

**YANGON UNIVERSITY OF ECONOMICS  
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PROGRAMME**

**INFLUENCING FACTORS ON EFFECTIVENESS OF CORE  
BANKING SYSTEM IN PRIVATE BANKS IN MYANMAR**

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(EMBF - 5<sup>th</sup> BATCH)**

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# **INFLUENCING FACTORS ON EFFECTIVENESS OF CORE BANKING SYSTEM IN PRIVATE BANKS IN MYANMAR**

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## **ABSTRACT**

This study is to determine the influencing factors on effectiveness of Core Banking System in selected private banks in Myanmar. There are 27 private banks, 4 stated own banks and 13 foreign banks, so total 44 banks are doing the financial transactions in Myanmar. In this analysis, the relationship between the operational factor and the effectiveness of Core Banking System through the use of Linear Regression model. 120 respondents (20%) out of total 600 employee who are working at different position at selected private banks which are KBZ (Kanbawza Bank), CB bank (Co-porated Bank) and UAB (United Amara Bank) with different core banking vendors during their core banking function. Statistical survey is performed by analyzinfg the 5 factors in terms of flexibility, cost, reliability, speed and awareness which are determined whether they are the good signs of influencing factors on effectiveness of Core Banking System. Correlation analysis shows that; awareness, cost and reliability have significant relationship of all these variables to the effectiveness of Core Banking System. The other dimensions of flexibility, speed, operational factors show no distinction to change the effectiveness of Core Banking System. The study's finding influencing factors on the Core Banking System' effectiveness depends on awareness, cost and reliability. To order to be reduce operating cost, the customers can be consistent and the loyal customer can be received. The study recommends that the influencing factors on effectiveness of Core Banking System is followed, established that more employees have the skills to perform their work effectively. And need to be maintain the speed of bank transaction.

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## **LIST OF ABBREVIATIONS**

CBM	Central Bank of Myanmar
CBS	Core Banking System
ATM	Automatic Teller Machine
POS	Point of Sale
KBZ	Kanbawza Bank
CB	Co-operative Bank Ltd
UAB	United Amara Bank
IT	Information Technology
ICT	Information and Communication Technology
GDP	Gross Domestic Product
IFRS	International Financial Reporting Standards
SWIFT	Society for Worldwide Interbank Financial Telecommunication
ISP	Internet Service Provider

# **CHAPTER I**

## **INTRODUCTION**

In any country, financial services sector occupies a unique place among all business sectors. It plays a vital role as a catalyst for overall economic development, seeding growth in other sectors by providing the necessary funds to various economic agents, namely private individuals and corporations. Today's business environment is very dynamic and undergoes rapid changes as a result of technological innovation, increased awareness and demands from customers. The banking industry is no exception and financial institutions are required to adapt to rapidly changing business environment and adopt technology-based solutions in order to serve the customers with efficient and cost cutting solutions.

Core Banking System (CBS) brings a functional necessity to the banks. Its timely introduction of various products to suit the diverse needs of customers. Flexible, consistent, secured and cost-effective CBS enable banks to remain competitive in a volatile economic climate, ever increasing competitiveness and continuous pressure to meet regulatory requirements. International Core Banking System provides various alternative delivery service channels, which reduce cost and time taken for the transactions and also intended to improve banks operational effectiveness.

Core (Centralized Online Real-time Environment) 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 is often associated with retail banking and many banks treat the retail customers as their core banking customers. Businesses are usually managed via the corporate banking division of the institution. Core banking covers basic depositing and lending of money. Core banking functions include transaction accounts, loans, mortgages and payments. Banks make these services available across multiple channels like automated teller machines, Internet banking, mobile banking and branches. Banking software and network technology allow a bank to centralize its record keeping and allow access from any location.

The banking system in Myanmar developed since 2010 and private banks allowed processing foreign currency to private banks at early 2012. All of private

banks are using computerized system, this system is distributed data in the duration. And then this system has challenged the revaluation of multicurrency, inability to offer direct SWIFT messaging service, not smoothly in adding new products and services. So, some of big private banks change to centralize Core Banking System at 2012.

Core Banking System provides various alternative delivery service channels, which reduce cost and time taken for the transactions and also intended to improve banks operational effectiveness. The purpose of this research is to investigate the effectiveness on Core Banking System in selected private banks in Myanmar.

## **1.1 Rationale of the Study**

The study aims to identify and analyze the effectiveness of Core Banking System in selected private banks in Myanmar because Core Banking System would potentially shape the future banking industry landscape. It is crucial to understand if the Core Banking System would bring a good return on investment for the local banks.

Since 2012, big bank like KBZ and CB have adopted international Core Banking System to offer products and services to customers in more efficient way and to remain competitive in today's business environment. Among the 27 private banks in Myanmar, 22 banks have adopted international Core Banking Systems such as Infosys, Temenos, Flexcube, Misys whereas the rest of the banks are still relying on the domestic Core Banking System like ACE-IBS and MIT-iCBS.

Core Banking System is timely introduction of various products to suit the diverse needs of customers is a functional necessity to the banks. Technology provides the cutting edge to come out with customer centric products and delivery channels in time. Banking technology has greatly changed from the days of back office automation to the electronic, streamlined and integrated solutions of today.

Nowadays, most banks use core banking applications for the smooth running of their service. This system allows the entire bank's branches to access applications from centralized data centers. It basically means that the deposits made are automatically reflected on the servers of the bank and customer can withdraw the deposited money from any branch of the bank worldwide (NBE, 2011). Such systems also now have the ability to address corporate clients' needs, offering a robust banking solution. So, increase in customer loyalty, employee efficiency, reduction in

operational and support expenses, reduced IT maintenance, and immediate access to analytics.

In order to determine the effectiveness of the international Core Banking System in selected banks, the researcher used five parameters (Essayas Taye, 2016) there are flexibility, cost, reliability, speed, awareness. A questionnaire designed based on those parameters.

## **1.2 Objective of the Study**

To determine the effectiveness of Core Banking System in selected private banks in Myanmar

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

The scope of the study would be Core Banking System used in private banks in Myanmar. And this study was only 120 responsible persons with 20 persons per selected bank who are core banking users selected to conduct this survey on the factors influencing the using Core Banking System in selected private banks.

The descriptive statistical approach is used to analyze the factors affecting the Core Banking System in selected bank. The online survey is also conducted with faithful from KBZ, CB and UAB bank to collect the primary data. Selected private bank are selected by using sample random sampling method. Secondary data are also collected 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, method and scope of the study, and organization of the study. Chapter (2) explores theoretical background of the study, concept of CBS, element of CBS, element of CBS for effectiveness, advantages and disadvantages of CBS, conceptual framework of previous study, conceptual framework of this study. Chapter (3) describes profiles and products of CBS in private banks in Myanmar, profile of banks in Myanmar, products and services of banks in Myanmar, profile and services private banks, products and services for selected banks. Chapter (4) presents analyzes of effectiveness of core

banking system in selected private banks. Chapter (5) is findings and discussion, suggestions, needs for further research.

## **CHAPTER II**

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

The chapter discusses the theories and effectiveness of Core banking system in private banks in Myanmar. They are Concept of Core Banking System, Elements of Core Banking System, Elements of Core Banking System for Effectiveness and Advantages and Disadvantages of Core Banking System.

#### **2.1 Concepts of Core Banking System**

Core banking can be defined as a back-end system that processes banking transactions across the various branches of a bank. New accounts are floating, loans servicing, interest calculation, deposits and withdrawals processing, and customer relationship management activities are among the vital Core banking services.

Core Banking Systems are designed to allow current and future customers to have greater freedom in their account transactions. Transactions are now easier, quicker and less complex with technological developments. The fact that these transactions can be carried out remotely has made Core Banking Systems a big feature of banking these days from any part of the world. Core banking also significantly reduces operational costs, ensuring lower execution demands for manpower. It also allows customers to be more accountable. Application based software frameworks make Core Banking Systems more user friendly and efficient. The advantages of Core Banking Systems are multifaceted keeping pace with rapidly changing economies, simplifying banking processes and making them more convenient for customers, and extending banks' scope to remote locations. (Vijayakumar, 2019)

This took at least one day for a transaction to be reflected in the account a few decades ago, because each branch has its local servers, and the server data in each

branch was sent in a batch to the data center servers at the end of the day. Core Banking System was a major change, as central banking approaches forced banks to spend huge amounts of money in infrastructure building. Once this infrastructure was in place, banks began to explore new opportunities in the fields of ATMs, debit cards and internet banking, which in turn increased the demands of Core Banking solutions (Alemayehu, 2011).

