THE ROLE OF FLATTENERS (OUTSOURCING, WORKFLOW SOFTWARE, MOBILE AND WIRELESS TECHNOLOGIES) IN PROVIDING A LEVEL PLAYING FIELD IN THE BANKING INDUSTRY IN KENYA

A CASE STUDY OF EQUITY BANK

MOSES G. MATE

STRATHMORE UNIVERSITY

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BY

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STRATHMORE UNIVERSITY

2011

Declaration

I, the undersigned, declare that this is my own original work and has not been submitted to any other college, institution or university other than Strathmore University in Nairobi for academic credit.

Signed: _____ **Date: _____**

Moses G Mate (052399)

This Dissertation has been presented for examination with my approval as the appointed supervisor.

Signed: _____ **Date: _____**

Dr. Freddie Acosta

Abstract

Globalization is shrinking the world, leveling the universal playing field, flattening our planet by abolishing hitherto unavoidable barriers of space and time. The title of Thomas Friedman's book "The world is flat" is a metaphor for viewing the world as a level playing field in terms of commerce, where all competitors have an equal opportunity. Friedman makes use of the word 'flatteners' to denote the ten forces that have led to globalization.

One of the flatteners he describes in his book is "The Steroids": Wireless, Voice over Internet, and file sharing. Personal digital devices like mobile phones, iPods, personal digital assistants, instant messaging, and voice over Internet Protocol (VoIP). Digital, Mobile, Personal and Virtual – all analog content and processes (from entertainment to photography to word processing) can be digitized and therefore shaped, manipulated and transmitted; virtual – these processes can be done at high speed with total ease; mobile – can be done anywhere, anytime by anyone; and personal – can be done by you.

The general objective of this study was to determine to what extent Equity Bank is conforming to Thomas Friedman's flatteners and how they are impacting on its business. The study was aimed at addressing the following specific objectives: to establish which flatteners are applicable to Equity Bank with the kind of infrastructure available; to determine to what extent Equity Bank is conforming with the flatteners; to determine the impact of the flatteners on Equity Bank; and to propose a model for responding to the flatteners.

The nature of the research design was a survey. Data was obtained mainly from questionnaires and interviews with the relevant managers and directors as well as from secondary sources. Analysis was done using Microsoft Excel and SPSS computer programs and output presented using appropriate visual techniques i.e. frequency distribution tables, graphs and charts.

The study established that the flatteners relevant to the banking industry were workflow software, outsourcing and the steroids with the bank conforming to these flatteners to varying degrees. However, the impact of the steroids is quite apparent with the total

number of transactions steadily rising in recent times. The transactions related to the steroids have been rising in recent years, while the mundane banking transactions i.e. over the counter have been reducing. A Branchless banking model with Enterprise application integration was also proposed by the study as an innovative strategy in line with the Thomas Friedman flatteners.

Main recommendations from the study were in the form of further research areas in which the implementation of the branchless banking model in terms of timelines and in line with the recently released agency banking guidelines from the Central Bank of Kenya can be looked into as well as which additional functions within the bank can be outsourced so as to benefit from the same.

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To my wife, Ruth Nginyo Gitonga, for your continued support and encouragement during my studies. To my heavenly father, for guiding me through the course.

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Key Terminologies

Agency - This means the business carried out by an agent on behalf of a financial institution

Flatteners - Refers to the ten forces that Thomas L. Friedman sees as leveling the global playing field.

Outsourcing - The process of contracting tasks to a third party

Steroids - Wireless, Voice over Internet, and file sharing. Personal digital devices like mobile phones, iPods, personal digital assistants, instant messaging, and voice over Internet Protocol (VOIP). Digital, Mobile, Personal and Virtual.

Workflow Software - Is a software application which automates, at least to some degree, a process or processes.

Enterprise Application Integration (EAI) - is an integration framework composed of a collection of technologies and services which form a middleware to enable integration of systems and applications across the enterprise.

Service Oriented Architecture (SOA) - is a set of principles and methodologies for designing and developing software in the form of interoperable services

Abbreviations

ATM	-	Automated Teller Machine
BC	-	Business Correspondents
BCM	-	Business Correspondent Model
CBK	-	Central Bank of Kenya
CEO	-	Chief Executive Officer
CRM	-	Customer Relationship Management
EACB	-	East Africa Currency Board
EBL	-	Equity Bank Limited
EBS	-	Equity Building Society
EAI	-	Enterprise Application Integration
ERP	-	Enterprise Resource Planning
HR	-	Human Resource
ICT	-	Information and Communication Technology
IP	-	Internet Protocol
IT	-	Information Technology
IVR	-	Interactive Voice Response
KYC	-	Know Your Customer
MSME	-	Middle and Small Micro Enterprise
NBCM	-	Non-Business Correspondent Model
NFC	-	Near Field Communication
OPM	-	Online Programming Marketplace
POS	-	Point of Sale
RFID	-	Radio Frequency Identification Device
SME	-	Small and Medium Enterprise
SOA	-	Service Oriented Architecture
EAI	-	Enterprise Application Integration
SWOT	-	Strengths Weaknesses Opportunities Threats
USD	-	United States Dollar

CHAPTER 1: Introduction

1.1 Background

Globalization is shrinking the world, leveling the universal playing field, flattening our planet by abolishing hitherto unavoidable barriers of space and time. Computers, e-mail, the Internet, digitalization, satellite communication, microprocessors, and other electronic wonders connect ever more people and places and mobilize them to collaborate or compete, delivering ever more goods and services, comforts, threats, and banalities (Weber, 2005).

The title of Thomas Friedman's book "The world is flat" is a metaphor for viewing the world as a level playing field in terms of commerce, where all competitors have an equal opportunity. According to Leamer (2007), geography, flat or not, creates special relationships between buyers and sellers who reside in the same neighborhoods, but Friedman turns this metaphor inside-out by using The World is Flat to warn us of the perils of a relationship-free world in which every economic transaction is contested globally. Leamer notes that Friedman's "aha" flat moment came on a golfing outing during a Discovery Channel excursion to Bangalore, India, where the surroundings were 'Americanized.' Friedman found in Bangalore not Indians but Americans in name and speech and business practices.

Kingsnorth (2005) states that the thesis of 'The World Is Flat' is that globalization is "flattening" the world, breaking down commercial, cultural and even geographical barriers at ever-increasing speed. He notes that the result, if we are lucky, will be a super-efficient, hyper-productive world. Kingsnorth however notes that Friedman's new hyper-globalization means that all the manual jobs get done by poor people in the developing world and this is retrogressive to the developed countries. Though Friedman talks about the vast array of choices, technologies and opportunities that globalization presents, each of them, after a while, seems curiously similar. An example given by Kingsnorth is like walking into a huge supermarket and marveling at the range of bread: choice, yes, but within a very limiting framework. He concludes by noting that in Friedman's bright

future, all choices lead to the same ultimate destination – a world of urban consumers, living in a market economy, working in offices, getting excited by software.

Fox (2005) notes that the basic argument of The World Is Flat is this: The fall of the Berlin Wall, the rise of the Internet, and the ever more interoperable nature of software which have created a newly "flat" global political, economic, and cultural landscape that allows people previously cut off from the centers of power and of affluence to join right in on the moneymaking and opinion forming--as long as they have the skills and the gumption and the broadband connections. However, Fox doesn't deny that there are roadblocks to a seamlessly interconnected world as well as dangers inherent in it.

Domosh (2010) notes that Friedman is presenting not only a spatial image of globalization as a flattening or smoothing-out process but also as a historical image. The imagined geography of a round earth is one that, as Denis Cosgrove (2003) has reminded us, assumes a distant vantage point, of someone above and beyond the rest of us looking down; an image in other words that implies hierarchies, domination, and surveillance. The flat world portrayed by Friedman presents a very different perspective, a horizontal view of the earth. This imagined horizontality, a world without vertical hierarchies, is precisely what Friedman believes will be the outcome of twenty-first-century globalizing forces.

Pink (2005) lists the ten “flatteners” that Friedman presents in his book. These are:

i. **Fall of the Berlin Wall**: The events of November 9, 1989, tilted the worldwide balance of power toward democracies and free markets.
ii. **Netscape IPO:** The August 9, 1995, offering sparked massive investment in fiber-optic cables.
iii. **Work flow software:** The rise of applications from PayPal to VPNs enabled faster, closer coordination among far-flung employees.
iv. **Open-sourcing:** Self-organizing communities such as Linux and Wikipedia launched a collaborative revolution.
v. **Outsourcing:** Migrating business functions to India saved money *and* a third world economy.
vi. **Offshoring:** Contract manufacturing elevated China to economic prominence.

vii. **Supply-chaining:** Robust networks of suppliers, retailers, and customers increased business efficiency. An example given is Wal-Mart, a leading retailing chain in the United States.

viii. **Insourcing:** Logistics giants took control of customer supply chains. UPS – a delivery and shipping company, is a prime example for insourcing. The company's employees perform services, beyond shipping, for another company. For example, UPS repairs Toshiba computers on behalf of Toshiba. The work is done at the UPS hub, by UPS employees

ix. **In-forming:** Power searching allowed everyone to use the Internet as a "personal supply chain of knowledge." Google and other search engines are examples that have promoted in-forming.

x. **"The Steroids:**" wireless technologies pumped up collaboration, making it mobile and personal. Examples are mobile phones, instant messaging, voice over internet, file sharing etc.

Schleicher (2007) summarizes the flatteners noting that skills and technology have flattened the world, such that all work that can be digitized, automatized, and outsourced can now be done by the most effective and competitive individuals or enterprises, wherever on the globe they are located.

Ghemawat (2007) offers a counter opinion noting that the world isn't as flat as Friedman denotes it to be. He notes that analysis of data reveals a world that's just a fraction as integrated as the one we thought we knew. In truth, the world is not nearly as connected as these writers would have us believe. He notes that despite talk of a new, wired world where information, ideas, money, and people can move around the planet faster than ever before, just a fraction of what we consider globalization actually exists. The portrait that emerges from a hard look at the way companies, people, and states interact is a world that's only beginning to realize the potential of true global integration. Ghemawat adds that what the trend's backers don't mention is that globalization's future is more fragile than affirmed. He states that the success of an industry not exempt from political and geographic constraints. Though a job may be outsource, the country of origin matters—even for capital, which is often considered stateless.

Ghemawat (2007) gives a vivid example of Google, which boasts of supporting more than 100 languages and, partly as a result, has recently been rated the most globalized Web site. But Google's operation in Russia (cofounder Sergey Brin's native country) reaches only 28 percent of the market there, versus 64 percent for the Russian market leader in search services, Yandex, and 53 percent for Rambler. Indeed, these two local competitors account for 91 percent of the Russian market for online ads linked to Web searches. What has stymied Google's expansion into the Russian market? The biggest reason is the difficulty of designing a search engine to handle the linguistic complexities of the Russian language. In addition, these local competitors are more in tune with the Russian market, for example, developing payment methods through traditional banks to compensate for the dearth of credit cards. And, though Google has doubled its reach since 2003, it's had to set up a Moscow office in Russia and hire Russian software engineers, underlining the continued importance of physical location. Even now, borders between countries define—and constrain—our movements more than globalization breaks them down.

Leamer (2007) notes that geography, whether physical or cultural or informational, limits competition since it creates cost-advantaged relationships between sellers and buyers who are located "close" to one another. Leamer states that relationships are the core properties that drive his disagreements with Friedman. He states that flatness doesn't create a relationship-free equilibrium; it merely changes the geography of relationships. It turns irregular hard-to-define geographic regions of customers committed to the same supplier into regular hexagons with the suppliers at the centers.

According to Abowitz and Roberts (2007), a flattened world is not necessarily a better world, and Friedman acknowledges in his final pages. A flattened world has been a fertile terrain for organizations like Al-Qaeda and technology hackers, who use the benefits of a flattening to sow disunity and terror. They use the very gains of a flattened world to somewhat "unflatten" the world. That brings us to the dirty little truth Thomas Friedman admits to late in his book: "The world is not flat." It's merely flattening at a quickening pace. The trend could be slowed or stopped by any number of disasters--another 9/11-scale attack, an environmental or health crisis, or simply a new round of protectionism.

Of the same opinion with Abowitz et al., is Weber (2005) who says that unless we mend our ways, the outlook is dicey. Electronic devices, like guns, can be used by both believers and unbelievers alike. Though such devices shrink the world, they do not shrink

the human tendency to harm one another. Weber notes that Friedman concedes that a flat world makes it easier for extremists to transmit their terror, and that the Internet is as useful in disseminating hostile propaganda, conspiracy theories and plain old lies as it is in providing information helpful to our enemies. He concludes by coining the phrase "Hell hath no fury like a terrorist with a satellite dish and an interactive Web site."

With the move to an information-based economy, financial services are becoming a key contributor to the gross domestic product of many countries. According to Tallon (2010), information technology (IT) plays a key role in applying various strategies within the banking sector. Banking is particularly acquiescent to the concept of a flat world in light of the many changes affecting the sector and the threats that banks face from innovative banking models such as peer-to-peer or retailer-based banking.

Bardhan, Demirkan, Kannan, Kauffman and Sougstad (2010) note that from the advent of e‐banking in the 1990s, service innovation has grown to include bill payment and presentment, account aggregation, digital checking, paperless deposits, integrated cell phone payment systems, contact-less credit cards, radio frequency identification (RFID), and mobile banking. Today, banks use IT for customer outreach and back-office activities, signaling a shift toward high-speed transaction processing, greater risk analysis, and use of cross selling as a way to expand market share.

Chan and Reich (2007) note that while banks vary in several ways, the alignment of IT with business strategy leads to varied levels of banking performance. They note that alignment is a key driver of firm performance in the form of competitive advantage, profit, and market share. Though the playing field may have been somewhat flattened by availability of infrastructure as well as a set of governing rules, not all firms will adopt the same strategy, and so the form of alignment may vary even if the extent of alignment is similar. Alignment with technology is clearly relevant to banking service because misalignment i.e. if IT fails to support business strategy can hurt service delivery. A resource perspective can also be added to this view of flattening to the extent that people, technology and value propositions connect internal and external systems, and shared information irrespective of location. Adding a resource dimension recognizes that banks can substitute IT for labor, depending on their specific choice of service strategy and whether that strategy is more IT (capital) intensive or labor intensive.

The Kenyan banking industry has grown in leaps and bounds with 43 commercial banks and one mortgage finance company. According to a fact box provided by Reuters (2011) among the 43 commercial banks 30 are locally owned and 13 are owned by foreign institutions. The government and state corporations have significant shareholdings in three of the local institutions. The biggest bank by assets is Kenya Commercial Bank with more than 226.15 billion shillings ($2.78 billion) in assets. Multinational institutions, such as Barclays and Standard Chartered, have had a presence in Kenya for several decades. Pan-African banks, such as Nigeria's United Bank for Africa, have entered the market in recent years. Home-grown institutions, such as Equity Bank, have made forays into neighbouring nations Uganda, Rwanda and South Sudan. There were 12.8 million bank accounts in Kenya at the end of 2010, out of a total population of 39 million, up from 4.7 million accounts in 2007.

Various regulations put in place have ensured a level playing field in the industry. The level playing field is administrated by the Central Bank of Kenya by the various acts put in place. The Central Bank of Kenya was established in 1966 through an Act of Parliament - the Central Bank of Kenya Act of 1966. The Central Bank acts as the core regulator of the banking industry in Kenya with various acts in place such as the banking act, the microfinance act, guidelines of agent banking etc. to ensure that a level competitive playing field is established within the industry.

Kenya’s banking sector is a cut-throat business arena, with 44 players including multinationals all scrambling for a slice of the pie. Equity Bank, however, revolutionized the banking concept in Kenya and made banking accessible to a majority of the Kenyan population who could not afford the exorbitant bank charges or meet the complex requirements demanded by other banks.

Equity Bank is a financial institution that largely operates as a microfinance commercial bank, targeting the middle and lower segment of the market that includes middle and small micro enterprise (MSMEs). Equity has made banking simple and friendly. It has simple requirements to cater for different types of customers who need various bank services. The bank uses non-traditional securities like household goods and revenue streams to provide loans. This has allowed its customers to easily access financial services, thereby expanding its market reach.

Equity has the lowest/competitive charges in the market for bankers' cheques. There are also no minimum balance requirements and account holders need not have an opening or operating balance. These customer-friendly features have enhanced the image of the bank and it is seen as a "Mwananchi" (common man's) bank that listens and cares. The customer base has grown through a robust information technology (IT) core banking system and infrastructure. The system has enabled the bank to develop specific products, tailor-made for various market segments. The bank's annual turnover in 2007 was KSh 5.8 billion. Equity Bank has an impressive 39 percent of the banking industry accounts. The bank's conversion and its phenomenal growth as a result of retail banking have sharpened competition in the financial sector. More established players who initially ignored retail banking in favour of corporate banking have re-entered the market, thereby increasing competition.

Equity is the leading bank in both the country and the region in terms of customer base, total capital base and market capitalization. With competition for the middle and lower market segment picking up, Equity strategy includes growing its customer base by opening branches across the country. With over 17 million Kenyans currently un-banked, Equity Bank is targeting them with flexible, simple and accessible banking services.

1.2 Statement of the Problem

Abowitz and Roberts (2007), reviewers of Friedman's book, note that Friedman begins with a series of personal experiences that led him to declare that 'the world is flat' including accounts of rapid technological advances in India, China, and the United States. Taking a page from the computerized age, they note that Friedman identifies three separate eras of Globalization: 'Globalization 1.0' typified by the discovery of the new world in 1492 until the opening of trade around 1800. 'Globalization 2.0' lasted roughly from 1800 to 2000 and was characterized by the emergence of global integration particularly with the rise of multinational corporations. And finally, Friedman declares that we have entered a new era, 'Globalization 3.0', which is profound in the sense that is has allowed a newfound power for individuals to collaborate and compete globally. Each of these eras has shrunk the world (by minimizing the effects of physical distance), but it is only the last era, Globalization 3.0, and the technological development of the global

fiber-optic network, that has flattened the world. To Friedman, this new era will have profound implications for the future. This flattening process is happening at warp speed and directly or indirectly touching a lot more people on the planet at once. The faster and broader this transition to a new era, the more likely is the potential for disruption, as opposed to the orderly transfer of power from the old winners to the new winners.

The agenda forged in third era – Globalization 3.0 is that of a world moving faster than most can keep up with. As people and businesses become more able to collaborate, compete and share with others of different cultures, religions, educational backgrounds and languages, the question that comes forth is whether it is possible to ignore the flatteners.

