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**CHALLENGES AND ISSUES OF CORE BANKING**  
**TRANSFORMATION OF PRIVATE BANKS IN MYANMAR**

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**(MBF-4<sup>th</sup> BATCH)**

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**CHALLENGES AND ISSUES OF CORE BANKING  
TRANSFORMATION OF PRIVATE BANKS IN MYANMAR**

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## **ABSTRACT**

This study focused on challenges and issues of CORE banking transformation of Private Banks in Myanmar. Two major objectives are to identify CORE banking transformation practices and analyze challenges and issues when implementing CORE banking transformation of selected Private Banks in Myanmar. There are 26 private banks and 4 stated own banks in Myanmar. 17 private banks are doing for CORE Banking transformation to allow a bank to centralize its record keeping, allow access from any location and go forward with digital banking. CORE Banking transformation is one of the recent developments for banking transformation in the field of banking and it has proved to be very useful in Myanmar. This study was carried out using a descriptive survey design with a questionnaire. Data was collected from 60 CORE banking members of selected Private Banks which are AYA (Ayeyarwady Bank), MCB (Myanmar Citizens Bank) and A bank (Ayeyarwaddy Farmers Development Bank) with different CBS Vendors during their CORE banking transformation process period. This data was analyzed using SPSS Version 22 and manipulated through descriptive statistics. Findings indicated that the main challenges and issues of CORE banking transformation evolve out its key entities which are banks' goal, data migration and bankers' availability and security infrastructure with customer centric strategies benefit. Utmost of the respondents are agreed that Data Migration and Security is the main challenges and issues on CORE banking transformation. And the study suggests observation on the benefit of CORE banking transformation of selected Private Banks and recommendation to major challenges and issues faced by Myanmar Private Banks.

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## **LIST OF ABBREVIATIONS**

AYA	Ayeyarwady Bank
A Bank	Ayeyarwaddy Farmers Development Bank
ATM	Automatic Teller Machine
CBS	CORE Banking Solution/Software
CORE	Centralized Online Real-time Exchange/Environment
IT	Information Technology
ICT	Information and Communication Technology

# **CHAPTER I**

## **INTRODUCTION**

Banking has changed over the years and evolved with the needs of the Myanmar economy. New trends are emerging in the recent years in Myanmar banking environment that are causing banks to realize the urgency of core-banking transformation. 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. 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.

Most of CORE Banking transformation efforts end up being a technological refresh of the gift infrastructure rather than being transformation in nature. Given the scale, cost, duration and risk involved in these transformation advantages with the focus on the end-goal of an active and flexible IT infrastructure that enhances customer experience. Transforming modern banking system in the Myanmar 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 banking transformation in Myanmar is scanty and to the knowledge of the researchers no study undertaken on CORE banking transformation.

## **1.1 Rationale of the Study**

This research study takes Challenges and Issues of CORE Banking Transformation of Private banks in Myanmar because CORE banking transformation is the important role in the banking and financial sector in Myanmar. There are 17 private banks using CORE Banking transformation which practices take two or four years for all processes to get complete transformation set. CBS transformation is critical that are causing banks to realize the urgency of banking transformation.

As bank look to improve internal IT efficiency in the current macroeconomic environment, they are turning to CORE banking transformation as a way to gain more internal cost savings, Today's CORE banking solutions (CBS) 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.

AYA (Ayeyarwady Bank), MCB (Myanmar Citizens Bank) and A bank (Ayeyarwaddy Farmers Development Bank) are during CORE banking transformation period with different vendor, condition, transformation period and scenario. These three banks' CBS vendor are AYA from legacy Max7 CBS ( Vietnam JITS's Optimal9 ) to Finacle (MISYS) – Fusion Banking Essence which will take 2 year transformation period with CBS to CBS transformation, MCB from legacy local Ability Distributed System and Manual flow to Temenos – T24 which took only 8 months transformation period and A bank from legacy local ACE's Distributed Multi-currency Banking System to Infosys – Finacle which will take one and half year transformation period with well-planned RFP and vendor selection process. Therefore, this study aims to analyze challenges and issues when implementing CORE banking transformation of Selected Private Banks in Myanmar.

## **1.2 Objectives of the Study**

The objectives of the study are as follow:

1. To identify CORE banking transformation practices of Selected Private Banks in Myanmar
2. To analyze challenges and issues when implementing CORE banking transformation in Selected Private Banks in Myanmar

### **1.3 Scope and Method of the Study**

Scope of the study would be CORE banking transformation of Private banks in Myanmar. And this study was only 60 responsible persons with 20 persons per selected bank who are CORE banking members selected to conduct this survey on challenges and issues of core banking transformation of private banks in Myanmar (Selected Private Banks : AYA, MCB and A bank).

This is a descriptive statistics method based mainly on CORE banking transformation of Private Banks in Myanmar. Both primary and secondary data have been used for fulfilling the objectives of the study. Structured questionnaire was designed to collect data pertaining to practices, challenges and issues of CORE banking transformation of private banks in Myanmar. The secondary data were also obtained from various sources such as journals, articles, reports, and website and so on.

### **1.4 Organization of Study**

This study is divided into five chapters. Chapter 1 presents the introduction of the study, Rationale of the study, Objective of the study, Scope and Method of the study, and organization of the study. Chapter 2 includes Concept of CORE Banking Solution CBS and CORE Banking Transformation. Chapter 3 is Profile of Private Banks in Myanmar, and Overview of CORE Banking Practices in Myanmar and CBS of Selected Private Banks. Chapter 4 presents Analysis of CORE Banking transformation in Private Banks in Myanmar. Chapter 5 is conclusion of this paper and findings, suggestions and recommendations are shown in this chapter.

## **CHAPTER II**

### **THEORETICAL BACKGROUND OF THE STUDY**

The chapter discusses the theories and concepts of challenges and issues of core banking transformation of private banks in Myanmar. They are Concept of CORE Banking Solution CBS and CORE Banking Transformation.

#### **2.1 Concept of CORE Banking Solution (CBS)**

CORE banking is refers to a centralized online real time exchange banking (Wikipedia). CORE Banking Solution/Software CBS 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). And CORE banking is a 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. Core banking functions will include transaction accounts, loans, mortgages and payments. Banks make these services available across multiple channels like ATMs, Internet banking, mobile banking and branches. Core banking services rely heavily on computer and network technology to allow a bank to centralize its record keeping and allow access from any location.

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).

The major Information Technology components of CBS consist of banking application software, various hardware apparatus and a network communications that create possible & disseminated front end banking operations and a centralized data processing at the back end. CBS is a banking solution (not a branch banking solution) and hence it is implemented at a central location to which various offices and service outlets of the bank are connected. The customer is no more the customer of a bank's branch but that of the bank itself. The software components used in CBS take care of almost all the core banking activities of the bank.

