseCell	1	3.12551995	3.12551995	3.99	0.0473
UseTeleph	1	0.33408507	0.33408507	0.43	0.5146
UseEFTPS	1	4.81104177	4.81104177	6.14	0.0141
internetinfo	1	3.71835629	3.71835629	4.74	0.0306
radioinfo	1	0.82889682	0.82889682	1.06	0.3051
tvinfo	1	0.35818906	0.35818906	0.46	0.4999
phoneinfo	1	0.12302804	0.12302804	0.16	0.6924
cellinfo	1	4.74745976	4.74745976	6.06	0.0148
CommChannels	1	1.50783994	1.50783994	1.92	0.1671

Class Level Information

Class	Levels	Values
Raiseservqua	4	2 3 4 5

Number of Observations Read	200
Number of Observations Used	200

Dependent Variable: Raiseservqua

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	5.1307198	0.4664291	0.71	0.7328
Error	188	124.3692802	0.6615387		
Corrected Total	199	129.5000000			

R-Square	Coeff Var	Root MSE	Raiseservqua Mean
0.039619	19.59880	0.813350	4.150000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	1.84781530	1.84781530	2.79	0.0963
UseAtm	1	0.01006145	0.01006145	0.02	0.9020
UseCell	1	0.00714662	0.00714662	0.01	0.9173
UseTeleph	1	0.00855109	0.00855109	0.01	0.9096
UseEFTPS	1	0.35888059	0.35888059	0.54	0.4623

internetinfo	1	0.73692046	0.73692046	1.11	0.2926
radioinfo	1	0.27722319	0.27722319	0.42	0.5182
tvinfo	1	0.27102734	0.27102734	0.41	0.5229
phoneinfo	1	0.28960067	0.28960067	0.44	0.5090
cellinfo	1	0.27028414	0.27028414	0.41	0.5235
CommChannels	1	1.05320890	1.05320890	1.59	0.2086

Class Level Information

Class	Levels	Values
techsuperbness	4	2 3 4 5

Number of Observations Read 200
Number of Observations Used 200

Dependent Variable: techsuperbness

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	23.0407771	2.0946161	4.64	<.0001
Error	188	84.9592229	0.4519108		
Corrected Total	199	108.0000000			

R-Square	Coeff Var	Root MSE	techsuperbness Mean
0.213341	16.80608	0.672243	4.000000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	4.96258939	4.96258939	10.98	0.0011
UseAtm	1	0.02842587	0.02842587	0.06	0.8022
UseCell	1	6.38735859	6.38735859	14.13	0.0002
UseTeleph	1	2.20253218	2.20253218	4.87	0.0285
UseEFTPS	1	1.15489846	1.15489846	2.56	0.1116
internetinfo	1	6.18343717	6.18343717	13.68	0.0003
radioinfo	1	0.62426767	0.62426767	1.38	0.2413
tvinfo	1	0.16610071	0.16610071	0.37	0.5451
phoneinfo	1	0.21805377	0.21805377	0.48	0.4881
cellinfo	1	0.14088071	0.14088071	0.31	0.5773
CommChannels	1	0.97223258	0.97223258	2.15	0.1441

Class Level Information

Class	Levels	Values
Removeswitchbarr	5	1 2 3 4 5

Number of Observations Read 200
Number of Observations Used 200

Dependent Variable: Removeswitchbarr

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	48.3582319	4.3962029	4.50	<.0001
Error	188	183.6367681	0.9767913		
Corrected Total	199	231.9950000			