Using SWIFT, Western Union, MoneyGram and other networks in financial technology, it has entered international business communication. Actually, new application software is introduced to their data center any time banks want to launch new services or products. It eventually means that the engagement of consumers through products and services is not really 100 % standardized. Even though, banks that have invested enormous amounts in the Core Banking System still provide service primarily on manual service from many customers of the bank.

Today, without information and communication technology, we can not talk about the performance of a banking system. The role of the banking sector in the economy has been expanded. It is now possible to process financial transactions and payments quickly and easily. In the dynamic financial market, banks with the latest technology and techniques are more effective. We were able to generate more and more companies, leading to greater productivity.

Core banking is about understanding the needs of customers; providing them with the right services through the right channels at the right time. Core Banking Solutions are known as the forum where communication technology and information technology are combined to address the core needs of banking. Computer software is built here to conduct core banking operations such as transaction reporting, passbook management and interest deposits, customer records, balance of payments and withdrawal.

Today's technologies are able to complete these tasks through multiple distribution channels in an integrated browser-based environment. Experts believe that core banking substitution is the most complicated, risky and costly IT project that any bank can pursue. Core Banking System forms the backbone of the IT infrastructure of a bank and includes records of all customer transactions and their processing. A minor error in this area cause the entire system of banks to crash and damage its reputation. Technology is a key driver of change: flexible development,

market speed, real-time delivery and a single customer experience across all business lines. Many of the largest institutions still struggle with the self-imposed impairment of old- fashioned, obsolete and insufficient core systems. Two factors stand in the way: risk and cost in carrying out a core banking replacement.

## **2.2 Elements of Core Banking System**

**Automated Teller Machines (ATM):** It is an electronic terminal that enable customers to access banking services at almost any time. ATM card allows a cardholder to withdraw cash from banks even when they are closed. In addition, a consumer needs an ATM card and identification number (PIN).

**Point-of-Sale Transfer Terminals (POS):** generally, includes a computer, cash register and other equipment or software for the sale of goods or services. The system allows consumers to pay with a check card, a new debit card brand, for retail purchases. This card looks like a credit card but the difference significant. The sales money is immediately transferred from the debit card holder's account to the store's account.

**Internet banking:** referred to as online banking or web banking, the result of PC banking, is a more advanced service, a system that allows bank customers to access accounts and general information about banking products and services or to make account transactions directly with the bank via a personal computer using the internet as the distribution channel.

**Mobile banking:** is best described as the newest channel in a banking to provide a convenient way to use mobile phones or other mobile devices to conduct banking transactions.

**Credit and Debit Card:** It is a regular card that allows a holder to buy goods without having to pay cash immediately. Credit card is based on the principle of revolving credit. In general, the amount of money that a cardholder may spend a month using the card is reduced. The holder pays a percentage of the remaining at the end of each month. The debit card is used to buy goods and services or to receive advances for which payments are made in a bank account from existing funds.

### 2.3 Elements of Core Banking System for Effectiveness

It is a well-established fact that the preferences and beliefs impact of individual users have an impact on almost any system's performance or practice. This study discusses the efficacy criterion of the Core Banking System from the viewpoint of the customers. The following five parameters were used more often than others in relation to Core Banking System and research goals among so many different measuring parameters.

**Flexibility:** A flexible system of Core Banking is a major contributor to the ability of a bank to respond quickly to changing market conditions. Gartner Industry Research note reported in 2011, Core Banking Solutions should be versatile, includes application communication and data integration, workflow and components-based architectures.

**Cost:** Reducing cost is now Core Banking services fundamental standards. Many banks look at Core Banking from a cost savings point of view, as the cost per transaction is much lower than for other service delivery channels is widely reported in ecommerce literature.

**Reliability:** Reliability is an attribute of any computer-related component that performs consistently with its specifications. It has long been considered one of three related attributes that must be taken into account when producing, buying, or using a software product or part. Similarly, Reliability has been described as consistent performance and reliability.

**Speed:** Core banking facilitates transactions by disseminating the information or data needed at a faster and faster pace. In many ways, the banking industry is being revived at the moment. One of these fields has to do with digitalizing processes that used to be based on paper. The implementation of ICT, on the other hand, improves the productivity of the employee in the bank

**Awareness:** Socio-economic factors, variables of personality and behavior of communication all contributed to innovation. Innovativeness is the degree to which an individual or other unit of adoption adopts new ideas relatively early compared to other members of a system.

### 2.4 Advantages and Disadvantages of Core Banking System

A Core Banking System guarantees reliable and error-free delivery of financial services to clients when well implemented, thus contributing to the efficiency and performance of the banks. Some of the most positive impacts of deploying CBS in banks:

1. Makes the internal staff more competent
2. Minimizes human intervention thereby limiting errors
3. Helps prevent frauds and thefts with real-time banking facilities
4. Reduces operational costs
5. Aids in studying changing customer demands
6. Facilitates decision making through reporting and analytics.

Core Banking System provides consumers with 24/7 online shopping, mobile banking and ATM services so that customers do not have to visit a branch for their banking needs. Centralization helps to evaluate, track and deliver the product. Aspects such as product adjustment, increases in interest rates and payment of interest can be performed centrally for all the branches. Centralized system enhances the protection of the device and user management. Manpower for IT administration is required in traditional banking at each branch. But only one position is needed in core banking. Therefore, the need for and cost of manpower reduction. IT manpower is used efficiently because of the single point resource available.

All bank transactions in the Core Banking System have a direct impact on General Ledger and Profit and Loss Account. This gives a real-time analysis of the bank's financial position and situation. This helps to make timely and efficient financial management decision-making; banking is a very important and complex role today.

Centralize Core banking supports in better product analysis, monitoring, and rollout. Aspects such as adjustments in interest rates, product adjustment and allocation of interest can be performed collectively for all the branches from one location. Bank respond quickly to the business scenario and the needs of customers. It provides the bank with a competitive edge.

Each customer becomes the bank's client, not a branch. With unique ID / Account Number, the bank can access the customer's accounts centrally. As such, customer profile, description of his services and consumer behavior can be well

understood about the bank's business. This view of the consumer offers the bank the opportunity to decide how to improve business and marketing strategies.

The availability of continuously live updated centralized data ensures accurate report / statement generation at all times. It helps tremendously to make decisions as well as to send them to various authorities. The bank's operating performance is increased due to the Bank as a whole's rapid reporting.

Nonetheless, the central banking system has some drawbacks. If the network or bank servers' malfunction, the banking process in the branches are broken down at the data center. So, we need to prepare backup plan for operation consecutive and customers' reliable. And the costs as well as the risks are high, but the benefits are far greater. Financial institutions that have already announced plans to undertake such projects, quickly reap the benefits and set an example for others in the industry.

