



ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES

**OPPORTUNITIES AND CHALLENGES OF CORE BANKING  
SYSTEM ADOPTION IN THE CASE OF  
DASHEN BANK**

*BY*  
**YOSEPH ATLABACHEW**

**MAY 2018**  
**ADDIS ABABA, ETHIOPIA**

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**BY: YOSEPH ATLABACHEW**

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY SCHOOL OF  
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ADMINISTRATION**

**MAY, 2018  
ADDIS ABABA, ETHIOPIA**

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**APPROVED BY BOARD OF EXAMINERS**

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## DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Asmamaw Getie (Ass. Professor). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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Name

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Signature & Date

## ENDORSMENt

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

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Advisor

**St. Mary's University, Addis Ababa**

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Signature

**May, 2018**

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**Yoseph Atlabachew**

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## List of Acronyms

IT (information technology)

IS (information system)

WAN (wide area connection)

ATM (automated teller machine)

Forex (foreign exchange)

POS (point of sale)

GOE (government of Ethiopia)

NBE (National bank of Ethiopia)

GTP (Growth and Transformation Plan)

CBE (Commercial bank of Ethiopia)

ERP (enterprise resource programs)

MIS (management information systems)

CII (Construction Industry Institute)

PDRI (Project Definition Rating Index)

E-Banking (electronic banking)

SPSS (Statistical Package for the Social Sciences)

CRM (sound business strategy)

## ABSTRACT

*Financial service companies around the world are seeking to upgrade their core banking systems to improve competitiveness, operational efficiency, and regulatory compliance. However, such initiatives are especially challenging for most institutions. The purpose of this study was to determine factors leading to replacement of core banking systems in Ethiopian banking system in the case of Dashen Bank; establish the challenges that Dashen Bank encounter in the process of core banking systems replacement; and determine the effect of core banking systems replacement on bank performance. This research was carried out using a descriptive research design. The target population of this study was all Dashen Bank IS and Ebanking staffs. No sampling was done since the population was small ( $N < 80$ ). The research instrument for this study was a questionnaire. Data was collected from all information system and E-Banking staffs found in Dashen Bank. This data was manipulated through descriptive statistics such as percentages, range and mean scores and regression analysis. Presentation of data was through tables. Study results indicate that there are various factors that lead Dashen Bank to replace its core banking. These include their technologies being out dated, to reduce cost and improve efficiency, to enable adoption of new customer centric strategies, to enhance business banking and personalized service and to incorporate new and increased business. Challenges faced in the process of core banking system replacement include agreeing on what are actually necessary, security issues, empowering employees to use the new system, vendor capabilities and credentials, risk of the software capability to meet requirements and expectations, unavailability of the diverse skills required and data migration. Findings also indicated that replacing core systems has a significant positive effect on financial performance. The following recommendations were made. First, Dashen Bank need to be mindful of the challenges associated with core banking deployment. These challenges, once understood should be mitigated properly and perfectly managed. Secondly, Dashen Bank must appreciate that technology is an enabler and should adapt to change that make the technology transformation. Lastly, Dashen Bank Must have a strategic road map for future core banking upgrade or replacement.*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The increasingly competitive environment in the financial service market has resulted in pressure to develop and utilize information technology aggressively in order to deliver fast, reliable and consistent services to the customers in order to continue and maintain their survival in this very competitive banking environment.

New trends are emerging in the recent years in Ethiopian banking environment that are causing banks to realize the urgency of core-banking transformation. We can say all the banks working in the country trying to adopt and use the core banking system in order to fulfil the growing demand of their customers.

Core banking refers, banking service provided by a group of networked bank branches where customers may access their bank account and perform basic transactions from any of the member branch offices ([www.solbanking.com](http://www.solbanking.com)). Core banking system is the platform where communication technology and information technology are merged to suit core needs of banking such as handling deposits and lending (Chairlone and Ghosh, 2009). Core banking transformation is driven by the need for responding to internal business imperatives, such as growth and efficiency and also driven by the need to respond to external business imperatives, such as regulations and competition. There are an increasing number of products to cater to different customer segments. Furthermore, the number of channels is expanding with time, which is increasing the complexity of multi-channel banking. This has necessitated investments into modernizing core banking systems in order to handle an increasing volume of product-channel transactions and payments. (capgemini Analysis, 2013). In addition Core banking systems deliver enterprise-wide capabilities such as general customer information, branch services, input for the general ledger, and data on credit limits, payments, and transfers (Claessens and Luc, 2009).

As banks look to improve internal IT efficiency in the current macroeconomic environment, they are turning to core banking systems transformation as a way to gain more internal cost savings.

Today's core banking systems are aimed at consolidating several stand-alone applications and optimizing existing costs associated with core applications and hardware processing which helps banks reduce the high maintenance costs associated with legacy IT systems.(Banking on technology ,2014).

The development of the core banking in Ethiopia is recent phenomena and not yet modernized. Dashen bank is the first bank to introduce automated banking system to the banking industry in Ethiopia .when Dashen Bank came into existence on September 20, 1995 .it starts by using decentralized automated banking system which is every branch will have its own server and manage its transaction independently .but when other branches want to access one another they were using a WAN (wide area connection).which was a limited connection using a dial up connection system ([www.dashen bank.com](http://www.dashen bank.com)).

In order to satisfy the growing demand of customers and use modern banking system like ATM, internet banking, in 2005 Dashen Bank once again introduced centralized banking system which is called core banking system.( <http://www.icommercecentral.com> )

## 1.2 Background of the Company

Dashen Bank S.C was established on September 20, 1995 E.C. the first founding members were 11 businessmen and professional that agreed to combine their ambitions and financial resources and expertise to form this new private bank. As per the annual report of Dashen Bank for the year ended June 30 2016, the paid up capital of the bank has reached to 1.2billon birr that raised the primary capital of the bank to birr 2.38 billion. Headquartered in Addis Ababa, the Bank is the biggest private Bank in Ethiopia in terms of total Asset it acquired. It operates through a network of 380 Area Banks, five dedicated Forex Bureaus, More than 400 ATMs and 865 plus Point-of-Sale (POS) terminals spread across the length and breadth of the nation. It has established correspondent banking relationship with 480 banks. Dashen Bank SC is one of private bank that contributing its share for the development of the country's economy. ([www.dashen bank.com](http://www.dashen bank.com))

Dashen is the most reputable brand in the domestic banking market; a reputation earned through consistent delivery of values and preeminence unmatched by its competitors. The Bank also works in partnership with leading brands in the electronic payments industry (American Express, VISA, MasterCard & Union Pay cards) and prominent money transfer operators (Western Union,

Money Gram, Express Money, Dahabshiil, TransFast, EzRemit , FloCash , Dawit Money Transfer & Ria ).