R-Square	Coeff Var	Root MSE	Removeswitchbarr Mean
0.208445	39.45419	0.988328	2.505000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	27.55843268	27.55843268	28.21	<.0001
UseAtm	1	0.03229838	0.03229838	0.03	0.8559
UseCell	1	3.62592404	3.62592404	3.71	0.0555
UseTeleph	1	7.49260513	7.49260513	7.67	0.0062
UseEFTPS	1	1.16619073	1.16619073	1.19	0.2759
internetinfo	1	4.53411286	4.53411286	4.64	0.0325
radioinfo	1	1.28714144	1.28714144	1.32	0.2525
tvinfo	1	0.15450191	0.15450191	0.16	0.6913
phoneinfo	1	0.32076531	0.32076531	0.33	0.5673
cellinfo	1	0.83149338	0.83149338	0.85	0.3574
CommChannels	1	1.35476605	1.35476605	1.39	0.2404

```
                    Class Level Information
                Class           Levels    Values
                switchcost           5    1 2 3 4 5
              Number of Observations Read         200
              Number of Observations Used         200

Dependent Variable: switchcost
                                    Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    69.8559708     6.3505428     8.38  <.0001
 Error                     188   142.4990292     0.7579736
 Corrected Total           199   212.3550000

          R-Square     Coeff Var      Root MSE    switchcost Mean
          0.328958      25.87271      0.870617           3.365000

 Source                     DF     Type I SS   Mean Square  F Value  Pr > F
 UseInternet                 1   47.55871212   47.55871212    62.74  <.0001
 UseAtm                      1    0.00839298    0.00839298     0.01  0.9163
 UseCell                     1    6.38094241    6.38094241     8.42  0.0042
 UseTeleph                   1    1.26237389    1.26237389     1.67  0.1985
 UseEFTPS                    1   10.65560338   10.65560338    14.06  0.0002
 internetinfo                1    0.15734230    0.15734230     0.21  0.6492
 radioinfo                   1    0.54408371    0.54408371     0.72  0.3979
 tvinfo                      1    1.57373575    1.57373575     2.08  0.1513
 phoneinfo                   1    0.81472480    0.81472480     1.07  0.3012
 cellinfo                    1    0.10624435    0.10624435     0.14  0.7085
 CommChannels                1    0.79381514    0.79381514     1.05  0.3074

                    Class Level Information
                Class           Levels    Values
                otherbnks            2    1 2
              Number of Observations Read         200
              Number of Observations Used         200

Dependent Variable: otherbnks
                                    Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    7.60367319    0.69124302     2.55  0.0050
 Error                     188   51.01632681    0.27136344
 Corrected Total           199   58.62000000

          R-Square     Coeff Var      Root MSE    otherbnks Mean
          0.129711      31.95862      0.520926           1.630000

 Source                     DF     Type I SS   Mean Square  F Value  Pr > F
 UseInternet                 1    2.14569137    2.14569137     7.91  0.0054
 UseAtm                      1    0.16636599    0.16636599     0.61  0.4346
 UseCell                     1    0.67496630    0.67496630     2.49  0.1164
 UseTeleph                   1    0.27674793    0.27674793     1.02  0.3139
 UseEFTPS                    1    0.02050723    0.02050723     0.08  0.7837
 internetinfo                1    0.58058377    0.58058377     2.14  0.1452
 radioinfo                   1    0.90165825    0.90165825     3.32  0.0699
 tvinfo                      1    0.02319726    0.02319726     0.09  0.7703
 phoneinfo                   1    0.71522097    0.71522097     2.64  0.1062
 cellinfo                    1    1.87282931    1.87282931     6.90  0.0093
 CommChannels                1    0.22590481    0.22590481     0.83  0.3627

                    Class Level Information
                Class           Levels    Values
                morebanks            5    1 2 3 4 5
              Number of Observations Read         200
              Number of Observations Used         200
Dependent Variable: morebanks
```

```
Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    71.5029607     6.5002692    10.14  <.0001
 Error                     188   120.5770393     0.6413672
 Corrected Total           199   192.0800000

           R-Square     Coeff Var      Root MSE    morebanks Mean
           0.372256      30.33538      0.800854          2.640000

 Source                     DF     Type I SS   Mean Square  F Value  Pr > F
 UseInternet                 1    7.23390021    7.23390021    11.28  0.0009
 UseAtm                      1   14.26407170   14.26407170    22.24  <.0001
 UseCell                     1    0.08252912    0.08252912     0.13  0.7202
 UseTeleph                   1   16.69811515   16.69811515    26.04  <.0001
 UseEFTPS                    1    3.19361388    3.19361388     4.98  0.0268
 internetinfo                1    7.28936839    7.28936839    11.37  0.0009
 radioinfo                   1   17.20158545   17.20158545    26.82  <.0001
 tvinfo                      1    3.92548215    3.92548215     6.12  0.0142
 phoneinfo                   1    1.55116002    1.55116002     2.42  0.1216
 cellinfo                    1    0.04254476    0.04254476     0.07  0.7970
 CommChannels                1    0.02058987    0.02058987     0.03  0.8580

                      Class Level Information
                  Class           Levels    Values
                  switchdiff           5    1 2 3 4 5
                Number of Observations Read         200
                Number of Observations Used         200

Dependent Variable: switchdiff
                                    Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    80.2235330     7.2930485     7.74  <.0001
 Error                     188   177.1314670     0.9421887
 Corrected Total           199   257.3550000

          R-Square     Coeff Var      Root MSE    switchdiff Mean
          0.311723      28.67545      0.970664           3.385000

 Source                     DF     Type I SS   Mean Square  F Value  Pr > F
 UseInternet                 1   34.82831652   34.82831652    36.97  <.0001
 UseAtm                      1    6.70404930    6.70404930     7.12  0.0083
 UseCell                     1    6.69531071    6.69531071     7.11  0.0084
 UseTeleph                   1    0.99578963    0.99578963     1.06  0.3052
 UseEFTPS                    1   19.75688593   19.75688593    20.97  <.0001
 internetinfo                1    2.04986455    2.04986455     2.18  0.1419
 radioinfo                   1    5.34177263    5.34177263     5.67  0.0183
 tvinfo                      1    0.48667375    0.48667375     0.52  0.4732
 phoneinfo                   1    0.01880369    0.01880369     0.02  0.8878
 cellinfo                    1    0.03347734    0.03347734     0.04  0.8507
 CommChannels                1    3.31258890    3.31258890     3.52  0.0623

                      Class Level Information
                Class               Levels    Values
                Raiseservinfor           5    1 2 3 4 5
                Number of Observations Read         200
                Number of Observations Used         200

Dependent Variable: Raiseservinfor
                                    Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    43.0337548     3.9121595     4.22  <.0001
 Error                     188   174.4662452     0.9280119
 Corrected Total           199   217.5000000

        R-Square     Coeff Var      Root MSE    Raiseservinfor Mean
        0.197856      44.80622      0.963334               2.150000
```