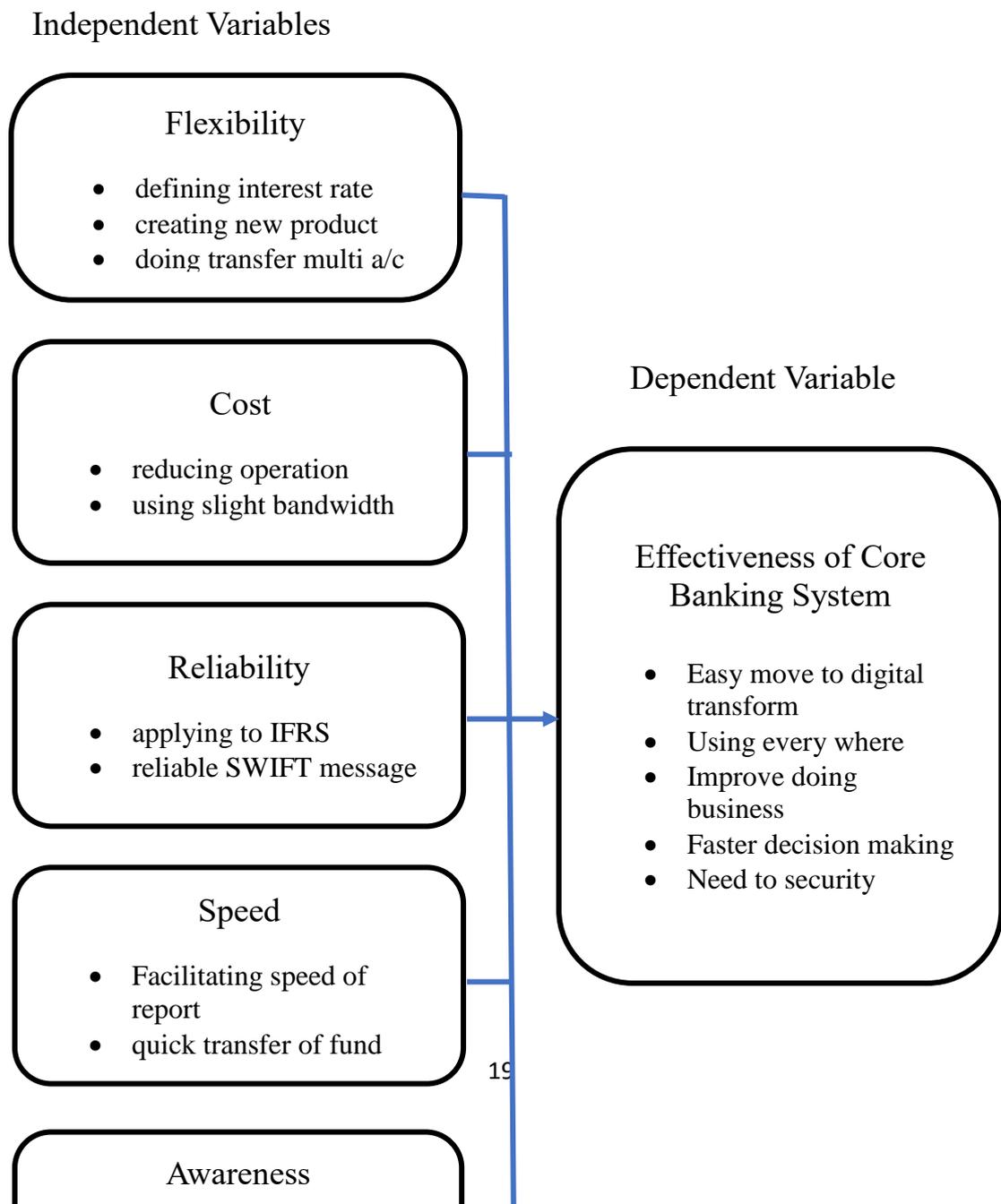
## **2.5 Conceptual Framework of Previous Study**

The purpose of this study is to investigate the effectiveness of Ethiopia's Core Banking System with particular reference to Buna International Bank. Descriptive survey approach has been used for this purpose. This research is the quantitatively and qualitatively examination of the data collected. It is a well-established fact that the desires and values of individual users influence almost every system's efficiency or practice. This review examines the parameter of Core Banking System's effectiveness from the perspective of the customer. The researcher has analyzed and presented the actual data collected from Bank's customers through questionnaires and observation of researchers. While BIB customers were distributed among the 400 questionnaires in the selected branches of the bank. The researcher used six parameters based on reviews literature to measure the effectiveness of Core Banking System, namely; flexibility, cost, reliability, assurance, speed and awareness. This earlier study indicates that consumers are more reluctant to join new technologies with little risk. The website should therefore be designed by banks to address security and trust issues. In addition, bank needs to be concerned with consumer understanding about the successful uses of core banking system products. There is no doubt, however, that BIB makes sincere efforts to popularize the core banking services and products.

## **2.6 Conceptual Framework of this Study**

The conceptual framework for this research was developed on the basis of the environment and nature of the industry by adapting the study. In this study, the influencing factors are flexibility, cost, reliability, speed and awareness are independent variable on effectiveness of Core Banking System.

**Figure 2.1 Conceptual Framework of this Study**



Source: Adopted from Essayas Taye Lemma, 2016

### **CHAPTER III**

## **PROFILE AND PRODUCTS OF CORE BANKING SYSTEM IN PRIVATE BANKS IN MYANMAR**

This chapter provides the history profile of Myanmar's private banks and the products of the selected private banks ' Core Banking System. It also shows how many private banks in Myanmar use CBS in this chapter are focused on news and survey information and materials as well as on the study and websites of private banks.

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

The people of Myanmar and the economy of the country have been living through an age of harsh restrictions under the rule of a military regime for nearly five decades. Since 2010, reform efforts by the Myanmar government and the opening up of the economy have triggered economic growth and high hopes for millions of low-income households. The banking sector is one focus of the new government's economic reforms. A quick look at the history of the banking sector in Myanmar help explain the current situation. Myanmar's modern banking sector went through five different phases the British colonial era until 1948; the post-independence period from 1948 to 1962; the military-socialist regime from 1962 to 1988; the military

regime after 1988 with far-reaching economic reforms starting in 2010; and finally, the reforms began in November 2015 under the new NLD government. In the British colonial era from 1826 to 1942, Burma's banking system, as it was then called, was influenced entirely by the British rulers. The first central bank originated from the Indian Reserve Bank's Ran-goon branch in 1939. A total of 20 banks operated in the country by the end of the colonial era, most of them with headquarters abroad. Nevertheless, after the Japanese defeat, foreign banks returned and the position of a central bank was taken over by the Union Bank of Burma. In 1948, Burma became independent and under the new parliamentary democracy the banking sector flourished. At that time, more than one third of the banking industry contributed to Burma's gross domestic product and the Burmese banking sector was considered to be the most advanced in the world. (GIZ Banking Report, 2018)

After the 2010 election quasi-civilian government has pursued a series of political and economic reforms. Prudential controls have been relaxed and full autonomy has been granted to the central bank. In January 2016, the new Financial Institutions Law was enacted on the basis of international best practices. Licenses were granted to several new private banks. Today in Myanmar there are 27 domestic private banks that own about 67 percent of total bank assets. In Myanmar's banking sector, private banks are the drivers of innovation and growth. Private banks are the drivers for innovation and growth in Myanmar's banking sector. However, asset concentration is high and most private banks are struggling to meet the new regulatory requirements. The re-admission of foreign banks to trade in Myanmar in 1990. There are currently 13 international approved banks and 49 foreign banks ' representative offices in Myanmar. (GIZ Banking Report, 2018)

### **3.1.1 Government Banks**

Myanmar has four government banks: the Myanma Agricultural Development Bank (MADB), the Myanma Economic Bank (MEB), the Myanma Foreign Trade Bank (MFTB) and the Myanma Investment and Commercial Bank (MICB). Although private banks are more prevalent today in Myanmar, state-owned banks still play an important role. (GIZ Banking Report, 2018)

### **3.1.2 Private Banks**

Until 1992, private banks were banned by the military regime. As of November 2018, Myanmar has had 27 domestic private banks. These banks held assets worth MMK 48.5 trillion (about USD 35.6 billion) in September 2017, about 67% of total bank assets. Private banks are the engines of innovation and growth in the banking sector in Myanmar. The concentration of assets is high, however, and most private banks struggle to meet the new regulatory requirements. (GIZ Banking Report, 2018)

The following table shows the list of Private Banks in Myanmar and their Core Banking System.