### 1.3 Statement of the Problem

Financial service companies around the world are seeking to upgrade their core banking systems to improve competitiveness, operational efficiency, and regulatory compliance. However, such initiatives are especially challenging for most institutions. Most of today's core banking systems were originally built in the 1970s and 1980s and after countless modifications and add-ons have become so complex and convoluted that it may be difficult to fully understand them (Adamson et al, 2003). This can make it hard for banks to comply with regulations and determine adequate controls. Traditionally, banking has been product-centric but now products have become commoditized.

Banking is now more customer-centric and there is a new focus on customer service, single view of the customer, and relationship-based pricing. Banks are facing increasing competitive pressure from new entrants such as online and direct banks running on new core banking platforms. This is forcing traditional banks running legacy core banking applications to decide in favor of migrating their core banking systems to new platforms. (Rishi, 2013) Core banking could bring much intangible benefits to the banking sectors. Intangible benefits are benefits that do not directly contribute to increase in revenue but may give goodwill and customer loyalty to the banks. They include, enhancing well-being and education of customers by providing information to customers online, they are enabled to learn more about the organization and also how to carry out their transaction effectively and efficiently at reduced time and cost (Kalakota and Whinston, 2007) Studies have shown that changing banking systems is a big challenge to banks. Nairaland,( 2008) in his study demonstrated how Zenith Bank was thrown into a mess after the bank upgraded its core banking system. Hexaware technologies (2012) acknowledges that the challenges of core banking systems implementation is related to; non availability of updated business requirements documents, lack of required business scenarios specific to the bank, incomplete traceability of the test scenarios to the business requirements, testing all the interfaces with respect to the business process to ensure test coverage, excessive local customization

leading to risk in regression, lack of proper audit trial in manual testing and issues in data integrity.

Ethiopian banking industry is too late to introduce automated banking system to the country banking industry .this is due to the high cost of implementation the system, lack of necessary infrastructures in the country, lack of skilled man power availability, management resistance due to afraid of the cost and the uncertainty of the outcome and many factors .But recently many banks are integrating their banking activities using core banking system ([www.nbe.gov.et](http://www.nbe.gov.et)) .

Core banking is the major back bone of a banking system that will help banks to provide their customers adequate and efficient banking service .Core banking will enable banks to provide online banking system ,mobile banking system ,ATMs and also will help customers to get the banking service from any were ([www.accenture.com](http://www.accenture.com)).

The need for this study on core banking system especially on dashen bank is, because of dashen is the pioneer in introducing core banking system in Ethiopia. During this, it has faced numerous challenges in the process of adoption the system. These problems still challenging the bank. In order to avoid for future upgrades, this study done to provide and show a road map and to help for future strategic plan for core banking system upgrade or replacement.

Finally, even though there are researches conducted in other countries on core banking system, there is as far as I investigated, I didn't find any study conducted on core banking in Ethiopia. Thus, the purpose of this paper is the assessment of the opportunities and challenges for the adoption core banking system in Ethiopia especially in dashen bank.

#### 1.4 Research Questions

- i) What are the factors leading to replacement of core banking systems?
- ii) What challenges does Dashen bank face in the process of core banking systems implementation? And
- iii) What influence does the core banking systems replacement has on the financial performance of Dashen Bank?

## 1.5 Objectives of the Study

### 1.5.1 General objective:

The main objective of the study is to assess the prospects and challenges of core banking system in Ethiopia especially in the case of Dashen bank.

### 1.5.2 Specific Objectives

- i) To determine factors leading to replacement of core banking systems in Dashen Bank S.C
- ii) To identify the major challenges that Dashen Bank encountered in the process of core banking systems replacement.
- iii) To determine the effect of core banking systems replacement on financial performance.

## 1.6 Significance of the Study

The outcomes and results of this research is to have potential value to Dashen Bank and other financial institutions, since automated banking system is in an infant stage in Ethiopia, by investigating the different opportunities and challenges in the adoption of core banking system and by recommending solutions for the identified problems, this study will help Dashen bank and other finical institutions to benefit from the adoption of this technology. . In addition, it helps to fill significant knowledge gaps about core banking systems. Thereby it will give insight to researchers and students about the problem and stimulate further investigation of the issue.

## 1.7 Scope of the Study

The study is confined to assess the opportunities and challenges for the adoption of core banking System in Ethiopian in the case of Dashen bank. Data was collected from the Dashen bank employees and e used in this study. The study was focused on the assessment of the opportunities, challenges, factors that leads to the bank for core banking system replacement and the effect of core banking on the bank's performance. For the adoption of core banking from the viewpoint of the Dashen Bank.

## **1.8 Limitation of the Study**

The focus of this study is on the assessment of the opportunities and challenges for the Adoption of core banking system in Dashen bank. Owing to the initial stage of Automated banking system services available in Ethiopia, it is very difficult to get secondary data as well as literature in this area from the country perspective. In addition the study relied much on the responses of the questionnaire and interview that were filled out and answered by the three department staffs. Hence, the extent of credibility of these responses may be a bit questionable as the existing employees may feel not comfortable to deliver the real facts by suspecting confidentiality to some extent. In order to minimize the challenge I guaranties the employees the data they filled will be used only for this study and I assures them the no names will be stated on my study.

## **1.9 Organization of the Study**

This paper consists of five chapters with different sections and sub-sections. Chapter one presents the introduction for the main part of the paper, and chapter two states the theoretical and empirical literature review about the adoption of core banking system in some countries. Chapter three discusses research methodology. Chapter four focuses on results and Discussions. Finally, the last chapter (chapter five) gives conclusion and recommendation of the study.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

The review of literature in this section covers the application of IT in the banking industry, the use of core banking systems and core banking system replacement. The study explores onto the drivers to core banking system replacement, factors to be considered in the replacement and challenges that are encountered by banks who are replacing their core systems. The empirical findings from various studies are also provided.

#### 2.2 Core Banking Systems

Core banking system is the platform where communication technology and information technology are merged to suit core needs of banking such as handling deposits and lending (Chairlonc and Ghosh, 2009). Abhatc (1999) defined a core banking system as a back-end system that processes daily banking transactions, and posts updates to accounts and other financial records. Core banking systems typically include deposit, loan and credit-processing capabilities, with interfaces to general ledger systems and reporting tools. Strategic spending on these systems is based on a combination of Service oriented architecture and supporting technologies that create extensible and agile architectures (Chairlonc and Ghosh, 2009).

Most financial institutions rely on some form of core banking systems to provide customers with retail and corporate banking products. In addition, core banking systems deliver enterprise-wide capabilities such as general customer information.