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	10.44853458	10.44853458	11.26	0.0010
UseAtm	1	0.75333256	0.75333256	0.81	0.3688
UseCell	1	2.81558117	2.81558117	3.03	0.0832
UseTeleph	1	2.89350121	2.89350121	3.12	0.0791
UseEFTPS	1	4.43487939	4.43487939	4.78	0.0300
internetinfo	1	16.35695296	16.35695296	17.63	<.0001
radioinfo	1	0.64193587	0.64193587	0.69	0.4066
tvinfo	1	1.24604691	1.24604691	1.34	0.2480
phoneinfo	1	2.79636068	2.79636068	3.01	0.0842
cellinfo	1	0.26197981	0.26197981	0.28	0.5958
CommChannels	1	0.38464968	0.38464968	0.41	0.5205

Class Level Information

Class	Levels	Values
switchinknwldg	5	1 2 3 4 5
Number of Observations Read	200	
Number of Observations Used	200	

Dependent Variable: switchinknwldg

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	37.4219875	3.4019989	5.86	<.0001
Error	188	109.1330125	0.5804947		
Corrected Total	199	146.5550000			

R-Square	Coeff Var	Root MSE	switchinknwldg Mean
0.255344	31.54874	0.761902	2.415000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	8.73527366	8.73527366	15.05	0.0001
UseAtm	1	0.00154157	0.00154157	0.00	0.9590
UseCell	1	1.79481579	1.79481579	3.09	0.0803
UseTeleph	1	0.01920623	0.01920623	0.03	0.8559
UseEFTPS	1	0.00180768	0.00180768	0.00	0.9556
internetinfo	1	9.89192325	9.89192325	17.04	<.0001
radioinfo	1	2.85283509	2.85283509	4.91	0.0278
tvinfo	1	0.89467360	0.89467360	1.54	0.2160
phoneinfo	1	8.80937410	8.80937410	15.18	0.0001
cellinfo	1	0.55684511	0.55684511	0.96	0.3286
CommChannels	1	3.86369140	3.86369140	6.66	0.0106

Class Level Information

Class	Levels	Values
longR_ships	5	1 2 3 4 5
Number of Observations Read	200	
Number of Observations Used	200	

Dependent Variable: longR_ships

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	21.4217416	1.9474311	3.23	0.0005
Error	188	113.4532584	0.6034748		
Corrected Total	199	134.8750000			

R-Square	Coeff Var	Root MSE	longR_ships Mean
0.158827	19.30028	0.776836	4.025000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	12.14340561	12.14340561	20.12	<.0001
UseAtm	1	1.90861429	1.90861429	3.16	0.0770
UseCell	1	1.37632920	1.37632920	2.28	0.1327
UseTeleph	1	0.10739833	0.10739833	0.18	0.6736
UseEFTPS	1	1.82263595	1.82263595	3.02	0.0839
internetinfo	1	2.84799717	2.84799717	4.72	0.0311
radioinfo	1	0.00107225	0.00107225	0.00	0.9664

tvinfo	1	0.05256077	0.05256077	0.09	0.7682
phoneinfo	1	0.26714376	0.26714376	0.44	0.5066
cellinfo	1	0.17263287	0.17263287	0.29	0.5934
CommChannels	1	0.72195146	0.72195146	1.20	0.2755

Class Level Information

Class	Levels	Values
e_bankcont	4	2 3 4 5

Number of Observations Read	200
Number of Observations Used	200

Dependent Variable: e_bankcont

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	15.8627752	1.4420705	2.98	0.0011
Error	188	91.0172248	0.4841342		
Corrected Total	199	106.8800000			

R-Square	Coeff Var	Root MSE	e_bankcont Mean
0.148417	16.72590	0.695798	4.160000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	3.99421603	3.99421603	8.25	0.0045
UseAtm	1	0.48561799	0.48561799	1.00	0.3179
UseCell	1	2.25952750	2.25952750	4.67	0.0320
UseTeleph	1	0.05463571	0.05463571	0.11	0.7373
UseEFTPS	1	2.19129548	2.19129548	4.53	0.0347
internetinfo	1	0.84638348	0.84638348	1.75	0.1877
radioinfo	1	2.34803115	2.34803115	4.85	0.0289
tvinfo	1	1.92973749	1.92973749	3.99	0.0473
phoneinfo	1	0.74497611	0.74497611	1.54	0.2163
cellinfo	1	0.79190662	0.79190662	1.64	0.2025
CommChannels	1	0.21644759	0.21644759	0.45	0.5045