<b>No.</b>	<b>Private Banks' Name</b>	<b>Core Banking System Name</b>
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	Nantian
10	Tun Foundation Bank Ltd	Oracle FLEXCBUE
11	Kanbawza Bank Ltd	Oracle FLEXCBUE
12	Small & Medium Industrial Development Bank	TEMENOS-T24
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)	INFOSYS-Finacle
26	Mineral Development Bank	MIT-iCBS
27	Myanma Tourism Bank	Oracle FLEXCUBE

Source: Surveyed Data

### 3.1.3 Foreign Banks

Foreign banks were not allowed to operate in Myanmar after the banking sector was nationalized in 1963. Myanmar's government re-admitted foreign banks to the country in 1990. The number of foreign banks licensed has steadily increased, especially over the past five years. There are 13 international approved banks and 49 foreign bank representative offices in Myanmar as of November 2018. There are the Bank of Tokyo-Mitsubishi UFJ, Ltd., Oversea-Chinese Banking Corporation, Sumitomo Mitsui Banking Corporation, United Overseas Bank Limited, Industrial and Commercial Bank of China, Malayan Banking Berhad (Maybank), Mizuho Bank Limited, Australia and New Zealand Banking Group Limited, The Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV), Shinhan Bank, E.Sun Commercial Bank Limited, State Bank of India and Bangkok Bank Public Company Limited. (GIZ Banking Report, 2018)

## 3.2 Products and Services of Banks in Myanmar

**Deposit:** Myanmar banks are offering fixed deposits, calling deposits and current accounts. Deposit accounts are often designed to meet the needs of different customers, such as banks, small deposit accounts, sailor accounts, wedding deposit account, and foreign currency deposit accounts. (GIZ Banking Report, 2018)

**Remittance:** Around 3 million Myanmar nationals living abroad remitted around USD 3.5 billion in 2015, about 5.4 percent of Myanmar's GDP that year. While it is difficult to estimate the exact remittance figures in and out of Myanmar as a large proportion is transferred through informal networks, domestic and international remittances play a crucial role in Myanmar's economy. (GIZ Banking Report, 2018)

**Credit:** The Myanmar banking sector relies primarily on overdrafts and land or buildings as protection for loans in response to the CBM's restrictive lending regulations. This practice culminated in, among other undesirable consequences, low loans to small businesses and poor credit quality. As CBM recognized the associated risks, by converting overdrafts into loans, it recently forced banks to reduce the share of overdrafts in their portfolios. (GIZ Banking Report, 2018)

**Trade Finance:** Export finance had been monopolized by state-owned banks before 2012. Local banks currently offer fee-based services such as credit cards, bank guarantees and interest-bearing services, including import financing and export financing for pre and post shipments. In December 2017, Myanmar's Central Bank started allowing foreign banks to carry out export financing, and in August 2018 foreign banks were allowed to start offering services for import trade financing. (GIZ Banking Report, 2018)

**Card Services:** Myanmar was first introduced by the Asia Wealth Bank to offline debit cards in 1996 and 11 offline ATMs were launched by the Myanmar Mayflower Bank in 2002. Thanks to the banking crisis of 2003, the growth of these cards and electronic payment systems has come to an abrupt end. It wasn't until the introduction of debit cards in 2012 that credit cards were introduced to the nation three years later. For many years, the Myanmar Payment Union (MPU) had a monopoly on issuing debit and credit cards, but the government lifted restrictions on international payment firms in January 2017, enabling banks to issue co-branded cards with Visa, JCB, MasterCard and UnionPay Foreign. (GIZ Banking Report, 2018)

**Mobile Financial Service:** Myanmar has the highest mobile penetration rate in the world, with a penetration rate of almost 95 percent. In view of Myanmar's large unbanked population, with bank branches and infrastructure inaccessible in most rural areas, mobile financial services have become an important means of financial inclusion. (GIZ Banking Report, 2018)

### **3.3 Profile of Selected Private Banks**

**Kanbawza Bank (KBZ):** KBZ bank was established in Taunggyi, in the southern part of Shan State, on 1 July 1994. Originally, the bank catered to Taunggyi's local population. Our current management purchased the organization from previous owners who were professors and oversaw the growth of the organization into one of Myanmar's largest private commercial banks with more than 500 branches, KBZ Bank is now Myanmar's largest private bank. The mission of KBZ Bank, headquartered in Yangon, Myanmar, is to improve the quality of life through banking in Myanmar. Today, KBZ Bank accounts for about 40 percent of the country's retail and commercial banking market share. The bank leads the way for Myanmar's rapidly developing financial services industry, particularly in digital and technology, through an approach that understands innovation opportunities, Myanmar's people's needs, and the unique context of the country's economy. KBZ Bank sees exciting opportunities to work with international investors as Myanmar's economy grows and opens up, offering an important and vital link to the fast-growing cities, entrepreneurs and local communities of Myanmar. KBZ Bank changed Core Banking System at 2012. (KBZ website)

**Co-operative Bank Ltd. (CB):** CB bank is one of the oldest and largest commercial banks in Myanmar. It became Myanmar's first bank to issue credit cards and ATM cards. The bank has more than 200 branches across the country. The CB Bank was founded with the permission of Myanmar's Central Bank on 21 August 1992. It started as a small bank with 33 employees and in 2016 it has about 7000. It became a public company in 2004. The head office of CB Bank is situated in Yangon's township district of Botahtaung. Co-operative Bank Ltd Changed Core Banking System at 2012. (CB website)

**United Amara Bank (UAB):** UAB bank is Myanmar's leading bank. Established in 2010, we now serve our customers through a growing network of more than 78 branches in 47 Myanmar townships. UAB offers a wide range of financial services including consumer banking, big banking, small and medium-sized banking, corporate banking, commercial finance and treasury services. They also provide brokerage services, corporate and financial advisory services, investment banking and capital market operations through their subsidiary, UAB securities. They believe in

leading the way to a better Myanmar at UAB bank, humanizing banking, connecting people, creating opportunities, and changing lives. UAB unveiled the campaign "Be the Change Myanmar" in December 2017, which reflects our commitment to drive change for a better Myanmar, focusing specifically on empowering women and children. They agree that UAB must act responsibly and be committed to the culture in which they are. United Arab Emirates. UAB Bank changed Core Banking System at 2013. (UAB website)

### **3.4 Products and Services for Selected Banks**

**Kanbawza:** KBZ provides Online Banking, Accounts, Cards, Loan, Remittance, Cash Management, Trade Finance, Trust Services and other Services. In Accounts service, there are Current Account, Saving Deposit Account, Fixed Deposit Account, Call Deposit Account, Foreign Currency Account, Children's Saving Account, and Future Plus Deposit Account. In Cards service, it includes Debit Card, Prepaid Card, Teens Card, International Card Acceptance, KBZ UnionPay Credit Card, and KBZ VISA Credit Card. In Loans service, customers can apply Shopper Installment Loan, Hire Purchase, Overdraft and Home Loan. In Remittance, there are Local Remittance and International Remittance. In Cash Management, there are Payroll Services, Payment Services and Collection Services. In Trade Finance, there are Import Documentary Credit, Export Documentary Credit, Documents Collections, and Bank Guarantee. In Trust Services, there are Escrow Services, Onshore Security Agent Services. Other Services are Safe Deposit Locker, Gift Cheques, KBZ Quick Pay, Currency Exchange, E-Commerce, and Bank Certificate. (KBZ website)

**Co-operative Bank Ltd.:** CB Bank provides Consumer Banking, SME Banking, Corporate Banking and Prestige Banking. In Consumer Banking, there are Deposit Accounts, Cards & Payment Services, Loan, Daily Banking and Channels. In SME Banking, there are Government Assisted loan, Standard loan, Working Capital

Financing, Asset Financing. In Corporate Banking, it includes International Trade and Treasury. In Prestige Banking, there are Advisory and Consultation, Exclusive Services and Prestige Cards. (CB website)

**United Amara:** UAB Bank provides Detail Banking and Investment Banking. In Detail Banking, there are Deposit, Loans, Cards, Digital and Fund Transfer. In Investment Banking, there services are SME Loans, Trade Finance, Security Trading and FX Treasury & Markets. (UAB website)

## **CHAPTER IV**

### **Analysis of Influencing Factors on Effectiveness of Core Banking System in Private Banks in Myanmar**

In this chapter describes the analyses of influencing factors on Effectiveness of Core Banking System in Private Banks in Myanmar. The data from survey is presented with two sub sections. The first one is demographic characteristics of banks' employees. The second one includes the analysis of influencing factors on effectiveness of Core Banking System in private banks in Myanmar.