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). 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). 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)

### **2.1.1 Evaluation of CBS**

A change in core banking solutions can have a significant impact on banks and can be a career-altering event for CIOs. Not unlike other high-visibility projects, the success or failure of core banking system replacement projects can often be traced back to the due diligence efforts performed during the evaluation process. Just as a bank has unique characteristics and a distinctive culture, the requirements for a core banking system will differ among banks. So, while there isn't a single evaluation weighting or scoring method that works for every bank, there are common areas on which to focus additional time and resources to ensure a proper vendor and product fit. Many important aspects of vendor and product assessment should be reviewed, such as a best-of-breed approach versus a suite approach, as well as the operating system, hardware and database (Gartner Industry Research Note, Don Free, 2011)

However, drawing from Gartner's extensive research of bank requirements and core banking system selection projects, there are eight key criteria that have the most impact on core banking system decisions:

1. Functionality
2. Flexibility
3. Cost
4. Viability
5. Operational performance
6. Program management
7. Partner management
8. Customer references

Features of Core Banking Solution are as follows:

1. Customer relationship management features including a 360 degree customer view.
2. The ability to originate new products and customers.
3. Banking analytics including risk analysis, profitability analysis and provisions for capital reserve allocation and collateral management.
4. Banking finance including general ledger and reporting.
5. Banking channels such as teller systems, side counter applications, mobile banking and online banking solutions.
6. Best practice workflow process.
7. Content management facilities.



8. Governance and compliance capabilities such as internal controls management and auditing.
9. Security control and audit capabilities.
10. Core banking solutions to help maximize growth, increase productivity and mitigate risk.

### **2.1.2 Efficiency and Effectiveness of CBS Usage**

The effectiveness 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 (Gartner Industry Research Note G00212087, Don Free, 27 April 2011, RA20 08032011).

CBS Advantages to Customers are as follows:

1. Quicker services at the bank counters for routine transactions like cash deposits, withdrawal, passbooks, statement of accounts , demand draft etc.
2. Anywhere banking by eliminating branch banking
3. Provision of banking services 24\*7
4. Fast payment processing through internet, banking, mobile banking
5. Anytime anywhere banking through ATMs
6. All Branches access applications from central servers/datacenter, so deposits made in any branch reflects immediately and customer can withdraw money from any other branch throughout the world.
7. CBS is very helpful to people living in rural areas. Farmers can receive e payments towards subsidy etc. In his account directly, transfers of funds from the cities to the villages and vice versa will be done easily.

There are the main efficiencies of CBS are as follows:

1. Standard GL Framework
2. International Reporting Framework
3. Multi-currency, Entity and Branch
4. Multiple Types of Account and Operation

5. New Product and Branch ( Quick go to market ) Configurable Transaction Processing Rules Across Modules
6. Vendor Dependencies Reduction
7. Customer Centricity (Customer based Pricing, Processing and Tracking)
8. 360 Degree view of Relationship (Comprehensive view of Customer information and Transactional data)

A core banking migration is like getting spinal surgery whilst juggling bundles of burning dollar bills. Even if successful, it's expensive, dangerous and will get burned. Before get into the expense, the burning and the pain of core banking migrations, banks first need to define what a core migration is, and also describe all the aspects involved in making a core migration project something that is risky, costly and ultimately doomed to fail. And it is essentially the nerve center of a bank. Every transaction regardless of how or where it is generated eventually ends up at the core where reconciliation, reporting and accounting is finalized. The vast majority of banks have been in operation for more than 30 years, and as such are tied to vintage software running on hardware which, even if new, has a design blueprint older than most of the staff operating it.

## **2.2 CORE Banking Transformation**

CORE banking transformation is one of the most challenging initiatives a bank can undertake. It requires bold decisions and rigorous program implementation to achieve sustainable business and technology transformation. Mission-critical operations for a bank related to accounts, loans, payments, and securities, and constitute the heart and backbone of the bank's information technology infrastructure. Strides in the field of technology have redefined the role and structure of an ICT department in a bank.

Rapid strides in the field of technology redefined the use of technology in banking. The fact that using better technology and systems, banks can gain 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 effective operation and marketing tool. On the operational side, the power of IT in reducing transaction costs has basically made this a win-win situation for both banks as well as its clients. These have become the main drivers for getting the importance it has got in banks in recent times.

### **2.2.1 Need for Core Banking Solution**

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. Currently banks' counter transaction costs are around MMK 100-500 per transaction. On the other hand, the transaction cost of withdrawal from an ATM is MMK. 50-100. For net banking, the cost is MMK 10 per transaction. The centralized process of core banking will also improve efficiency by avoiding duplication of work in post offices from Branch Office (BO) to Sub Post Office (SO) to Head Post Office (HO).

Improve customer service: Core Banking will improve customer services by providing services through alternate channels on 24 x 7 basis – ATM, Internet, Phone, SMS and Mobile Banking. 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. The AML norms require the post office to detect when a customer has opened multiple accounts. This is not possible in Sanchay Post. Moreover, compliance with KYC norms is required to issue debit cards to the customers.

Integrate with electronic payment systems: Integration with electronic payment systems will allow Department of Post to participate in an inter-operable electronic payment network run by the National Payments Corporation of India. This will help in quick and safe transfer of funds through National Electronic Fund Transfer (NEFT) and Real Time Gross Settlement (RTGS).

### **2.2.2 Six Key Reasons**

1. Legacy systems do not allow banks to manage the growth in business
2. Highly Software Vendor Dependences
3. The efficiency of the overall System architecture
4. Loss of competitive advantage
5. Governance, risk and compliance issues
6. Other Related issues

### **2.2.3 Three Main Challenges**

The thought of transforming a financial institution's core banking system can be a daunting prospect to many bank executives. One of the biggest barriers is the high cost of implementation. Core banking replacements are very expensive, and they can take anywhere from 3 to 6 years to implement. The initial investment can be a deterrent because many of the core applications in banks today still use very old technology that has much lower running costs compared to the replacement cost of a new core system. To

avoid that large investment, some banks use digital technology only for their front-end customer-facing systems such as websites and stick with their old systems for their mid-tier or back-end systems.

1. Continuous improvement: Improve IT capabilities and bank flexibility to get the most out of the core system. This involves making several small changes within different departments.
2. Targeted intervention: Precise modifications to address specific developments or channel opportunities.
3. Transformational plan: Redefine the end-state to align all organizational capabilities and achieve a substantial increase in performance or competitive positioning.

Ultimately, it is up to each bank to determine which route to take depending on how quickly they want to reach their digital destination.

# **CHAPTER III**

## **PROFILE AND PRACTICES OF CORE BANKING**

### **TRANSFORMATION OF PRIVATE BANKS IN MYANMAR**

This chapter includes the background Profile of Private Banks in Myanmar, Overview of CORE Transformation Practices, and CBS of Selected Private Banks. It also presents how many Myanmar private banks are using CBS and Vendor Information which appear in this chapter are based on information and materials from news and survey as well as it is based on the private banks' report and websites.

#### **3.1 Profile of Private Banks in Myanmar**

Myanmar has the least developed financial sector of all countries in Southeast Asia, and Myanmar's financial sector cannot adequately fulfill its role as a financial intermediary. However, due to the recent reform process, the sector has already undergone tremendous changes. Steps to develop the capital market are under way, the Yangon Stock Exchange was established in late 2015, and the insurance market, formerly monopolized by the state, has been liberalized. Nevertheless, capital and insurance markets still only play a minor role, and the financial sector continues to be dominated by banks. While state-owned banks currently account for about half of the assets, they are struggling to maintain pace with the speed of reforms and the high growth rates of their private sector peers. However, given the low level of development of the banking sector and the size of the potential market, growth potentials continue to look promising (GIZ Banking Report, 2017).