This study seeks to determine whether it would be possible to remain relevant in the current market if Friedman's flatteners are ignored. The red signals are all blaring that the banking industry might be facing its biggest crisis since the 1980s collapses and many analysts say it is self inflicted. The study will seek to determine how commercial banks are adopting to the flatteners and their impact on growth and business. The consensus brought forth by Friedman is that of conformity with the flatteners in order to succeed. This study will scrutinize if and how banks are conforming in order to remain relevant in Kenya's banking sector.

1.3 Research Objectives

The objective of this study will be to determine to what extent Equity Bank is conforming to Thomas Friedman's flatteners and how they are impacting on its business. To better comprehend this objective, the following specific objectives will guide the study: -

i. To establish which flatteners were applicable to the banking industry
ii. To determine to what extent the banking sector was responding to the flatteners
iii. To determine the impact of the flatteners to the banking industry
iv. Propose a model for the implementation of flatteners in the banking industry

1.4 Research Questions

i. Which flatteners are relevant to the banking industry?

ii. To what extent is the banking sector responding to the flatteners?
iii. What is the impact of the flatteners to the banking industry?
iv. What model would be appropriate for the implementation of flatteners in the banking industry?

1.5 Importance of the Study

Being such a cutthroat competitive world, there was always the need to stay ahead in business. There is debate on whether to conform or reform in order to stay relevant in today's business. The study was undertaken to show how Thomas Friedman's flatteners were applicable to businesses in a Kenyan setting. This study delved into the flatteners that were relevant to Equity Bank's business. The study was therefore insightful to the Bank's management as it elucidated what role the flatteners play in its business and how further to reap added benefits from the said flatteners. The study will also be relevant to regulating authorities in the country who from the findings of this study can set certain rules and regulations so as to ensure a fair competitive playing field for stakeholders within a particular sector. The study will also add to the empirical evidence on the role flatteners' play in today's businesses hence adding to the already existing body of knowledge.

1.6 Scope of the Study

Being a case study, this study focused primarily on Equity Bank vis-à-vis the flatteners that were relevant to its business. It delved into how the bank was implementing the relevant flatteners in its day to day business. The study consequently considered the impact of implementing the flatteners as well as delve into emerging trends in the banking industry in relation to the flatteners and how these could be applied to Equity bank.

CHAPTER 2: Literature Review

2.1 Introduction

This chapter highlights literature related to works of other scholars and writers related to the topic of the study. The chapter is divided into sections covering: flatteners applicable to the banking industry; implementation of flatteners in the banking industry; and the impact of the flatteners in the banking industry. There is also a section on Equity Bank giving a brief description of its history and business strategy in relation to the flatteners.

2.2 Flatteners Applicable to the Banking Industry

The banking industry is not to be left behind as the world progresses forward and flattens out, making the world one global economic village. Thomas Friedman defines ten flatteners of which only a handful are relevant to the banking industry. This section will look into the flatteners and from the literature decipher flatteners that are applicable and already in place in today's banking sector.

2.2.1 Flatteners as per Thomas Friedman

The thesis of The World Is Flat is that neoliberal globalization is flattening the world, breaking down commercial, cultural and even geographical barriers at ever-increasing speed. For Friedman, cheap, ubiquitous telecommunications have finally obliterated all impediments to international competition, and the dawning flat world is a jungle pitting lions and gazelles, where economic stability is not going to be a feature and the weak will fall farther behind. Rugged, adaptable entrepreneurs, by contrast, will be empowered. The service sector (telemarketing, accounting, computer programming, engineering and scientific research, etc.), will be further outsourced to the English-spoken abroad; manufacturing, meanwhile, will continue to be off-shored to China (Kamenetz, 2007).

According to Abowitz and Roberts (2007), the influence of the book appears to come from the power of its central claim and metaphor, that the world is now flat. In the opening chapter of the book, Friedman reflects on a recent visit to India and a conversation he had with Nandan Nilekani, an Indian CEO who noted to him that the playing field is being levelled. He meant that countries like India are now able to compete

for global knowledge work as never before—and that America and the rest of the developed world had better get ready for this. Abowitz et al state that Friedman spends the rest of the book fleshing out this metaphor and examining the implications of a 'flattened world' on all sectors of US society including education and schooling.

Roberts (2008) notes that Friedman's *The World is Flat: A Brief History of the Twenty-first Century* delves into many topics, including the notion of a flat world—a world with a globalized supply chain and few, if any trade barriers. China's place in that supply chain has clearly fueled part of its ascent into a considerable economic power. However, as Friedman notes, a country's position in that chain is precarious, and a public relations nightmare (like, say, the hospitalization of thousands and deaths of four infants due to the poisoned powdered milk) could well be the tipping point that prompts major corporations and businesses to rethink their supply resources.

A good summary of chapter two of Friedman's book, in which he lists his major flatteners, is given in Wikisummaries (2010). We are introduced to Friedman's interpretation of the ten influencing factors that led to globalization and world flattening, the first being the falling of the Berlin Wall in 1989, which tipped the balance of power across the world towards democratic free market and away from authoritarian rule. A second flattener is identified as our ability to not only author our own content, but to send it worldwide with the 1995 launch of the Internet. Subsequently, free workflow software was developed, allowing people from around the world to collaborate and work together on projects using a shared medium. As Apache and Wikipedia came into play, we became able to develop and upload web content and community collaboration became another flattening force. Preparations for Y2K required resources beyond those available in the United States and as a result, we see that India became responsible for a huge portion of these preparations. Offshoring, using the Chinese manufacturing sector as a prime example, has forced other developing countries to try to keep up with their low cost solutions, resulting in better quality and cheaper products being produced worldwide.

The seventh flattening factor is our introduction to supply chaining, which is discussed in much greater detail later in Chapter Fourteen. Rounding out his list with insourcing, in-forming and "the steroids", Friedman examines his flattening factors, their origins and the effect they will have on the way we do business in the future.

2.2.2 Infrastructure in place in the Banking Industry

With development of IT, commensurate headway has been achieved in the banking industry in terms of infrastructure put in place. According to Bielski (2006), systems are highly interconnected to improve efficiency, i.e. IP networks, open source platforms, high-capacity or clustered servers, easier-to-scale and manage databases, and other back-office systems, tools, and techniques are increasingly relevant. The back-office is optimized via simplified code writing and deployment, and the business objectives easily weaved into operations (in the form of rules and other consistent workflows), therefore the bank runs better. Requirements such as customer on-boarding, issuing retention tactics, messaging, or cross-selling can be standardized by a process and IT design that evokes semi-automated tasks as repeatable, perfectible, and consistent.

Banks nowadays ensure they keep customer-facing objectives in mind as they design all systems (Bielski, 2006). They have systems that ensure that tellers organize that customer experience. Systems should be able to support rapid inquiries and fast resolution of conflict.

Bielski cites Weisel who notes that strategic IT management is the single biggest 'lever' that can both drive cost out of the system and improve customer experience. The idea--a perennial concept with some renewed interest--is to lower the basic maintenance costs by reconfiguring the back office, leaving room in the budget for innovation. An example of this is use of web-based ATM technology that is centrally controlled for simpler system upgrades. There is potential for a greater state of electronic collaboration--in the form of e-commerce and information sharing--among discrete banks and with their partners and customers.

Bielski further notes that cutting edge infrastructure put in place, gives banks a competitive edge. He gives a SWOT analysis based on the infrastructure. For the strengths he notes that well planned for and installed infrastructure ensures: better interdisciplinary delivery; optimization of operations such as risk, payments, and data management; a middle tier of IT that compensates for some of core's weaknesses; and newfound marketing prowess and better ability to focus on the customer. However, the weaknesses include: dependence on legacy core systems; Silo orientation, too bound to traditional methods of IT management and project delivery; and failure to think with corporate or enterprise perspective when planning IT projects. The opportunities that

present themselves are: service oriented architecture (SOA) which can create composite applications and better process design; change management leads meeting key project objective; and the ability to improve process easily. There are however certain threats that present themselves. These include: security issues; reputational risks - just one data spill or negative news story can cause real fiscal loss; monetary meltdown - too many acquisition-related conversion projects can sink the most determined ship; and Culture of careful - too much risk avoidance

2.3 Implementation of Flatteners in the Banking Industry

Technology seems to be the key flattener via which all other flatteners become relevant. With germane technology in place, banks can accomplish various functions with ease to their benefit.

According to Tallon (2010) the introduction of new technology into banking has produced a surge of interest in how IT can help banks find cross-selling opportunities. Data mining has allowed banks to learn more about their customers, their customers' needs, and how the demands of each market segment evolve over time. Client profiling can be used as part of an information-based strategy, indicating how, in a banking context, IT can be used to learn how customers allocate their assets or how profitable they will be in the future. Profiling helps to reduce various errors grouped into two; Type 1 (attracting loss-generating customers) and Type 2 (rejecting potentially profitable customers) errors. All banks want to deepen their relationship with their client base and to find ways of gaining new customers. Such benefits are available from the software infrastructure put in place.

At another level, IT investments may also be able to mimic some of the service-delivery features. For example, customer relationship management (CRM) can make it easier for banks to manage customer relations. Service is a co-creation process involving, in the case of banking, customers, service partners, business strategy, and a host of internal bank resources such as staff, managers, and IT. These co-creation processes are variously configured as *value chains,* as might apply in the case of structured check-clearing processes; *value shops,* where resources are pooled to resolve specific customer issues such as home refinancing; or *value networks,* where value is created from the diverse relationships formed between banks, their clients, and third-party service providers. In the

present-day banking environment, IT is often central to each of these value co-creation processes. Misalignment will almost certainly hurt service delivery if IT is lacking—due to insufficient or misdirected IT spending, for example—whereas alignment, a known enabler of competitive advantage, will likely spur even greater value co-creation.

Vargo and Lusch (2006) note that IT is not the only resource underlying value co-creation. They note that services provided are a product of complex configurations of IT, capital, and labor resources that may, on occasion, require the active involvement or acquiescence of the customer. Zeithmal and Bitner (2002) note that though a majority of factors and resources cut across the industry as well as being readily available and easily duplicated or procured, the integration of these resources is often a source of ambiguity, value, and immobility that protects a bank's service model from competitors.

Wade and Hulland (2004) touch on "the steroids" and outsourcing(two of the flatteners) noting that at a time when e‐banking is seen as a commodity—banks are now buy e‐banking services from outsourcers rather than developing them in-house—IT is less of a leading source of enduring value than when IT was only available to large banks (this was the case with the first generation of ATMs, as the value of the ATM to customers was a function of network externalities and the size of the bank network).

Curry and Penman (2004) note that the flatteners cannot be looked at in isolation. They note that the flatteners need to be looked at in combination with other resources to improve performance. They give an example of IT which has to be looked at in combination with other resources—most notably, labor and the relationship information held by bank staff on their account holders—hence leading to higher performance. Bank staff, their knowledge of the local banking market, and their strategic choice, IT, and performance plays a role in developing lifelong customer relationships which are a vital resource for banks. What this means is that resource arrangement can have a direct and indirect effect on overall performance. In the first instance, IT-led value co-creation—where IT is the driving force behind value co-creation or where IT is allowed to spearhead customer relations—will lead to higher IT business value, defined as the contribution of IT to firm performance; higher IT business value, meanwhile, can lead to higher overall firm performance. In the second instance, non-IT-led value co-creation—

where IT is not the primary resource underlying customer relations—will still lead to tighter alignment of IT and business strategy, but the effects of greater alignment will flow directly through to firm performance rather than indirectly to performance via IT business value.

Tallon (2010) states that size and the long-honored maxim that *bigger is better* represent a double-edged sword for banks seeking to become more service oriented. As banks grow larger through further consolidation—subject to a federal restriction that no bank can hold more than 10 percent of all U.S. deposits—IT (through work flow software and "the steroids") is seen as providing an essential cushion against rising labor costs. Automation, whether through ATMs, telephone call centers, or banking Web sites, can help to limit labor costs, allowing a marked increase in the number of customers per employee. Productivity gains are certainly welcomed, but an often overlooked question is how size shapes the service models that banks are trying to implement. Tallon cites Curry and Penman who state that in a market where quality of service can be a differentiator the balance between personal interaction and technologically delivered services must be right if customers are to be retained over time and hence impact on profit margins. Tallon further adds that small banks enjoy significantly higher strategic alignment with technology in two processes in the value chain—sales and marketing support and customer relations—processes that are central to a customer-intimate strategy. Small banks may not have the same resource base as large banks and they may not be as open to the idea of placing bets on emerging technologies (e.g., mobile banking), but what IT they are using is proving to be highly effective. The difference may lie in how small banks use IT in their service model. In high-touch service models, IT is arguably less of a substitute for labor, as in the case of extreme automation, and more of a complement to non‐IT resources.

Joseph, McClure and Joseph (1999) note that different demographic segments look for different things in their banking relationships. They consider the size of the bank and how it adopts to the various flatteners and how they implement and provide different services. They note that the fact that different demographic segments look for different things in the banking relationship is something that might play to the advantage of small banks. Retirees, for example, want service over convenience. Because small banks do not have a

scale advantage, it makes sense to seek differentiation through service. Large banks recognize the inherent value of providing a higher level of service but with a focus on operational excellence, this translates into a push for higher productivity, standard products (less variability), and reduced costs. Though supply chain is not considered as a major aspect in banking, Joseph et al., note that focus on supplier relations and production and operations, is a way to secure a concrete service model, though it will not create an alignment advantage. Joseph et al note that customer-intimate firms were just as capable of aligning IT and business strategy in noncore parts of the value chain as operationally excellent firms. What this simply means is that any bank that seeks to differentiate itself on the basis of personal service, as small banks are now doing, must be capable of processing transactions, clearing cheques, and managing transfers in a manner that is no worse than large, operationally excellent banks. As an example, boutique banks such as U.S. Trust (now a division of Bank of America) that service a tiny cadre of high–net worth individuals or trusts could not survive if their customers' basic transactional needs were not being processed correctly, just as any large bank would do. The implication for larger banks that continue to focus on operational excellence is clear: apart from a more extensive branch network, there is little that makes their service model superior to that of small banks. Large banks have an expressed desire to move toward customer intimacy but there is a question mark over whether this is really possible given that personal service is costly to scale and their IT continues to focus on transaction efficiency and cost rather than trying to offer a unique service experience to each customer.

Gefen and Carmel (2008) bring out the outsourcing issue to banking industry. They note that providers of information technology services in once-remote places like Mumbai, India, are referred to as having as much access to projects as those in London or Los Angeles. Importantly, these distant providers are said to overcome the crippling cost of distance and the higher transaction costs. Dans (2002) introduces the notion of an online programming marketplace which is an online auction for IT services usually based on a reverse auction bidding process in which providers compete to offer the lowest price. Online Programming Marketplaces (OPMs) provide IT services and rely on a reputation system for both buyers and sellers. An OPM allows us to examine the offshore outsourcing questions because it uniformly handles tens of thousands of transactions that are both intra-country and inter-country. However there are various factors that come into play before deciding whether or not to outsource, and which services can indeed be

outsourced. Gefen and Carmel note that the “flat world” and offshore outsourcing are here to stay and that these have permanently changed the rules of the game. They however note that even when the world is almost perfectly flat, as with OPMs, it does not mean that clients act as if it were frictionless. Some of the factors they put across are that price and potential labor arbitrage do not always matter. They note that domestic providers continue to get some preference especially where language is and issue i.e. if the supply is not conversant with the clients’ language, hence common language matters, and, above all, previous relationships matter.

2.4 Impact of Flatteners in the Banking Industry

Yew (2007) notes that the world's strategic markers and projection trends have changed radically during the last ten years. He notes that in 1997 China and India were minor players. Now their growth into the world's two largest economies is creating new dynamics in the global economy. Security is always a concern notes Yew. Although he is mainly concerned with global security of Al-Qaeda and jihad in Afghanistan, security is a major threat to the banking industry, be it data risks or physical risks to the bank. However, physical risks to the bank may low scale but a flattening world still poses such threats. The major security threat in the banking industry is data related.

Bielski (2006) points out that innovative revolution in the near future comes in the technical form of the service. "Service," here, deriving from the emerging component approach to delivering applications known as service oriented architecture, or SOA. These "mini programs," or components, can be combined with others to create composite applications that can, for instance, blend customer service aspects with existing processes. With SOA, new business logic becomes available to workers, or it could be delivered directly to a customer via the web. Add to that workflow and business process management tools that can help automate business processes by linking what department A does to what department B does and so on. What you get are applications that work among departments: with all aspects of the workload accounted for and all workers accountable.

Bielski quotes Chip Greenlee, the director of marketing solutions for financial services industries, Hewlett-Packard, San Jose, Calif., who says that banks are using SOA to figure out how to transcend the limitations of legacy systems. SOA can help with

integration, among other types of operational functions. He adds that the system design, platform choice, and application feature menu should follow a careful consideration of customer needs coupled with business needs tempered by a review of security requirements.

Bielski cites an example of how SOA and workflow software can be incorporated in the banking sector. He states that the procurement area of National City Bank, Cleveland, provides an example, using a new system that has become the sales force for supply chain management. He notes that the procurement process has been improved, and also the bank's culture of end-to-end process improvement, its use of Six Sigma, and the need to ultimately render each process as visible, and fiscally sound. In other words, his philosophy ties directly to the vision of efficiency espoused by SOA acolytes.

There are several buckets of issues that SOA and related technologies can help banks deal with. One major issue is to become customer-centric in more meaningful ways, finally moving beyond the static customer information file. The next revolves around coping more efficiently with the risk management and regulator, burden, (and again, part of this filters down to the customer experience, particularly finding that balancing point between being efficient and friendly to the customer while also fulfilling requirements such as Know Your Customer). Yet another has to do with how a given bank improves its asset mix, especially IT assets and personnel, essentially driving out unnecessary process duplication and cost and driving up productivity.

Bielski interviews a number of bigwigs in the banking industry who point out various threats that may emerge as a result of this interconnectivity of workflow software. He notes that bankers in many corners of the industry are beginning to take on issues such as man-in-the-middle attacks and identity theft, but they have much more investing to do and far to go, according to many experts. He further adds that even in a market littered with solutions, confusion is the norm. Bielski cites Identrust who recently issued a white paper on reputational risk that summarized how technology and process-related disasters can damage companies--sometimes permanently.

Anti-money laundering programs and related requirements reflect critical technology implications. Efficient banks will find ways to automate accordingly. Another threat is the industry's fondness for growth by acquisition. While many banks are old hands at

conversions, they don't necessarily manage the customer-facing transitions with the same virtuosity. Finally, Bielski points out that there's the strength that can become the weakness if the reliance on it is steel-grip tight: that would be the bank's culture of being too careful. Basically, opening up more customer service processes and other behind-the-firewall capabilities will require banks to make adjustments to accommodate new distributed risks.