#### **4.1 Survey Design**

In this study, the required data were collected through multistage area sampling method survey. The sample size is 120 employees with 20 persons per selected bank from the target population who are using international Core Banking System in private banks. And then finding the factors influencing the effect of Core Banking System in private Banks.

As a survey instrument, a structured questionnaire was used and it organizes into two sections such as personal profile of the participants. The first section of the

questionnaire asked the respondents regarding gender, age, occupation, and banking experience level. The second section of the questionnaire the rate the relative influencing flexibility, cost, reliability, speed and awareness factors such as factors while effectiveness of Core Banking System. They were measured by five point Likert scale rating method in this survey that reveals the influence factors ranging from 1 being least satisfied to 5 being the highest. These factors were adapted from the relevant literature, age surveys, occupation and banking service experience who are knowledgeable and have deeper experience in this area. The last section asked the respondents to rank among current local banks and to find out the most important factors among the given factors as per second section, it was also used Likert scale rating method.

The study findings were analyzed by Statistical Package for the Social Science (SPSS version 22 for windows). It was used for descriptive data to compute the mean score of factors in order to find out the significant factors influencing effectiveness of Core Banking System. From a total of 120 questionnaires distributed by various ways to bank members and all were completed answers so it was high response rate to analyze and some respondents wrote their own comments on answer sheet.

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

The demographic characteristics of the respondents for the random sample 30 from KBZ (Kanbawza Bank), CB (Co-Operative Bank Ltd) and UAB bank (United Amara Bank). These characteristics include Gender, Age, Education, Occupation and Banking and Finance Experience Level.

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

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

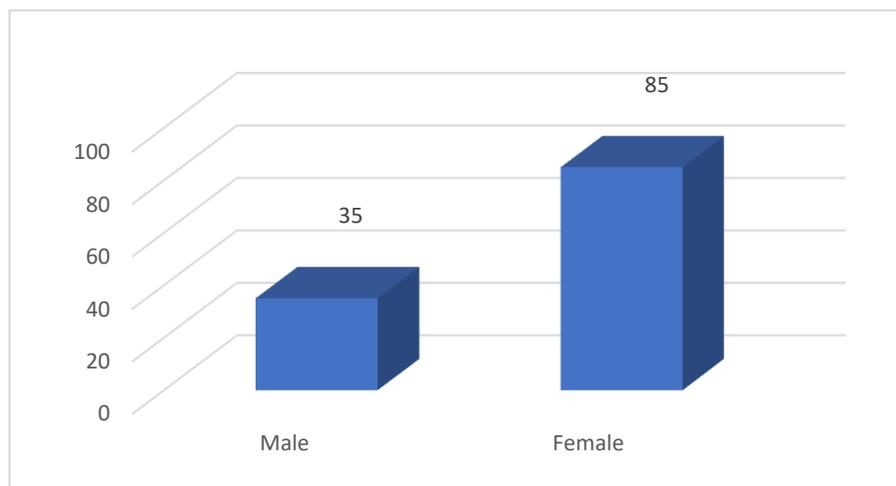
**Table (4.1) Number of Respondents by Gender**

<b>Gender</b>	<b>Number of Respondents</b>	<b>Percentage</b>
Male	35	29.2
Female	85	70.8

Total	120	100.0
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Source : Survey Results 2019

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



Source : Survey Results 2019

As shown in Table (4.1) and figure (4.1), the sample consist of 35 (29.2 %) males and 85 (70.8 %) females. 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.

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

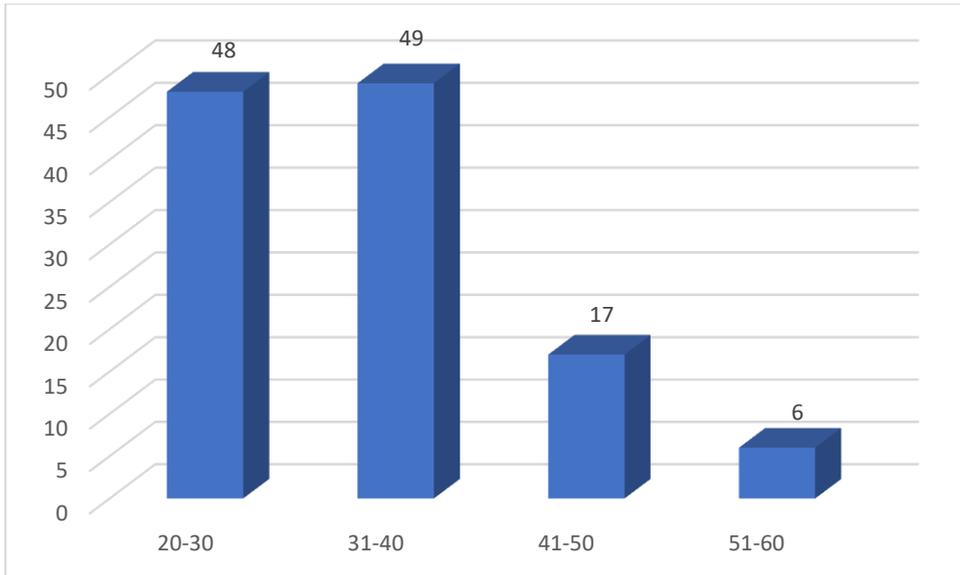
Ages of respondent are divided by five categories. They are under 30, between 31 and 40, between 41 and 50, between 41 and 50, between 51 and 60.

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

Age (in year)	Number of Respondents	Percentage
between 20 and 30	48	40.0
between 31 and 40	49	40.8
between 41 and 50	17	14.2
between 51 and 60	6	5.0
Total	120	100.0

Source : Survey Results 2019

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



Source : Survey Results 2019

According to the table (4.2) and figure (4.2), 48 CORE banking members fall in the age group between 20 and 30 years, followed by 49 employees fall between 31 and 40 years, and 17 employees fall between 41 and 50 years, 6 employees fall between 51 and 60 years. One would observe from the table that most of the employees were young adulthood.

### Number of Respondents by Occupation

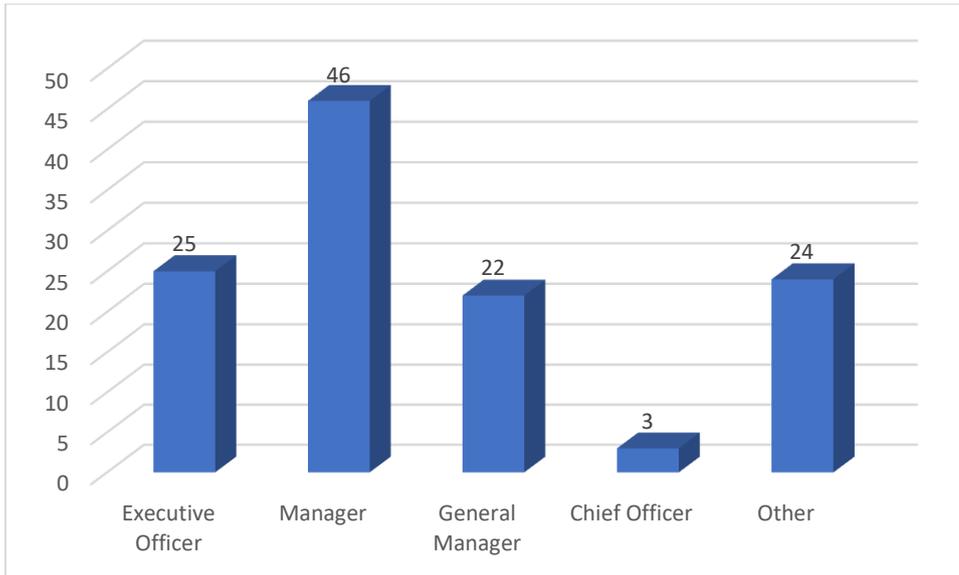
In this study, there are five levels for occupation in questionnaires. They are Executive Officer, Manger, General Manager, Chief Officer and Other.