Branches' services input to the general ledger, and data on credit limits, payments, and transfers (Clacssens and Luc, 2009). Like the institutions that depend on them, core banking systems are feeling the pressures of an increasingly global financial marketplace. Institutions face growing competition from new market entrants and established players. At the same time, these aging legacy systems are by and large unable to fulfil customer demands for a better financial services experience that includes competitively priced products, more attentive and faster service, and lower cost.

As regulatory demands grow in intensity and financial institutions face a competitive and challenging environment, running a modern and efficient core banking system has become essential to continued success (Chairlonc and Ghosh. 2009). Furthermore, as the number of core system replacements by commercial increases, banks are demonstrating not only an increased need but also a desire to replace antiquated systems. Unfortunately, the costs and time associated with taking on such a project have forced many institutions to fail to move forward with these projects or, if doing so, to proceed with caution.

New core banking systems are helping a growing number of banks achieve a long time goal which is a comprehensive view of their customers. The credit crisis, new regulatory requirements and increasing demand for higher cross-sale revenue have all renewed banks' interest in improving their ability not only to see but also to have and use customer information in real time (Abbate, 1999). Developing these capabilities has challenged all but the most technologically adept banks. Most banks use separate software programs from multiple vendors to manage their varied operations, creating a patchwork of disparate systems through which data doesn't easily flow. Various studies (e.g. Adamson et al. 2003; Boot, 2009; Zineldin, 2009) and experts say the new generation of core processing applications can resolve these issues, but many banks remain reluctant to take on core replacement projects.

It's becoming more imperative for them to really understand who their profitable customers are, or at least be able to see the entire relationship the customers have with them, to be able to make sure they're taking care of their customer and making sure they're successfully acquiring new customers they want (Turnbull et al. 2007). The core processing systems have a lot of information on them but there are many, many bank systems that are not necessarily on the core platform. The end goal for many banks is being able to see at once the status of their customers' deposit accounts, loans, credit card transactions, brokerage accounts and other details so they can get a more accurate view of just how profitable their patrons are, design for them the products that make the most sense and spot potential problem areas.

## 2.3 The Concept of Core Banking

Banking systems are diverse and serve various purposes depending on the specific functions within the banks. In essence, it is possible to have each department of the bank having a specific system to serve their interest. That notwithstanding, core banking systems are those systems which cut across the banking fraternity in terms of usage. They are systems which enjoy utilization across board irrespective of the specific functions of the departments involved (Temenos, 2009). As a base, the accounting of the customers' as well as major assets of these customers' is tracked within the core banking system. Whenever a new client joins the bank, irrespective of the reason they have come aboard, their records are uniquely assigned in the core banking system. This way, a bank is 10 capable of at bare minimum, control the activities of each customer and be in a position to account for the services the customer is enjoying within the bank. Studies have shown that changing banking systems is a big challenge to banks. Nairaland, (2008) in his study demonstrated how Zenith Bank was thrown into a mess after the bank upgraded its core banking system. Hexaware technologies, (2012) also acknowledge that there are several challenges of core banking systems implementation.

Peripheral systems are normally attached to the core banking system simply because the core system is not capable of offering all the flexibility required by the various departments of the bank. This calls for addition of systems to the core such as internet banking system, mobile banking system, image control system (workflow), treasury management system, management information system (MIS), and credit control systems among others (Mysis, 2013). Some examples leading of core banking systems include; Misys Equation, Misys Midas, Flexcube, Equinox, temenos T24, SAP banking services, Bankways, CSB, Digibank, CoreSoft, SAB/SCB, Systematics, Hogan, InsiteBankin system, Signature among others (Mysis, 2013).

## 2.4 Human Resource Management and implementation of core banking system

Hyland and Verreault (2017) indicated that human resource management is a long established task within an organizations management framework. Through this task the organization meets its obligation to be a good employer; seeks to secure staff commitment; and develops and manages staff to give of their best to help the organization achieve its vision and mission. The need to respond to changing environment means that the task of managing staff better is more

important than ever and it is through a new emphasis on staff management that a customer service and performance oriented culture gradually evolves. They further indicate that human resource management is a planned approach to managing people effectively for performance. It aims to establish a more open, flexible and caring management style so that staff will be motivated, developed and managed in a way that they can and will give of their best to support departments' missions. Departments' mission in this case is implementation of core banking system.

Drucker, (1998) noted that projects fail because of the lack of champions for change. Lack of commitment of senior management is related to poor leadership of the top management of such organizations leading to frustration and superficial implementation of the project because people only go through the motions. Something which may hurt the organization as loss of funds is eminent whenever senior management does not take serious part in the project.

Faqih, (2010) contend that system failures can be attributed to poor project management especially where the level of expertise is lacking. It is necessary to build capacity of the team leaders and members who are motivated to lead a project of such magnitude. The team members need to understand the intricacies involved in system management as well as project management knowledge. Chachra, V., Sahni, S. & Bansal, R. (2011) relate system failure to lack of power by the leadership to effect change. He confirms that change management is a crucial aspect necessary in system deployment and lack of it therefore is courting disaster. Sabotage through non conformity is a sure way to kill a system and managers must demand conformity from the project team to guarantee success. Leaders must understand the concept of sabotage and address it before it takes the better of the project.

According to Todd, (2005), organizational culture is a set of norms, beliefs, symbols, and traditions that can be used to describe the affinity of respective members of any organization. Organization culture plays a key role in system implementation. A supportive culture calls for staff in an organization easily embracing change hence making new changes easy to incorporate within the organization.

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## 2.5 Factors Leading To Core Banking System Replacement

The reasons for core system replacement vary by financial institution. There are seven key drivers, according to Zineldin, (2009). First are phased-out vendor technologies. Vendor mergers often lead to overlaps in technologies or acquisitions of more advanced solutions. Some vendors discontinue upgrades to some products, leaving institutions unsure about the future of their existing solutions.

Secondly are out dated technologies such as outmoded platforms and integration architectures that don't permit financial institutions to leverage advances in technology, such as web services. Implementing newer, more efficient technologies with open architectures hastens transaction speeds and speed to market with new products and capabilities (Ritter, 2003).

Thirdly, it is greater focus on business banking. Thin net interest margins and the increasingly competitive retail space are causing greater focus on business services, with their greater potential for cross-selling and fee-based income. Another reason is new member-centric strategies. As banks increasingly adopt member-centric strategies, they need their core banking solutions to provide enterprise-wide member data.

Another major reason is cost reduction. Besides reducing complexity and speed to market with new products, some institutions are running multiple solutions simultaneously due to mergers

and acquisitions, and are paying multiple license and maintenance fees. Another major reason driving need for core replacement is organic growth. New solutions enable financial institutions to launch new products quickly without involving vendors for customization or altering sophisticated code. Lastly is better risk management and compliance. Regulators expect to see uniform and integrated management of risk. Data, and processes throughout an organization. This is often a daunting task for older, less user-friendly core systems (Blanchard, 2008).