Class Level Information

Class	Levels	Values
PrefferedBanking	2	1 2

Number of Observations Read	200
Number of Observations Used	200

Dependent Variable: PrefferedBanking

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	6.36808372	0.57891670	4.46	<.0001
Error	188	24.41191628	0.12985062		
Corrected Total	199	30.78000000			

R-Square	Coeff Var	Root MSE	PrefferedBanking Mean
0.206890	19.90872	0.360348	1.810000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	4.34694639	4.34694639	33.48	<.0001
UseAtm	1	0.11011356	0.11011356	0.85	0.3583
UseCell	1	0.27528113	0.27528113	2.12	0.1471
UseTeleph	1	0.09013707	0.09013707	0.69	0.4058
UseEFTPS	1	0.49721739	0.49721739	3.83	0.0518
internetinfo	1	0.00210425	0.00210425	0.02	0.8988
radioinfo	1	0.45224905	0.45224905	3.48	0.0636
tvinfo	1	0.16076946	0.16076946	1.24	0.2673
phoneinfo	1	0.07746773	0.07746773	0.60	0.4409
cellinfo	1	0.00230637	0.00230637	0.02	0.8941
CommChannels	1	0.35349133	0.35349133	2.72	0.1006

Class Level Information

Class	Levels	Values
E_bankingimportance	5	1 2 3 4 5

Number of Observations Read	200

```
                 Number of Observations Used         200

Dependent Variable: E_bankingimportance
                                    Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    58.8695830     5.3517803     7.35  <.0001
 Error                     188   136.8104170     0.7277150
 Corrected Total           199   195.6800000

      R-Square     Coeff Var      Root MSE    E_bankingimportance Mean
      0.300846      21.11540      0.853062                    4.040000

 Source                     DF     Type I SS   Mean Square  F Value  Pr > F
 UseInternet                 1   22.45871936   22.45871936    30.86  <.0001
 UseAtm                      1   11.27063236   11.27063236    15.49  0.0001
 UseCell                     1    5.74894595    5.74894595     7.90  0.0055
 UseTeleph                   1    0.07438001    0.07438001     0.10  0.7495
 UseEFTPS                    1    2.33726166    2.33726166     3.21  0.0747
 internetinfo                1    3.44435501    3.44435501     4.73  0.0308
 radioinfo                   1    3.77790138    3.77790138     5.19  0.0238
 tvinfo                      1    0.56783718    0.56783718     0.78  0.3782
 phoneinfo                   1    0.01637459    0.01637459     0.02  0.8809
 cellinfo                    1    6.10169278    6.10169278     8.38  0.0042
 CommChannels                1    3.07148275    3.07148275     4.22  0.0413

                       Class Level Information
                  Class            Levels    Values
                  CloseE_bexp           5    1 2 3 4 5
                 Number of Observations Read         200
                 Number of Observations Used         200

Dependent Variable: CloseE_bexp
                                    Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    16.8711127     1.5337375     1.89  0.0431
 Error                     188   152.7088873     0.8122813
 Corrected Total           199   169.5800000

          R-Square     Coeff Var      Root MSE    CloseE_bexp Mean
          0.099488      24.96583      0.901267            3.610000

 Source                     DF     Type I SS   Mean Square  F Value  Pr > F
 UseInternet                 1    1.58132281    1.58132281     1.95  0.1646
 UseAtm                      1    0.69035759    0.69035759     0.85  0.3578
 UseCell                     1    2.92461711    2.92461711     3.60  0.0593
 UseTeleph                   1    0.57691549    0.57691549     0.71  0.4004
 UseEFTPS                    1    0.02109994    0.02109994     0.03  0.8721
 internetinfo                1    2.82075687    2.82075687     3.47  0.0640
 radioinfo                   1    1.26880152    1.26880152     1.56  0.2129
 tvinfo                      1    0.74685946    0.74685946     0.92  0.3388
 phoneinfo                   1    0.10037679    0.10037679     0.12  0.7256
 cellinfo                    1    6.12090664    6.12090664     7.54  0.0066
 CommChannels                1    0.01909849    0.01909849     0.02  0.8783

                       Class Level Information
                Class                 Levels    Values
                interectionlevel           5    1 2 3 4 5
                 Number of Observations Read         200
                 Number of Observations Used         200

Dependent Variable: interectionlevel
                                    Sum of
 Source                     DF       Squares   Mean Square  F Value  Pr > F
 Model                      11    62.6350199     5.6940927     9.17  <.0001
 Error                     188   116.7849801     0.6211967
 Corrected Total           199   179.4200000
```

