

The Development of Core Banking System in Ethiopia: Challenges and Prospects (Case Study on Ethiopian Commercial Banks)

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Abstract

The purpose of this study was to: examine the development of core banking system in Ethiopia; establish the challenges that commercial banks in Ethiopia encounter in the process of core banking systems development; and determine opportunities that Commercial banks in Ethiopia would get from the implementation of core banking. This research was carried out using a descriptive survey design. The target population of this study was all the 18 commercial banks in Ethiopia. No sampling was done since the population was small (N=18). The research instrument for this study was a questionnaire. Data was collected from General Manager, Customer service officers and IT directors of the 18 operational commercial banks in Ethiopia. This data was analyzed using SPSS Version 16 and manipulated through descriptive statistics such as frequency, percentages, range and mean scores. Presentation of data was through tables. Study results indicated that there are various opportunities that the banks would get from the implementation of core banking. Reduce in cost and improve efficiency, enabling adoption of new customer centric strategies, enhancing business banking and personalized service and incorporating new and increased business. Challenges faced in the process of core banking system development 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. Lack of suitable legal and regulatory framework for Core banking and electronic payment is another impediment for the adoption of new technology in the Ethiopia banking industry Findings also indicated that implementing modern core systems has a contribution to the modernization of banking industry in Ethiopia in particular and to the economic development of the country in general. Based on the above findings, the following recommendations were made. First, banks need to be mindful of the challenges associated with core banking deployments. These challenges, once understood should be mitigated properly and perfectly managed. Secondly, the small and medium banks must appreciate that technology is an enabler and should adapt to change that make the technology transformation. Lastly, banks that have not implemented their core systems should have plans to do so and should learn from the leaders on the benefits and challenges

Keywords: Core Banking, Commercial Banks of Ethiopia,

I. INTRODUCTION

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 (Wikipedia). 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. (Camgmeni 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.

The development of the core banking in Ethiopia is recent phenomena and not yet modernized.

The long awaited core banking project of the Ethiopian financial giant, Commercial Bank of Ethiopia

(CBE), will finally begin operating at the end of this month (March, 2016) connecting 35 of its branches, Capital learnt. Though it was the first bank to introduce Automated Teller Machine (ATM) in to the financial sector of the country, its growth has remained very slow.

Acquiring a technology known in the finance industry as core banking solutions has been an elusive target for the oldest and largest state owned commercial bank. Its rather younger competitors, such as Dashen, United Bank, Wegagen, Zemen, and Abyssinia have already been utilizing the system for a few years now. (CBE Capital report, 2016)

In July last year, the National Bank of Ethiopia (NBE) instructed all commercial banks in the country to adopt core banking solutions. NBE wants every major bank to use this technology so that eventually there will be a nationwide electronic payment system.

The long overdue IT procurement by the largest and oldest bank in the country was signed with an international technology vendor based in Switzerland, Temenos Group AG. The bank paid nearly 70 million birr for the software.

Transforming modern banking system in the Ethiopian banking industry is very crucial for the development of bank sector in the country. Since banks are a key for the economic development of any country, modernizing the bank services helps banks to increase their growth and contribute for the economic development of the country as well. Studies on the development of modern bank services in Ethiopia is scanty and to the knowledge of the researchers no study undertaken on the development of core banking system. This study, therefore aims at investigating the development of core banking system in Ethiopia.

1.1. Statements 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, 1997; Lee 2001).

However in country, like Ethiopia, where the information communication technology is under developed, core banking system development could faced many challenges. Technological challenges are related to the acquisition, installation and maintenance of the necessary hardware and software. These challenges are Security and Web site issues (Koved et al. 2001); the organizations data may face threats from hackers and data loss occasioned by things like viruses. Hackers may also proliferate bank system to transfer money from one account to another and this may make both the bank customers and the bank itself to lose huge sums of money. This may prove costly to the organization i.e. in their prevention Czerniawska & Potter, 1998; Alexander, 1998).