A core banking solution, once implemented, should be robust, scalable and future-proof and serve the business interest for at least 10 years. Banks need to focus on key factors, which make the core banking transformation a successful experience (Adamson et al, 2003). The key challenges in core banking transformation are vendor capabilities and credentials, dependence on legacy or vendor applications and impact on envisioned technology architecture and bank's business goals and alignment to leverage the new technology.

Vendor capabilities and credentials entail vendor's financial stability, vendor's commitment to the business, domain and technology competence of the vendor and deployment capabilities of the vendor. If the vendor is challenged in one of these areas, the implementation of the core system transformation can be affected. Another challenge is dependence on legacy/vendor applications.

The key challenges to be understood and overcome are data migration, understanding the prevalent systems and interfaces deployed, understanding the functioning of the legacy environment mid configuring the new architecture (Moriarty et al, 2003). Another challenge is the bank's business goals and alignment to leverage the new technology. Critical considerations include expectations management, finalization of the scope and the timelines, empowerment, change management and ownership issues, midway changes through the project and resource availability.

Core replacement involves a series of launches and migrations. The last thing any bank would want is to build a new core that will make the bank look just like the old one (Adamson et al, 2003). The bank should therefore launch the new capability, prove it works and then migrate old to that. This way it will be building the new bank and taking the old one to it. Studies (e.g. Zineldin, 2009; Boot, 2009) have indicated that core banking system replacement is quite challenging and this study seeks to assess the situation in Dashen Bank S.C.

## 2.6 Ethiopia - Banking Systems

The GOE allowed the establishment of private banks and insurance companies in 1994, but continues to prohibit foreign ownership in this sector. The Ethiopian banking sector is currently comprised of a central bank (The National Bank of Ethiopia or NBE), two government owned banks and sixteen private banks. In September 2011, NBE issued a regulation that increased the minimum paid up capital required to establish a new bank from 75 million Birr (\$3.4 million) to 500 million Birr (\$22 million), which effectively stopped the entry of most new banks to the market. Under the Growth and Transformation Plan II (GTP II) period, NBE further increased the minimum paid up capital for banks to 2 Billion Birr (\$74 million) and advised all the sixteen currently operating private banks to increase their paid up capital to that amount by 2020. Foreign banks are not permitted to provide financial services in Ethiopia and the market is closed to foreign retail banks. Currently, Ethiopia has allowed some foreign banks to open liaison offices in Addis, to facilitate credit to companies from their countries of origins. Chinese, German, Kenyan, Turkish, and South African banks have opened liaison offices in Ethiopia.

Based on the most recently data, Commercial Bank of Ethiopia (CBE) mobilizes more than 60 percent of total bank deposits, bank loans and foreign exchange. NBE controls the bank's minimum deposit rate, which now stands at 5 percent, while loan interest rates are allowed to float. Real deposit interest rates have been negative in recent years mainly due to inflation.

## 2.7 Core banking system in Ethiopia

New trends are emerging in the recent years in Ethiopian banking environment that are causing banks to realize the urgency of core-banking transformation. Older platforms are proving expensive to maintain, while regulatory solvency standards like Basel III and consumer protection laws demand greater data consistency, quality, and visibility across the bank. Furthermore, as banks work to differentiate themselves, the demands for flexibility and scalability within operations and core banking systems are heightened. Core banking is refers to a centralized online real time exchange banking ([www.oracle.com](http://www.oracle.com)). Core banking transformation is driven by the need for responding to internal business imperatives, such as growth and efficiency and also driven by the need to respond to external business imperatives, such as regulations and competition. There are an increasing number of products to cater to different

customer segments. Furthermore, the number of channels is expanding with time, which is increasing the complexity of multi-channel banking. This has necessitated investments into modernizing core banking systems in order to handle an increasing volume of product-channel transactions and payments. (Capgemini Analysis, 2013) As banks look to improve internal IT efficiency in the current macroeconomic environment, they are turning to core banking systems transformation as a way to gain more internal cost savings. Today's core banking systems are aimed at consolidating several stand-alone applications and optimizing existing costs associated with core applications and hardware processing which helps banks reduce the high maintenance costs associated with legacy IT systems.

## 2.8 Implementation of Core Banking System

Banking systems are software used in the banking sector to assist the end users carry out banking services to its clients. These software range from; core banking, mobile banking, collection systems also referred to debt recovery systems, dealing or treasury systems, contact center system, document imaging or workflow systems, management information systems (MIS) for reporting, enterprise resource programs (ERP) used within the supply chain unites of the bank among others (Soin, 2009). Different banks run different banking platforms as their functionalities differ. However, many banking software cut across different banks as their usage is also spread across the banks. This is attributed to the fact that the banking industry is small and the turnover is high. As employees of one bank move to another, they carry with them the best practices some of which relate to these banking systems.

## 2.9 IT and the Banking Sector

Studies in the field of technology have redefined the role and structure of an IT department in a bank (Scybold, 2014). Rapid strides in the field of technology redefined the use of technology in banking. The fact that using better technology and systems, banks can garner more customers, retain existing ones and channel more of the customers' business to its counters has forced business department to now look at IT as an effective operational and marketing tool. On the operational side, the power of IT in reducing transaction costs, providing better customer service and offering an over-all customer convenience has basically made this a win-win situation for

both banks as well as its clients (Moriany et al. 2003). These have become the main drivers for getting IT the importance it has got in banks in recent times.

The nerve centre of technology in a bank's IT department is the Core Banking System. This paper aims at understanding the role of core systems, the scope of core systems, evaluation methodologies adopted by banks in selecting core systems, typical pitfalls in implementations, and recent and future trends in the core systems

## 2.10 Project Risk Management and implementation of core banking system

Matta, and Ashkenas, (2003) relate project failures to unplanned implementation process. They advise that there is need to change focus and put emphasis in the implementation of projects. Some of the implementation challenges observed relate to integration risks where one part of the project is not compatible to the other part hence leading to malfunction and lack of interoperability of the parts. In essence, despite the individual team members completing their tasks in good time and within budget, the main project might still fail due to incompatibility of the parts brought together. Implementing a complex banking system may mean that the banks have to learn from the rest by making frequent trips to other banks who have implemented the same system so as not to reinvent the wheel. More often than not, one finds staff going for trips to evaluate systems but instead of concentrating on the system itself, they engage in ventures like tourism thereby losing the value of the trip (Hyvari, 2006). Gupta, Y., Khan, Y., Gallaba, K., & McIntosh, S. (2017, May) found that more than 65 of IT projects are abandoned in the development and implementation stages. The ability of an organization to execute and deliver on IT projects represents the implementation stage in the life cycle of IT projects, and success in this stage leads to the actualization of benefits from IT projects

## 2.11 Vendor selection and implementation of core banking system

Supplier selection is the process by which organizations identify, evaluate and contract with suppliers.(Weber & Current, 1991). The supplier selection process deploys a tremendous amount of an organization's financial resources (Shiati et al, 2014).Supplier selection in particular is crucial in management of a supply chain. The decision is one of the most fundamental and important decisions made by buyers and organizations. This is because supplier selection and

management can be applied to a variety of suppliers throughout a products' life cycle from initial raw materials acquisition to end-of-life service providers (Bai and Sarkis, 2009).