R-Square	Coeff Var	Root MSE	interectionlevel Mean
0.349097	20.90611	0.788160	3.770000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	29.57493365	29.57493365	47.61	<.0001
UseAtm	1	3.71852525	3.71852525	5.99	0.0153
UseCell	1	8.20587089	8.20587089	13.21	0.0004
UseTeleph	1	4.95077885	4.95077885	7.97	0.0053
UseEFTPS	1	2.02603346	2.02603346	3.26	0.0725
internetinfo	1	1.56572431	1.56572431	2.52	0.1141
radioinfo	1	7.44113052	7.44113052	11.98	0.0007
tvinfo	1	0.48835854	0.48835854	0.79	0.3764
phoneinfo	1	0.00736671	0.00736671	0.01	0.9134
cellinfo	1	3.54030812	3.54030812	5.70	0.0180
CommChannels	1	1.11598958	1.11598958	1.80	0.1818

Class Level Information

Class	Levels	Values
e_bank_differe	5	1 2 3 4 5
Number of Observations Read	200	
Number of Observations Used	200	

Dependent Variable: e_bank_differe

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	34.2264135	3.1114921	3.13	0.0007
Error	188	186.6485865	0.9928116		
Corrected Total	199	220.8750000			

R-Square	Coeff Var	Root MSE	e_bank_differe Mean
0.154958	27.87131	0.996399	3.575000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	14.91567628	14.91567628	15.02	0.0001
UseAtm	1	0.21001708	0.21001708	0.21	0.6461
UseCell	1	4.69641589	4.69641589	4.73	0.0309
UseTeleph	1	1.06069855	1.06069855	1.07	0.3026
UseEFTPS	1	1.41663729	1.41663729	1.43	0.2338
internetinfo	1	1.85392377	1.85392377	1.87	0.1734
radioinfo	1	4.19900407	4.19900407	4.23	0.0411
tvinfo	1	0.53843277	0.53843277	0.54	0.4624
phoneinfo	1	4.77284699	4.77284699	4.81	0.0296
cellinfo	1	0.49486417	0.49486417	0.50	0.4811
CommChannels	1	0.06789669	0.06789669	0.07	0.7940

Class Level Information

Class	Levels	Values
raiseintera	5	1 2 3 4 5
Number of Observations Read	200	
Number of Observations Used	200	

Dependent Variable: raiseintera

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	31.3523480	2.8502135	3.51	0.0002
Error	188	152.6476520	0.8119556		
Corrected Total	199	184.0000000			

R-Square	Coeff Var	Root MSE	raiseintera Mean
0.170393	25.03016	0.901086	3.600000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	13.42722500	13.42722500	16.54	<.0001
UseAtm	1	0.45477142	0.45477142	0.56	0.4552
UseCell	1	1.23584561	1.23584561	1.52	0.2188
UseTeleph	1	2.61517320	2.61517320	3.22	0.0743
UseEFTPS	1	0.39513737	0.39513737	0.49	0.4863

internetinfo	1	3.99138438	3.99138438	4.92	0.0278
radioinfo	1	0.73845794	0.73845794	0.91	0.3415
tvinfo	1	4.21180609	4.21180609	5.19	0.0239
phoneinfo	1	0.00004137	0.00004137	0.00	0.9943
cellinfo	1	2.19497941	2.19497941	2.70	0.1018
CommChannels	1	2.08752620	2.08752620	2.57	0.1105

Class Level Information

Class	Levels	Values
Noinflu_over_e_b	5	1 2 3 4 5

Number of Observations Read 200
Number of Observations Used 200

Dependent Variable: Noinflu_over_e_b

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	54.7606370	4.9782397	5.40	<.0001
Error	188	173.2393630	0.9214860		
Corrected Total	199	228.0000000			

R-Square	Coeff Var	Root MSE	Noinflu_over_e_b Mean
0.240178	34.28359	0.959941	2.800000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
UseInternet	1	3.34016783	3.34016783	3.62	0.0585
UseAtm	1	18.13178442	18.13178442	19.68	<.0001
UseCell	1	16.01318515	16.01318515	17.38	<.0001
UseTeleph	1	2.26010942	2.26010942	2.45	0.1190
UseEFTPS	1	8.85219690	8.85219690	9.61	0.0022
internetinfo	1	0.04591828	0.04591828	0.05	0.8236
radioinfo	1	0.34717540	0.34717540	0.38	0.5401
tvinfo	1	0.81964191	0.81964191	0.89	0.3468
phoneinfo	1	1.29162214	1.29162214	1.40	0.2379
cellinfo	1	0.37764179	0.37764179	0.41	0.5228
CommChannels	1	3.28119375	3.28119375	3.56	0.0607