Parker (2008) notes that people can connect with others anywhere, anytime, in a nanosecond, it is timely to consider the implications of the globalized world. He notes that in a flat world, life-time employment is a form of fat that a flat world simply cannot sustain any longer. Individual workers are going to be more responsible for managing their own careers, risks, and economic security. Parker notes that individuals must seek to remain relevant lest technology and outsourcing renders them obsolete. Employees need to be self-reliant yet supported by business and government to enhance lifetime employability, brought about by "replacing that fat with muscle." A major impact of the flattening world is the sad reality that if one does not remain relevant, then there will be considerable job losses as machines (technology) as well as cheaper labor options (outsourcing) take up one’s job.

Kumar and Gupta (2009) in their survey of Indian farmers note that there is a large population of unbanked population. The spurious growth of bank branches has however not answered this problem and hence there is need for innovation within the banking industry to reach the masses. The solution they put forward is that of branchless banking. Branchless banking is the concept of providing banking services outside the conventional bank branches by either using information and communication technology services or third party organizations (commonly referred to as 'Business Correspondents'). Kumar et al., note that Information technology is becoming a key business enabler and is being positioned as a key differentiator. The banking industry has achieved significant success in leveraging IT through the implementation of core banking solutions and it has helped them in streamlining, standardizing, and expanding their services portfolio. Information, communication, and technology (ICT) solutions will continue to help banks in providing seamless systems to capture customer data, ensure unique identification, and facilitate financial transaction services using remote connectivity through mobile devices. These systems will also ensure uninterrupted service delivery, customer data protection,

customized products, dissemination of information on credit options, and multiple financial products in local languages. It is only with the help of ICT that financial inclusion of the unbanked population can be completely achieved from an economy as well as localization perspective at reduced costs and with greater accessibility.

Kumar et al., envision the use of technology and innovation to achieve their branchless banking model. They cite examples of pilot projects that are already underway as to what the future may hold for the banking industry. There is the use of a business correspondent (BC) model allows banks to use third party financial institutions to handle account opening, transaction management, and other financial services. Regulations emphasize that transactions should be visible in the bank's books within 24 hours and as a result of such compulsion the use of smart cards and mobile technology by the BCs will be necessitated.

Gerth and Rothman (2007) note that in a flattening world each business and industry will vary in the timing and scale of the operational shifts required. However they will primarily be focused on four areas: decreasing the cost structure; increasing innovation; leveraging information assets; and, becoming more agile. Lowering the cost structure does not necessarily mean being the lowest cost provider in the market. It implies that companies will need to further enhance their value/cost ratio in order to compete in an increasingly cost-competitive global market. This can be accomplished with innovative products, product harmonization, and more effective local marketing. Faster innovation will be required to encourage customers to continue to associate with a particular company and maintain customer loyalty. Gerth et al., note that great customer service will no longer be the sole factor encouraging customer loyalty and that innovative products and services will be more significant than in the past.

Gerth et al., point out that the flattening world and the associated operational shifts will create new requirements on the IS function of a company. Each of the operational shifts will create additional demands on the IS organization to support the associated changes in the business. At the same time there is the challenging scenario of an increased demand for IT resources. The shifting of a company’s operational priorities will place increased demand on IS organizations to provide resources to support, and in some cases lead, IT-enabled business transformation initiatives. To become the relevant, companies will have

to leverage IT to: simplify their operations; automate the streamlined processes through the effective use of Information Technology; and, relocate business processes that can be relocated to lower cost locations.

Many solutions have been developed to collect data from business transactions that occur. The evolution is toward solutions that provide information rather than data and targeted toward specific operational capabilities. World class data management, business intelligence, and data analytics are all examples of this evolution in which IT plays a major enabling role. The ability of a company to make money from information will be dependent on the data management, data analytics, and business intelligence capabilities of its IS organization. The requirement to be an agile business will also put strain on the IS organization. Information technology solutions have the reputation of being too slow to deploy in the business. Demands will increase for quicker deployment of IT solutions which will enable agility and also accelerate the benefits realization of those solutions.

With respect to the banking industry, the need for information rather than data is quite significant. The systems in place will be able to generate customer based report to detail what sort of customer one is, their loan repayment capabilities etc. The systems will also need to tailor make solutions for particular clientele so that they may not be left out. Consequently, the impact of a flattening world in the banking industry is quite significant. The need for innovation is paramount making use of the work flow software already in place to gather relevant information from the data already available as well as use of gizmos to provide new services to the already existing clientele. Cost cutting measures may require banks to outsource various services to remain competitive.

2.5 Commercial Banking in Kenya

Kenyan banks have benefited in the recent past from vibrant economic growth in the region, increased lending at higher spreads and improved margins from cost reductions through job cuts. Various regulations put in place have ensured a level playing field in the industry. The level playing field is administrated by the Central Bank of Kenya by the various acts put in place.

According to a factbox provided by Reuters (2011) who sort information from the Central Bank of Kenya there are 43 commercial banks in Kenya and one mortgage finance

company. Among these 30 are locally owned and 13 are owned by foreign institutions. The government and state corporations have significant shareholdings in three of the local institutions. The biggest bank by assets is Kenya Commercial Bank with more than 226.15 billion shillings ($2.78 billion) in assets. Multinational institutions, such as Barclays and Standard Chartered, have had a presence in Kenya for several decades. Pan-African banks, such as Nigeria's United Bank for Africa, have entered the market in recent years. Home-grown institutions, such as Equity Bank, have made forays into neighbouring nations Uganda, Rwanda and South Sudan. There were 12.8 million bank accounts in Kenya at the end of 2010, out of a total population of 39 million, up from 4.7 million accounts in 2007. Total branches stood at 1,063 at the end of last year from 740 in 2007. Automated teller machines were 1,940 in 2010, up from 1,012 in 2007.

The Central Bank of Kenya was established in 1966 through an Act of Parliament - the Central Bank of Kenya Act of 1966. The establishment of the Bank was a direct result of the desire among the three East African states to have independent monetary and financial policies. This led to the collapse of the East Africa Currency Board (EACB) in mid 1960s. The Central Bank acts as the core regulator of the banking industry in Kenya with various acts in place such as the banking act, the microfinance act, guidelines of agent banking etc. to ensure that a level competitive playing field is established within the industry.

The core mandates of the Central Bank of Kenya are that it is to formulate and implement monetary policy directed to achieving and maintaining stability in the general level of prices; foster the liquidity, solvency and proper functioning of a stable market- based financial system; and to support the economic policy of the Government, including its objectives for growth and employment. Subsidiary mandate of the bank are to: formulate and implement foreign exchange policy; hold and manage its foreign exchange reserves; license and supervise authorized dealers; formulate and implement such policies as best promote the establishment regulation and supervision of efficient and effective payment, clearing and settlement systems; act as banker and adviser to, and as fiscal agent of the Government; and to issue currency notes and coins.

The banking industry has undergone major transformations with locally owned banks being the largest in terms of capitalization and asset base. Though the sector has been plagued with certain industry specific problems such as insolvency and fraud,

indefatigable changes and checks have been put in place to ensure such risks are overcome. The banking system remained relatively stable in the early 2000s compared to the late nineties when five commercial banks were placed under statutory management by the Central Bank. Measures put in place by the Central Bank to rescue the banks under statutory management have continued successfully. To further strengthen the banking system and enhance surveillance in the industry, the Central Bank has taken the following actions: Bank Supervision Department was strengthened to enhance closer surveillance aimed at detecting banking problems early enough so as to take preventive action; Guidelines for risk classification of loans were revised and issued to facilitate better credit risk assessment; The Bank has continued to encourage formation of credit reference and credit rating agencies in order to enhance credit risk assessment; a system of vetting directors and chief executives of banks prior to being appointed was implemented; the disclosure of the financial performance was enhanced as a way of ensuring better market discipline.

As technology becomes part and parcel of every industry, various changes continue to take place in the banking industry and the future appears admirable. Community Banking and Agency Banking Models seem to be in the crosshairs of the Central Bank of Kenya, with guidelines for the latter already being in place and the law operational. Agent banking model serves to strengthen the role played by existing financial sector players and thus bring services closer to the populace.

Lumiti (2010) notes that a National Finance Access Survey of 2009 showed that 32 percent of Kenya's bankable population lacks any access to formal financial services while many others are served by informal systems. These are the people who are targeted by such innovations which would not only support savings but boost investment growth. Lumiti notes there is need for agency banking because of various factors. These include: low incomes and high cost of banking; profitably to serve the unbanked in the existing banking environment; remote & sparsely populated areas with poor infrastructure; lack of awareness, social exclusion and low literacy levels; and distance from bank branch, branch timings, lengthy documentation & procedures, unsuitable products, language barrier etc. Agents are put sourced to cater for a number of services which include: account opening, Cash Withdrawals and Cash Deposits; Disbursements/Payments; and Customer Service and enquiries.

Juma (2010) notes that the agency banking model has already reaped substantial benefits. He notes that an estimated 1.1 million Kenyans have opened new banking accounts in the period August – October 2010 pointing to early success of the new agency banking model and strengthening economic growth which has increased employment opportunities and people's disposable incomes. The Central Bank of Kenya (CBK's) third-quarter 2010 sector report shows the number of deposit accounts rose from 10 million in the second quarter to 11.1 million as at end of September 2010. The growth in account holders' numbers increased total deposits by Sh600 million to Sh1.27 trillion in the three-month period. Bankers interviewed Juma pointed out that growth in the sector picked up momentum, mainly driven by strengthening economic recovery and the new agency banking model that is riding on mobile banking platforms such as Equity Bank's M-Kesho, in partnership with Safaricom.

However despite the benefits accrued from Agency Banking Model, there are some inherent challenges and risks. These include operational risks that involve system reliability, data security, risk of misuse, quality of service, cash/float availability, fraud and infrastructure challenges. There are also financial risks such as low transaction fees, default in submitting collected deposits. Other risks include reputation risks i.e. association with poor performance of retail agents or agent fraud; legal risks i.e. Possible litigation on customer transaction issues; and human resource risks i.e. high turnover of agent employees.

However, undoubtedly the future of Kenyan banking is reaching the vast number of unbanked population via the following modes: Community Banking by using retailers, village residents and empowerment groups as representatives; Down sizing products: to ensure affordability to all customers; and Adopting innovative methods: mobile banking; Point Of Sale devices, offline services, branchless banking and low cost branches.

2.6 Equity Bank

Equity Bank Limited (EBL) was founded in 1984 as a Building Society with the purpose to pool resources of members for onward provision of mortgage facilities. The growth in business volume and outreach necessitated the conversion to a bank, which was registered in December 2004. The mission then was to "mobilize savings, term deposits and other

funds for the efficient provision of loan facilities to the microfinance and missing middle sector, especially small and medium enterprises, to generate sufficient and sustainable profits, in order to contribute to the members' welfare and to the national economy."

As of October 2002, EBL had 35,501 micro-borrowers with an outstanding balance portfolio of $13,116,948 USD and an average size loan of $471 USD. EBL also provided savings to 148,299 clients with a portfolio of $26,995,669 USD. Its establishment was motivated by the desire to create a financial service provider which would touch base with majority of the Kenyan population. The need to come up with the institution was out of the realization that most Kenyans lacked access to financial services or simply could not afford them. The initial focus was to offer Mortgage services but in the early 1990's EBS changed its business focus to micro finance services. EBS grew to become a leading micro finance institution providing a wide range of products and services. The growth in business volume and outreach necessitated the conversion to a commercial bank which was dully registered on December 31, 2004 as Equity Bank Limited (EBL).

The bank experienced difficult financial times in the early 1990s and in 1992 almost faced liquidation by Central Bank of Kenya (CBK). However, due to the Bank's (then EBS) laudable record of creating affordable and easy access of financial services by ordinary Kenyans, CBK opted to apply rational judgement to allow EBS re-invent itself.

Equity Building Society comprehensively implemented the management of change process according to international standards - putting emphasis on quality customer service. For over 16 years, Equity survived the difficulties of manual system until June 2000 when it launched computerized management information system. This change contributed to an increase in productivity and an expansion of the portfolio. The organisation grew tremendously until year 2005 when it was converted into a bank under the Banking Act.

With over 5.7 million accounts, accounting for over 57% of all bank accounts in Kenya, Equity Bank is the largest bank in the region in terms of customer base and operates in Uganda and Southern Sudan.

Equity Bank has received both local and global accolades for its unique and

transformational financial model. The bank is credited for taking banking services to the people through its accessible, affordable and flexible service provision.

Equity Bank was named the best performing Africa Investor 40 Company in this year's African Investor Series Awards held at the New York Stock Exchange. The African Investor Index Awards recognize and reward institutional investors, stock exchanges, corporate governance, stockbrokers and capital market regulators across the continent.

In 2010 the Financial Times named CEO Dr. James Mwangi among the 50 emerging market business leaders in BRIC countries – Brazil, Russia, India and China – and other emerging market economies - who have shaped the economic performance of their respective regions. The Financial Times recognized Dr Mwangi for transforming the lives of many people in Kenya including house helps and low income earners who have been able to borrow as little as Kshs 500 from the Bank.

Dr. Mwangi was also awarded the 2010 African Banker of the Year and cited for pioneering the first mobile banking technology in the world to reach out to the unbanked, and for championing the empowerment of ordinary people through inclusive finance.

In June 2009 Equity Bank was the emerging markets most sustainable bank of the year in Africa and the Middle East. Equity is the holder of the 2007 Global Vision Award in Microfinance "for initiating a concept of the future that will shape the Global Economy". The world renowned Superbrands has recognized Equity as the only banking Superbrand in East Africa in its first Superbrand edition for East Africa in 2008. Equity enjoys an A+ Credit rating from Global Credit Rating Agency

Equity offers financial services through its wide network of branches in Kenya, Uganda and Sudan supported by Alternate Delivery Channels which include:

i. Visa branded ATM's in Kenya
ii. Points of Sale (POS) where customers shop; pay and withdraw cash in leading retail outlets
iii. Internet and mobile banking channels

Equity Bank is registered under the Companies Act cap 486 and licensed under the Banking Act Cap 488 laws of Kenya

2.6.1 Overview of Information Systems at Equity Bank

With each passing day, the technology is getting advanced. It could not be truer for the computer technology. The information technology is on the verge of scaling new heights. The information technology and computers are playing a vital role in the world's fast growing technological changes. Communications are becoming easier and the place once the mediums of television and radio had in an average person's life are now almost taken up by the computers. The rapid growth of internet utility is bridging the gaps between all humans regardless of region , area or even genders and this technology stands really above all the others because there are no rigid rules present which could be considered confinement to the development of technology.

Equity bank IT systems have been developing from time to time with advancement in technology, in the year 2000 equity building society acquired a system known as BANK 2000. In 2002 the growth in the bank's customer base necessitated a change of the system to BANKERS REALM. In year 2004 due to conversion of equity building society to Equity bank thus becoming a fully fledged commercial bank, a system known as FINACLE was implemented.

FINACLE is an integrated, on-line, enterprise banking application designed to provide the "e-platform" for the global banking industry. FINACLE is a product of Infosys Technologies, a leading software solution provider in India.

FINACLE is a functionally rich product catering to a wide range of banking functions, including current and savings accounts, deposits, loans, commercial lending, and the entire range of trade-finance activities. It integrates a wide range of delivery channels such as ATM/POS, Telephone, Call Center, Internet, in an integrated way to offer convenience to your customers.

FINACLE can support up to 35 million accounts and thus it is capable of handling the banking population of Kenya. It is also capable of processing transactions for multiple

banks combined. The bank has also implemented a Tier 4 data center, the first in sub-saharan Africa.

2.7 Conclusion

This chapter has reviewed literature that has provided insights into Thomas Friedman's flatteners and how they are influencing the banking industry.

The chapter gave insight into the Thomas Friedman flatteners proposed in his bestseller "The World is flat." Though the flatteners are ten in number, only three were found to be relevant to the banking industry and these were: workflow software, outsourcing and "the steroids." The chapter also gave insights into the emerging trends in banking and how they are conforming to the flatteners. This study following from this will investigate how Equity Bank is implementing the three flatteners relevant to its business.

The impact of the flatteners are far reaching and not to be ignored. The impact of the flatteners has been discussed in the literature with the impact ranging from job losses to security issues with data. This study will seek to determine the impact of the flatteners on Equity Bank. The literature also touched on emerging trends in banking and the study will consequently seek to determine how in touch Equity is with the emerging trends and how these can be used to improve business. There is also need to determine if there are any other flatteners that are relevant to Equity Bank that may not have been captured and how these additional flatteners would affect its business.

CHAPTER 3: Methodology

3.1 Introduction

This is study was aimed at determining to what extent Equity Bank is conforming to Thomas Friedman's flatteners and how they influence its business.

This chapter starts with a description of the research design followed by the definition of the population to be studied and the sampling design to be employed. The chapter also describes the data collection instruments as well as the method to be used. Also included in the chapter are the data analysis and presentations methods to be applied.

3.2 Research Design

The study adopted an exploratory and descriptive research design where data concerning the relevant flatteners i.e. work-flow software, outsourcing and "the steroids in relation to Equity Bank was collected. The data was both quantitative and qualitative and involved collection of primary data from the respondents in Equity bank.

Kombo and Tromp (2006) state that the major purpose of descriptive research is to describe the state of affairs as it exists. It is also used to identify why something is happening. The methods involved range from the survey which describes the status quo, the correlation study which investigates the relationship between variables, to developmental studies which seek to determine changes over time. Descriptive research is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation. It describes data and characteristics about the population or phenomenon being studied. Descriptive research answers the questions *who*, *what*, *where*, *when* and *how*.

A descriptive design was therefore preferred because we sought to obtain information on the Thomas Friedman flatteners vis-à-vis commercial banking in Kenya. A case study probes in depth into an individual situation or personality with the intent of diagnosing a particular condition and recommending corrective measures. A case study was preferred because the banking sector is quite vast hence the need to narrow down; specifically

determine to what extent Equity Bank is conforming to the flatteners and how they impact on its business strategy.

3.3 Population and Sample

3.3.1 Population

The population of the study consisted of managers whose dockets were directly interlinked with the flatteners. These included directors, general managers, heads of departments and some operational level managers such as project managers.

3.3.2 Sampling Design

Due to the nature of the roles of the various persons that were interviewed, judgmental and convenience sampling methods were adopted.

3.4 Data Collection Methods

The study used a combination of both secondary and primary sources of data. As regards the first and second specific objectives, interviews with the relevant managers were carried out to elicit the required information as well as the distribution of questionnaires. As regards the third specific objective, a combination of interviews as well as documentary sources of data were used to provide a great deal of the required information. Such sources included journals, relevant text emerging business trends in the banking industry, company data as well as previous studies.