Globally, supplier selection decisions are intricate due to the fact that multiple criteria must be considered in the decision making process. Multi-criteria approach is used in selecting suppliers, (Weber & Current, 1991). Although there are numerous criteria used in selecting suppliers depending on organizations, literature suggests that the most important are price, delivery, and quality. Locally, the procurement procedures pretty much follow the international standards to a large extent. This means that even supplier selection determinants are more or less similar to those considered by purchasers everywhere else.

The main objective of supplier selection process is to reduce purchase risk, maximize overall value to the purchaser, and develop closeness and long-term relationships between buyers and suppliers (Li et al., 1997 as cited in Tahriri, Osman, Ali and Yusuff, 2008). Dickinson (1966) in his pioneering work on supplier selection identified and ranked 23 supplier selection criteria as collected from a questionnaire given to purchasing agents. Quality, delivery, and performance history rank top with net price ranking a distant sixth. This seems to concur with previous studies, but one notable discrepancy is that price curiously ranks lower than quality. Again, net price is deceptive as other related costs such as packaging and freight cost could raise the total cost. Total cost covers everything hence should be the one listed and not net cost. Chen and Paulraj (2007) proposed three criteria for 16 supplier selection. These are: the financial statement of the supplier, organizational culture and strategy of supplier, and the technological state of supplier (Shiati et al., 2014) PWC (2011), vendor selection mainly consists of four steps i.e. Requirement gathering, vendor profile creation, request for information/vendor review process and finally vendor selection and solution implementation.

As business and IT requirements are gathered, they are incorporated into a scoring matrix you can use to rate vendors on factors critical to your sound selection decision. Factors can range from cost and quality to product support, how long the company has been in the business and how widely is the software used in the industry and level of customer satisfactory. There are numerous criteria used in selecting suppliers depending on organizations. Literature suggests that the most important are price, delivery and quality (Shiati et al., 2014).The main objective of supplier selection process is to reduce purchase risk, maximize overall value to the purchaser and

develop closeness and long-term relationships between buyers and suppliers as sited in (Tahiri, Osman, Ali and Yusuf, 2008).

## 2.12 Project Scope and implementation of core banking system

Defining project scope using input from all stakeholders is a vital task that needs to be adequately carried out at the early stage. The purpose of project definition is to provide adequate information that is needed to identify the work to be performed in order to avoid major changes that may negatively affect project performance (Gibson et al., 2006). This information is needed before making the decision whether or not to proceed with the project execution (Gibson et al., 2006). While adequate front-end project planning with clear project scope definition can alleviate the potential for cost overrun, inadequate project planning and poor scope definition can lead to expensive changes, delays, rework, cost overruns, schedule overruns, and project failure. Changes often reflect the uncertainties that occur during the early stages of the project (Assaf& Al-Hejji, 2006). Changes are requested as a result of the different perspectives that each stakeholder has on the project. Therefore, having a well-defined project during the pre-project planning stage is crucial for successful project execution and for achieving a satisfactory project outcome. Concerns, while private sector projects often aim at benefiting investors or owners. Therefore, they should reflect their needs and requirements. And this cannot be done without involving all stakeholders in defining the project from early phases.

It is irrational to get stakeholders' opinions about the project outcome after the completion, when their involvement is limited. Incomplete project definition can occur when the input of one or more stakeholder is intentionally or unintentionally omitted (Sharma & Lutchman, 2006), while at the same time inputs from others dominate. Failure to consider and clarify stakeholders' expectations and concerns at early stage in the project can result in extraordinary risks being ignored and may lead to difficulties in running the project, and hence poor performance (Atkinsonet al., 2006). Therefore, project scope definition is critical for enhancing satisfaction of stakeholders as well as successful implementation of construction project (Heywood &Smith, 2006).

According to (Gibson, 2006) on approaches for defining project scope, it was noted that a high level of pre-project planning effort can save up to 20% from cost and 39% from schedule in facilities projects. In order to address the problem of poor project definition, tools have been developed by

some project management and other institutions like Construction Industry Institute (CII) of America. The tool can be used to evaluate the definition completeness on projects. The philosophy of such tools is to allow a project planning team to determine the level of definition needed for each of the elements in the project definition list.

Project team, owner and/or contractor evaluate each of the list's elements. Overall score is then calculated for the whole project, the lower the score the better defined project (Gibson, 2006). Although such tools are useful, evaluation of the level of project definition is less reliable. The evaluation process does not consider external stakeholders' perspectives and input. External stakeholders refer to individuals or groups who are affected by a project but are not formal members of the project team or are directly involved in the project; rather they originate from the environment of the project. They may include the neighborhood, community, general public, and/or industry connection (Olander, 2007).

In addition, some of the tools such as the Project Definition Rating Index (PDRI) assume that the influence and input of the project team into different elements of project definition are the same. However, in practice, different levels of involvement and input are required from different stakeholders when defining each element on the project definition list. Thus a more reliable rating tool needs to consider stakeholders' importance to a project in order to identify their relative involvement as well as their contribution to the different project definition elements.

Olander (2007) stated that conflict and controversies about the implementation of a construction project can arise if stakeholders are inadequately engaged and their concerns and expectations are not managed well. To avoid this, project managers need to engage all stakeholders when making decisions on project definition. They need to acknowledge the concerns of all stakeholders and mitigate conflicting interests. Any negative perception by stakeholders on the project definition can have an impact on a project. The same argument applies for implementation of core banking systems.

## 2.13 Empirical Evidence

In this study an attempt was made to establish how the independent variables, that are human resource management, project scope, risk management and vendor selection influence Implementation of core banking systems. Stakeholder participation, Central Bank regulations, government policy and funding are presented as a moderating variable. Complexity of

customers, product offering and technology advancements are also presented as an extraneous variable. In this study an attempt was made to determine how these independent variables influence implementation of core banking system project in dashen bank.

This chapter had reviewed existing literature on factors influencing implementation of core banking system projects globally, regionally and locally. The concept of project and management is looked at. These concepts form the basis of the theoretical framework. The study was guided by determination of the influence of human resource management on the implementation of core banking systems by dashen bank, establishment of the influence of project scope on implementation of the core banking system by dashen bank, establishment of how project risks management influence the implementation of core banking system by Dashen Bank, and determination of the influence of vendor selection on the implementation of core banking system by Dashen Bank.