ADDENDUM 4: **Extracts of Pearson Correlation Coefficients**

Pearson Correlation Coefficients Prob > |r| under H0: Rho=0 Number of Observations									
	Gender	**Education**	**Marital Status**	**Race**	**Age**	**Income**	**FstBank**	**Radio**	**Internet**
Gender	1.000 200	-0.040 0.565 200	0.10024 0.1579 200	0.21150 0.0026 200	0.08142 0.2518 200	0.08859 0.2122 200	0.03792 0.5940 200	-0.03072 0.6659 200	-0.13991 0.0482 200
Education	-0.040 0.565 200	1.000 200	0.02220 0.7551 200	-0.05380 0.4492 200	0.05819 0.4131 200	0.13341 0.0597 200	0.06018 0.3973 200	-0.04256 0.5496 200	0.22403 0.0014 200
Marital Status	0.100 0.157 200	0.022 0.755 200	1.00000 200	0.41889 <.0001 200	0.48966 <.0001 200	0.46591 <.0001 200	0.04103 0.5640 200	0.21460 0.0023 200	0.15697 0.0264 200
Race	0.211 0.002 200	-0.053 0.449 200	0.41889 <.0001 200	1.00000 200	0.33819 <.0001 200	0.50162 <.0001 200	0.02020 0.7764 200	0.22715 0.0012 200	0.16047 0.0232 200
Age	0.081 0.251 200	0.058 0.413 200	0.48966 <.0001 200	0.33819 <.0001 200	1.00000 200	0.56948 <.0001 200	0.00603 0.9325 200	0.37392 <.0001 200	0.22363 0.0015 200
Income	0.088 0.212 200	0.133 0.059 200	0.46591 <.0001 200	0.50162 <.0001 200	0.56948 <.0001 200	1.00000 200	0.05375 0.4497 200	0.29163 <.0001 200	0.33395 <.0001 200
FstBank	0.037 0.594 200	0.060 0.397 200	0.04103 0.5640 200	0.02020 0.7764 200	0.00603 0.9325 200	0.05375 0.4497 200	1.00000 200	0.02762 0.6978 200	0.17607 0.0126 200
Radio	-0.030 0.665 200	-0.042 0.549 200	0.21460 0.0023 200	0.22715 0.0012 200	0.37392 <.0001 200	0.29163 <.0001 200	0.02762 0.6978 200	1.00000 200	0.29102 <.0001 200
Internet	-0.139 0.048 200	0.224 0.001 200	0.15697 0.0264 200	0.16047 0.0232 200	0.22363 0.0015 200	0.33395 <.0001 200	0.17607 0.0126 200	0.29102 <.0001 200	1.00000 200

Telephone	-0.109 0.122 200	0.131 0.062 200	0.32125 <.0001 200	0.28244 <.0001 200	0.41318 <.0001 200	0.51423 <.0001 200	0.08483 0.2323 200	0.42369 <.0001 200	0.37150 <.0001 200
Television	-0.029 0.678 200	-0.150 0.034 200	0.23559 0.0008 200	0.27283 <.0001 200	0.39658 <.0001 200	0.36965 <.0001 200	0.01983 0.7804 200	0.69369 <.0001 200	0.41572 <.0001 200
Cellphone	. . 200	. . 200	. . 200	. . 200	. . 200	. . 200	. . 200	. . 200	. . 200
UseInternet	-0.048 0.496 200	0.247 0.000 200	0.12214 0.0849 200	0.11819 0.0955 200	0.22474 0.0014 200	0.29264 <.0001 200	0.15568 0.0277 200	0.17505 0.0132 200	0.37633 <.0001 200
UseAtm	0.016 0.813 200	0.026 0.712 200	0.04245 0.5506 200	-0.08726 0.2192 200	-0.06623 0.3514 200	-0.06058 0.3941 200	0.15140 0.0323 200	-0.17995 0.0108 200	0.08461 0.2336 200
UseCell	0.006 0.924 200	-0.076 0.278 200	0.22672 0.0012 200	0.22931 0.0011 200	0.20171 0.0042 200	0.16948 0.0164 200	0.11909 0.0930 200	0.22461 0.0014 200	0.09381 0.1864 200
UseTeleph	0.018 0.799 200	0.149 0.034 200	0.12655 0.0742 200	0.03283 0.6445 200	0.09666 0.1733 200	0.07574 0.2865 200	0.11661 0.1001 200	0.14475 0.0409 200	0.23645 0.0007 200
UseEFTPS	0.004 0.951 200	0.058 0.414 200	0.18267 0.0096 200	0.20855 0.0030 200	0.23377 0.0009 200	0.37135 <.0001 200	0.09840 0.1657 200	0.21060 0.0028 200	0.23235 0.0009 200
Internetinfo	-0.113 0.108 200	0.023 0.737 200	0.18101 0.0103 200	0.11150 0.1160 200	0.07874 0.2677 200	0.14852 0.0358 200	0.01019 0.8861 200	0.08598 0.2261 200	0.25629 0.0002 200
Radioinfo	-0.171 0.015 200	0.007 0.918 200	0.13763 0.0520 200	-0.07151 0.3143 200	0.07445 0.2947 200	0.02468 0.7287 200	0.05058 0.4769 200	0.00155 0.9826 200	-0.03775 0.5956 200
Tvinfo	-0.035 0.621 200	0.130 0.066 200	-0.00837 0.9064 200	-0.12102 0.0878 200	-0.01418 0.8421 200	-0.06542 0.3574 200	-0.04010 0.5729 200	0.02033 0.7751 200	0.00390 0.9562 200
Phoneinfo	-0.065 0.358 200	-0.077 0.276 200	0.25944 0.0002 200	0.01370 0.8473 200	0.12349 0.0815 200	0.05046 0.4780 200	0.08537 0.2294 200	0.02916 0.6818 200	0.00706 0.9210 200