Despite the current reforms, the legal framework as well as the financial infrastructure of the banking industry still has a long way to go in order to meet international standards. The main challenges ahead for the banking sector are the management of the reforms, including the pace thereof, the development of human resources and the trust of the public. These challenges become even more important when taking into consideration the two facts that foreign banks have been allowed to enter the Myanmar market starting from 2015 and that Myanmar has joined the single market of the ASEAN Economic Community in 2015. The financial system in Myanmar is dominated by the banking sector and is the least developed in Southeast Asia. A sound financial system is an essential pillar for the development of every economy. The financial sector mobilizes savings and allocates credits, thereby promoting economic

growth. It enables coping with economic uncertainties by hedging, pooling, sharing and pricing risks. The financial sector furthermore provides modern payment services, facilitating efficient monetary transactions. An efficient and effective financial sector hence reduces the cost and risk of producing and trading goods and services. The financial sector thus makes an important contribution to economic growth (GIZ Banking Report, 2017).

The current financial sector in Myanmar can fulfill its role as a financial intermediary only to a limited extent. For almost five decades, Myanmar's population and economy faced harsh restrictions under the rule of a military junta which set up a strict socialist regime (ADB, 2012). The international sanctions under the military rule led to international isolation of the nation. The former Asian granary Myanmar has become the poorest country in Southeast Asia, with a Gross Domestic Product (GDP) per capital of USD 1,204 in 2015. By way of comparison, in 2015, Laos has a per capita GDP of USD 1,812, Indonesia of USD 3,346 and Thailand of USD 5,816 (WB, 2016). Furthermore, Myanmar's financial sector is the least developed in the region (GIZ Banking Report, 2017).

The Myanmar banking sector is particularly facing challenges in the pace and nature of the regulatory reform process, in developing human resources, and in re-establishing public trust in the banking sector. For the time being, four major challenges for the banking sector should be highlighted: (i) the well-sequenced and carefully-managed implementation of the new Financial Institutions Law and other relevant rules, regulations and instructions, (ii) the development of human resources, (iii) the development of technology and infrastructure, and (iv) the gaining of public trust. With the new CBM Law (2013) and the new Financial Institutions law (2016) as well as other relevant laws such as the new MAC Law (2015), the legal framework under which banks operate is changing on a large scale and at a fast pace. The direction of the legal reform process is clear: Myanmar is heading towards international good practices and increasing competition in the financial sector. At the same time, it has to be noted that these laws remain rather general and will still be further specified with the help of secondary rules and regulations. During the recent reform process, the banking sector in Myanmar has already undergone tremendous changes. The upcoming years will continue to bring about changes under the newly enacted Financial Institutions Law (GIZ Banking Report, 2017).

The future reform process needs to be a carefully sequenced and well-managed one. Coordination and cooperation among the institutions involved will prove essential

for this to be the case. In a liberalized financial sector, financial services could be designed to better meet the demands of the people and enterprises, and hence access to finance would improve and poverty could be alleviated. In order for the potential benefits of a liberalized banking market to materialize, the associated potential risks also need to be carefully weighed up and managed. Regulations need to ensure that the risks that accompany liberalization and a growing banking business can, on the one hand, be managed properly by the Myanmar banks and, on the other hand, also adequately be supervised by the CBM. These two prerequisites require huge effort from both the banks and the CBM. The best legal framework is of little use if it cannot be implemented and enforced properly. In order to ensure appropriate supervision and proper bank management, it is necessary to foster good corporate governance, reliable data and transparency as well as adequate risk management as they are all inevitable prerequisites and as such they still need to be further promoted in Myanmar. The Central Bank must furthermore pay attention to its own resources when navigating the future reform paths. The supervisory capacities have to especially keep up with the regulatory developments as well as the developments of the banks (GIZ Banking Report, 2017).

### **3.2 Overview of CORE Banking Transformation Practices in Myanmar**

Building IT infrastructure for the modernization of banking is another challenging task for private banks in Myanmar. Selection of suitable partners, programs and CBS at reasonable cost, and giving trainings on IT to their staff are sometimes complex and time-consuming and need heavy investment.

#### **3.2.1 CBS Vendor and Private Banks' CBS Usage**

Myanmar continues to present a challenging environment for bank transformation. The way forward will certainly not always be easy: too great are the various challenges and risks for banking transformation process especially in CORE Banking Transformation. There are two main banking solution vendors in Myanmar such as ACE and MIT.

ACE Data Systems Ltd. was founded in 1992 as a small software house and IT training center. Nowadays, ACE Data Systems Group has grown into a group of nineteen companies with over six hundred employees with business operations in software development and system integration, outsourcing, IT infrastructure and cyber security, education services and e-commerce. As a pioneer in software industry, ACE Data Systems Ltd. (ACE) introduced Myanmar's first computerized accounting system in

1993. Subsequently, ACE introduced various software solutions for banking and finance sector with INFOSYS Finacle Banking Solution, retail and distribution sector, manufacturing sector, hotel, tourism and hospitality sector and become a leading software development and system integration company in Myanmar.

MIT provides a comprehensive suite of integrated core banking solutions powered by the latest technologies with Oracle FLEXCUBE Banking Solution, service-oriented architecture (SOA) and open standards. MIT remains at the forefront of digital banking transformation in Myanmar as we enabled the 1st ATM, National Payment Network, International Card Payment and Mobile banking as the technology partner. Today, MIT is capitalizing on 20 years' of experience to help customers thrive in digital age delivering safe and secure innovative technologies. Twenty years of continuous growth is a solid testament to confidence and credibility from our customers for what MIT does. Today, MIT is a team of 400 professionals across five offices in Myanmar and Singapore, with the development work centralized at MIT Innovation Hub in Yangon.

The Table (3.1) shows that 26 Private Banks in Myanmar are using banking software with respective vendor at present. Nine Private Banks is still using the distributed banking solution which is not international centralized banking software. These banks are Yadanabon Bank, Yangon City Bank, Asia Yangon Bank, Small and Medium Industrial Development Bank, Rural Development Bank, Innwa Bank, Naypyitaw Sabin Bank, Glory Farmer Development Bank Limited (G Bank) and Mineral Development Bank.



**Table (3.1) Banking Software Usage of Private Banks in Myanmar**

No.	Name of Bank	CBS Vendor Information
1	Myanmar Citizens Bank Ltd	TEMENOS-T24
2	First Private Bank Ltd	Finastra (MISYS)-Fusion Essence
3	Co-operative Bank Ltd	TEMENOS-T24
4	Yadanabon Bank Ltd	MIT-iCBS
5	Myawaddy Bank Ltd	INFOSYS-Finacle
6	Yangon City Bank Ltd	MIT-iCBS
7	Yoma Bank Ltd	MISYS-Fusion Essence
8	Myanmar Oriental Bank Ltd	TEMENOS-T24
9	Asia Yangon Bank Ltd	MIT-iCBS
10	Tun Foundation Bank Ltd	Oracle FLEXCBUE
11	Kanbawza Bank Ltd	Oracle FLEXCBUE
12	Small & Medium Industrial Development Bank	ACE-IBS,IBL
13	Global Treasure Bank Ltd	INFOSYS-Finacle
14	Rural Development Bank Ltd	MIT-iCBS
15	Innwa Bank Ltd	ACE-IBS,IBL
16	Asia Green Development Bank Ltd	INFOSYS-Finacle
17	Ayeyarwaddy Bank Ltd	JITS-Max7, MISYS-Fusion Essence
18	United Amara Bank Ltd	NEPAL(Mercantile Office System)PUMUORI Enterprise
19	Myanma Apex Bank Ltd	Oracle FLEXCBUE
20	Naypyitaw Sabin Bank Limited	MIT-iCBS
21	Myanmar Microfinance Bank Limited	TEMENOS-T24
22	Construction and Housing Development Bank Limited	TEMENOS-T24
23	Shwe Rural and Urban Development Bank	Oracle FLEXCBUE
24	Ayeyarwaddy Farmers Development Bank (A Bank)	INFOSYS-Finacle
25	Glory Farmer Development Bank (G Bank)	ACE-IBS,IBL
26	Mineral Development Bank	MIT-iCBS