## 2.14 Summary of the literature review and Research gap

Literature review on core banking systems replacement, factors leading to core banking systems replacement and challenges encountered by banks in replacing their cores have been reviewed in this section. The review had indicated that many commercial banks are replacing their cores due to various factors ranging from competition to customer service. There are a myriad of challenges that banks are facing in replacing their core systems which include financial resources and vendor capabilities. The next section presents methodology that will be used in carrying out the study.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Research Design

This research was carried out using a descriptive Case study Method. The research design was applied to obtain the relevant data which was used to determine the drivers behind core banking system replacement, challenges that are encountered there to and the effect of such replacement on performance. A cross section of the dashen bank in the banking industry was surveyed. A cross sectional survey research design is valuable in this study since it gave information about dashen bank and how it has dealt with its core system. (Blanchard, 2008).

#### 3.2 Nature and Source of Data

Both primary and secondary data was used for this research. The primary data was gathered from primary sources which include questionnaires, personal interviews and telephone interviews. Secondary data was derived from secondary sources such as published materials of relevant Banks as well as collated data in the relevant departments and work units.

#### 3.3 Target Population

The target population of this study is dashen bank information system and E-Banking Services departments (infrastructure department, software support and development department & E-Banking department clerical staffs. Those departments selected as the target of this study due to their direct role and responsibilities with the core banking system implementation of the bank.

#### 3.4 Sample and Sampling Procedures

No sampling, since the population is small ( $N^80$ ). The survey was done therefore a census of all the 80 staffs found in bank information system and E-Banking Services departments. According to Mugenda and Mugenda (2003), sampling is not necessary when the population is small. Sampling in a small population increases the risk of sampling errors which can distort the reliability of the sample in relation to its representativeness to the population.

### **3.5 Research Instruments**

The research instrument for this study was questionnaire and interview. The questionnaire and interview was designed after a critical analysis of literature on core banking systems replacement to arrive at the constructs of the data collection instrument. The questionnaire was used to collect data from all dashen bank information system and E-Banking Services departments (infrastructure department, software support and development department & E-Banking department staffs. Questionnaire was applied as a survey instrument due to its economy, standard responses and ease of analysis (Ghauri and Gronhaug 2010).

### **3.6 Data Collection Procedures**

Data were collected from Software Support and development Dept., IT infrastructure and E-Banking directors, Mangers under these departments, and IT experts found in all the three departments of dashen bank S.C. The developed questionnaire was administered to the selected subjects in dashen bank at their places of work through hand delivery. The researcher was requested to collect the duly filled questionnaire from the respondents' work stations after they were filled.

### **3.7 Data Analysis Procedures**

Data which was collected includes extent of replacement, important factors considered in replacement, challenges involved and measures taken to deal with those challenges. Also it was included performance information about the bank. Data collected were quantitative in nature which was collected through closed questions and responses from the respondents that was in figures. These data's were manipulated through descriptive statistics such as percentages, range and mean scores. Likert type questions also were used to determine factors leading to replacement of core banking systems in Dashen bank Share Company.

### **3.8 Problems and limitation of the study**

The conduct of research in Ethiopia and of course indeed, all developing countries it imbued with a lot of problems. However, in this particular research, the following problems are anticipated.

- Delays in filling and returning of questionnaires by respondents.
- Smallness of sample size due partly to limited financial resources.
- Limited use of varied analytical techniques due to size of sample and shortness of period of investigation.

### 3.9 Data Analysis

Once the questionnaires were received back, they were checked for completeness and consistency where poorly filled in questionnaires was discarded study. Data cleaning, editing and coding followed after which data entry was undertaken for all the questionnaires in a database. SPSS (version 21) was the software that the researcher was employed to manipulate the data to achieve the study objectives. The study was used descriptive analysis. The study was used both primary data consisting of both quantitative and qualitative data. In analysing the quantitative data, the researcher used descriptive statistics using SPSS in terms of frequency, percentages, means and standard deviations. Tables and other graphs were used as appropriate to present the data findings while explanations were presented in prose. Qualitative also will be analysed using content analysis, through developing a thematic framework from the key issues.

## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

#### 4.1 Introduction

This chapter presents results and findings from the questionnaire survey. The findings of the study are presented according to the research questions. There were 80 questionnaires distributed to the selected information technology work units in Dashen Bank S.C. all the eighty questionnaires were returned which indicated a response rate of 100%. All the returned questionnaires were found to be correctly filed and fit for analysis.

Section 4.2 presents data on the general information; section 4.3 presents data on factors influencing the decision Dashen bank to replace its core banking systems while section 4.4 presents data on challenges to core banking system replacement. Section 4.5 present data on the relationship between core system replacement and bank performance.

#### 4.2 General Information

The study sought to establish gender of the respondents in the questionnaire survey. Findings are presented in Table 4.1 and they indicate that 58 (72.5%) of the respondents were male while 22 (27.5%) were female.

Table 4.1: Gender of Respondents

Gender	Frequency	Percent
Male	58	72.5
Female	22	27.5
Total	80	100

#### Source: (Field Data, 2018)

Age was also a factor that was investigated. Results are presented in Table 4.2. Findings indicate that 25(31.25%) of the respondents were aged between 20and 30 while48 (60%) indicated to be between 30 and 40 years. The remaining 7 (8.75) respondents are aged between 40-50. These results indicate that most of IT staffs were in their young age.

As we can see from the table Most of dashen bank IT staffs age is less than 40 .from this we can conclude that dashen bank IT Staffs are relatively young .From this we can see that if the banks manages to retain its current staffs, dashen bank will have experienced staffs that can help the bank for a long time in the coming years.

**Table 4, 2: Age of Respondents**

Age in years	Frequency	Percent
Below 30	25	31.25
30-40	48	60
40-50	7	8.75
Above 50	0	0
Total	80	100

**Source: (Field Data, 2018)**

Respondents were also required to indicate their highest education level. Results indicate that 48(60%) were undergraduates while 32 (40%) were post graduates.

From their educational back ground we can see that all the employees have their first degree and half of them also have their second degree. Having a qualified staff is the best asset that an organization that can have. From this we can conclude that, dashen bank has better qualified staffs that can help the bank during core bank transition.

**Table 4.3 Educational level of Respondents**

Education level	Frequency	Percent
First Degree Level	48	60
Second Degree Level	32	40
Total	80	100

**Source: (Field Data, 2018)**

Further, the number of year respondents had worked in dashen banks S.C was investigated Results which are presented in table 4.4 indicate that 36 (45 %) had between 1-5 years of experience. 32 (40 %) had between 6 -10 years of experience.8 (10%) had more than 10 years of experience .and the same number had less than 1 year of experience in dashen bank.