The response choices are nominal while the closed questions are on an interval scale. The nominal questions require the respondents to answer either yes (to agree) or No (to disagree). The interval scale was measured on a 5 point Likert scale ranging from very high, high, medium, low, to very low.

Drop and pick methods were used to administer the questionnaires and respondents had a period of two weeks to respond. To increase the response rate, follow up calls was made where necessary.

NB: Sample interview questions and questionnaire are provided in the appendices.

3.5 Research Procedures

The research was conducted for a period of two months. The first month included proposal development. The second entailed data collection as well as analysis, presentation of data and finalization of the entire report.

3.6 Data Analysis Methods

The study used inferential and descriptive statistics. This enabled the research to meaningfully describe the distribution of measurement.

The data collected was first edited then code numbers assigned to each answer of the question to generate a coding list or frame which was then fed into a computer software SPSS. The Data was then analysed using descriptive statistics such as mean scores, frequencies, and measures of dispersion including variance and standard deviation.

Data has been presented using frequency distribution tables, graphs and charts.

CHAPTER 4: Results and Findings

4.1 Introduction

The general objective of this study was to determine to what extent Equity Bank conforms to Thomas Friedman's flatteners and how they are impacting on its business. The study sought to establish which flatteners are applicable to the banking industry as well as determine to what extent the banking sector is conforming to the flatteners. Additionally the study sought to determine the impact of the flatteners to the banking industry. Finally the study would propose a model for adoption of flatteners in the banking industry. The results are based on a case study of Equity Bank.

This chapter presents the findings of the study in narrative as well as tabulated form. The findings are given based on the four specific objectives of the study as explored using the responses from the interviews as well as secondary data from Equity Bank.

The first section of this chapter deals with the general profile of the respondents in terms of their designation and the extent to which the respondents deal with strategic decisions. This section also details the responses from the interviews.

The second section looks in detail at the various modalities put in place to implement the flatteners. This section will also deal with the impact of the flatteners in terms of customer numbers and the number of transactions as a direct result of the flatteners.

The study targeted 40 respondents. Thirty respondents or 75% of target sample responded to the study either via granting an interview or filling in the questionnaire provided. Some of the questionnaire respondents were unable to complete the questionnaires within the stipulated research interval citing lack of time or limits of confidentiality to company information.

4.2 General Study Respondent Profile

This section relates to the respondents that were able to attend interviews with the researcher and fill in the questionnaire for purposes of understanding how Equity Bank is conforming to the flatteners and how it is impacting on its business. We see the percentage of respondents duly participated in the study by providing necessary information on time.

Table 4.1: Study Respondents

Designation	***Target Sample***	**Frequency**	**Percentage**
Directors	*3*	2	7
General Managers	*7*	5	17
Heads of Departments	*15*	12	40
Operational Level Managers	*15*	11	36
Total	***40***	**30**	**100**

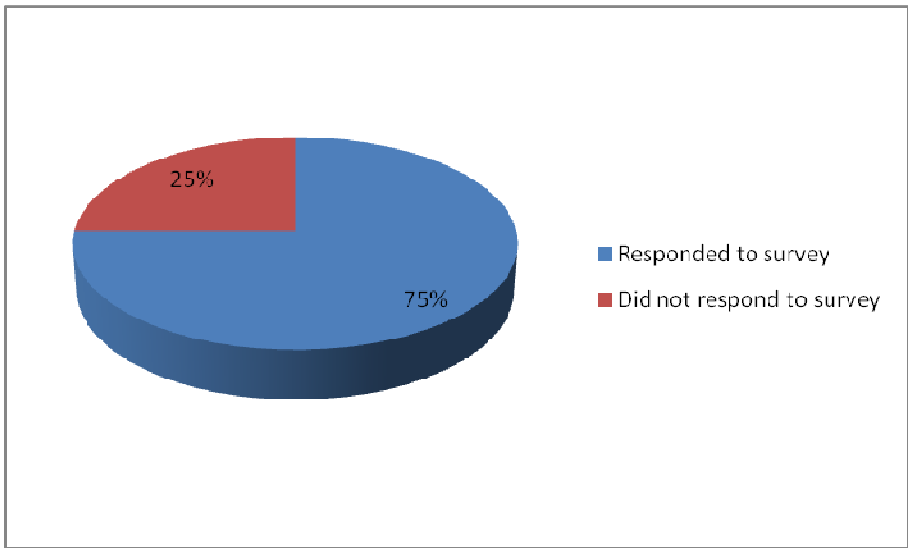


Figure 4.1: Study Respondents

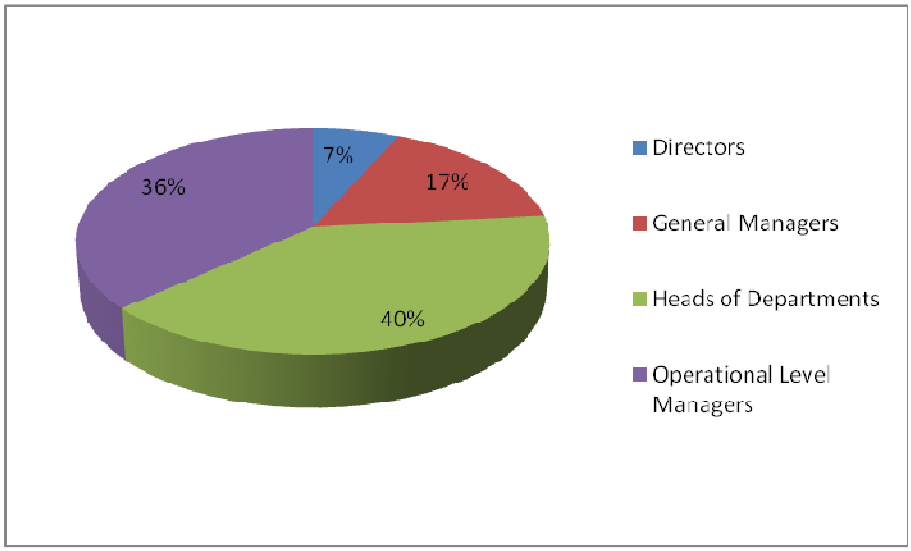


Figure 4.2: Designation of respondents

From Figure 4.2 above, 40% of the study respondents were Heads of Departments, while 36% were Operational Level Managers. Additionally, 17% were General Managers, while the remaining 7% were Directors.

4.3 Flatteners Applicable to the Banking Industry

From the interviews and secondary sources reviewed, of the ten flatteners proposed by Thomas Friedman only three were found to be relevant to the banking industry. These are: workflow software, outsourcing and "the steroids."

The introduction of Netscape and the web as one of the flatteners was considered, but its direct impact on the banking industry was too broad. It was noted to be a precursor to the workflow software, which had modules that would allow for web access hence duplication of the aforementioned flattener. Workflow software enables faster and closer coordination among far flung employees and a common platform within the bank and was thus considered as one of the flatteners.

Outsourcing has been a major source of innovation and cost cutting measures revolutionalized by the advent of high speed broadband internet. Although not all functions outsource are internet based, outsourcing is highly relevant to the banking industry where various functionalities can be outsourced, hence its consideration as one of the flatteners applicable to the banking industry.

The third flattener applicable to the banking industry is “the steroids.” Wireless technologies are pumping up collaboration, making it mobile and personal. Information is now greatly available on mobile handsets and the internet, and the next face of banking is to provide various services on the said platforms.

4.4 Implementation of Flatteners in the Banking Industry

4.4.1 Workflow Software

The softwares in use at Equity bank are Finacle, Way4, Oracle ERP and Siebel Helpdesk.

Finacle is an integrated, on-line, enterprise banking application designed to provide the "e-platform" for the global banking industry. Finacle is a product of Infosys Technologies, a leading software solution provider in India. Finacle is a functionally rich product catering to a wide range of banking functions, including current and savings accounts, deposits, loans, commercial lending, and the entire range of trade-finance activities. It integrates a wide range of delivery channels such as automated teller machines/point of sale (ATM/POS), Telephone, Call Center, Internet, in an integrated way to offer convenience to customers.

WAY4 is the card management system that manages production and issuance of cards as well as devices like ATMs and Point of sale (POS). It is integrated to the Finacle core banking system.

Oracle ERP integrates all other functions within the bank such as Procurement, HR, Finance and Fixed assets.

Siebel Helpdesk is the system that manages issue resolution within the bank. It has various modules including change and release management, issues management and incident management.

4.4.1.1 Software Capabilities and Security

The softwares in place have varied capabilities that ensure seamless integration between the various departments in Equity Bank. Such capabilities need various security features that ensure that data integrity is maintained across board.

The software have the following major functionalities that assist in Equity Bank's business processes: Core HR functions, Performance management, I-recruitment, Change management, Issues management, Incident management and procure to pay. This ensures that all functions of the bank are computer and internet based.

Table 4.2: Security of the System

Respondent Security of the System	Frequency	Percentage
Secure	27	90
Partially Secure	3	10
Not Secure	0	0
Total	**30**	**100**

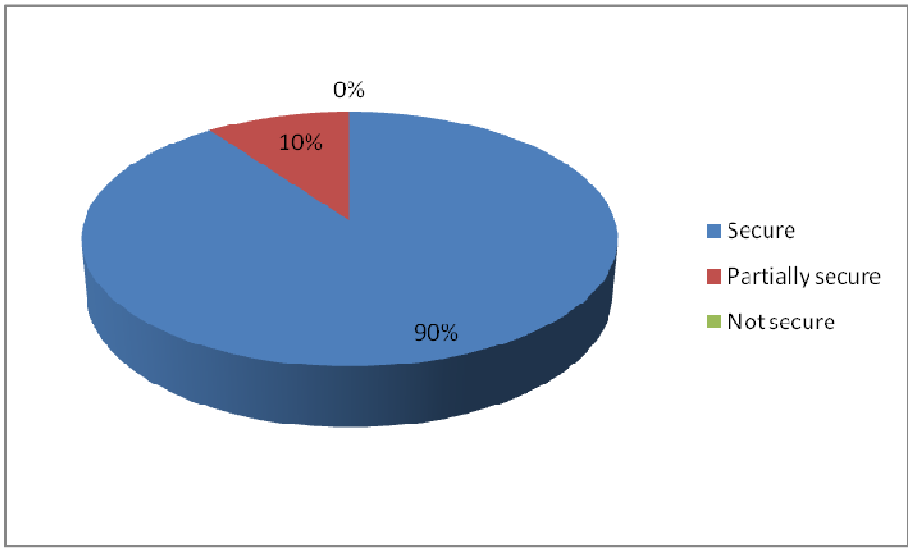


Figure 4.3: Security of the System

As regards the security of the software systems in place, 90% of the respondents felt that the systems were aptly secure, with 10% noting that some aspects of the system could be rebuffed to ensure safer transactions. None of the respondents felt that the system was totally insecure. With regards to security of the systems, a number of features were cited that ensured in-house tracking of employee capabilities and data integrity from within. These features include: frequent change of passwords by staff; executing a log off procedure when leaving a station; generation of reports based on log in time, log off time and location of log in; and different levels of access for different staff grades. The systems also ensure that staff do not have access to customer passwords and personal identification numbers (PINs). Additional features include: transaction audit trails, database audit trails, automated approvals and segregation of duties.

4.4.1.2 Benefits of the Software

A number of benefits were put forth to the respondents and their responses based on a Likert scale. For each of the benefits provided, a table of responses is provided herein.

Table 4.3: Easier Administration because of workflow software

	Frequency	Percent
Strongly Agree	23	77
Agree	6	20
Neutral	1	3
Disagree	0	0
Strongly Disagree	0	0
Total	**30**	**100**

From Table 4.3 above, it was noted that 77% strongly agreed that the workflow software in place, greatly made administration easier, while 20% agreed with the same. Hence 97% of the respondents agreed in totality that the software made administration easier. 3% of the respondents were neutral.

Table 4.4: Performance Tracking enhanced by workflow software

	Frequency	Percent
Strongly Agree	21	70
Agree	5	16
Neutral	2	7
Disagree	2	7
Strongly Disagree	0	0
Total	**30**	**100**

Another benefit that was listed performance tracking. 86% of the respondents agreed that the workflow software in place at Equity bank has enhanced performance tracking. 7% of the respondents were neutral on the matter while a further 7% disagreed.

Table 4.5: Enhanced Business Operations

	Frequency	Percent
Strongly Agree	20	67
Agree	10	33
Neutral	0	0
Disagree	0	0
Strongly Disagree	0	0
Total	**30**	**100**

Another advantage of workflow software is that it enhances business operations. 67% of the respondents strongly agreed that there have been enhanced business operations because of the software in place. The remaining 33% of the respondents agreed. As a result all respondents were in the affirmative that the software indeed has enhanced business operations.

Table 4.6: Reliable Procedure Implementation by workflow software

	Frequency	Percent
Strongly Agree	20	67
Agree	6	20
Neutral	3	10
Disagree	1	3
Strongly Disagree	0	0
Total	**30**	**100**

As shown in table 7 above, 87% of the respondents were in the affirmative that workflow software has enhanced reliable procedure implementation, while 10% were neutral. The remaining 3% of the respondents disagreed that the software in place has enhanced reliable procedure implementation.

Table 4.7: Seamless Integration between Departments

	Frequency	Percent
Strongly Agree	23	77

Agree	6	20
Neutral	1	3
Disagree	0	0
Strongly Disagree	0	0
Total	**30**	**100**

As shown in table 8 above, 97% of the respondents were in the affirmative that the workflow software has enhanced and ensured seamless integration between departments thus resulting in improved efficiency within the bank. 3% of the respondents were neutral.

Table 4.8: Flexibility as a result of workflow software

	Frequency	Percent
Strongly Agree	23	77
Agree	7	23
Neutral	0	0
Disagree	0	0
Strongly Disagree	0	0
Total	**30**	**100**

As shown in table 4.8 above, all the respondents were in affirmative agreement that the workflow software has ensured greater flexibility in the bank.

Table 4.9: Standardized Process Control by workflow software

	Frequency	Percent
Strongly Agree	24	80
Agree	4	12
Neutral	1	4
Disagree	1	4
Strongly Disagree	0	0
Total	**30**	**100**

Table 4.9 above shows the responses with respect to standardized process control as an advantage of the workflow software. 80% of the respondents strongly agreed with the

statement while 12% agreed. 4% of the respondents were neutral with another 4% disagreeing with the notion.

4.4.1.3 Disadvantages of the Software

A number of disadvantages of the workflow software were put forth to the respondents and their responses based on a Likert scale. For each of the disadvantages noted, a table of responses is provided herein.

Table 4.10: Expensiveness of workflow software

	Frequency	Percent
Strongly Agree	5	17
Agree	20	66
Neutral	5	17
Disagree	0	0
Strongly Disagree	0	0
Total	**30**	**100**

Table 4.10 shows the responses to the effect that workflow software is expensive. 83% of the respondents agreed that workflow software was expensive while the remaining 17% felt that the software was a necessity and its advantages far outweighed the cost of acquiring and implementing it.

Table 4.11: Excessive Training because of workflow software

	Frequency	Percent
Strongly Agree	4	13
Agree	5	17
Neutral	21	70
Disagree	0	0
Strongly Disagree	0	0
Total	**30**	**100**

30% of the respondents felt that with the workflow software in place, additional training needed to be carried out. The remaining 70% of the respondents were neutral; noting that

in this day and age of technology there would be frequent training and re-training sessions to ensure that staff were conversant with the software in place. For the 70% who were neutral, they noted that such trainings were more of a necessity to ensure better grasp of the system rather than a disadvantage of the workflow software.

Table 4.12: External Threat by workflow software

	Frequency	Percent
Strongly Agree	3	10
Agree	19	63
Neutral	7	23
Disagree	1	4
Strongly Disagree	0	0
Total	**30**	**100**

Table 4.12 shows the responses vis-à-vis external threats as a disadvantage of the workflow software. 10% and 63% of the respondents strongly agreed and agreed with the statement respectively. 23% of the respondents were neutral stating that the systems were quite secure from external threats. 4% of the respondents disagreed stating that the system was quite impervious to external threats.

Table 4.13: Data Integrity Risks of workflow software

	Frequency	Percent
Strongly Agree	0	0
Agree	0	0
Neutral	7	23
Disagree	19	63
Strongly Disagree	4	14
Total	**30**	**100**

Another disadvantage of the workflow software put forth was data integrity risks. However, none of the respondents cited this as a disadvantage. 23% of the respondents were neutral, while 77% of the respondents disagreed. Their opinion is that data integrity is ensured at all levels.

Table 4.14: Job losses due to automation

	Frequency	Percent
Strongly Agree	0	0
Agree	20	67
Neutral	6	20
Disagree	4	13
Strongly Disagree	0	0
Total	**30**	**100**

Another disadvantage of the workflow software is job loss due to automation. Table 4.14 above shows the results on the same. 67% of the respondents agreed with this disadvantage while 13% were in disagreement. 20% of them were neutral stating that such were the consequences in all sectors that were embracing technology, which indeed is a necessity.

4.4.2 Outsourcing

Outsourcing is one of the flatteners that are relevant to the banking industry. There are various perceived benefits and shortcomings of outsourcing that are discussed herein. Of the various processes in the bank that could be outsourced, only two were indeed outsourced. These were ATM Maintenance and hardware maintenance. A function under consideration is Disaster recovery planning. Functions that were decided against being outsourced were: Internal Audit, Human Resources, Sales and Marketing, Debt Collection, Account Processing and Call Center Operations.

The respondents were requested to give their views on outsourcing and whether or not the company should venture into outsourcing more functions than it already is. The results are shown in table 16 and figure 11 below.

Table 4.15: Whether to further outsource or not

	Frequency	Percent
Agree	6	20
Did not Agree	24	80
Total	**30**	**100**

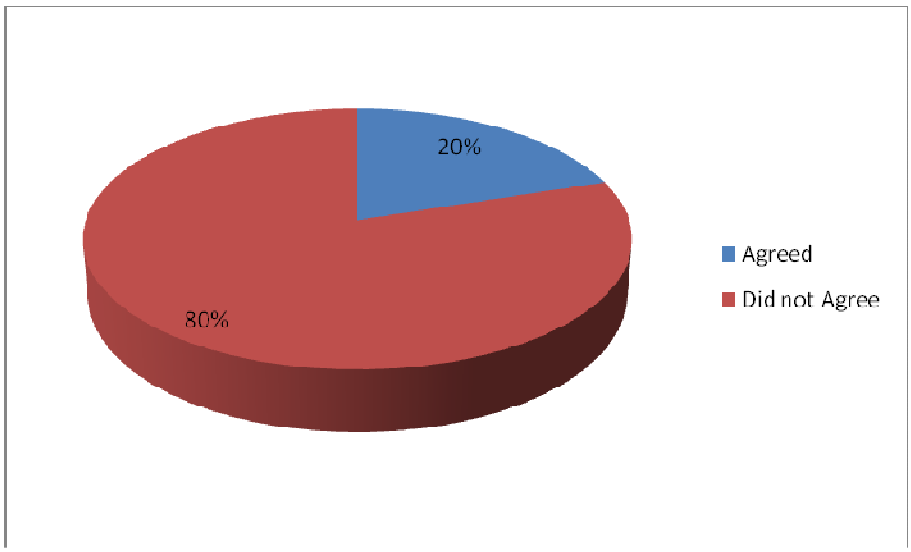


Figure 4.4: Whether to further outsource or not

20% of the respondents felt that further functions should be outsourced while the remaining 80% felt that the status quo should remain; i.e. only the functions that have already been outsourced should be outsourced. These results are further explicated when we look at the results on the benefits and disadvantages of outsourcing.