Cellinfo	-0.144 0.041 200	-0.028 0.689 200	0.14425 0.0416 200	0.1094 0.123 200	0.19262 0.0063 200	0.13111 0.0642 200	0.06826 0.3369 200	0.09680 0.1727 200	-0.00228 0.9744 200
Comm Channels	-0.119 0.091 200	0.063 0.372 200	0.30872 <.0001 200	0.3149 <.0001 200	0.45891 <.0001 200	0.50695 <.0001 200	0.11618 0.1014 200	0.73712 <.0001 200	0.69777 <.0001 200
CommLevel	-0.176 0.012 200	0.032 0.646 200	0.17551 0.0129 200	0.00755 0.9155 200	0.14199 0.0449 200	0.08655 0.2230 200	0.04772 0.5022 200	0.11787 0.0964 200	0.08838 0.2133 200
Raisesecu	-0.054 0.446 200	0.095 0.177 200	0.19660 0.0053 200	0.12229 0.0845 200	0.09852 0.1651 200	0.17952 0.0110 200	-0.01087 0.8786 200	0.04717 0.5071 200	0.22759 0.0012 200
Face2face importance	-0.001 0.987 200	-0.218 0.001 200	0.03042 0.6689 200	0.22819 0.0012 200	0.04862 0.4941 200	0.06176 0.3850 200	-0.07890 0.2668 200	0.05894 0.4071 200	-0.15557 0.0278 200
Remove employee	0.018 0.800 199	0.035 0.616 199	-0.12375 0.0816 199	-0.04306 0.5459 199	-0.13134 0.0644 199	-0.12038 0.0903 199	0.13460 0.0580 199	0.12861 0.0702 199	0.12360 0.0820 199
depersonalisatn	0.089 0.207 200	0.016 0.811 200	-0.02518 0.7234 200	0.11698 0.0990 200	0.02785 0.6954 200	0.13679 0.0534 200	-0.02573 0.7176 200	0.19065 0.0068 200	-0.17587 0.0127 200
Closeness	0.060 0.395 200	-0.013 0.846 200	-0.04674 0.5110 200	0.09131 0.1985 200	0.01302 0.8548 200	0.10329 0.1455 200	-0.04382 0.5379 200	0.18824 0.0076 200	-0.19380 0.0060 200
UseBranch	-0.004 0.952 200	0.047 0.500 200	0.14257 0.0440 200	-0.07162 0.3135 200	0.05489 0.4401 200	-0.06240 0.3801 200	0.08571 0.2275 200	0.12364 0.0811 200	0.22515 0.0013 200
IncreaseSatis	0.026 0.705 200	0.067 0.343 200	-0.00571 0.9360 200	0.08837 0.2134 200	-0.02305 0.7460 200	0.11012 0.1206 200	0.03670 0.6059 200	0.21943 0.0018 200	0.10635 0.1339 200
Satislevel	0.047 0.504 200	0.076 0.281 200	-0.05785 0.4158 200	-0.01232 0.8625 200	0.07096 0.3180 200	0.11420 0.1073 200	0.03707 0.6022 200	0.15951 0.0241 200	0.01403 0.8437 200
BankingYrs	0.068 0.334 200	0.102 0.147 200	0.43491 <.0001 200	0.31536 <.0001 200	0.60814 <.0001 200	0.55537 <.0001 200	-0.00599 0.9329 200	0.30888 <.0001 200	0.21967 0.0018 200