**Table 4.4 Work experience**

Age in years	Frequency	Percent
Less than 1 year	6	7.5
1 to 5 years	36	45
5-10 years	32	40
More than 10 years	6	7.5
	80	100

**Source: (Field Data, 2018)**

From their work experience we can understand that, most of the employees have between one and ten years of experience .from this we can understand that most of the employees are more experienced. One of the major factor during core banking system upgrade or replacement is having good experience on the previous system .since all these employees have enough experience on the existing system they are the best asset to identify the weakness and strength of the current system .

### 4.3 Factors Lending to Core System Replacement

The study had an objective of establishing the factors that lead to core banking system replacement. Respondents were required to rate the provided specific factors on the extent they had influenced the replacement of core systems. Rating was on a scale of 1 - 5 where 1 represented 'No extent\*' while 5 represented 'Very great extent'. Data was analysed using mean scores and standard deviations. Mean scores of below 2.5 were interpreted to indicate that the factor affected replacement on a small extent, those between 2.5 and 3.5 were interpreted to be moderate extent while those above 3.5 were interpreted to affect on a great extent. The higher the mean score, the higher the extent the factor led to replacement of core systems in the banks.

(<https://citl.illinois.edu>)

Findings on factors leading to core banking systems replacement indicate that factors which greatly led to replacement included having out dated platforms and technologies that restricted adoption of new technologies and systems (4.22), cost reduction and focus on efficiency (4.21). Another factors leading to replacement of core banking systems were new customer centric strategies requiring new technologies (3.97) and greater focus on business banking and personalized service (3.91). Another factor that greatly led to replacement of core system was to incorporate new and increased business (3.86). Other factors which had affected the core replacement decision to a moderate extent and those which had little effect arc shown in Table 4.5.

**Table 4.5**

<b>Factor</b>	<b>Mean score</b>	<b>SD</b>
Phased out technology	2.72	1.32
Outdated platforms and technologies that restricted adoption of new technologies and systems	4.22	1.87
Greater focus on business banking and personalized service	3.91	1.88
New customer centric strategies requiring new technologies	3.97	1.12
Cost reduction and focus on efficiency	4.21	1.71
Organic growth in customer numbers and product range	3.17	1.64
Better risk management and compliance	3.32	1.26
Need for personalized service	3.16	1.04
To cope with Competition	2.97	1.97
To incorporate new and increased business	3.86	1.34
Merger/acquisition	1.71	1.32

**Source:** (Field Data, 2018)

This result agrees with findings from a study by Turnbull et al (2007) which indicated that banks aim to reduce costs, enhance efficiencies and guarantee customer retention with use of technology and current core systems. Turnbull et al (2007) established that financial institutions obtain considerable cost reductions at the same time as they reach new customer segments, identify potential customers and cover a global geographic field of action that no other distribution medium allows affordably (that) new core systems.

The findings also concur with findings from a study done by Zineldin (2009). This study established that replacement of core systems was understood as a chain of virtual value used for the greater benefit of customers and banks. Another study by Chairlone and Ghosh (2009) had similar findings that technological advances and the tools of communication in new core systems enable close and long-term relations to be created and developed with customers.

#### 4.4 Challenges to Core Systems Replacement

The study had an objective of determining the challenges faced by dashen bank in replacing their core system. Some listed challenges from reviewed literature were listed and respondents were required to indicate the extent the bank faced the challenge. Rating was on a scale of 1- 5 where 1 represented 'No extent' while 5 represented 'Very great extent'. Data was analyzed using mean scores and standard deviations. Mean scores of below 2.5 were interpreted to indicate that the bank faced the challenge on a small extent, those between 2.5 and 3.5 were interpreted to be challenges on a moderate extent while those above 3.5 were interpreted to affect the bank on a great extent.

**Table 4.6**

<b>Challenge</b>	<b>Mean score</b>	<b>SD</b>
Capability of software to meet requirements and expectations	3.78	1.32
Reaching agreement within the organization on what is actually necessary	4.28	1.87
Ability of the business to change to fit the new system	2.54	1.88
Complexity of legacy integration	3.35	1.12
Unavailability of the diverse skills required	3.84	1.71
Vendor capabilities and credentials	4.46	1.64
Bank's business goals and alignment	1.84	2.26
Data migration	3.95	2.04
Understanding the functioning of the new core system environment	3.87	1.46
Expectations management	2.28	1.9
Resource availability	3.34	2.32
Change management	2.35	1.69
Empowering employees to use the new system	4.27	1.77
Customer Acceptance	2.16	1.62

Reliability	4.06	1.93
Security	4.28	1.74
Weakening relationship with customers	2.44	2.44

**Source: (Field Data, 2018)**

Results presented in Table 4.6 indicate that the challenges that were encountered by dashen bank included reaching agreement within the organization on what is actually necessary (4.28). Security (4.28), empowering employees to use the new system (4.27) and vendor capabilities and credentials (4.46). Other major challenges include capability of software to meet requirements and expectations (3.78), unavailability of the diverse skills required (3.84), data migration (3.95) and understanding the functioning of the new core system environment (3.87). Other challenges which were reported on a small or moderate extent arc as indicated in Table 4.12. The findings from this study agree with those from Rakesh, V., R. Singh, D. Yuliya, P. K. Pal, and P. C. Joshi (2009a which established that underestimating the skills required was a big challenge. This study established that a broad spectrum of skills is needed to meet the project commitments and unexpected issues of core system replacement. Given the complexity and importance, core banking programs need access to some of the best talent in the organization. Another study that concurs with the findings from this study was by Blanchard (2008) which had indicated that data migration, security and empowering employees about the new systems were major challenges faced by banks replacing their core systems or having any major IT project.

# CHAPTER FIVE

## CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Introduction

The objective of the study was to investigate core banking system replacement in Dashen Bank S.C .The study had three objectives. First was to determine factors leading to replacement of core banking systems in dashen bank S.C. Second was to establish the challenges that dashen bank encounter in the process of core banking systems replacement and lastly was to determine the effect of core banking systems replacement on bank performance. This section provides the summary of findings in 5.2, conclusion in 5.3 and recommendations in 5.4.

### 5.2 Summary

The study established that 58 (72.5%) of the respondents were male while 22 (27.5%) were female. On age of the respondents, survey results indicate that 25 (31.25%) of the respondents were aged below 30, 48 (60%) of the employees are aged between 30 and 40 and 7(8.75%) of the employees are aged between 40 and 50. On education, 48 (60%) were undergraduates while 32 (40%) were post graduates. On experience in the bank. 36 (45%) had between 1 and 5 years of experience. 32(40%) had between 5 and 10 years of experience, 6 (7.5%) is less than 1 year of experience while 6 (7.5 %) had more than 10 years of experience. in the respective bank.