**Table (4.3) Number of Respondents by Occupation**

Occupation	Number of Respondents	Percentage
Executive Officer	25	20.8
Manager	46	38.3
General Manager	22	18.3
Chief Officer	3	2.5
Other	24	20.0
Total	120	100.0

Source : Survey Results 2019

**Figure (4.3) Number of Respondents by Occupation**



Source : Survey Results 2019

From table (4.3) and figure (4.3), 20.8 % of CORE banking members are Executive Officer, 38.3 % of these members are Manager, 18.3 % are General Manager, 2.5 % are Chief Officer Level and 20 % of these members are Other occupation. Therefore, the majority of sampled employee of Core banking member of these selected Private Banks are Manager.

#### **Number of Respondents by Banking Experience**

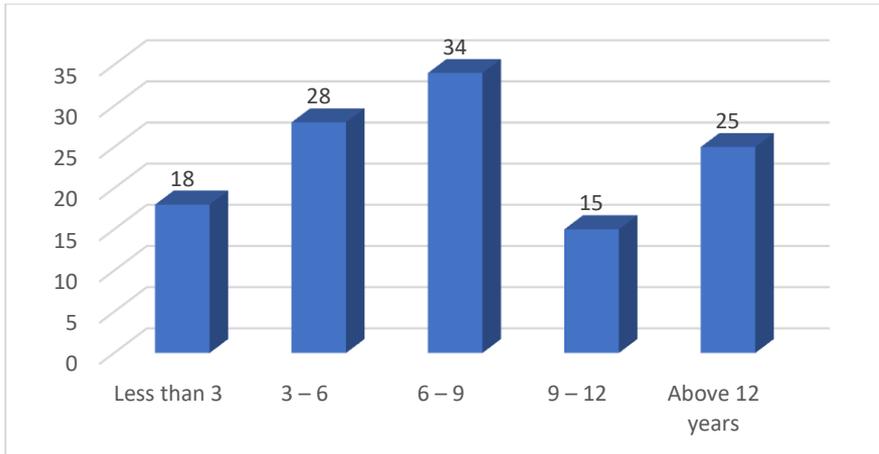
In this survey, there are three banking and finance service experience in years such as less than 3 years, between 3 and 6 years, between 6 and 9 years, between 9 and 12 years, and above 12 years.

**Table 4.4 Number of Respondents by Banking Experience**

Experience (in Years)	Number of Respondents	Percentage
Less than 3	18	15.0
3 – 6	28	23.3
6 – 9	34	28.3
9 – 12	15	12.5
Above 12 years	25	20.8
Total	120	100.0

Source : Survey Results 2019

**Figure (4.4) Number of Respondents by Banking Experience**



Source : Survey Results 2019

According to table 4.4 and figure (4.4), Core banking members fall in year of experience between 3 and 6 year by 29 members, between 6 and 9 year by 34 members, between 9 and 12 year by 16 members, above 12 years by 25 members and below 3 year by 18 members respectively. One would observe from that table that most of core banking members have banking and finance experience between 6 and 9 years. Therefore, they have some enough experience to analysis of Core Banking System. The researcher used five parameters based on reviews literature to measure the influencing factors on effectiveness of Core Banking System, namely; flexibility, cost, reliability, speed and awareness. This study had two extreme ends for Core Banking System as respondents' perception which are '1'-is strongly disagree and '5' is -strongly agree.

### **4.3 Analysis of Influencing Factors on Effectiveness of Core Banking System in Selected Private Banks**

In this section, interval scale measurement is employed to measure the study variables. All the respond variables are measured via five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The mean of the answers to the questionnaires based on general perceptions level of effectiveness of Core Banking System in term of six dimensions. They are flexibility, cost, reliabilities, speed, awareness and effective.

The sampled employees who are working in KBZ, CB and UAB bank were enquired to rate on the statements that describe their perception of use of Core Banking System in terms of flexibility, cost, reliabilities, speed, awareness and effective. A Likert scale is composed of a series of four or more Likert-type items that represent similar questions combined into a single composite score. Likert scale data can be analyzed as interval data, i.e. the mean is the best measure of central tendency.

#### 4.3.1 Flexibility

Regarding to the CBS flexibility factors, respondents are required to respond to six statements which are basically measured to find out the level of attractiveness through with flexibility factor.

To rate the fact, these six relative statements are making transfers to the multiple currency accounts, defining various interest rates, creating easily to new products, flexibility than traditional system, easy to move technological innovation and consolidating technology platform across function.

**Table (4.5) Flexibility**

No	Statement	Mean	Std. Dev
1	International Core Banking System can be used to make transfers to the multiple currency accounts.	3.86	.770
2	Core banking can be used to define various interest rates for various products.	4.15	.741
3	Core Banking System can be created easily to new products as per business requirement in time.	4.18	.799
4	International Core Banking System is more flexible than traditional or local system.	4.07	.941
5	Core Banking System easy to move Technological Innovation.	4.04	.738
6	Core Banking System enables banks to consolidate technology platform across functions.	3.90	.824
<b>Total Average Scores</b>		<b>4.03</b>	

Source : Survey Results 2019

Table (4.5) reports the individual mean score of the six statements of flexibility factor. The maximum mean scores 4.18 and standard deviation 0.799 was

found in the statement of Core Banking System can be created easily to new products as per business requirement in time.

The minimum mean score is 3.86 and standard deviation 0.77 was found on the statement of international Core Banking System can be used to make transfers to the multiple currency accounts.

The overall mean score of flexibility factor is 4.03. It can be concluded that there is more effectiveness using Core Banking System in terms of flexibility according to the results of respondent average agreement level.

#### 4.3.2 Cost

Regarding to the CBS cost factors, respondents are required to respond to five statements which are basically measured to find out the level of attractiveness through with social influencing factor.

To rate the fact, these five relative statements are reducing transaction cost, reducing operation cost, manage multiple server, slight bandwidth and more compact resource than traditional banking system.

**Table (4.6) Cost**

No	Statement	Mean	Std. Dev
1	Core banking reduces transaction cost.	3.53	1.020
2	They can reduce their operation cost by using Core Banking System.	3.70	1.029
3	They do not need to manage multiple server.	3.53	1.028
4	Customers save travel cost by using Core banking services anywhere.	3.91	0.944
5	Customers don't need to carry cash for their business as; they can use Core banking service to transfer money.	3.95	0.995
6	Core Banking System don't need to use the wide bandwidth.	3.18	0.922
7	Customers can manage their money at any time via Core banking	3.79	1.003
8	Customers use Core Banking services; they can reduce the time spent in the bank	4.00	0.926

9	International Core Banking System has more compact resource than traditional banking system.	3.66	0.948
<b>Total Average Scores</b>		<b>3.69</b>	

Source : Survey Results 2019

Table (4.6) reports the individual mean score of the nine statements of cost factor. The maximum mean scores 4.00 and standard deviation 0.926 was found in the statement of customers use Core Banking services; they can reduce the time spend in the bank.

The minimum mean score is 3.18 and standard deviation 0.783 was found in the statement of Core Banking System use slight bandwidth.

The overall mean score of cost factor is 3.69. It can be concluded that there is more effectiveness using Core Banking System in terms of cost according to the results of respondent average agreement level.

### 4.3.3 Reliability

Regarding to the CBS reliability factors, respondents are required to respond to eight statements which are basically measured to find out the level of attractiveness through with reliability factor.

To rate the fact, these eight relative statements are applying to IFRS, reducing error on transaction, promise at the time indicated, provide the banking services 24/7, support and reliable the SWIFT message format, solve the customer' problems we can rely to Core banking, provide right service at right time and more compact resource than traditional banking system.

**Table (4.7) Reliability**

No	Statement	Mean	Std. Dev
1	Core Banking System is applying to IFRS.	4.06	0.863
2	Core banking reduces error on transaction.	3.53	0.961
3	International Core Banking System is reliable the SWIFT message format.	3.52	0.788
4	Core Banking System can provide the banking services 24/7	4.00	0.810

5	Banks fulfil its promise at the time indicated.	3.75	0.882
6	If we have to solve the customer' problems, we can rely to Core banking.	3.78	0.712
7	Core Banking System provide right service at right time.	3.82	0.778
8	Core Banking System enhances system security and user management	3.94	0.725
<b>Total Average Scores</b>		<b>3.8</b>	

Source : Survey Results 2019

Table (4.7) reports the individual mean score of the eight statements of reliability factor. The maximum mean scores 4.06 and standard deviation 0.863 was found in the statement of applying to IFRS.