Generally, Core banking is mainly hampered by illegal access and use of restricted information. Commercial banks indicate that internet hackers and computer viruses are the main threats and also highlight that they spend significant proportion of funds on these factors

The impact of a core banking development is much more complex and pervasive across an organization than typical banking IT projects undertaken year after year, such as customer relationship management or branch teller implementations (Rakesh, 2004).

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In line with the above issues discussed, this study therefore aimed to fill the gap by answering the

following research questions;

- i) What are the factors leading to development of core banking systems
- ii) What challenges do banks in Ethiopia face in the process of core banking development
- iii) What influence does the core banking system development have on the performance of banks

II. The Concept of Core Banking

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). Abbate (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 (Chairlone 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, branch services, input for the general ledger, and data on credit limits, payments, and transfers (Claessens 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 fulfill 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 (Chairlone 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 longtime 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.

a. Core banking Services and Products

Core banking products and services are methods used by banking organizations to carry out their transactions at a center through centralized banking services. These services include Automatic Teller Machines (ATMs), Electronic Fund Transfer (ETF), mobile banking, online banking, Electronic Data Interchange (EDI) and telecommunication services.

b. Core banking Services and Products: Benefits and Challenges

Some of the benefits that accrue to an organization from implementation of Core banking are increased revenue since you will be able to reach more customers, improved customer satisfaction since services will be readily available and fast in their provision, cost reduction because it will not have to incur heavy wage bill, reduced space requirements and hence reduced rent or lease payments. Other benefits include increased efficiency since automation enables you to do more with less input, increased level of output and employee satisfaction and motivation since they will not have to toil really hard. Larger market share through attraction of new customers and customer loyalty may be gained (Czerniawska and Potter, 2000).

In almost all instances, you cannot have any benefit without incurring cost or facing challenges. The following are the challenges that you are likely to face in the implementation of core banking.

Your potential customers do not trust your site: The Internet allows mom-and-pop websites to look just as good -maybe even better than the websites of large corporations. All potential customers are well aware of

this and they will be unimpressed by a sophisticated layout and a professional logo. Potential customers do not trust the site they have just arrived at, and it must be your conscious decision to do what it takes to make them change their minds (Mahadevan and Venkatesh, 2000).

Security concerns, the site may be attacked by hackers who may use the organization's website to defraud you existing and other potential customers. Cost of acquisition installation and maintenance is also another issue that requires the commitment of huge resources to acquire the system, to continuously update it and repair incase of break down. You also have to invest in employee training or alternatively hire qualified employees who are usually expensive. Resistances by customers to adopt the new technology since most traditional customers are still shy of technology. They still don't want to deal with machines when carrying out their transactions instead they still want to deal with a physically present customer service employee; hence you may find that your system is not fully utilized (summer, 1971).

Reduced operation costs. When people are replaced by machines in an organization, the amount of salary paid out is reduced and hence the operation cost decrease (Grover and Ramanlal, 2000; Kare-Silver, 1998). 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, 1997; Lee 2001).

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Technology issues including costs, software and infrastructure; Core banking requires great expenditure in monetary terms. You need to acquire the hardware, software both initial and maintenance e.t.c. (Hoffman et al. 1999; Abeyesekera et al. 1999; Rahul et al. 2001)

III. RESEARCH METHODOLOGY

INTRODUCTION

The preceding chapter presented the review of the existing evidence on concepts, challenges and benefits of Core banking system. The results from a review of the literature are used to establish expectations for the relationship of the different determinants. Therefore, the purpose of this chapter is to present all the techniques and procedures, the underlying principles of research methodology and the choice of the appropriate research method for the thesis. The chapter includes the research approach used, Total population and sample size, sources of data, methods of data collection, and data analysis techniques.