Sources: Surveyed data

**Table (3.2) CORE Banking Solution Usage of Private Banks in Myanmar**

No.	Name of Bank	CBS Vendor Name
1	Myanmar Citizens Bank Ltd	TEMENOS-T24
2	First Private Bank Ltd	Finastra (MISYS)-Fusion Essence
3	Co-operative Bank Ltd	TEMENOS-T24
4	Myawaddy Bank Ltd	INFOSYS-Finacle
5	Yoma Bank Ltd	MISYS-Fusion Essence
6	Myanmar Oriental Bank Ltd	TEMENOS-T24
7	Tun Foundation Bank Ltd	Oracle FLEXCBUE
8	Kanbawza Bank Ltd	Oracle FLEXCBUE
9	Global Treasure Bank Ltd	INFOSYS-Finacle
10	Asia Green Development Bank Ltd	INFOSYS-Finacle
11	Ayeyarwaddy Bank Ltd	JITS-Max7, MISYS-Fusion Essence
12	United Amara Bank Ltd	NEPAL_PUMUORI
13	Myanma Apex Bank Ltd	Oracle FLEXCBUE
14	Myanmar Microfinance Bank Limited	TEMENOS-T24
15	Construction and Housing Development Bank Limited	TEMENOS-T24
16	Shwe Rural and Urban Development Bank Limited	Oracle FLEXCBUE
17	Ayeyarwaddy Farmers Development Bank Limited (A Bank)	INFOSYS-Finacle

Sources: Surveyed Data

And Table (3.2) shows currently 17 Private Banks are using international CORE banking Solution. Myanmar Citizens Bank, Myanmar Oriental Bank, Construction and Housing Development Bank (renamed Construction, Housing and Infrastructure

Development Bank), Co-operative Bank and Myanmar Microfinance Bank are using TEMENOS-T24 CBS which have the most customer in Myanmar Bank Market. Yoma Bank, First Private Bank and AYA Bank selected MISYS-Fusion Essence CBS which is called now as Finastra core banking solutions.

### **3.2.2 CORE Banking Practices of Selected Private Banks**

AYA Bank (Ayeyarwady Bank) was licensed by the Central Bank of Myanmar on 2 July 2010 and relicensed under the Financial Institutions Law 2016 as a full service universal bank. The bank has grown rapidly over the past seven years to become the second largest in the country, with [234] branches, [1.4m customer], Kyat [4.7] trillion customer deposits and [150 billion] Shareholders' Equity as at the end of September 2017. Top 100 depositors represent about 6% of total deposits, underlining the general public's confidence in the bank. Transformation will improve access to secure, reliable financial services for Myanmar's under banked Yangon, Myanmar, 2 June 2017, AYA Bank has selected the Misys Fusion Banking suite to support a transformative project which will overhaul its core banking system, digitalize operations and improve overall efficiency throughout the organization. This transformation will also enable AYA Bank to offer internal stakeholders a better service. This includes improving process efficiency and minimizing operational risk, providing accurate and reliable reporting, supporting decision-making and improving the bank's speed-to-market in launching new products and services in branches across the country. The Misys partnership-driven approach and commitment to remain closely engaged with AYA Bank will also be beneficial over the longer term as AYA Bank uses the integrated Fusion Banking solution suite to anticipate future needs, deliver growth and plan regional expansion that stretches beyond Myanmar's borders. Expansion of the Misys footprint in Myanmar is testament to the fast transformation taking place in the region as banks strive to modernise and keep one step ahead of the technological advancements changing their customers' lives. Big Byte International, a Misys In Fusion partner, has been instrumental in supporting the Misys journey in Myanmar and Asia Pacific, and is now investing in creating regulatory framework tools for Myanmar using the Misys Fusion Fabric architecture, in addition to building a team of local domain experts to support Misys in the region. (AYA Website)

Myanmar Citizens Bank (MCB) was established in 1991 by Myanmar Special Company Act 1950 and commenced banking operations on 2nd June 1992 at Kyauktada, Yangon. The Authorized Capital of MCB is 75 Billion Kyats and its Paid-up Capital is 52 Billion Kyats. MCB is one of the first banks to take initiative to be listed in Yangon Stock

Exchange in August and conducts trading starting on 26th August, 2016. To date, the bank has 36 branches and about 700 employees. MCB holds Authorized Dealer License and is currently conducting International Banking services since 2003. With over 26 years of experience in banking services in Myanmar, MCB provides efficient banking services to individual customers as well as business clients. On 26th January 2018, listed Myanmar Citizens Bank held CORE Banking System (CBS) Signing Ceremony with Temenos, one of the world's leading CBS vendors, to embark on the digital transformation journey. Temenos already has a number of takers of its flagship T24 platform in the country, namely Co-operative Bank (CB Bank), Myanmar Oriental Bank and Fullerton Financial. Listed on the Yangon Stock Exchanged (YSX) in 2018 and celebrating its "Silver Jubilee" in 2017, MCB will be taking major steps for its digital transformation in 2018. A stable and reliable CBS is the key to offer varied products and services to compete with other players in the market. T24 offered by Temenos was selected after thorough evaluation of many world leading vendors. This signing ceremony with Temenos is one of the most important milestones of MCB's 25 years history. This strategic partnership will see MCB leapfrog in integrated digital banking solutions for the customers to meet the ever-changing needs of innovative Fintech products and services. Upon completing the implementation, MCB will be in a position to "anywhere and anytime" banking. (MCB Website)

Ayeyawaddy Farmers Development Bank, widely known as A bank, a public company limited was formed on December 22nd, 2014 under the 3/2014 Financial Law ratified on July 30th, 2014 by the Central Bank of Myanmar. A bank is running nationwide commercial banking operations under licenses authorized by Central Bank of Myanmar. A bank was formed by a set of companies specialized in agriculture businesses throughout the supply chain. The main purpose of A bank is to bring development in agro-based industry through value chain financing i.e. increasing the access of finance at every stage of value chain\_starting from production to consumption. A bank also intends to support SME development and "Financial Inclusion of Unbanked Population" by delivering technology-enabled, diversified banking products and services through multi-channels approach. BENGALURU (India) and YANGON (Myanmar): Infosys Finacle, part of EdgeVerve Systems, a wholly-owned subsidiary of Infosys (NYSE: INFY), and Ayeyarwaddy Farmers Development Bank, widely known as A Bank, a leading commercial bank in Myanmar, 25th July 2018 announced the bank's decision to adopt the Finacle solution suite to power the bank's digital transformation.(A Bank Website).