The minimum mean score is 3.52 and standard deviation 0.788 was found in the statement of international Core Banking System is reliable the SWIFT message format.

The overall mean score of reliability factor is 3.8 . It can be concluded that there is more effectiveness using Core Banking System in terms of reliabilities according to the results of respondent average agreement level.

#### 4.3.4 Speed

Regarding to the CBS speed factors, respondents are required to respond to five statements which are basically measured to find out the level of attractiveness through with speed factor.

To rate the fact, these five relative statements are easy setup payment service, process fast payment, quick transfer of fund, getting dissemination of required information and facilitate speed of service.

**Table (4.8) Speed**

No	Statement	Mean	Std. Dev
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1	Core Banking System is easy setup payment service.	3.93	0.775
2	Core Banking System can process faster payment through mobile or internet banking.	3.91	0.767
3	Core Banking bring quick transfer of fund.	3.83	0.702
4	They get Core banking services dissemination of required information or data at faster rate.	3.88	0.784
5	Core Banking System facilitates speed of reports.	4.14	0.665
<b>Total Average Scores</b>		<b>3.93</b>	

Source : Survey Results 2019

Table (4.8) reports the individual mean score of the five statements of speed factor. The maximum mean scores 4.14 and standard deviation 0.665 was found in the statement of facilitates speed of reports.

The minimum mean score is 3.83 and standard deviation 0.702 was found in the statement of quick transfer of fund.

The overall mean score of speed factor is 3.93. It can be concluded that there is more effectiveness using Core Banking System in terms of speed according to the results of respondent average agreement level.

#### 4.3.5 Awareness

Regarding to the CBS awareness factors, respondents are required to respond to five statements which are basically measured to find out the level of attractiveness through with awareness factor.

To rate the fact, these five relative statements are computer skills, the knowledge to answer from customer, awareness of applying technologies and staffs, knowledgeable for security and required information about CBS.

**Table (4.9) Awareness**

No	Statement	Mean	Std. Dev
1	They need the knowledge to answer all questions from customers.	4.02	0.879
2	Bank's staffs have basic computer skills to use Core	4.20	0.826

	Banking System.		
3	Core Banking System is intelligence so they must have awareness of applying technologies and staffs.	4.06	0.813
4	Core banking can use anywhere so they are knowledgeable for security.	3.88	0.780
5	They have the required information about Core Banking System.	3.92	0.894
<b>Total Average Scores</b>		<b>4.02</b>	

Source : Survey Results 2019

Table (4.9) reports the individual mean score of the five statements of awareness factor. The maximum mean scores 4.20 and standard deviation 0.826 was found in the statement of staffs have basic computer skills to use Core Banking System.

The minimum mean score is 3.88 and standard deviation 0.78 was found in the statement of knowledgeable for security.

The overall mean score of awareness factor is 4.02. It can be concluded that there is more effectiveness using Core Banking System in terms of awareness according to the results of respondent average agreement level.

#### 4.3.6 Effectiveness

Regarding to the CBS effectiveness factors, respondents are required to respond to five statements which are basically measured to find out the level of attractiveness through with effectiveness factor.

To rate the fact, these five relative statements are easy move to digital transform, don't define work place, improves the way of doing business, faster decision making through reports and intelligent need to security.

**Table (4.10) Effectiveness**

No	Statement	Mean	Std. Dev
1	Core Banking System is easy to move digital transform.	3.97	0.809
2	Core Banking System can be used everywhere, don't	4.02	0.826

	define work place.		
3	Use of core banking improves the way of doing business.	3.88	0.780
4	Core Banking System can make faster decision making through reports.	4.06	0.813
5	Core Banking System is intelligent need to security.	4.20	0.879
<b>Total Average Scores</b>		<b>3.78</b>	

Source : Survey Results 2019

Table (4.10) reports the individual mean score of the five statements of effectiveness factor. The maximum mean scores 4.20 and standard deviation 0.879 was found in the statement of intelligent need to security.

The minimum mean score is 3.88 and standard deviation 0.78 was found in the statement of improves the way of doing business.

The overall mean score of effectiveness factor is 3.78. It can be concluded that there is more effectiveness using Core Banking System in terms of effectiveness according to the results of respondent average agreement level.

#### 4.4 Influencing Factors on Effectiveness of Core Banking System

The below Table 4.11 explained that Pearson correlation is a statistical test that assesses the strength of the relationship between two numerical data variables (Saunders et al., 2009). Therefore, the relationship of independent variables and dependent variable is measured via Pearson Correlation. The significance level is 0.05 in the Pearson Correlation test, which means there is 95% of confidence level. Therefore, the hypotheses only can be accepted if the significant p-value is less than 0.05 (Malhorta, 2010).

**Table (4.11) Relationship of the operational performance and effectiveness of Core Banking System**

Determinant		Effectiveness of CBS
Flexibility	Pearson Correlation	.605**
	Sig. (2-tailed)	.000
Cost	Pearson Correlation	.684**
	Sig. (2-tailed)	.000

Reliabilities	Pearson Correlation	.671**
	Sig. (2-tailed)	.000
Speed	Pearson Correlation	.655**
	Sig. (2-tailed)	.000
Awareness	Pearson Correlation	.647**
	Sig. (2-tailed)	.000

Source: Survey Results

By analyzing with the statistical, the strength of the relationship between numerical data variables, influencing factors; flexibility, cost, reliabilities, speed and awareness factors are correlated with effectiveness of Core Banking System. The significance level is 0.01 in the Pearson Correlation test and 99% of confidence level.

#### 4.5 Regression Analysis of influencing factors on Effectiveness of Core Banking System

In this study, the relationships between operational influencing factor and effectiveness of Core Banking System by the use of Linear Regression model. The result of estimated regression has shown in table 4.13, as follow

**Table (4.12) Analysis of Operational Influencing Factors on Core Banking System**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	.419	.296		1.415	.816	
Flexibility	.035	.115	.031	.303	.762	2.897
<b>Cost</b>	<b>.241</b>	<b>.086</b>	<b>.269</b>	<b>2.797</b>	<b>.006</b>	<b>2.643</b>

Reliabilities	.215	.108	.216	.1988	.049	3.366
Speed	.181	.100	.177	1.811	.073	2.707
Awareness	.269	.082	.269	3.260	.001	1.935
N	120					
Adjusted R <sup>2</sup>	.583					
F value	34.209** (.000)					
Durbin Watson	2.146					

The individual operational factors of each predictor, factors to find the effect of variables on core banking system. The R Square value is 0.583 which indicates 58.3 percent of variation is due to independent variables. To determine the effectiveness of Core Banking System in selected Private Banks in Myanmar, the multiple regression analysis is conducted, and the results are reported in Table 4.13.

These results show that the coefficients for awareness, cost and reliabilities factors are significant. These results show that the coefficients for awareness and cost factors are significant at 1% level since the results p value are less than 0.01 and reliabilities factors is significant at 5% level since the results p value are less than 0.05. Remaining factors such as flexibility and speed factors are not significant.

Additionally, the awareness, cost and reliabilities factor are highly significant on effectiveness of core banking system and positive relationship of this variable therefore the advancement of awareness and cost is rapidly increasing the effectiveness of core banking system in private bank.

According to the result, the influencing of awareness and CBS are statistically significant at 1% level ( $t=3.260$ ;  $p<0.10$ ). It has effect on CBS where awareness goes up one unit, effectiveness will increase 0.269 unit where all other variables hold constant.

As per the result, the influencing of cost and CBS are statistically significant at 1% level ( $t=2.797$ ;  $p<0.10$ ). It has effect on CBS where cost goes up one unit, effectiveness will increase 0.269 unit where all other variables hold constant.