3.1. Survey Design

This study has the intent to investigate the development of core banking system and its benefits and challenges. To do this, survey design is an appropriate method that were used in this study. Survey research according to Fowler (1993) is a means of gathering information, usually through self-report using questionnaires or interviews. Its purpose is to generalize from a sample to a population so that inferences can be made and it is also economical and rapid turnaround in data collection (Creswell, 2003). Moreover, as noted in Fowler (1986) it is also reasonable to use survey designs because of its benefits such as the economy of the design and the rapid turnaround in data collection and identifying attributes of a large population from a small group of individuals. Therefore, it is logical to apply survey method for this study. The survey was carried out by means of structured questionnaires which were distributed for General Managers, IT directorate, Customer service officers of all banks under the study.

3.2. Total population and sample size

The study is included all commercial banks currently registered with the national bank of Ethiopia. Currently total of 18 Commercial banks which are registered with National Bank of Ethiopia in with all of their head office locating in Addis Ababa (NBE report 2015). Therefore the researcher planned to incorporate all of these banks in its study due to their small number in size. So the total population is equal with the sample size.

3.3. Sources of data

Data is both primary and secondary. Primary data was collected by the use of questionnaires and secondary data was collected from National bank of Ethiopia and from all Commercial banks financial reports.

3.3.1. Primary data

Primary data was collected by means of structured questionnaires which are designed using likert scale and were

distributed to General Managers, Customer service officers, and IT directorate of all banks. The questionnaires were administered by the researcher during the study period.

3.3.2. Method of data collection

The major technique used to collect the data from the respondents was structured questionnaire which is developed based on the five points from No extent, little extent, Moderate extent, Great extent and Very great extent.

3.3.3. Data Analysis

As explained in the preceding part, the research was designed to follow a survey design. To this end, primary data by the means of structured questionnaire was collected. Data collected using questionnaires would be analyzed through descriptive statistics, frequency distribution, ratio, Tables Mean and Standard deviations were used. Statistical Package for the Social Scientists (SPSS) was used as a data analysis tool. It helps to describe what the data look like, where there center (mean) is, how broadly they are spread in terms of one aspect to the other aspect of the same data (Leedy, 1989). The SPSS was used to find out percentages, mean values, frequencies, correlations, etc. as main means for summarizing the data. Finally the output of the SPSS result presented and interpreted in light of research objectives and literature review.

IV. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter explains and discusses the results of findings based on the analysis done on the data collected. The results of the study are discussed by triangulating the different sources results. The discussion attempts to accomplish the objectives of the study and answer the research questions. The findings of the study are presented according to the research questions. There were 482 questionnaires distributed to the selected IT directors, General Managers, Customer service officers in commercial banks in Ethiopia. 433 questionnaires were returned which indicated a response rate of 90%. All the returned questionnaires were found to be correctly filled and fit for analysis.

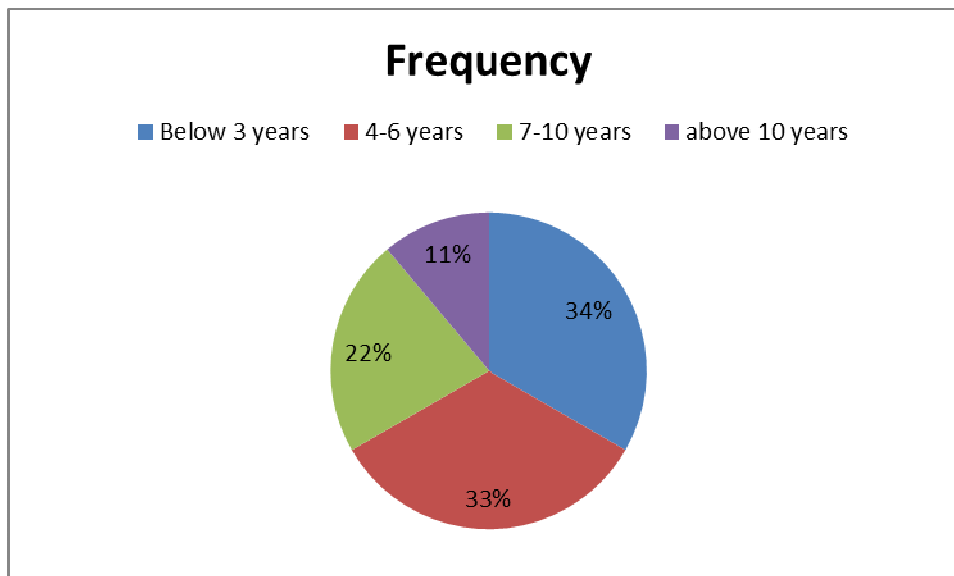
Number of year's banks has been using Core banking