e_bbelonginss	0.149 0.034 200	0.083 0.241 200	-0.13068 0.0651 200	0.04501 0.5268 200	0.07517 0.2901 200	0.09134 0.1983 200	-0.04908 0.4901 200	0.17515 0.0131 200	-0.11403 0.1079 200
Tellothers	0.006 0.932 200	-0.020 0.776 200	-0.01293 0.8558 200	-0.06359 0.3710 200	0.01635 0.8182 200	-0.02779 0.6960 200	0.04448 0.5317 200	-0.03817 0.5915 200	-0.09688 0.1723 200
e_blongrshps	0.015 0.831 200	-0.042 0.552 200	0.03534 0.6193 200	0.18477 0.0088 200	0.17879 0.0113 200	0.14998 0.0340 200	0.03873 0.5861 200	0.21474 0.0023 200	0.04810 0.4988 200
Raiseservqua	0.200 0.004 200	0.062 0.375 200	0.04928 0.4883 200	0.04593 0.5184 200	-0.01038 0.8840 200	-0.03983 0.5755 200	0.04308 0.5447 200	0.05499 0.4393 200	-0.03915 0.5821 200
Tech superbness	0.054 0.443 200	0.080 0.259 200	0.18473 0.0088 200	0.03894 0.5841 200	-0.01977 0.7812 200	-0.04461 0.5305 200	0.06406 0.3675 200	0.07084 0.3188 200	-0.01361 0.8483 200
Remove switchbarr	-0.083 0.239 200	-0.096 0.174 200	-0.04653 0.5129 200	-0.00963 0.8923 200	-0.13220 0.0620 200	-0.16964 0.0163 200	0.01419 0.8420 200	-0.19117 0.0067 200	-0.11147 0.1161 200
Switchcost	-0.205 0.003 200	0.042 0.554 200	0.18308 0.0095 200	0.16996 0.0161 200	0.15742 0.0260 200	0.09657 0.1737 200	0.06898 0.3317 200	0.12807 0.0707 200	0.21483 0.0023 200
Otherbnks	-0.099 0.162 200	-0.123 0.080 200	0.04104 0.5639 200	0.07003 0.3245 200	0.02374 0.7386 200	-0.06835 0.3362 200	-0.08837 0.2134 200	-0.03173 0.6556 200	-0.12247 0.0841 200
Morebanks	-0.136 0.054 200	-0.120 0.090 200	-0.02858 0.6879 200	0.16350 0.0207 200	0.01156 0.8709 200	0.09857 0.1650 200	-0.04384 0.5376 200	0.13333 0.0598 200	-0.00653 0.9269 200
Switchdiff	-0.106 0.132 200	0.087 0.219 200	0.26670 0.0001 200	0.16826 0.0172 200	0.26195 0.0002 200	0.17557 0.0129 200	0.03354 0.6373 200	0.14754 0.0371 200	0.26549 0.0001 200
Raise servinfor	-0.017 0.803 200	-0.039 0.581 200	-0.09215 0.1944 200	-0.02858 0.6879 200	-0.00801 0.9104 200	-0.09361 0.1874 200	-0.08577 0.2272 200	-0.04493 0.5276 200	-0.16446 0.0200 200
Switchin knwldg	0.057 0.419 200	-0.085 0.231 200	-0.04795 0.5002 200	-0.09484 0.1816 200	0.01090 0.8782 200	0.00732 0.9181 200	0.00655 0.9267 200	0.12072 0.0886 200	0.04772 0.5022 200

longR_ships	0.201 0.004 200	-0.006 0.922 200	0.16900 0.0167 200	0.21849 0.0019 200	0.06611 0.3523 200	0.21379 0.0024 200	0.00964 0.8922 200	0.09350 0.1879 200	0.05450 0.4434 200
e_bankcont	0.084 0.235 200	-0.107 0.130 200	0.13213 0.0622 200	0.17221 0.0148 200	0.02623 0.7124 200	0.00937 0.8953 200	0.13019 0.0661 200	0.22717 0.0012 200	0.09357 0.1875 200
Preffered Banking	-0.081 0.252 200	0.220 0.001 200	0.06502 0.3604 200	0.10515 0.1384 200	0.18494 0.0087 200	0.14930 0.0349 200	0.03643 0.6085 200	0.23753 0.0007 200	0.28525 <.0001 200
E_banking importance	-0.009 0.891 200	0.085 0.226 200	0.09303 0.1901 200	0.21502 0.0022 200	0.12599 0.0754 200	0.23464 0.0008 200	0.02405 0.7353 200	0.20315 0.0039 200	0.13103 0.0644 200
CloseE_bexp	0.169 0.016 200	0.072 0.305 200	-0.06851 0.3351 200	-0.03806 0.5926 200	0.06460 0.3635 200	-0.01788 0.8016 200	0.09546 0.1788 200	0.08424 0.2357 200	-0.03921 0.5815 200
Interection Level	0.029 0.681 200	0.056 0.423 200	0.05046 0.4779 200	0.04556 0.5217 200	0.18272 0.0096 200	0.07061 0.3205 200	0.08033 0.2581 200	0.33967 <.0001 200	0.06578 0.3547 200
e-bank differe	0.105 0.137 200	0.024 0.734 200	0.16843 0.0171 200	0.14237 0.0443 200	0.16534 0.0193 200	0.08180 0.2495 200	0.05111 0.4723 200	-0.02848 0.6889 200	0.04687 0.5099 200
raiseintera	0.141 0.045 200	0.034 1 0.631 200	0.07598 0.2849 200	0.08949 0.2076 200	0.01060 0.8816 200	0.02582 0.7166 200	0.09548 0.1787 200	0.03528 0.6199 200	-0.05839 0.4115 200
Noinflu Over e-b	0.147 0.036 200	-0.036 0.605 200	0.11108 0.1174 200	0.12952 0.0676 200	0.19862 0.0048 200	0.28792 <.0001 200	-0.02725 0.7016 200	0.25353 0.0003 200	-0.09179 0.1961 200