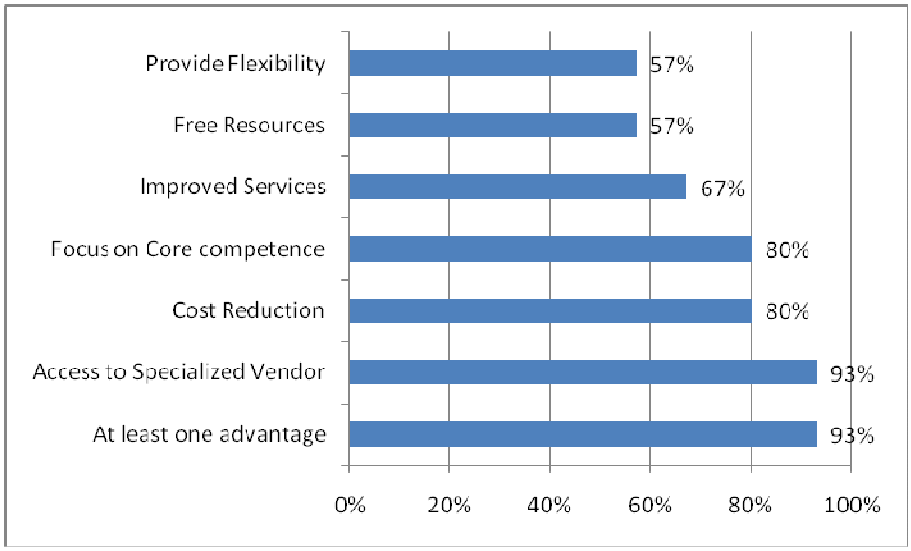


Figure 4.5: Benefits of Outsourcing

Figure 4.5 above shows the responses of the respondents regarding the benefits of outsourcing to the bank regarding the functions already outsourced. 57% of the respondents cited that outsourcing has provided greater flexibility. 57% of the

respondents also noted that outsourcing freed up resources, while 67% said it improved services. 80% of the respondents noted that outsourcing ensured cost reduction as well as focusing on core competences. 93% of the respondents noted that outsourcing grants access to a specialized vendor who in turn ensures that the job outsourced is carried out satisfactorily to the highest standard. At least one advantage was cited by 93% of the respondents.

However, although there are numerous benefits of outsourcing, there are also some inherent risks. Figure 13 below shows the responses regarding the risks associated with outsourcing. 97% of the respondents cited data security threat as one of the major risks associated with outsourcing. Loss of managerial control and loss of company quality standards was cited by 90% and 80% of the respondents respectively. Loss of flexibility and resistance from current employees was cited by 77% and 73% of the respondents respectively. 73% of the respondents also noted that job losses were one of the major risks of outsourcing with 43% citing reduced performance.

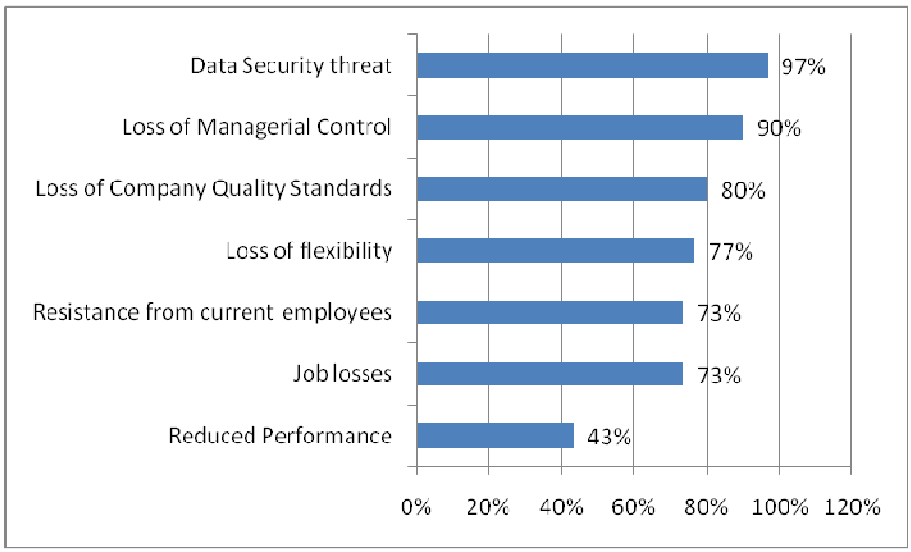


Figure 4.6: Risks associated with Outsourcing

Figure 4.6 below shows the difficulties encountered when deciding to outsource. These difficulties were encountered when undertaking the outsourcing of the functions already outsourced (ATM Maintenance and hardware maintenance) as well as the hurdles being currently overcome as the company sets out to outsource IT.

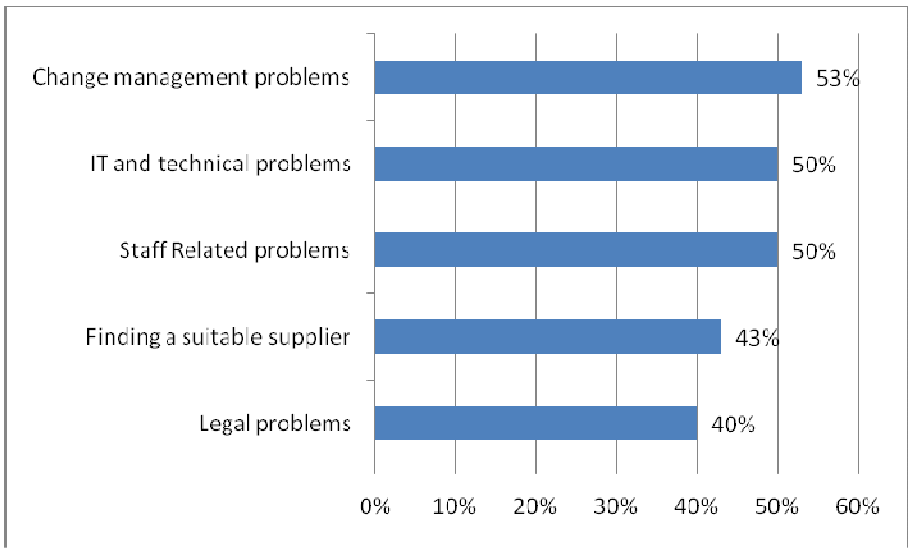


Figure 4.7: Outsourcing set up difficulties

53% of the respondents cited change management problems as one of the outsourcing difficulties. IT and technical problems as well as staff related problems were cited by 50% of the respondents. 43% noted that finding a suitable supplier was quite an issue while 40% of the respondents cited legal problems.

4.4.3 The Steroids

The steroids consist of wireless technologies that ensure collaboration between end users and service providers hence making it personal and mobile. A good example of these is the mobile phone which has become a necessity. Steroids provide a gateway to the future for many industries and the banking sector is no different. Providing services on the mobile phone is key strategy to ensure innovation and future growth of the company.

The key steroids that were looked into by this study were: mobile banking (m-banking) and internet banking (e-banking).

4.4.3.1 Mobile Banking

Equity bank began providing m-banking in 2006 and the services that are offered include: Funds Transfer, Bill payment, Airtime top up, Balance enquiry, Mini statements, Cheque book requests, and ATM withdrawals.

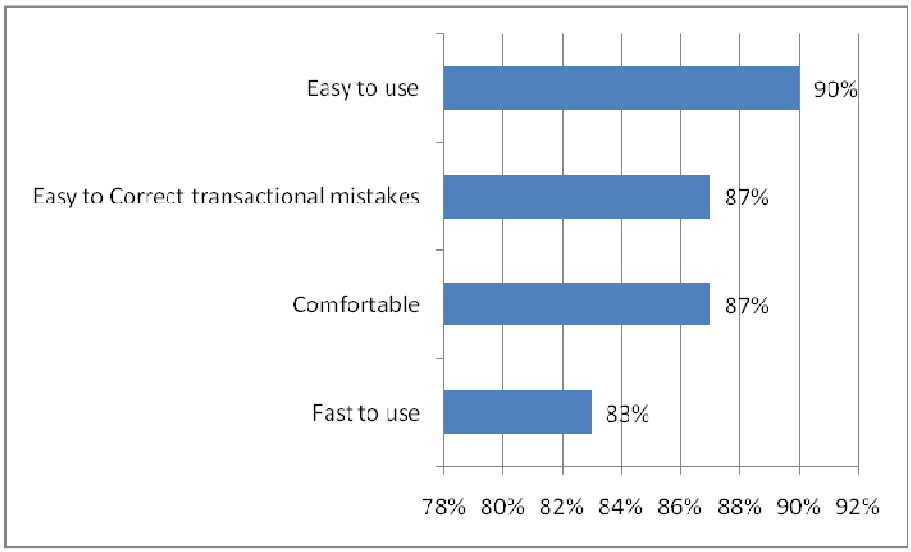


Figure 4.8: Operational use of m-banking

Figure 4.8 above shows the respondents views on the operational use of m-banking. 90% of the respondents felt that m-banking was easy to use. 87% of the respondents felt that it was easy to correct transactional mistakes, with a further 87% feeling that m-banking was comfortable. 83% of the respondents stated that m-banking was quite fast to use and transactions were completed on the spot.

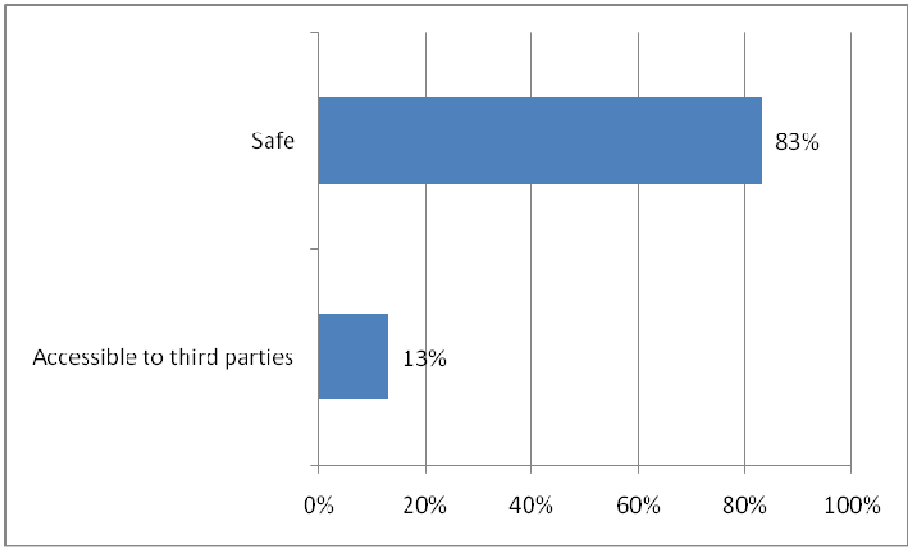


Figure 4.9: Safety of m-banking

Figure 4.9 above shows the respondents views on the safety of m-banking. 83% of the respondents felt that it was safe with 13% of them believing that m-banking was prone to accessibility by third parties.

There are numerous benefits associated with m-banking. The respondents' views as regards the benefits of m-banking include: it is beneficial to use and offers an advantage compared to handling financial matters in other ways; it increase ability of the client to control their own financial business; it drastically cuts the cost of providing services to customers; increased availability of banking services to customers; it improves the float and threshold levels of outlets for consumers and SMEs; there are increased transactions as the movement to the banking halls is reduced; and there is reduced congestion on the Equity bank's banking halls.

However, there are equally risks that are associated with m-banking. Some of the risks identified by the respondents include: Easy access of secure data by external parties; and Systems failure leading to reputation risks. Other include:

Abuse link between bank accounts and IN platform - This is a technical risk related to the implementation and maintenance of the links between the bank accounts and the IN platform where transactions are set up. It can be an insider fraud or a partner fraud with collusion with an insider.

P2P money transfer fraud - This is the fraudulent creation of airtime by a using a flood of overlapping peer to peer transfers resulting into some transfer instructions being rejected or lost due to overload.

Integrity of new system - That the new information technology system(s) introduced by the initiative(s) does NOT design and maintain the built-in capabilities or measures for the accuracy, completeness, timeliness, consistency, and relevance in their input, processing and processing results.

4.4.3.2 Internet Banking

Equity Bank began providing internet banking in 2007. The services catered for by internet banking include the following:

Accounts Inquiry i.e. accounts summary, view account details, outward clearing instruments, transaction history, mini statements, and cheque status and stopping checks;

Funds transfers i.e. between equity accounts and other linked accounts, transfer to another equity account, and pending transfers;

Various requests such as account opening request, cheque book request, loan request, fixed deposit renewal, and ATM card request; and Salary processing.

Figure 17 below shows the respondents views on the operational use of m-banking. 97% of the respondents felt that m-banking was easy to use with regard to those who were computer and internet literate. 83% of the respondents felt that it was easy to correct transactional mistakes, with a further 83% feeling that m-banking was comfortable. 80% of the respondents stated that m-banking was quite fast to use and transactions were completed on the spot.

Figure 18 above shows the respondents views on the safety of m-banking. 76% of the respondents felt that it was safe with 20% of them believing that m-banking was prone to accessibility by third parties. Such responses were due to the rise of internet crime statistics in the country.

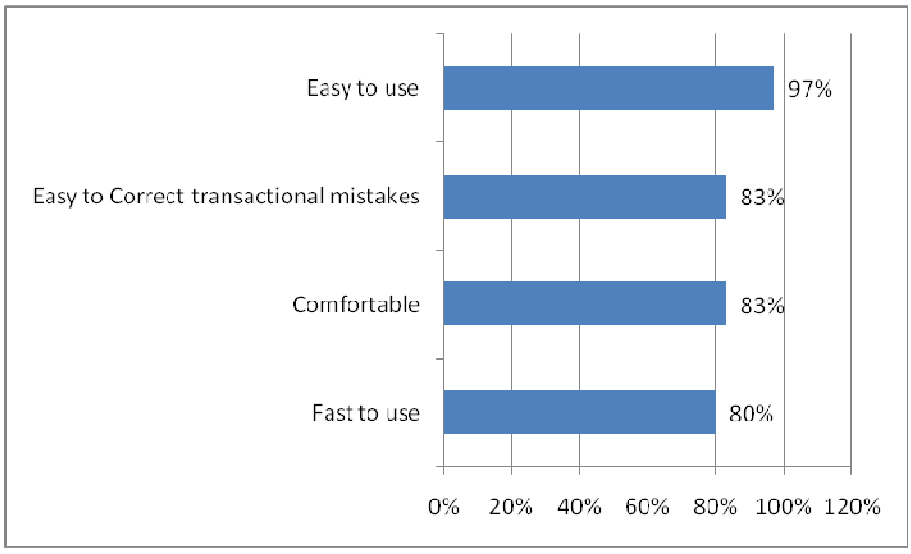


Figure 4.10: Operational use of e-banking

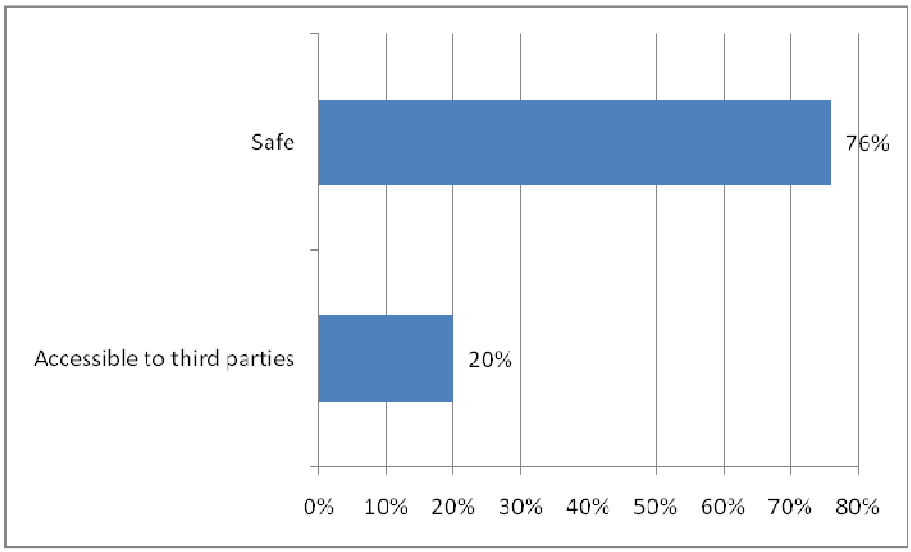


Figure 4.11: Safety of e-banking

Benefits of e-banking listed by the respondents include: drastically cuts the cost of providing services to customers, increased availability of banking services to customers, improves efficiency of processing transactions, increased transactions as the movement to the banking halls is reduced, and reduce congestion on the Equity bank's banking halls.

The risks associated with e-banking cited by the respondents were: system failure could lead to transaction failure, failure to comply with the know your customer (KYC) requirements and money laundering, fraud risks may be through hacking by external parties, brand damage – the risk of fraudsters using our service to defraud customers, and data theft through phishing or spoofing.

4.5 Impact of the Flatteners in the Banking Industry

The Thomas Friedman flatteners have had an impact on the banking industry. The flatteners have affected various aspects of the banks business. The major quantifiable impact of the flatteners is the effect the flatteners have had on the number of transactions. These can directly be linked to the flatteners already discussed in previous sections and these are: workflow software, outsourcing and the steroids. The numbers of transactions were taken for the period 2007 – 2010. The trend of the transactions was also noted.