Factors that had led to Core System Replacement were established as having outdated platforms and technologies that restricted adoption of new technologies and systems (4.22), cost reduction and focus on efficiency (4.21), new customer centric strategies requiring new technologies (3.97) and Greater focus on business banking and personalized service (3.91). Another factor that greatly led to replacement of core systems was to incorporate new and increased business (3.86).

Challenges to Core Systems Replacement were established as reaching agreement within the organization on what is actually necessary (4.28), security (4.28), empowering employees to use the new system (4.27) and vendor capabilities and credentials (4.46). Other major challenges include capability of software to meet requirements and expectations (3.78), unavailability of the diverse skills required (3.84), data migration (3.95) and understanding the functioning of the new

core system environment (3.87). Study findings revealed that replacing core systems had a significant effect on financial performance. Core systems replacement was found to have a significant positive effect on financial performance (3.1385) at 5% significance level.

### 5.3 Conclusions

The following conclusions are made from the study findings. First, there are various Reasons that make Dashen Bank S.C make the decision to replace its core system. These Include technologies being outdated, to reduce cost and improve efficiency, to Enable adoption of new customer centric strategic requiring new technologies and to Enhance business banking and personalized service. Other factors included need to incorporate new and increased business and the need to remain competitive and relevant in today's banking industries.

Secondly, there are various challenges that Dashen Bank replacing its core systems face. These include agreeing inside the bank on what are actually necessary, security issues due to privacy concerns, empowering employees to use the new system and questionable vendor capabilities and credentials. Other major challenges include risk of the software capability to meet requirements and expectations, unavailability of the diverse skills required to make the replacement a success and data migration. Another major challenge was making the organization and more so the employees to understand the functioning of the new core system environment.

Lastly, replacing core system is a way to improve efficiency and competitiveness of the bank since it improves financial performance. This is accomplished through better customer service, ability to incorporate more business and good integration among the banks many operations.

### 5.4 Recommendations

While the advent of state-of-the-art technologies and global best practices undoubtedly offer improved agility, efficiency, CRM capability and faster implementation cycles, Dashen Bank S.C need to be mindful of the challenges associated with core banking deployment. These challenges, once understood should be mitigated and properly and perfectly managed.

Secondly, Dashen bank must appreciate that technology is an enabler and not a panacea. As history indicates, successful banks are those that have understood the potential of new technologies and

aligned themselves to fully leverage its power. These are banks that have focused on the adaptive change that made the technology transformation process successful.

Lastly

Dashen should prepare a strategic road map for future core banking upgrade or change .in addition to this dashen bank should check new technologies and apply in order to continue as leader in the banking industry .since it's the market become aggressively competent the only competitive advantage dashen should use is technology

## 5.5 Recommendations for Future Studies

For future studies on use of IT in banking and core systems, it is recommended that an intensive study should be carried out to find out which mode of dealing with core system is most effective: to replace or upgrade. This is because in today's business and economic environment, banks are under pressure to cut costs aggressively while preparing to emerge with a competitive advantage. Many banks, however, have reached the limits of their ability to realize either of these goals, burdened by multiple, disparate, aging legacy systems that are expensive to run and inhibit the timely launch of new products. Core systems replacement has become an increasingly powerful option for helping banks achieve that goal. However, determining whether, when and how to replace a core system is arguably one of the biggest decisions a bank will ever make accordingly Dashen bank should have a strategic plan in how to upgrade or replace the current version of core banking system. Since technology is dynamic always Dashen Dank should follow the latest available technologies and implement in order to continue as a leader in Ethiopian banking industry.

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## APPENDICES

### APPENDIX I: QUESTIONNAIRE

#### Section A: BACKGROUND INFORMATION

1. What is your gender?

Female [ ]                    Male [ ]

2. How long in years, have you been working in the banking industry?

Less than 1 year [ ]                    1-5 years [ ]

6-10 years [ ]                    Over 10 years [ ]

3. What is your position in the company?

Director [ ]                    Manager [ ]

Other (specify)                    IT Expert [ ]

4. Age: 20-30 [ ]    31-40 [ ]    41-50[ ]    51-60 [ ]

5. What is your highest educational level?

Diploma [ ]

Undergraduate Degree [ ]

Postgraduate Degree [ ]

#### SECTION B: FACTORS LEADING TO CORE BANKING REPLACEMENT

1. According to your experience in this bank, what drives the bank to effect core systems replacement? Rate the extent that the stated factors contribute to the decision to replace cores using the following scale:

- |                  |                      |                    |
|------------------|----------------------|--------------------|
| 1) No extent     | 2) Little extent     | 3) Moderate extent |
| (4) Great extent | 5) Very great extent |                    |

No.	Factor	Rating				
		1	2	3	4	5
1	Phased out technology					
2	Outdated platforms and technologies that restricted adoption of new technologies and systems					
3	Greater focus on business banking and personalized service					
4	New customer centric strategies requiring new technologies					
5	Cost reduction and focus on efficiency					
6	Organic growth in customer numbers and product range					
7	Better risk management and compliance					
8	Need for personalized service					
9	To cope with Competition					
10	To incorporate new and increased business					
11	Merger/acquisition					

2. with the levels indicated below, what level is the core system used by the bank?

**Level I:** Basic functionality e.g transaction processing, customer information file, general ledger system [ ]

**Level II:** Level I, loans systems and deposit system [ ]

**Level III:** Level 11, report writers and trade finance [ ]

**Level IV & V: Level III,** internet banking, CRM and services based architecture [ ]

## SECTION C: CHALLENGES OF CORE SYSTEM REPLACEMENT

1. What challenges among the ones listed below, has the bank faced in its implementation of core system replacement? Tick whichever is applicable.

- |                  |                       |                     |
|------------------|-----------------------|---------------------|
| [1] No extent    | [2] Little extent     | (3) Moderate extent |
| [4] Great extent | [5] Very great extent |                     |

No.	Challenge	Rating				
		1	2	3	4	5
1	Capability of software to meet requirements and expectations					
2	Reaching agreement within the organization on what is actually necessary					
3	Ability of the business to change to fit the new system					
4	Complexity of legacy integration					
5	Unavailability of the diverse skills required					
6	Vendor capabilities and credentials					
7	Bank's business goals and alignment					
8	Data migration					
9	Understanding the functioning of the new core system environment					
10	Expectations management					
11	Resource availability					
12	Change management					
13	Empowering employees to use the new system					
14	Customer Acceptance					
15	Reliability					
16	Security					

\* Thank you for taking your time to fill in this questionnaire \*