**Table (3.3) Selected Private Banks with CBS Vendor and Branch Information**

<b>No.</b>	<b>Bank</b>	<b>Vendor</b>	<b>No. of Branch</b>	<b>Local Partner</b>	<b>Signing Date</b>
1	AYA	Finacle	242	Null	2nd June 2017
2	MCB	Temenos	36	Techmill (India)	26th January 2018
3	A Bank	Infosys	10	ACE (Myanmar)	25th July 2018

Sources: Surveyed Data

The above Table (3.3) shows the CBS vendor with local partner information for Myanmar Selected Private Banks (AYA, MCB, A Bank) which are using different CBS Vendors and AYA does not have local partner for CORE Banking transformation from JITS (Max7) current CBS to Finacle (Fusion Banking Essence) because AYA have strong CORE banking members as internal bankers, IT members and project members. MCB rolled out CBS Go-Live with all branches with T24 since August 2018 after 7 months CBS project period. A Bank will roll out CBS Go-Live on coming year 2019 with stress and strong user assessment testing (UAT). Table (3.3) show the comparison of Selected Private Bank (AYA, MCB and A Bank) CBS Vendor and Branch Information with Singing Date for CORE banking transformation practices.

## **CHAPTER IV**

### **ANALYSIS OF CHALLENGES AND ISSUES OF CORE BANKING TRANSFORMATION OF SELECTED PRIVATE BANKS IN MYANMAR**

This chapter analyses challenges and issues of CORE banking transformation of selected Private Banks in Myanmar. There are four sections in this chapter. They are survey design, demographic factors of CORE banking members, analysis on practices, challenges and issues of CORE banking transformation.

#### **4.1 Survey Design**

This study has the intent to identify CORE banking transformation of Selected Private Banks in Myanmar and analyze their challenges and issues. To do this, survey design is an appropriate method that were used in this survey. As a survey instrument, a structured questionnaire was used with three sections.

They are that section 1 is demographic factors of the respondents such as Gender, Age, Education, Occupation Level and Banking and Finance Experience, section 2 CORE Banking transformation Benefit and section 3 their challenges and issues. Each practice, challenge and issue was rated with five point Likert Scale ranging from “1” strongly disagree to “5” indicated strongly agree.

About 60 CORE banking members were requested to complete the questionnaire. After collection the required data, the data were analyzed by using the SPSS (Statistical Package for Social Sciences) software of version 22.

#### **4.2 Demographic Factors of Respondents**

The demographic characteristics of the respondents for the random sample 60 from AYA (Ayeyarwady Bank), MCB (Myanmar Citizens Bank) and A bank (Ayeyarwaddy Farmers Development Bank). These characteristics include Gender, Age, Education, Occupation Level and Banking and Finance Experience.

##### **4.2.1 Number of Respondents by Gender**

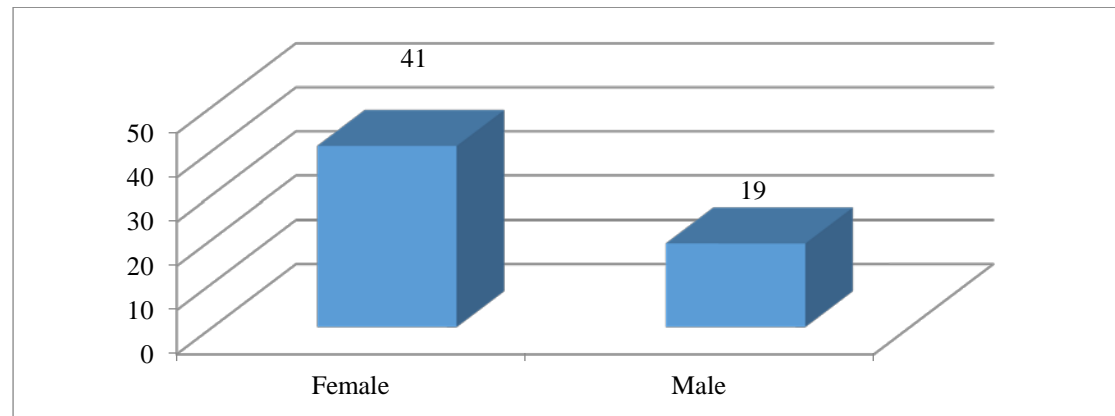
The respondents are not only males, but also females. Table (4.1) and shows the gender of respondents.

**Table (4.1) Number of Respondents by Gender**

Category	No. of Respondents	Percentage
Female	41	68.3
Male	19	31.7
Total	60	100

Source: Survey Results 2018

**Figure (4.1)  
Number of Respondents by Gender**



Source: Survey Result 2018

As shown in Table 4.1 and Figure 4.1, the sample consist of 41 (68.3 %) females and 19 (31.7 %) males. According to the results, female respondents are higher than the male respondents. Therefore most of CORE banking members working for local banks in Myanmar are female.

#### **4.2.2 Number of Respondents by Age Group**

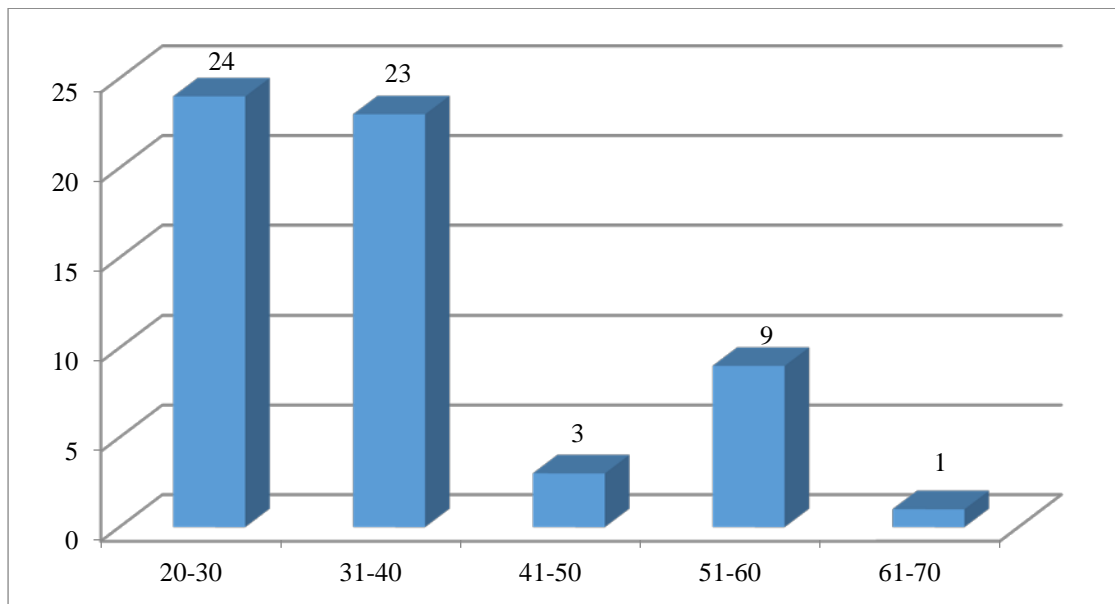
Ages of respondent are divided by five categories. They are between 20 and 30, between 31 and 40, between 41 and 50, between 51 and 60 and above 60.

**Table (4.2) Number of Respondents by Age Group**

Age ( in year )	Frequency	Percentage
between 20 and 30	24	40.0
between 31 and 40	23	38.3
between 41 and 50	3	5.0
between 51 and 60	9	15.0
Between 60 and 70	1	1.7
Total	60	100

Source: Survey Results, 2018

**Figure (4.2) Number of Respondents by Age Group**



Source: Survey Results, 2018

According to the table (4.2) and figure (4.2) 24 CORE banking members fall in the age group between 20 and 30 years, followed by 23 employees fall between 31 and 40 years, and 9 employees fall between 51-60 years, 3 employees fall between 61 and 70 years. One would observe from the table that most of the employees were in age bracket 20 – 30 years.