Table 4.16: Number of Transactions

	2007	2008	2009	2010
ATM	12,484,413	18,093,352	23,807,042	30,135,496
Over the Counter	35,525,745	33,514,853	30,193,561	26,485,580
Mobile Banking	275,481	1,197,741	2,030,069	2,943,336
Internet Banking	10,202	35,178	53,299	67,467
Point of Sale	261,051	607,095	1,238,969	1,795,607
Total	**48,556,892**	**53,448,219**	**57,322,940**	**61,427,486**

Table 4.16 above shows the number of transactions from 2007 to 2010. The transactions under consideration were ATM transactions, over the counter transactions, m-banking transactions, e-banking transactions and point of sale transactions. Each section of the transactions has been analyzed in graph form in the subsequent figures.

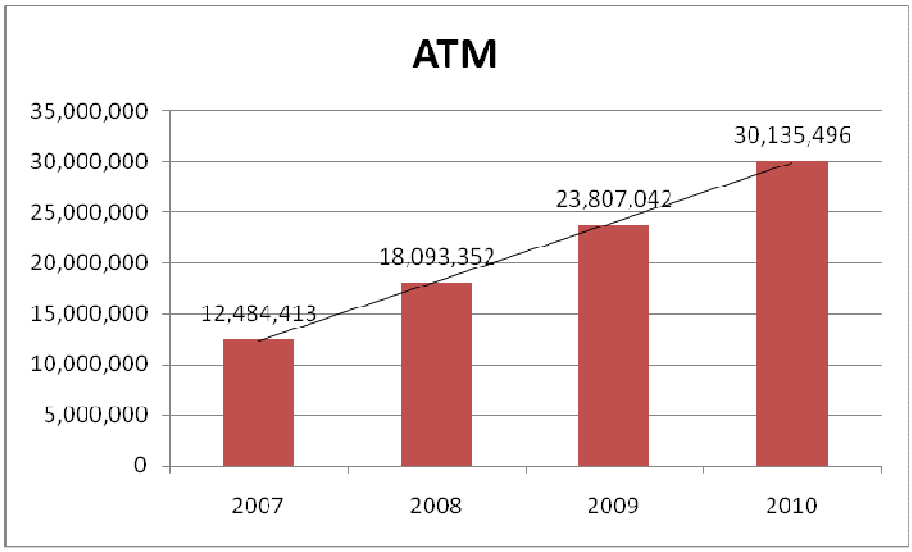


Figure 4.12: ATM Transactions

Figure 4.12 above shows the ATM transactions from 2007 to 2010. The trendline shows there has been a steady increase in the number of ATM transactions.

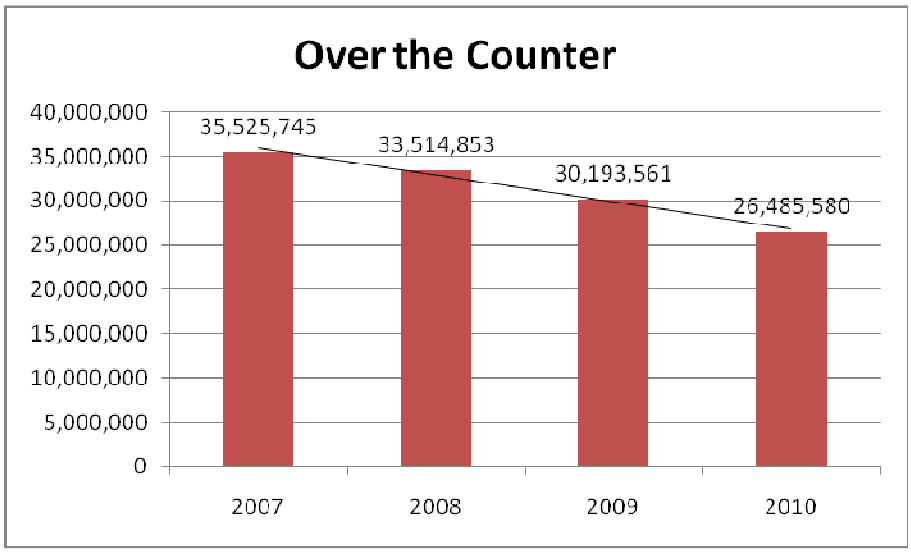


Figure 4.13: Over the Counter transactions

Figure 4.13 above shows the over the counter transactions from 2007 to 2010. The trendline shows there has been a steady decline in the number of over the counter transactions.

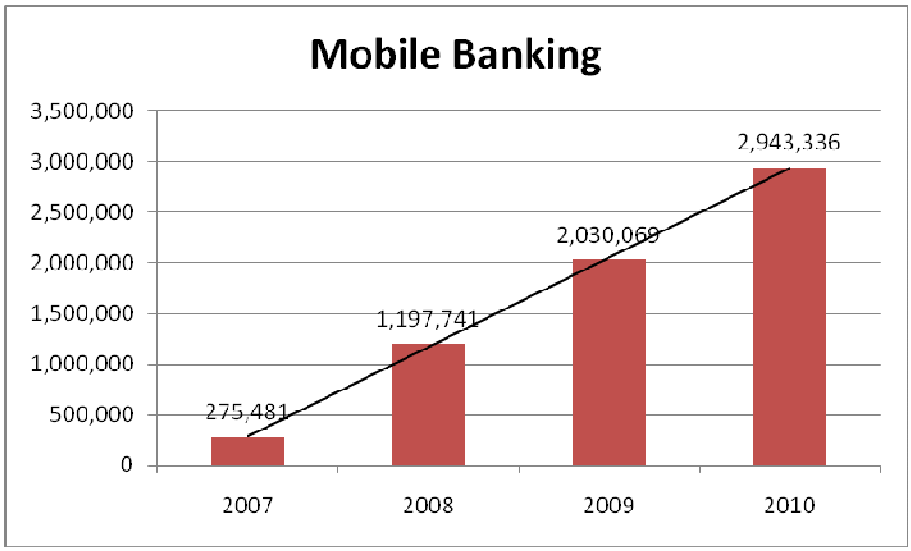


Figure 4.14: Mobile Banking Transactions

Figure 4.14 shows the number of mobile banking transactions from 2007 – 2010. The trendline shows that there has an increase in the number of mobile banking transactions.

Figure 4.15 below shows the number of internet banking transactions from 2007 – 2010. The trendline shows that there has been an increase in the number of internet banking transactions.

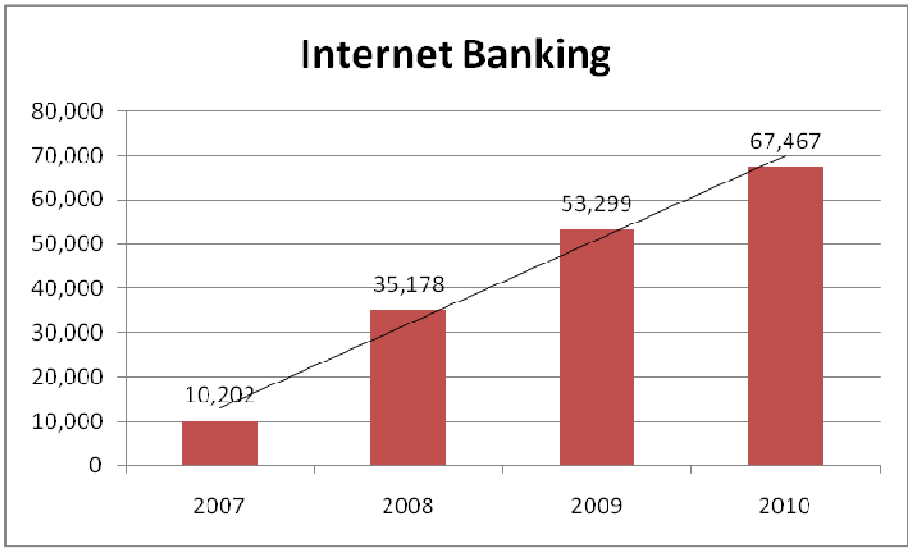


Figure 4.15: Internet Banking Transactions

The figure 4.16 below shows the point of sale number of transactions between 2007 and 2010. The trendline shows there has been a steady increase in the number of transactions.

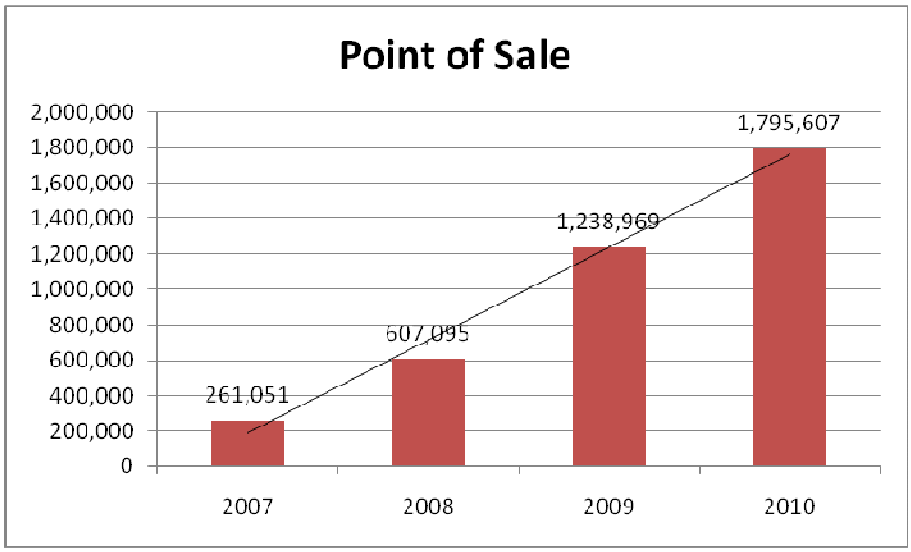


Figure 4.16: Point of Sale Transactions

Figure 4.17 shows the total number of transactions. There has been a steady increase in the number of transactions between 2007 and 2010. This can be directly translated in increase in revenue between 2007 and 2010.

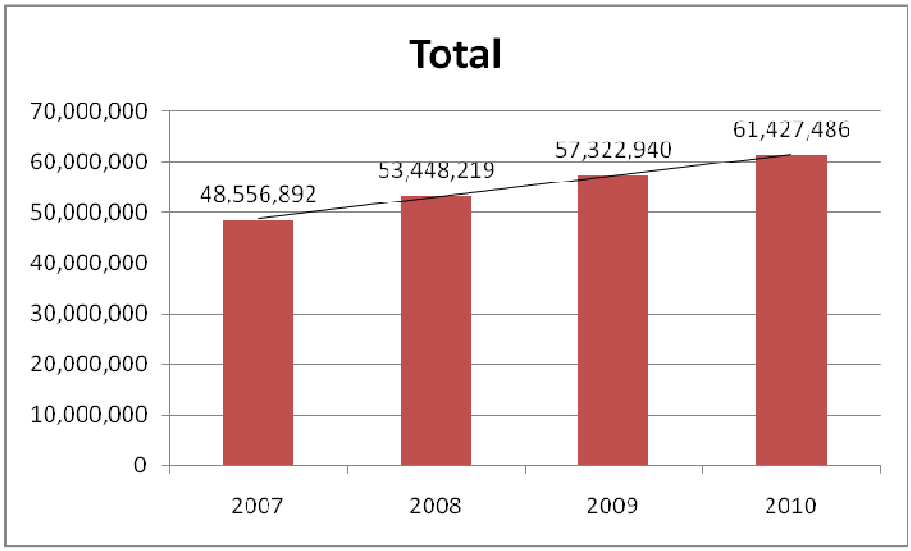


Figure 4.17: Total number of transactions

Impact on the banking industry is not all blissful in terms of numbers but there are associated risks that come with such advancing technology. Equity Bank has encountered computer related fraud from the increased transactions over the internet and mobile phones. There have been violations of procedures through collusion by two parties to beat controls within the systems and commit card frauds. Such cases are on the increase and hence the need to increase system security.

4.6 Conclusion

This chapter presented the findings of the study respondents based on the personal interviews that were undertaken, questionnaires filled in and secondary data on Equity Bank that was obtained. The Chapter began by looking at the respondents' designation profile and then went on to present detailed findings based on the specific objectives and using responses from the interviews and questionnaires. The next chapter discusses the major findings of the study, major conclusions drawn from the study and finally the recommendations for further research in a related field.

CHAPTER 5: Discussion, Conclusions & Recommendations

5.1 Introduction

This chapter focuses on four key areas. It presents a summary of the findings of the important elements of the study, the discussions of the major findings of the study, major conclusions drawn from the study and finally the recommendations for further research. It also proposes a model of one of the flatteners that is relevant to the banking industry.

5.2 Summary

The general objective of the study was to determine to what extent Equity Bank is conforming to Thomas Friedman's flatteners and how they are impacting on its business. The study focused on Equity Bank as a case study. The study set out to attain the following specific objectives which were to:

i. Establish which flatteners are applicable to the banking industry
ii. Determine to what extent the banking sector is conforming with the flatteners
iii. Determine the impact of the flatteners to the banking industry
iv. Propose a model for adoption of flatteners in the banking industry

The study used a descriptive research design and more specifically employed the survey method. This was considered to be an ideal research design for the study because we sought to obtain information on the Thomas Friedman flatteners vis-à-vis commercial banking in Kenya. Personal interviews and questionnaires were used to collect primary data. Relevant secondary data was also used and all the data was analyzed and presented in the form of tables, charts, graphs and descriptive narrative.

The first major finding of the study was that of the ten flatteners by Thomas Friedman, three were relevant and applicable to the banking industry. These were: workflow software, outsourcing and the steroids. Each of these flatteners had a significant role to play in the banking industry and directly affected the strategic decisions regarding the banks' future in terms of innovation, growth and competitive edge.

The second major finding was that the banking industry was conforming to the three flatteners at varying degrees. With regards to workflow software, there was near a hundred percent automation with respect to the various functionalities within the bank

studied. There was also one major software, Finacle that handled the bulk of the bank processes with other softwares (WAY4, Oracle ERP and Siebel Helpdesk) being able to synchronize with this major software hence ensuring close to complete automation. With regards to outsourcing, ATM maintenance and hardware maintenance have already been outsourced. The bank however decided against outsourcing other functions. With regards to the steroids the bank is conforming to the use of mobile phones by providing m-banking services and internet banking that are quite innovative ensuring a competitive edge. The steroids are the basis of the future of the bank as it were and not incorporating them in the strategy of the bank would be detrimental to the bank.

The third major finding was that the Thomas Friedman flatteners had significant impact on the banking industry. It was established that the flatteners ensured seamless integration within the bank, as a result of the workflow software in place, hence improving cooperation within the bank which in turn ensures easier management of the bank affairs from a staff and client perspective. The flatteners also directly impacted on the number of transactions as a result of the steroids. It was established that the total number of transactions has been steadily rising over the years with a decline in over the counter transactions and an increase in e-banking and m-banking transactions, as well as ATM and point of sale transactions. A greater number of transactions meant a greater turnover in revenue.

5.3 Discussion

5.3.1 Flatteners Applicable to the Banking Industry

Friedman (2005) in his book "The World is Flat" came up with a list of ten flatteners that would level the global playing field. He noted that such flatteners have enhanced globalization cutting across various fields whilst breaking down geographic barriers. He lists the following ten flatteners that have influenced how business is conducted: fall of the Berlin wall, Netscape, Workflow software, Uploading, Outsourcing, Offshoring, Supply Chaining, Insourcing, Informing and "the steroids." Some of the flatteners cut across various industries, while some specifically relevant to a given industry.

With regard to the banking industry, this study identified three flatteners that are relevant. These include: workflow software which entails machines talking to one another without human involvement ensuring a greater level of cooperation; outsourcing which has

allowed companies to split various in-house functions into components, with each component performed in most efficient, cost-effective way; and "the steroids" which involves use of personal digital devices like mobile phones, iPods, personal digital assistants, instant messaging, and voice over Internet Protocol (VoIP) to enhance service delivery.

Technology and the internet on the other hand seem to be the basis of all the flatteners. Without them, then the list would somehow be irrelevant. With the advancement of technology, geographic borders have tended to be broken, with services being provided by a supplier who is miles away as in the case of outsourcing. Development of software has ensured that human error is greatly reduced as machines are able to send requests, and other machines process the said request in fractions of seconds hence increasing efficiency. This is corroborated by Bielski (2006), who noted systems are highly interconnected to improve efficiency, i.e. IP networks, open source platforms, high-capacity or clustered servers, easier-to-scale and manage databases, and other back-office systems, tools, and techniques are increasingly relevant. Innovation is the key to success in the cutthroat banking industry. This is indeed noted by Chan and Reich (2007) who noted that without innovation that ensures services are provide where and when is to the client, then a great deal of business will be lost by the bank. The use of mobile devices ensures that clients can access their banking services wherever they may be and whenever they may need them.

5.3.2 Implementation of Flatteners in the Banking Industry

With respect to Equity Bank, the main workflow software in place in Finacle, with WAY4, Oracle ERP and Siebel Helpdesk having additional functionalities but being able to integrate to Finacle. The software have the following major functionalities that assist in Equity Bank's business processes: Core HR functions, Performance management, I-recruitment, Change management, Issues management, Incident management and procure to pay. This ensures that all functions of the bank are computer and internet based.

The software has its benefits and disadvantages. For each of the advantages, at least 87% of the respondents were in agreement with each advantage that was listed. The major disadvantage was the cost issue of the software. However, the advantages gained by the software far outweigh the disadvantages because having such software in place is indeed mandatory and not a luxury. This is corroborated by Curry and Penman (2004) who note

that the flatteners are becoming more of a necessity than a luxury compared to a few years ago when one would overlook certain aspects. Today for example, one cannot do without internet security and hence companies go to great lengths to ensure their data is safe. This is indeed a necessity and the cost factor, though considerable, is overshadowed by the need at hand.

Outsourcing brings with it various advantages. Equity bank is currently only outsourcing ATM services and hardware maintenance as it looks into outsourcing more of its IT functions. The bank has decided against outsourcing majority of its functions because from their perspective they will lose managerial control as well as data integrity and security issues because a third party will be privy to their data. The steroids that have been implemented in Equity Bank are mainly mobile and internet banking. They also have point of sale transactions that are available in various business outlets e.g. supermarket through use of a customers' ATM card. Through m-banking and e-banking in combination with ATM services a client can access all the banks services without having to physically go to the bank. One would need to go to the bank to only sign documents, because requests such as loan requests and cheque book requests can be made online via e-banking. Outsourcing and the steroids can be linked because e-banking solutions can be outsourced. Wade and Hulland (2004) touch on "the steroids" and outsourcing(two of the flatteners) noting that at a time when e‑banking is seen as a commodity—banks are now buy e‑banking services from outsourcers rather than developing them in-house. This is consideration for further study.