Table 1.1. Years banks have been using core

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 3 years	6	33.3	33.3	33.3
	4-6 years	6	33.3	33.3	66.7
	7-10 years	4	22.2	22.2	88.9
	above 10 years	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

Source: SPSS results

The above table indicates the number of years that Ethiopian banks have been using Core banking. As it is indicated most of the banks 33.3% or 6 banks of them have used Core in the recent years for the last three years. 33.3 % are using the core in years between 4-6 years. 22.2% of them have been using between 7-10 years and there are only two banks which have been using the core system more than ten years these are Dashen bank and United banks. This means that the implementation of core banking in Ethiopian banking industry is recent phenomena. This also indicates that Cores that have been being used are not replaced. So banks in Ethiopia need to replace their Core with the most sophisticated technologies.



As it can be indicated in the above Chart majority (34%) of the banks in Ethiopia have been using Core banking below three years. (33.3%) using between 4-6 years, 22% are using between 7-10 years and only 11% or two banks i.e. Dashen bank and United bank above ten years.

The study had an objective of examining the benefits and challenges that banks would have in implementing core banking system. Respondents were required to rate the provided specific factors on the extent they had influenced the development of core systems. 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 factor affected implementation 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 that the item led to contribute to benefits and challenges from the implementation of core systems in the banks.

Need for Core Banking Solution

Items	Mean	Std. Deviation
Improve operational efficiency - reduce cost of operations	4.821	0.41349
Improve customer service	4.727	0.3552
Comply with Anti Money Laundering (AML)	4.524	0.7084

Source: SPSS result

Improve operational efficiency - reduce cost of operations

Core Banking will provide various alternative delivery service channels, which reduce cost and time taken for the transactions with a mean of 4.821 and standard deviation of 0.41349. Currently banks’ counter transaction costs are around Birr 13 per transaction. On the other hand, the transaction cost of withdrawal from an ATM is Br. 8. For net banking, the cost is Br. 5 per transaction. The centralized process of core banking will also improve efficiency by avoiding duplication of work in Head office from Branch Office (BO).

Improve customer service

Core Banking will improve customer services by providing services through alternate channels on 24 x 7 bases – ATM, Internet, Phone, SMS and Mobile Banking with a mean of 4.727 and standard deviation of 0.3552. Customers would be able to operate their accounts, and avail banking services from any post office on CBS network, regardless of where they maintain their account.

Comply with Anti Money Laundering (AML) / Know Your Customer (KYC) requirements

It is easy to comply with anti–money laundering norms through core banking with a mean of 4.524 and standard deviation of 0.7084. The AML norms require the post office to detect when a customer has opened multiple accounts.

4.2. Benefits in implementation of Core banking

There are various benefits that have been derived by banks in Ethiopia from the implementation of Core banking. The respondents were asked to indicate the extent to which their banks have benefited from the implementation of Core banking and products and the responses are as in

Table 1.1. Below. From the 5 point scale used, the table below gives the result.