#### **4.2.3 Number of Respondents by Education Level**

Although, there are four categories of education level in questionnaires: Graduate, Post Graduate, Master and Doctorate level. These are expressed in table (4.3) and figure (4.3).

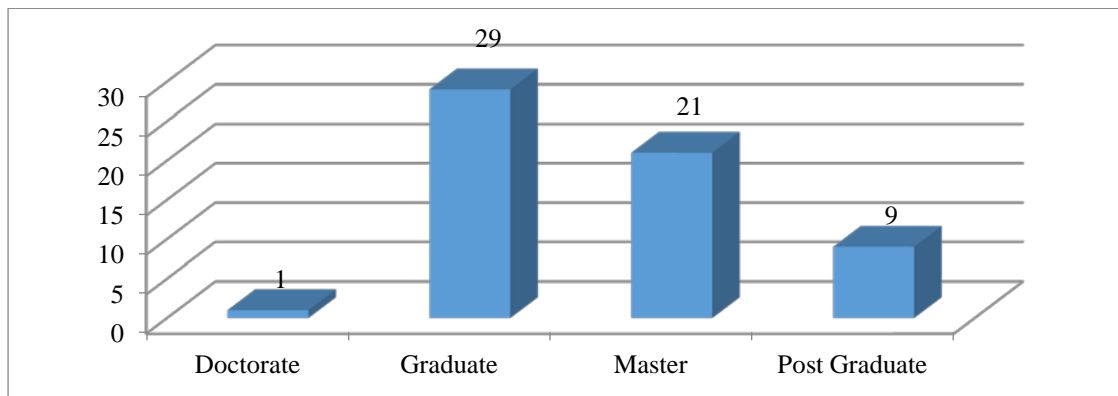
**Table (4.3) Number of Respondents by Education Level**

Education Level	No. of Respondents	Percentage
Graduate	29	48.3
Post Graduate	9	15.0
Master	21	35.0
Doctorate	1	1.7
Total	60	100

Source: Survey Results, 2018



**Figure (4.3) Number of Respondents by Education Level**



Source: Survey Results, 2018

According to Table (4.3), since the study is conducted with 60 CORE banking members of AYA, MCB and A bank, among them 48.3% of the employees are graduated from university, 35% of the employees are Master degree, 15 % are post graduate and 1.1 % are doctorate. From all of CORE banking members, maximum number of these selected private banks are graduate and mostly are fresher, young and active.

#### **4.2.4 Number of Respondents by Occupation Level**

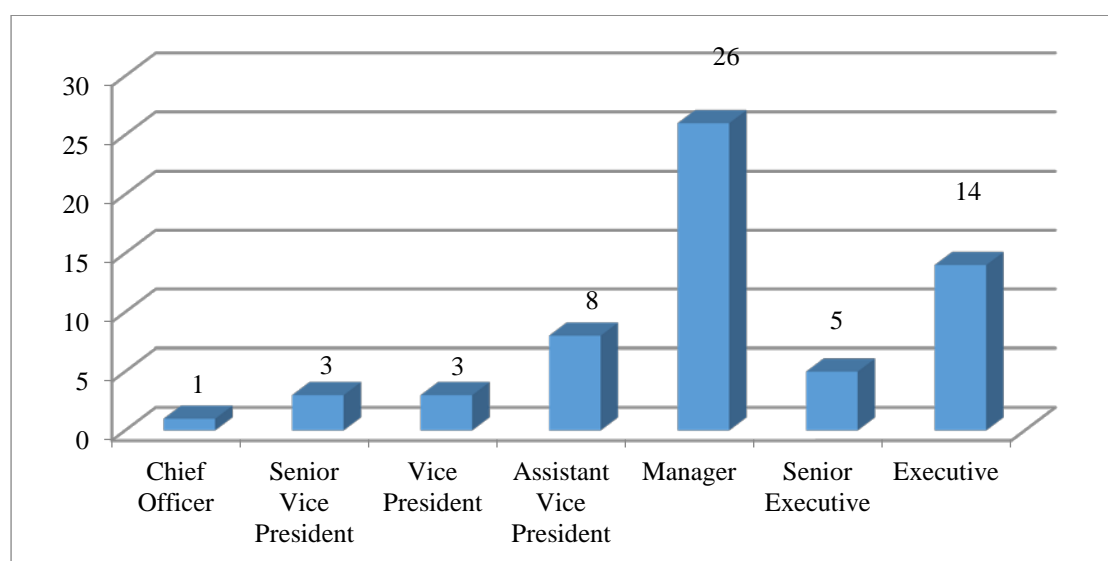
In this study, there are seven levels for occupation in questionnaires. They are Executive, Senior Executive, Manger, Assistant Vice President, Vice President, Senior Vice President and Chief Officer.

**Table (4.4) Number of Respondents by Occupation Level**

<b>Occupation Level</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Executive	14	23.3
Senior Executive	5	8.3
Manager	26	43.3
Assistant Vice President	8	13.3
Vice President	3	5.0
Senior Vice President	3	5.0
Chief Officer	1	1.7
Total	60	100

Source: Survey Results, 2018

**Figure (4.4) Number of Respondents by Education Level**



Source: Survey Results, 2018

From table (4.4), 43.3 % of CORE banking members are Manager, 23.3 % of these members are Executive, 13.3 % are Assistant Vice President, 8.3 % are Senior Executive and 5.0 % are Vice President and Senior Vice President, and 1.7 % of Chief Officer Level. Therefore, the majority of sampled employee of transformation member of these selected Private Banks are Manager.

#### **4.2.5 Number of Respondents by Banking and Finance Service Experience (Years)**

In this survey, there are three banking and finance service experience in years such as below 3 years, between 4 and 6 years and above 7 years. According to table (4.5) and figure (4.5), CORE banking members fall in year of experience between 4 and 6 year by 24 members, above 7 years by 22 members and below 3 year by 14 members respectively. One would observe from that table that most of CORE banking members have banking and finance experience between 4 and 6 years. Therefore they have some enough experience to implement CBS projects.

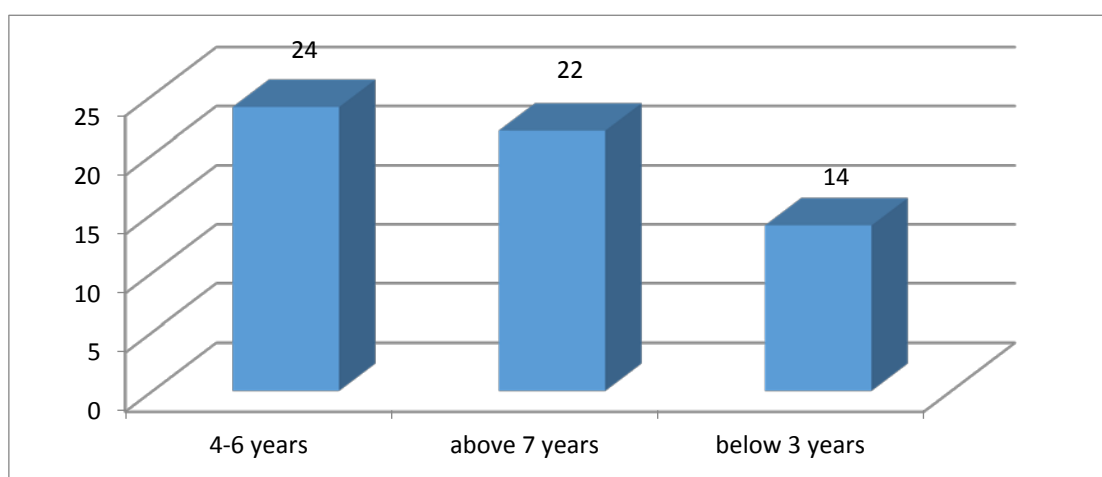
**Table (4.5) Number of Respondents by Banking and Finance Service Experience Level**