However, the services that a bank implements depends on the demographic they target as well as their innovation capacity. This is because customers get attracted to a bank based on its products and services. Joseph, McClure and Joseph (1999) note that different demographic segments look for different things in their banking relationships. They consider the size of the bank and how it adopts to the various flatteners and how they implement and provide different services. They note that the fact that different demographic segments look for different things in the banking relationship is something that might play to the advantage of small banks. Retirees, for example, want service over convenience. Because small banks do not have a scale advantage, it makes sense to seek differentiation through service. Large banks recognize the inherent value of providing a higher level of service but with a focus on operational excellence, this translates into a

push for higher productivity, standard products (less variability), and reduced costs. Consequently Equity bank implements the flatteners in such a way that it can reach a wide range on clientele, especially the normal *mwananchi.*

5.3.3 Impact of Flatteners in the Banking Industry

Impact can be assessed as either positive or negative. The research finding revealed that the Thomas Friedman flatteners had both a positive and negative effect on the banking industry.

Focusing on Equity Bank, it was established that there were both positive and negative impacts on the bank directly linked to the flatteners. With respect to the positive impact, there has been steady increase in the number of transactions for the period 2007 to 2010. The number of transactions increased as a result of innovation by introducing new services especially through the steroids. This is in line with the work of Gerth and Rothman (2007) who noted that in a flattening world each business and industry will vary in the timing and scale of the operational shifts required, primarily focusing on four areas: decreasing the cost structure; increasing innovation; leveraging information assets; and, becoming more agile. M-banking and e-banking are innovative products that are becoming more of a necessity in the banking industry. The use of ATM cards has increased from merely withdrawal at ATM machines to various other services including deposits at ATM machines and access to payments and withdrawals co money at various point of sale terminals located in areas such as supermarkets. Such services ensure greater flexibility on the part of the customer. The changing trend is that from going to the bank for over the counter services, to a "do- it-yourself" style kind of banking where all one needs is their ATM card, mobile phone and/ or internet to carry out various transactions anywhere to the benefit of the customer. This is evident in the steady rise of ATM, m-banking, e-banking and point of sale transactions for the period 2007 – 2010 with a decline in over the counter transactions for the same period. This is corroborated by Tallon (2010) who notes that great customer service will no longer be the sole factor encouraging customer loyalty and that innovative products and services will be more significant than in the past.

Some of the innovative products include Equity online payment gateway which is an online application that facilitates payment transactions between customers and the merchants. This product enables customers to visit merchant site and purchase products

online and make payments through online equity payment gateway. The bank also has the following additional services in offer: Cash back services where customers are able to pay for goods and withdraw cash from the supermarkets using their cards; and various Telco integrations – MKESHO, Orange money and YU cash.

There has also been negative impact on the banking industry as a result of the flatteners. The internet has created an interconnected loop that ensures every computer connected to it, is accessible to another if the right kind of security is not in place. Thomas Friedman noted that with a flattening world various appalling groups and practices will emerge. He notes Al-Qaeda as one such group. Hacking has been on the increase with hackers accessing valuable information for their gain, either destroying data or selling it to interested third parties. Equity bank has suffered computer related crime where there was violation of procedure through collusion by two parties to beat controls within the system to commit card fraud. This is corroborated by Bielski (2006) who interviewed a number of bigwigs in the banking industry who point out various threats that may emerge as a result of this interconnectivity of workflow software and the internet. He notes that bankers in many corners of the industry are beginning to take on issues such as man-in-the-middle attacks and identity theft, but they have much more investing to do and far to go, according to many experts.

However, irrespective of whether positive or negative impact, the future of equity bank is to leverage on the existing technologies to reach the unbanked as it provides more banking services to our existing customers. Technology will drive our strategy going forward as the key business driver. Mobile phones, wireless networks, internet as well as social networking sites will be key in driving Equity's strategy. Equity Bank will also take advantage of emerging IT trends like cloud computing to e-outsource its disaster recovery functions to minimize on the cost of setting up and managing a disaster recovery site. This would ensure that we take advantage of existing technical expertise in countries like India and China whilst at the same time reducing on cost and freeing up server equipment for use in hosting other applications/systems.

5.3.4 Model for Adoption of the Flatteners in Equity Bank

Branchless banking could be the big step towards providing easy financial access to the greater population of unbanked people as well as improving services for the already banked population hence achieving greater financial inclusion.

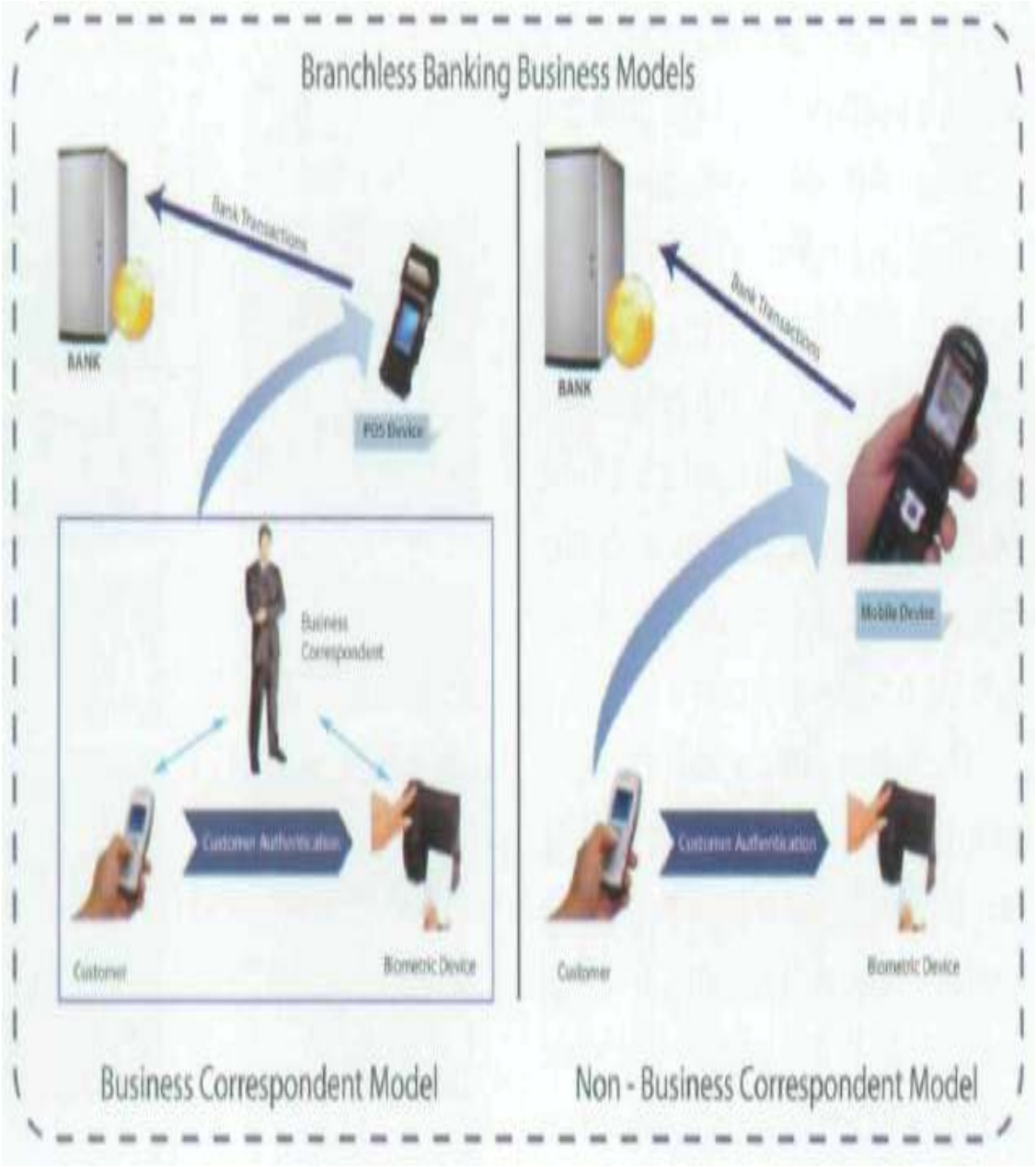
Branchless banking is the concept of providing banking services outside the conventional bank branches by either using information and communication technology services or third party organizations (commonly referred to as 'Business Correspondents').

A service-oriented architecture (SOA) is a flexible set of design principles used during the phases of systems development and integration. A deployed SOA-based architecture will provide a loosely-integrated suite of services that can be used within multiple business domains. This will then form the basis for enterprise application integration.

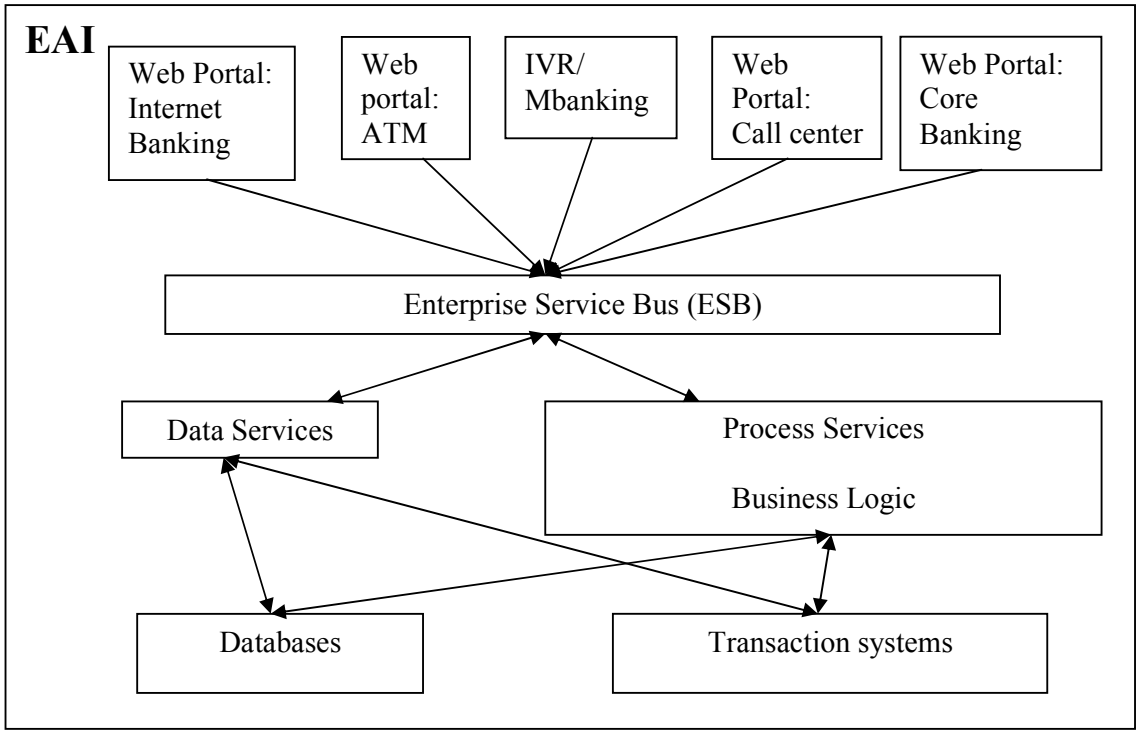
Information technology is becoming a key business enabler and is being positioned as a key differentiator. The banking industry has achieved significant success in leveraging IT through the implementation of core banking solutions and it has helped them in streamlining, standardizing, and expanding their services portfolio. Information, communication, and technology (ICT) solutions continue to help banks in providing seamless systems to capture customer data, ensure unique identification, and facilitate financial transaction services using remote connectivity through mobile devices.

These systems will also ensure uninterrupted service delivery, consumer data protection, customized products, dissemination of information on credit options, and multiple financial products in local languages. It is only with the help of ICT that financial inclusion can be completely achieved from an economy as well as localization perspective at reduced costs and with greater accessibility.

Achieving total financial inclusion is a concern of most countries; yet it is very geographical in nature, as it largely depends on a country's financial policy and its financial industry regulations. The financial world has witnessed several branchless banking pilot projects, trying to examine the various business models that could be used to ensure the most proper implementation and sustenance of branchless banking systems.


Branchless Banking Business Models
Bank Transactions
BANK
POS Device
Business Correspondent
Customer Authentication
Customer
Biometric Device
Business Correspondent Model
Bank Transactions
BANK
Mobile Device
Customer Authentication
Customer
Biometric Device
Non - Business Correspondent Model

Enterprise Application Integration (EAI)



The business correspondent (BC) model allows the bank to use third party financial institutions to handle account opening, transaction management, and other financial services. Regulations should emphasize that transactions should be visible in the bank's books within 24 hours. Such a compulsion will encourage the use of smart cards and mobile technology by the BCs.

They can use a biometric scanner cum identifier (for e.g. fingerprint or voice recognition), a mobile, and a printer to process the payments. The biometric device is used for the identification and authentication of the beneficiary. Once authenticated, the Radio Frequency Identification Device (RFID) chip embedded in the card gets charged. This chip communicates with the mobile device, and the necessary transaction forms are made available in the mobile.

The BC selects the relevant option and feeds the transaction amount and sends a message to the back-end server. The server authenticates the message, processes the transaction, and sends an update back to the mobile, which in turn writes back to the card. When the card is brought close to the printer, a transaction report is printed. This technology can also be used to conduct other financial activities like fixed deposits, loan disbursement, and insurance.

In the non-business correspondent model (NBC) the business correspondent is excluded from the system and the customer himself is provided with a mobile device. The mobile devices are used to store information of the user, conduct transactions, and maintain transaction records. Various models have been proposed to realize mobile based banking. One model is where the mobile devices are equipped with Near Field Communication (NFC) technology and RFID chip, which are then used for user authentication and some transactions. Another model which proposes to leverage the widespread network of retail agents involves both banks and telecom operators where the retailer has an account in the bank and the transactions are carried out in a manner similar to the way customers recharge their phones.

Either model can succeed mainly because of the increasing telecom penetration within the country. However, the exact model that equity can settle is subject to further research and part of the recommendations of this study.

5.4 Conclusions

From the research findings it was deduced that there are three flatteners relevant to the banking industry and these were: workflow software, outsourcing and the steroids. The study also deduced that the banking industry is conforming with the flatteners at varying degrees with two functions being outsourced, one under consideration and the rest of the functions having been decided against. Mobile phones and the internet are the major implementations of the steroid flatteners. They provide innovation for the future prosperity of the bank.

The research finding also deduced that the flatteners had a great impact on the banking industry. The numbers of transactions have been steadily increasing, with transactions related to the steroids increasing over the years, with mundane service transactions i.e. over the counter services reducing. The direct relation between a greater number of transactions is greater growth for the bank. Branchless banking is the future of the bank, with a model being proposed by the study as well as being a subject of further study.

5.5 Recommendations

5.5.1 Research Studies on the Implementation of the Branchless Banking Model

The study proposed the branchless banking model to be adopted by Equity Bank as a response to the Thomas Friedman flatteners, specifically the steroids. Two branchless models were proposed i.e. the Business Correspondence model and the non-Business correspondence model. The business correspondence model uses a third party agent to conduct business on behalf of the bank while the non-business correspondence model ensures that the clients and the bank are linked via mobile phone devices. A recommendation of further study can be which of the two is more relevant to Equity Bank. Further study can be also include detailed approach into the implementation of the branchless banking model in terms of timelines and in line with the recently released agency banking guidelines from the Central Bank of Kenya.

5.5.2 Research Studies on Additional Outsourced Functions

Outsourcing is a growing trend in many businesses in various sectors. Although there are major concerns regarding outsourcing in the banking industry, further studies can be initiated to delve into which other functions within the bank can be outsourced and the benefits that can be accrued from the same.

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Appendix A: Current Status of Equity Bank

i. NSE Publicly Listed/Cross Listed at Uganda securities exchange
ii. Equity Bank is the 3rd largest company at the NSE
iii. Total Funds/Capitalization: Ksh34B
iv. Market Capitalization: Ksh94B
v. Total Assets -KES 133 Billion
vi. Over 30,000 shareholders
vii. Strategic Investors: Helios EB, British American Insurance
viii. Staff: Individuals/ESOP

Item	Remarks
Customer Base	5.7 million
Bank accounts	57% of all bank accounts
Deposits	104 Billion
Loans	78 Billion
No of borrowers	624,685
No of branches	165
ATMs	550
Point of sale (POS)	4,500