As stated by the result, the influencing of reliability and CBS are statistically significant at 5% level ( $t=0.199$ ;  $p<0.05$ ). It has effect on CBS where reliability goes up one unit, effectiveness will increase 0.269 unit where all other variables hold constant.

## **CHAPTER V**

### **CONCLUSION**

The conclusion section has three parts. Firstly, findings which represent why the research was conducted, what aspect of the problem were considered, what the outcome and it consists of the findings of the demographic factors. The second, presents suggestion, and the last part is need for future research.

## 5.1 Findings and Discussion

This study determines the influencing factors on effectiveness of Core Banking System in selected private banks in Myanmar. The Core Banking System and operational objective identify the distribution of performance such as flexibility, cost, reliability, speed and awareness and thus, study is made on the current practices and efficiency relationship of the Core Banking System on the Private Banks in Myanmar. To be more data consistency, reliabilities analysis of the variables is tested. Because of the higher numbers from these statistics, it reveals internal consistency of items in the factor and thus, the concept is said to yield good result.

Regarding to the analysis on flexibility, highest mean score is found in the statement of Core Banking System can be created easily to new products as per business requirement in time. The overall mean for flexibility factor is higher this international Core Banking System easy to setup for new products in time. So, the effectiveness of Core Banking System is easy to move to digital transform.

Concerning with the analysis on cost, highest mean score is found in the statement of Customer use core banking services; reduce the time spend in the bank. The overall mean for flexibility factor is over the average mean value, this Core Banking System can be used everywhere, don't define work place. Therefore, they have spent the cost to communication for using banking software, the Core Baking System is more effective to the Private banks.

As to the analysis on reliability, highest mean score is found in the statement of Core Banking System is applying to IFRS. At 2020 all of financial industries follow the IFRS. The overall mean for reliability factor is mover the average mean value, thus Core Banking System easy to define international messaging format. As per above facts, Core Banking System is the effectiveness.

Regarding to the analysis on speed, highest mean score is found in the statement of Core Banking System facilities speed of reports. The overall mean for speed factor is higher, this Core Banking System can make faster decision making through reports. Therefore, Core Banking System is effective software, generated the consolidated reports to the decision maker.

Apropos of the analysis on awareness, highest mean score is found in the statement of bank's staff need the knowledge to answer all questions from customers. The employees know all of bank service function to explain the customers, they get more loyal customer. Because international core banking software can create new products. The overall mean for flexibility factor is higher, this Core Banking System is intelligent need to security. It can be concluded that effectiveness using Core Banking System in term of security are high.

As per result the female respondent is more than male, so most of female are working in private bank. And then the responds number of occupations is manager rank is higher and banking experience are between six to nine years. So, this study result is approximately reality report.

## **5.2 Suggestion**

Based on the finding from the observed data in the previous section, the suggestions will be presented for influencing factors on effectiveness of Core Banking System. The minimum mean score of flexibility factor is international Core Banking System can be used to make transfers to the multiple currency accounts, some business process is restricted. It is suggested that this business process meets to change the current situation.

The minimum mean score of cost factor is Core Banking System don't need to use the wide bandwidth. The international core banking needs to get the stable connection. But in the developing country the internet connection is trying to cover the whole region, they don't survey on the volatile connection. It is suggested that need to get different ISP for use of CBS.

The minimum mean score of awareness factor is they are knowledgeable for security. Assumed that the employee is intelligence they return of effectiveness of Core Banking System.

Moreover, the influencing factors on effectiveness of Core Banking System, there has higher awareness. They give the training to employee, new and existence staffs, the Core Banking software is more effectiveness. As per significant result the reliability factor is 1% significant hence the Core Banking System is easy to generate

the report, that system is effectiveness. And then the cost factor significant is 5% so they are reduced the cost that Core Banking System is effective. In this study operational performance factors, flexibility, cost, reliability, speed and awareness, related to effectiveness of Core Banking System by positive fairly correlation. So, they should maintain flexibility factor for sustainable effectiveness of Core Banking System.

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

This study is only cover exploring the influencing factors on effectiveness of Core Banking System in KBZ, CB and UAB banks by the five factors flexibility, cost, reliability, speed and awareness dimension. The study could not present all effects of Core Banking System in Myanmar banking sector because of time limitation. And this study is online survey on ICT department only do not survey to operation user. Furthermore, the scope of survey question is only employee, need the questionnaires to consumer. Therefore, influencing factors on effectiveness of Core Banking System in the whole Myanmar banking sector should be needed to observe.

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## **APPENDIX**

### **Analysis of Effectiveness of Core Banking System in Private Banks**

#### **in Myanmar**

(Questionnaires)

This questionnaire is for my research effectiveness of Core Banking system in Private bank in Myanmar. All responses are anonymous and will be used for academic purposes only. Thanks for taking part. I am a master student at Yangon University of Economics.

Section : A

Demographic Factors

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

(1) Gender

- a. Male
- b. Female

(2) Age

- a. Between 20 and 30
- b. Between 31 and 40
- c. Between 41 and 50
- d. Between 51 and 60
- e. 61 and above

(3) Occupation

- a. Executive Officers
- b. Manager
- c. General Manager
- d. Chief Officers
- e. Others

(4) Banking and Finance Service Experience Level

- a. Less than 3 Years
- b. 3 - 6 Years
- c. 6 - 9 Years
- d. 9 - 12 Years
- e. Above 12 Years

Section : B

Analysis on Core Banking System's

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

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

**Flexibility**

No	Statement	1	2	3	4	5
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1	International Core Banking System can be used to make transfers to the multiple currency accounts.					
2	Core banking can be used to define various interest rates for various products.					
3	Core Banking System can be created easily to new products as per business requirement in time.					
4	International Core Banking System is more flexible than traditional or local system.					
5	Core Banking System easy to move Technological Innovation.					
6	Core Banking System enables banks to consolidate technology platform across functions.					

### Cost

No	Statement	1	2	3	4	5
1	Core banking reduces transaction cost.					
2	They can reduce their operation cost by using Core Banking System.					
3	They do not need to manage multiple server.					
4	Customers save travel cost by using Core banking services anywhere.					
5	Customers don't need to carry cash for their business as; they can use Core banking service to transfer money.					
6	Core Banking System don't need to use the wide bandwidth.					
7	Customers can manage their money at any time via Core banking.					
8	Customers use Core Banking services; they can reduce the time spent in the bank.					
9	International Core Banking System has more compact resource than traditional banking system.					

### Reliability

No	Statement	1	2	3	4	5
1	Core Banking System is applying to IFRS.					
2	Core banking reduces error on transaction.					
3	International Core Banking System is reliable the SWIFT message format.					
4	Core Banking System can provide the banking services 24/7					
5	Banks fulfil its promise at the time indicated.					
6	If we have to solve the customer' problems, we can rely to Core banking.					
7	Core Banking System provide right service at right time.					
8	Core Banking System enhances system security and user management					

### Speed

No	Statement	1	2	3	4	5
1	Core Banking System is easy setup payment service.					
2	Core Banking System can process faster payment through mobile or internet banking.					
3	Core Banking bring quick transfer of fund.					
4	Customers save travel cost by using Core banking services anywhere.					
5	Customers don't need to carry cash for their business as; they can use Core banking service to transfer money.					
6	They get Core banking services dissemination of required information or data at faster rate.					
7	Customers can manage their money at any time via Core banking.					
8	Customers use Core Banking services; they can reduce the time spent in the bank.					
9	Core Banking System facilitates speed of reports.					

### Awareness

No	Statement	1	2	3	4	5
1	They need the knowledge to answer all questions from customers.					
2	Bank's staffs have basic computer skills to use Core Banking System.					
3	Core Banking System is intelligence so they must have awareness of applying technologies and staffs.					
4	Core banking can use anywhere so they are knowledgeable for security.					
5	They have the required information about Core Banking System.					

### Effectiveness

No	Statement	1	2	3	4	5
1	Core Banking System is easy to move digital transform.					
2	Core Banking System can be used everywhere, don't define work place.					
3	Use of core banking improves the way of doing business.					
4	Core Banking System can make faster decision making through reports.					

5	Core Banking System is intelligent need to security.					
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