	Mean	Std. Deviation
New customer centric strategies requiring new technologies	4.333	0.81649
Greater focus on business banking and personalized service	4.727	0.4522
Cost reduction and focus on efficiency	4.524	0.7084
Organic growth in customer numbers and product ranges	4.6060 4.5151	0.4961
Better risk management and compliance	4.5151	0.5075
To cope with competition	2.4062	0.5075
Merger/acquisition	4.3636	0.6527
To incorporate new and increased business		0.68341

Source: SPSS result

The major benefits derived from core banking are new customer centric strategies requiring new technologies (4.333), enable bank to have Greater focus on business banking and personalized service (4.727), provides Cost reduction and focus on efficiency (4.524), Organic growth in customer numbers and product ranges (4.6060), Better risk management and compliance (4.5151), To cope with competition (4.511), To incorporate new and increased business (4.3636).

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 than new core systems

The findings also concur with findings from a study done by Zineldin (2009). This study established that developing 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 core systems enable close and long-term relations to be created and developed with customers

4.3. Challenges Faced in implementation of Core banking

The implementation of core banking could not come without challenges. The tables below indicate the challenges that have been faced in implementation of core in Ethiopian banks

Table 4.5 Challenges Faced in implementation of Core banking (Descriptive Statistics)

Items	Mean	Sta. Deviation
capability of the software to meet requirements and expectation	4.6060	0.3169
complexity of legal integration	3.1562	1.19432
unavailability of the diverse skills required	4.0000	1.0000
understanding the functioning of the new core system environment	4.4375	1.18967
vendor capabilities and credentials	4.6965	0.5854
bank's business goals and alignment	3.4242	0.4961
data migration	3.2188	0.9272
resource availability	4.6060	0.5854
customer acceptance	3.1212	0.8164
security	3.2121	1.24434
weakening relationship with customers	4.5151	1.30098
empowering employees to use the new system	4.4356	0.8095
lack of specific laws to govern internet banking	3.0938	1.18415
lack of suitable legal and regulatory framework for e-commerce and electronic payment		
is another impediment for the adoption of new technology in banking industry	3.093	0.6139
lack of ICT infrastructure	4.696	0.5854
absence of competition between local and foreign banks	3.562	1.36192
ability of the business to change to fit the new system	4.4848	.95830

From the research data, the greatest challenge was capability of the software to meet requirements and expectation (4.6060), unavailability of the diverse skills required (4.000) understanding the functioning of the new core system environment (4.4375), vendor capabilities and credentials (4.6965), resource availability (4.6060), customer acceptance, empowering employees to use the new system, lack of ICT infrastructure, ability of the business to change to fit the new system. Several challenges were ranked least based on their magnitude: data migration security weakening relationship with customers' lack of specific laws to govern internet banking. Lack of suitable legal and regulatory framework for Core banking and electronic payment is another impediment for the adoption of new technology in banking industry.

The findings from this study agree with those from Rakesh (2004) 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 implementation. 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 implementing their core systems or having any major IT project.

4.4. Data Analysis and interpretation

From the descriptive statistics table 1.1 in the above many of the respondents replied that deployment of core banking and new technology would contribute to the great extent to the banks to focus on new customer centric strategies with a mean of 4.3333 and standard deviation 0.8164. and others responded to the very great extent that core banking enables banks to have greater focus on business banking and to provide personalized banking service to their customers such as to provide them with mobile banking products, internet banking products help customers and bankers have remote access of banking solutions with a mean of 4.7272 and smallest standard deviation of 0.4522.

From the table, respondents strongly opined that core banking has a positive impact and contribute to very great extent whereby it enables organic growth in customer numbers and wider product ranges therefore enhancing smart banking solutions and services to the customers and also enabling wider networking, with a mean of 4.6060 and a standard deviation of 0.4961.

Majority of the banks also highly agree that core banking has a great contribution in cost reduction as well as enable banks to focus on their efficiency with a mean of 4.524 and a standard deviation of 0.7084.

The other benefit that banks might enjoy from implementation of core is better risk management and compliance. In time when banks were not connected through core there was the risk of sharing data from different branches to main offices online. So, core enable banks to better manage their risk and compliance problems with the mean of 4.5151 and standard deviation of 0.5075.