Table A1: Current Status of Equity Bank

Number of Customers

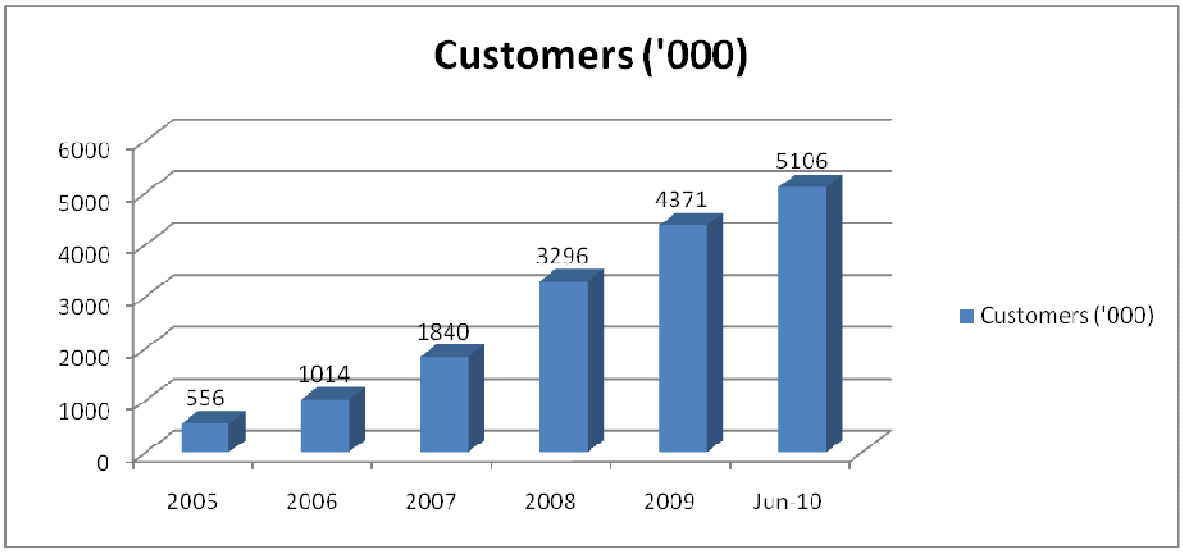

Figure A1: Number of Customers

Growth in deposit clients

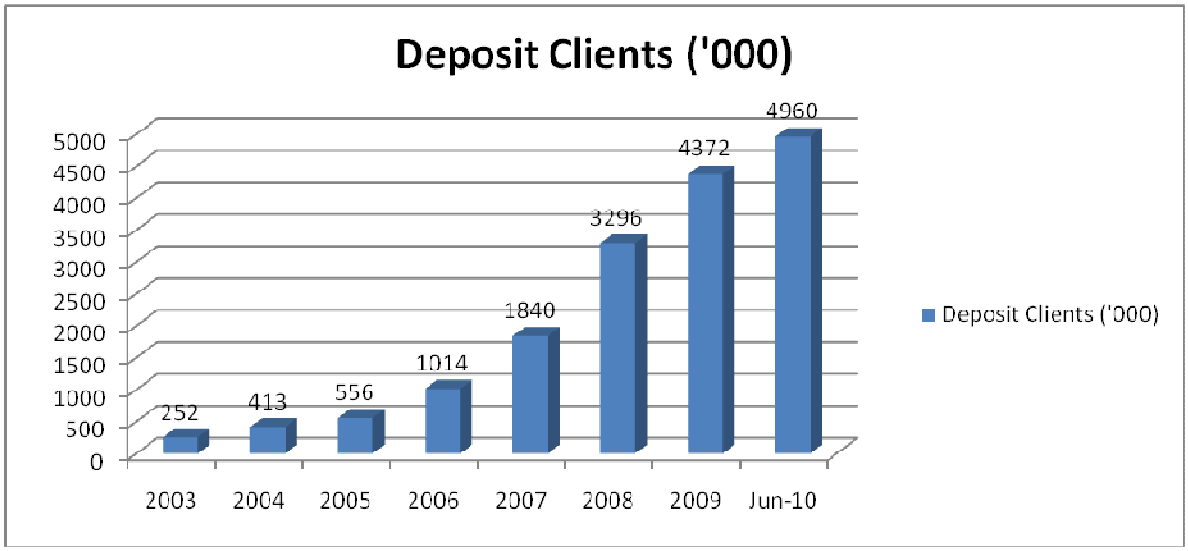

Figure A2: Growth in Client Deposits

Customer Deposits

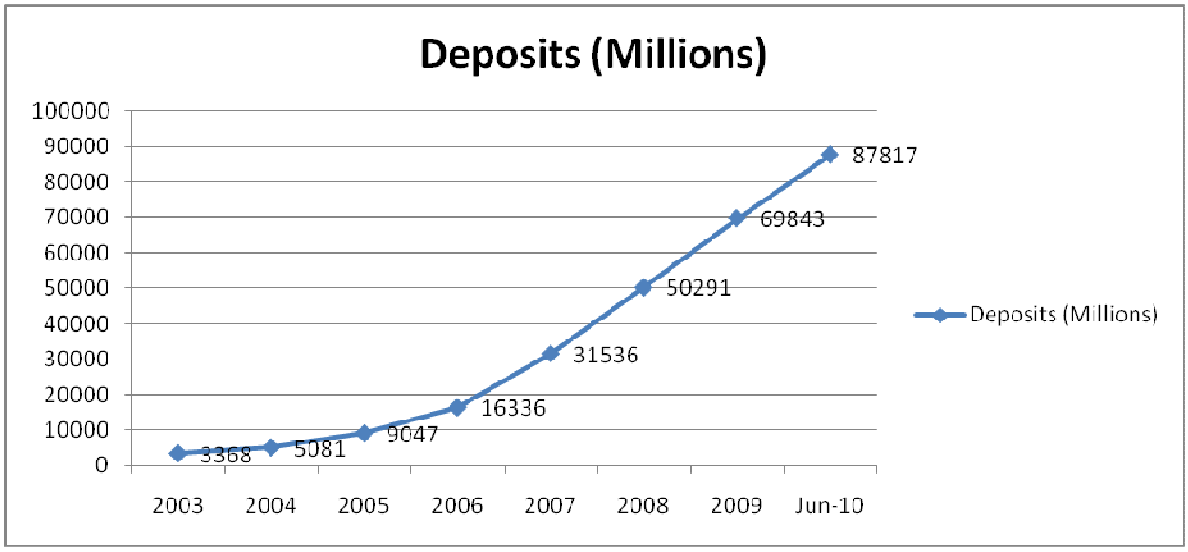

Figure A3: Customer Deposits

Loans and Advances

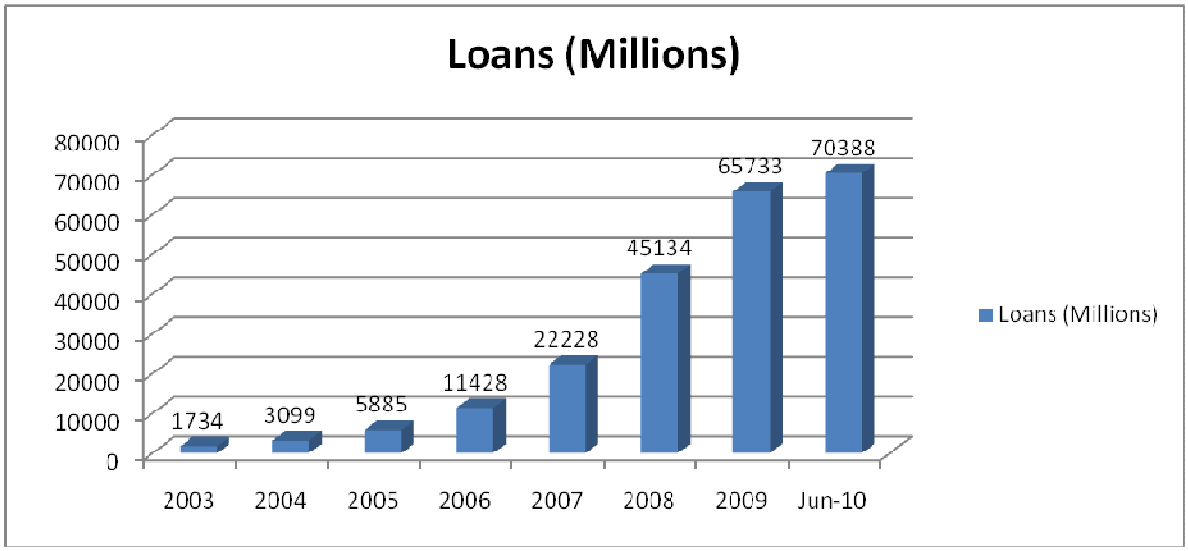

Figure A4: Loans and Advances

Profitability

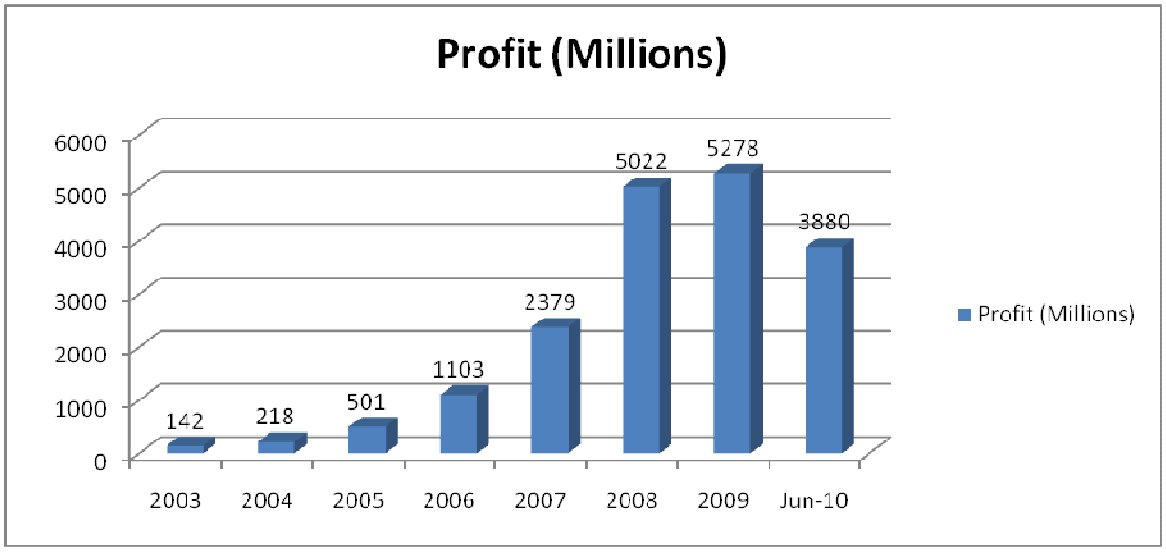

Figure A5: Profitability

Total Assets

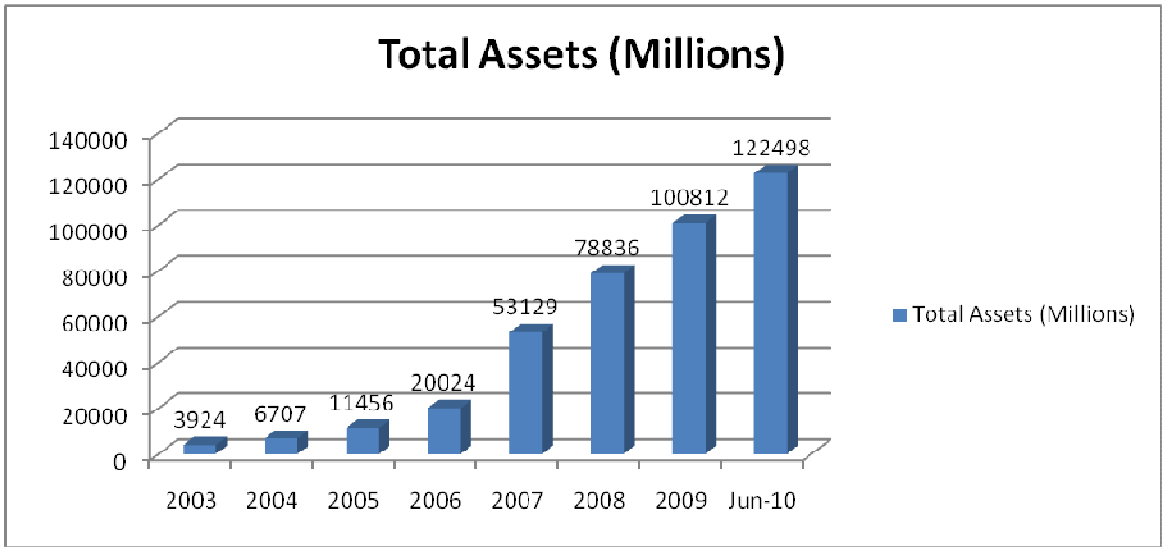

Figure A6: Total Assets

Shareholders' Funds

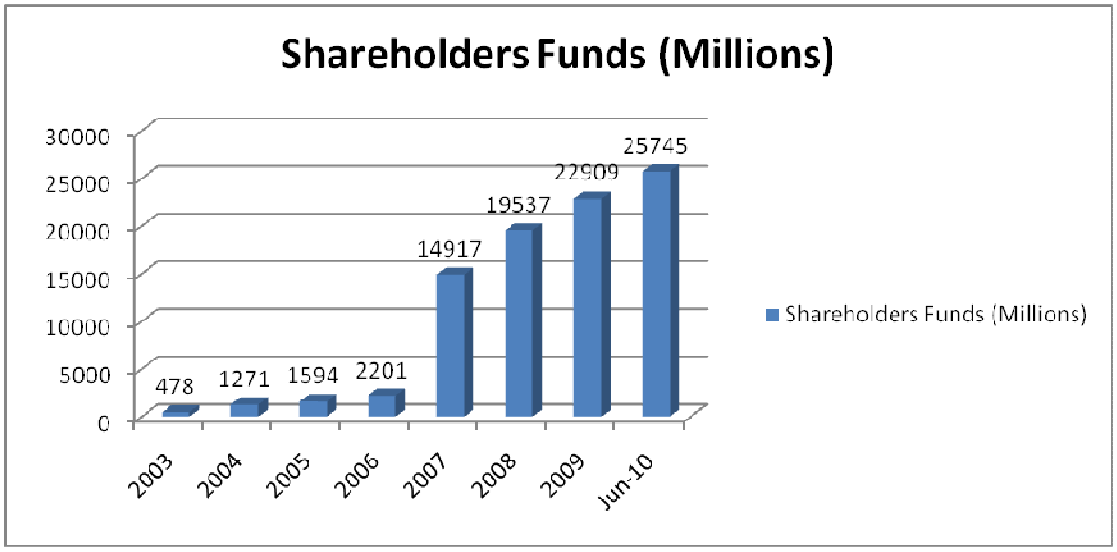

Figure A7: Shareholders' Funds

Appendix B: Interview Questions

Workflow Software

1. What kind of banking software do you have in place at Equity Bank?
2. What are the various functionalities and modules the software has?
3. How is data integrity ensured?
4. In your opinion, what are the benefits/downfalls of having such a system in place?
5. If you had the capability, what functionality would you like added to the system as an improvement?

Outsourcing

6. What services does Equity Bank outsource?
7. What are the main reasons for outsourcing?
8. In your opinion, what are the benefits of outsourcing?
9. What risks are associated with outsourcing?

The Steroids

10. What innovative services is Equity Bank providing currently?
11. On mobile and internet banking, when were the services introduced?
12. What challenges does the bank face when implementing mobile and internet banking?
13. What benefits does the bank accrue from mobile and internet banking?
14. What was the number of transactions done through mobile banking, internet banking, over the counter, point of sale and ATMs from 2007 to 2010?

Others

15. Which of the 10 flatteners do you consider relevant for Equity Bank?
16. What kind of services do you see Equity bank providing in the next 3 years?
17. What is in store for the future of Equity Bank?

Appendix C: Questionnaire

Instruction

Dear respondents, I am carrying out a research study to determine the impact of a level playing field in the banking industry in Kenya, with a case study on Equity Bank.

The research is carried out as a minimum requirement for award of degree of Masters of Science in Computer – Based Information Systems (MSCIS) at the Strathmore University. Your participation will be highly appreciated.

All responses provided will be treated confidentially for academic purposes.
Kindly answer all questions by ticking or explaining as appropriate as per your opinion and based on the facts. Where possible you can quote figures.

Part A: Workflow Software

1. What software is in place at Equity Bank?

……
……
……
…….

2. What are the capabilities / modules of the software?

……
……
……
……

With respect to security and bank employees does the system:

3. Frequently require staff to change their password?

   Yes ……. No …..

4. Execute a log off procedure when leaving a station?

   Yes ……. No …..

5. Disable access due to excessive failed attempts?

   Yes ……. No …..

6. Generate a report based on log in time, log off time and location of log in?

Yes ……. No …..

7. Grant Bank employees access to customer passwords?

   Yes ……. No …..

8. Have hierarchy to ensure different access levels for different staff?

   Yes ……. No …..

9. What other security functionalities are in place?

……

……

……

…….

10. What are the perceived benefits of the workflow software in place?

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Easier Administration					
Performance Tracking					
Enhanced business operations					
Reliable procedure implementation					
Seamless integration between departments					
Provide Flexibility					
Standardized process control					

11. What are the disadvantages associated with the workflow software in place?

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Expensive					
Need for excessive training					
External threats					
Data integrity risks					
Job losses due to automation					

Part B: Outsourcing

12. What is the level of outsourcing within the bank? Tick as appropriate the service outsourced (if it is already outsourced, under consideration, has been decided against or if the function had been outsourced and subsequently reintegrated)

	Already outsourced	**Under consideration**	**Decided against**	**Function Reintegrated**
ATM				
Internal Audit				
Human Resource				
Sales / Marketing				
IT				
Debt Collection				
Account Processing				

13. What other functions are outsourced?

……

……

……

……

14. What are the perceived benefits of outsourcing?

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Cost Reduction					
Focus on Core competence					
Access to Specialized Vendor					
Improved Services					
Free Resources					
Provide Flexibility					

15. What are other perceived benefits of outsourcing?

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16. What are the risks associated with outsourcing?

	Very High	**High**	**Neutral**	**Low**	**Very Low**
Loss of Managerial Control					
Job losses					
Data Security threat					
Loss of flexibility					
Reduced Performance					
Resistance from current employees					
Loss of Company Quality Standards					

17. What are other perceived risks of outsourcing?

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18. What are some of the set up difficulties associated with outsourcing i.e. what hurdles are faced when the company wants to outsource a certain function?

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Staff Related problems					
Finding a suitable supplier					
Change management problems					
IT and technical problems					
Legal problems					

19. What are the other outsourcing set up difficulties?

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Part C: Steroids

20. Has the bank encountered any computer related crime?

    Yes ……. No …..

    If yes, what was the nature of the crime? ……

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21. When did the bank start offering mobile banking services? ……

22. What services are catered for by mobile banking?

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23. How many customers are signed up for mobile banking? ……

In your opinion, are mobile banking services:

24. Easy to use?

    Yes ……. No …..

25. Comfortable?

    Yes ……. No …..

26. Fast to use?

    Yes ……. No …..

27. Safe?

    Yes ……. No …..

28. Beneficial to use and offer an advantage compared to handling financial matters in other ways?

    Yes ……. No …..

29. Increase ability of the client to control their own financial?

    Yes ……. No …..

30. Easy to correct transactional mistakes?

    Yes ……. No …..

31. Being forced upon clients as a way of the bank moving forward?

Yes ……. No …..

32. Accessible to third parties and hence create a risk loophole?

Yes ……. No …..

33. What are the benefits of mobile banking?

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34. What are the risks associated with mobile banking?

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35. When did the bank start offering internet banking? ……

36. What services are catered for by internet banking?

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37. How many customers are signed up for internet banking? ……

In your opinion, are internet banking services:

38. Easy to use?

Yes ……. No …..

39. Comfortable?

Yes ……. No …..

40. Fast to use?

Yes ……. No …..

41. Safe?

Yes ……. No …..

42. Beneficial to use and offer an advantage compared to handling financial matters in other ways?

Yes ……. No …..

43. Increase ability of the client to control their own financial?

    Yes ……. No …..

44. Easy to correct transactional mistakes?

    Yes ……. No …..

45. Accessible to third parties and hence create a risk loophole?

    Yes ……. No …..

46. How many customers are signed up for internet banking? …….

47. What are the benefits of internet banking?

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48. What are the risks associated with internet banking?

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49. What other services does the bank intend to introduce?

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50. What are the monthly trends in customer numbers and transactions for the following services:

    Over the Counter services…….

    ATM services……

    Internet banking services……..

    Mobile banking services……...

Appendix D: Implementation Schedule

Month	February	March
Activity		
Proposal Handover		
Booking Appointments		
Data Collection		
Data Analysis		
Report Writing		
Report Submission		

Appendix E: Implementation Budget

Budget Item	Estimated Cost (Kshs)
Materials and Stationery	3,000.00
Travelling	2,500.00
Typing, Binding and Photocopying	3,500.00
Internet Access	3,000.00
Miscellaneous expenses	3,000.00
TOTAL	**16,000.00**