Experience Level	No. of Respondents	Percentage
Below 3 Years	14	23.3
4 – 6 Years	24	40.0
Above 7 years	22	36.7
Total	60	100

Source: Survey Results, 2018

**Figure (4.5)**

### Number of Respondents by Banking and Finance Service Experience Level



Source: Survey Results, 2018

### 4.3 Analysis on CORE Banking Transformation Benefit

There are various benefit that have been derived by banks in Myanmar from CORE banking transformation. The respondents were asked to indicate the extent to which their banks have benefited from the transformation of CORE banking and products and the responses are as in table (4.6).

**Table (4.6) Analysis on CORE Banking Transformation's Benefits**

No.	Statement	Mean	Std. Deviation
1	New customer centric strategies require new technologies.	4.02	0.948
2	CBS is greater focus on retail banking and corporate banking.	4.08	0.696
3	Benefit is only cost reduction with focus on efficiency.	3.90	0.817
4	Organic growth is in customer numbers and product range.	3.90	0.838
5	CBS gives better risk and compliance management.	4.08	0.944
6	CBS copes with competition.	3.97	0.712
7	CBS makes incorporate new and increased business.	3.87	0.812
Overall Mean		3.974	

Source: Survey Results,

The major benefits in sequence derived from CORE banking transformation are CBS is greater focus on retail banking and corporate banking (4.08), CBS gives better risk and compliance management (4.08), new customer centric strategies require new technologies (4.02), CBS copes with competition (3.97), benefit is only cost reduction with focus on efficiency (3.90), organic growth is in customer numbers and product range (3.90), and CBS makes incorporate new and increased business (3.87). Therefore the key benefits from CORE banking transformation are CBS greater focus on both retail and corporate banking, better risk and compliance management, new customer centric strategies require new technologies.

#### **4.4 Analysis on Challenges and Issues of Business and Operation on CORE Banking Transformation**

CORE banking transformation could not come without challenges and issues of Business and Operation side of banks all over the world. It is therefore important to study whether the huge investments made by the banks are justifiable and are in position to yield desired results in terms of improving overall business performance and also need to consider whether they can survive today without CBS and CORE banking transformation. The table (4.7) below indicate 22 statements for challenges and issues that have been faced in CORE banking transformation in Myanmar local banks.

**Table (4.7) Analysis on Challenges and Issues of Business and Operation on CORE Banking Transformation**

No.	Items	Mean	Std. Deviation
1	Functionality (Capability of software to meet requirements and expectations)	3.83	0.886
2	Unavailability of the diverse skills required	3.43	0.871
3	Vendor capabilities and credentials	3.83	0.905
4	Bank's business goals and alignment	4.13	0.596
5	Resource availability	4.10	0.543
6	Customer Acceptance	3.83	0.867
7	Empowering employees to use the new system	3.97	0.712
8	Lack of specific laws to govern i-banking, m-banking and agency banking	3.43	1.11
9	Ability of the business to change to fit the new system	4.05	0.565
10	Weakening relationship with customers	2.90	1.115
11	Greater focus on retail banking and corporate banking	3.87	0.999
Overall Mean		3.76	

Source: Survey Results, 2018

From the research data, the greatest challenge of business and operation of CORE banking transformation with mean value was resource availability (4.10), bank's business goals and alignment (4.13), ability of the business to change to fit the new system (4.05).

Several challenges and issues were ranked least based on their magnitude: weakening relationship with customers, lack of specific laws to govern i-banking, m-banking and agency banking. Some bank customers do not trust the bank website have just arrived at, and it must be bank's conscious decision to do what it takes to make them change their minds not to be weak relationship with customers and lack of specific laws.

#### **4.5 Analysis on Challenges and Issues of Technology on CORE Banking Transformation**

Linkage between IT, operation and business performance is indirect and ambiguous, on the grounds that contributions of IT have both tangible and intangible components. IT Infrastructure is more than just the Core Banking software. It involves selection of multiple ancillary applications (e.g. Branch automation) and also other investments in hardware, networking and third party software.

Technological challenges are related to the acquisition, installation and maintenance of the necessary hardware and software. These challenges are security, need for parameterized product, outdated platforms and technologies that restricted adoption of new technologies and systems, phased out technology, reliability on vendor, lack of ICT infrastructure, lack of suitable legal and regulatory framework for e-commerce and e-payment is another impediment for the adoption of new technology in banking industry, data migration, understanding the functioning of the new core system environment, complexity of legacy integration. Security concerns, the website may be attacked by hackers who may use the organization's website to defraud bank's existing and other potential customers. Technology issues and challenges of CORE banking transformation are in table (4.8) with mean and standard deviation. The table (4.8) below indicate ten statements for challenges and issues that have been faced in technology on CORE banking transformation in Myanmar local banks.

**Table (4.8) Analysis on Challenges and Issues of Technology on CORE Banking Transformation**

No.	Items	Mean	Std. Deviation
1	Need for parameterized product	3.58	1.004
2	Outdated platforms and technologies that restricted adoption of new technologies and systems	3.39	0.996
3	Phased out technology	3.37	0.996
4	Reliability on Vendor	3.68	0.911
5	Lack of ICT infrastructure	3.25	1.129
6	Lack of suitable legal and regulatory framework for e-commerce and e-payment is another impediment for the adoption of new technology in banking industry	3.50	0.893
7	Security	4.18	1.049
8	Data Migration	4.15	0.633
9	Understanding the functioning of the new core system environment	3.93	0.578
10	Complexity of legacy integration	3.63	0.736
Overall Mean		3.66	

Source: Survey Results, 2018

From the research data, the greatest challenge of technology of CORE banking transformation with mean value was security (4.18) and data Migration (4.15). Security concerns, bank website may be attacked by hackers who may use the organization's

website to defraud bank's existing and other potential customers. Data migration is critical for CORE banking transformation. It is one of the most challenges of CBS in Myanmar Local banks.

Table (4.9) represents the analysis on the three studies factor of overall effect of CORE banking transformation of Private Banks in Myanmar based on CORE banking transformation benefit, challenges and issues of business and operation, and technology on CORE Banking Transformation, it will be taken the overall average of each factor by their corresponding items, for instance “Operation and Business’s Challenges and Issues” as one of the three studies factors, it will take the average of eleven items on questioner on this study.