The above table lists out those challenges which banks in Ethiopia facing while deploying core banking system. Modern banking implementation in Ethiopian banking industry is recent phenomena and even not being used by all banks. Some recently established banks still exists without implementing the core system. There are also banks which have established their core bank last year such as Enat Bank.

One of the most challenges in implementation of the core banking system in Ethiopia is capability of the software to meet requirements and expectation with mean of 4.6060 and with the standard deviation of 0.3169. Majority of the banks in Ethiopia are using old bank technologies. Due to this the current bank services relatively limited to only to opening of current account, transferring to others, and transfer to beneficiary, own account, checking the remaining balance

Many respondents agreed that lack of ICT infrastructure is a challenge in banking industry whereby it had a mean of 4.5454 and the highest standard deviation of 1.0923 meaning that the modern ICT infrastructure is not sufficient in Ethiopia resulting inefficiency in the banking industry. This is observed from the fact that the network interruption. This means that banks and government need to invest more resources to enhance ICT infrastructure to increase productivity of banks.

Core banking implementation needs diverse skills. It would be challenging if there is no skills as how to work core. From the above table it is determined that unavailability of the diverse skills required is one of the other challenges in implementing core with mean of 4.0000 and standard deviation of 1.0000 resulting with high cost and inefficient service delivery.

It is fundamental to know about the role of core banking. The above table shows that, It is one of the challenge in implementing core banking without understanding the function of the new core system environment with mean of 3.4375 and standard deviation of 1.18967 that causes less quality banking product and inability to satisfy the customers' need moreover it affects the profitability and effectiveness of the banking industry.

The ability and qualification of the software dealers is critical for core banking implementation. It is one of the most challenges of core banking in Ethiopia is vendors' capabilities and credentials with mean of 4.6965 and standard deviation of 0.5854 which is a serious

Resource availability is also another challenge in implementing core banking. Resources such as educated man power, modern technology and capital to finance these modern technology is the most existing challenges in Ethiopian banking industry with a mean of 4.6060 and standard deviation of 0.5854.

V. CONCLUSIONS AND RECOMMENDATION

In line with the general objectives of the study, the following conclusions were arrived.

Based on the results from data analysis, findings and interpretation above, it can be conclude as follows.

First, Commercial banks appreciate the core banking as evidenced by its wide adoption.

Although most Ethiopian commercial banks have introduced core banking and products, it is not yet very popular with most of their customers. This could be because the majority of the customers who the banks serve, lack enough access to information technology infrastructure, knowledge and skills. The banks should popularize the use of core banking by educating customers about their use and the advantages that come with it.

Secondly, most banks implement the core banking facilities for the sole purpose of meeting the organization's interests like profitability and cost reduction. They should instead put into consideration other external factors like competition with both local and foreign banks. There are no legal requirements that commercial banks use core banking. The government can introduce such regulation in order to improve the efficiency of the banking industry as well as to reduce the banking costs incurred by the people.

Thirdly, although the benefits of implementation of core banking are recommendable, the distribution of such benefits should be put into consideration. This is, for example, people who cannot access internet services can be reached out by improving on easily accessible and affordable facilities like mobile banking.

Lastly, although most of the challenges we came across are inherent, most of them can be reduced. Core banking in banks is mainly hampered by illegal access and use of restricted information. Commercial banks indicate that internet hackers and computer viruses are the main threats and also highlight that they spend significant proportion of funds on these factors.

Limitations

There was time and financial constraint in carrying out the research. The managers were actually too busy and reluctant to participate in the research and had to be really convinced to answer. Some respondents were biased since they feared disclosing the weaknesses of their banks.

Suggestion for Further Research

This study focused on the core banking products and services adopted by commercial banks and the benefits and challenges they face in adopting these services. Further studies can be focused on the perceptions of customers towards the core banking offered by the banks. It will also determine the benefits derived and challenges faced by customers who use such services.

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