**Table (4.9) Overall Effect of CORE Banking Transformation of Private Banks in Myanmar**

No.	Statement	Mean	Std. Deviation
1	Overall Mean of CORE Banking Transformation Benefit	3.97	0.823
2	Overall Mean of Challenges and Issues of Business and Operation on CORE Banking Transformation	3.76	0.833
3	Overall Mean of Challenges and Issues of Technology on CORE Banking Transformation	3.66	0.892

Source: Survey Results, 2018

Result obtained from the analysis on the CORE banking transformation, the maximum mean is 3.974 with standard deviation 0.823 was found in the CORE banking benefit. It can be assumed that CORE banking transformation process, benefit is the highest effect in the daily banking activities. The mean 3.76 with standard deviation 0.833 was found in the challenges and issues of operation and business on CORE banking transformation. And the mean 3.66 with standard deviation 0.892 was found in the challenges and issues of technology on CORE banking transformation. But those means are higher than standard mean 3, it can be concluded that there has high effect of CORE banking transformation on Private Banks in Myanmar.

## **CHAPTER V**

### **CONCLUSION**

This chapter identifies CORE banking transformation practices of Selected Private Banks in Myanmar and analyzes challenges and issues when implementing CORE banking transformation in Selected Private Banks in Myanmar. This study provides observation on the benefit of CORE banking transformation of Selected Private Banks and recommendation to major challenges and issues faced by Myanmar Private Banks on CORE banking transformation.

#### **5.1 Findings**

Identifying CORE banking transformation practices, the study analyzed with the three factors of CORE banking transformation's benefit, and business, operation and technology of challenges and issues. The analysis is on the challenges and issues of CORE banking transformation of selected Private Bank (AYA, MCB and A Bank) in Myanmar. The preference for each factor is considered in term of five point Likert Scale, namely strongly agree, agree, neither agree nor disagree, disagree and strongly disagree.

The analysis is discussed the finding of the factor that CORE banking transformation's benefit of selected Private Banks in Myanmar with seven statements. The overall mean scores of new customer centric strategies requiring new technologies, enable bank to have greater focus on business banking and personalized service, and better risk management and compliance is very much higher, it can be concluded that there is more effective and efficient CORE banking transformation than distributed banking system according to the results of respondent average agreement level. The higher the mean score, the higher the extent that the item led to contribute to benefit of CORE banking transformation of Private Banks in Myanmar. Most of Private Banks in Myanmar on CORE Banking Transformation have challenges and issues at business and operation side. This was analyzed based on eleven items. From the research data, the greatest challenge of business and operation of CORE banking transformation with mean value was resource availability, bank's business goals and alignment, ability of the business to change to fit the new system. And based on ten items, the greatest challenge of technology of CORE banking transformation with mean value was security and data migration. Security concerns, bank website may be attacked by hackers who may use the organization's website to defraud bank's existing and other potential customers.



Overall mean scores of this is very high. Therefore, it can be concluded that challenges and issues not only business and operation but also technology faced by Myanmar Private Banks on CORE banking transformation are high. Utmost of the respondents who are the main CORE banking members are agreed that Data Migration and Security is the main technology challenges and issues on CORE banking transformation because Data Migration is the most critical and complex part of CORE banking transformation process and security is the major information technology infrastructure.

It was concluded that although most of the challenges came across are inherent, most of them can be reduced. The key challenges and issues of CORE banking transformation evolve out its key entities which are banks' goal, data migration process and core banking member's availability and security infrastructure with customer centric strategies benefit.

## **5.2 Suggestions**

In benefits of CORE banking transformation, the characteristics named updated such that when CORE Banking process is on, the minimum mean score comparing to the other characteristics, it could be suggested that Private Banks in Myanmar get benefit from CORE banking transformation. Regarding to CORE banking transformation's benefits function, one characteristics among seven characteristics is found to be weaknesses. It is to incorporate new and increased business. Therefore, the management of Private Banks in Myanmar should observe this function in detail to incorporate new and increased business.

Although most Myanmar local 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.

It can be suggested that CORE banking transformation had major challenges faced during and before transformation period. To prevent issues, the management should give more resources including training to all banking members and end user of CBS and make stressful testing for data migration. Bank's top management also have to invest in

employee training or alternatively hire qualified employees who are usually expensive for CORE banking transformation.

### **5.3 Needs for Further Research**

This study is only cover analyzing the challenges and issues of selected Private Banks (AYA, MCB and A Bank) in Myanmar by three factors that benefits, and challenges and issues of CORE banking transformation because there are time and financial constraint in carrying out this research. Therefore, further studies can be focused on the challenges and perceptions of customers and CORE banking members towards the CORE banking transformation by all Private Banks and State Owned Banks in Myanmar.

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**APPENDIX**  
**ANALYSIS OF CHALLENGES AND ISSUES OF CORE BANKING**  
**TRANSFORMATION OF SELECTED PRIVATE BANKS IN**  
**MYANMAR**  
**(QUESTIONNAIRES)**

**Section: A**

**Demographic Factors**

Please Tick”✓“ in the box that best describes you.

(1) Gender

(a) Male

(b) Female

(2) Age (Years)

(a) between 20 and 30

(b) between 31 and 40

(c) between 41 and 50

(d) between 51 and 60

(e) between 60 and 70

(3) Education level

(a) Graduate from University

(b) Post Graduate

(c) Master

(d) Doctorate

(4) Occupation level

(a) Executive

(b) Senior Executive

(c) Manager

(d) Assistant Vice President

(e) Vice President

(f) Senior Vice President

(g) Chief Officer

(5) Banking and Finance Service Experience Level

(a) Below 3 Years

(b) 4 – 6 Years

(c) Above 7 years

## Section: B

### Analysis on CORE Banking Transformation's Benefits

Please Tick “✓” in the box that best describes you.

(1) Strongly Disagree (2) Disagree (3) Neither Agree or Disagree (4) Agree (5)

Strongly Agree

No.	Statement	1	2	3	4	5
1	New customer centric strategies require new technologies.					
2	CBS is greater focus on retail banking and corporate banking.					
3	Benefit is only cost reduction with focus on efficiency.					
4	Organic growth is in customer numbers and product range.					
5	CBS gives better risk and compliance management.					
6	CBS copes with competition.					
7	CBS makes incorporate new and increased business.					

## Section: C

### Analysis on Business and Operation of Challenges and Issues on CORE Banking Transformation

Please Tick “✓” in the box that best describes you.

(1) Strongly Disagree (2) Disagree (3) Neither Agree or Disagree (4) Agree (5)  
Strongly Agree

<b>N o.</b>	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Functionality (Capability of software to meet requirements and expectations)					
2	Unavailability of the diverse skills required					
3	Vendor capabilities and credentials					
4	Bank's business goals and alignment					
5	Resource availability					
6	Customer Acceptance					
7	Empowering employees to use the new system					
8	Lack of specific laws to govern i-banking, m-banking and agency banking					
9	Ability of the business to change to fit the new system					
10	Weakening relationship with customers					
11	Greater focus on retail banking and corporate banking					

## Section: D

### Analysis on Technology of Challenges and Issues on CORE Banking Transformation

Please Tick “✓” in the box that best describes you.

(1) Strongly Disagree (2) Disagree (3) Neither Agree or Disagree (4) Agree (5) Strongly Agree

No.	Items	1	2	3	4	5
1	Need for parameterized product					
2	Outdated platforms and technologies that restricted adoption of new technologies and systems					
3	Phased out technology					
4	Reliability on Vendor					
5	Lack of ICT infrastructure					
6	Lack of suitable legal and regulatory framework for e-commerce and e-payment is another impediment for the adoption of new technology in banking industry					
7	Security					
8	Data Migration					
9	Understanding the functioning of the new core system environment					
10	Complexity of legacy integration					