

YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF COMMERCE
EXECUTIVE MASTER OF BANKING AND FINANCE
PROGRAMME

ANALYSIS ON FINTECH ACTIVITIES AND FINANCIAL
PERFORMANCES OF SHWE BANK

THET KHINE

(MBF - 5th BATCH)

DECEMBER, 2019

**ANALYSIS ON FINTECH ACTIVITIES AND FINANCIAL
PERFORMANCES OF SHWE BANK**

A thesis submitted as a partial fulfillment of the requirements for the degree of
Executive Master of Banking and Finance (EMBF)

Supervised by

Daw Yee Yee Thein
Associate Professor
Department of Commerce
Yangon University of Economic

Submitted by

Thet Khine
Roll No – 65
(MBF 5th Batch)

DECEMBER, 2019

ABSTRACT

This study intends to identify the fintechs which are using in Shwe Bank and the effects of fintech activities on financial performances of Shwe Bank. For this study, primary data were collected by the survey of mobile & internet banking, electronic banking, agent banking and business situational interviews to related head of departments. The findings of the study indicated that number of users, transactions and transactions of Fintech activities have strongly related effects on financial performances of Shwe Bank. Changes in net income and total assets also have effects on ROA of Shwe Bank. This study also showed the progressive growth and development of Fintech activities and it is found that there is satisfied role of Fintech activities provided by Shwe Bank. The bank should also use Fintech activities on foreign banking, crowd funding and self-account opening. Shwe Bank should also focus on improving Fintech services to get repetitive customers. It will lead to high impact on usage of Fintech services as well. This study does not cover all of Fintechs that are available in Myanmar banking sector and it is also suggested to make further research for more detailed information on it.

ACKNOWLEDGEMENT

This thesis could not have been successfully completed without the helps and assistance from the following personnel. Firstly, I would like to express my deepest gratitude to Prof. Dr. Tin Win, Rector, Yangon University of Economics and Prof. Dr. Nilar Myint Htoo, Pro-Rector, Yangon University of Economics for permitting me to attend this valuable EMBF Programme.

I also would like to extend my sincere thanks to Prof. Dr. Soe Thu, Programme Director of the Executive Master of Banking and Finance, Head of Department of Commerce, Yangon University of Economics for her passionate monitoring, suggestions and guidance in carrying out this paper.

And I wish to extend deepest thank to my supervisor Daw Yee Yee Thein, Associate Professor, Department of Commerce, who supervised and gave me invaluable advise, helpful encouragement, close guidance throughout my thesis. My sincerest thanks go to all lecturer, associate professors, professors of Department of Commerce and all visiting lectures and professor who actively contributed their valuable knowledge and wisdom to us.

Furthermore, I would like to express my special gratitude and thank to the department heads and managements of Shwe Bank for accepting me to give an opportunity to study about the Fintech activities for this thesis.

Finally, I would like to express my heartfelt gratitude to my beloved family and friends from EMBF 5th Batch for their understanding, support, strength and help through the duration of my studies.

CONTENTS

Abstract			i
Acknowledgement			ii
Contents			iii
List of Figures			v
List of Tables			vi
List of Abbreviations			vii
			PAGE
CHAPTER	1	INTRODUCTION	1
	1.1	Rationale of the study	2
	1.2	Objectives of the study	3
	1.3	Scope and Methods of the study	3
	1.4	Organization of the study	4
CHAPTER	2	THEORITICAL BACKGROUND AND	5
		CONCEPTS OF FINTECH	
	2.1	Financial Technology (Fintech)	5
	2.2	Fintech in International Banking Industry	7
	2.3	Theoretical Review	9
	2.4	Deciding factors of Financial Performance	13
	2.5	Literature Review	16
CHAPTER	3	FINTECHS OF SHWE BANK	17
	3.1	Overview of Financial Technologies in Myanmar Banking Sector	17
	3.2	Profile of Shwe Bank	19
	3.3	Development of Fintech in Shwe Bank	20

CHAPTER	4	EFFECT OF FINTECH ACTIVITIES ON SHWE BANK	28
	4.1	Research Design	28
	4.2	Mobile & Internet banking performances of Shwe Bank	28
	4.3	Performances of Electronic Banking	31
	4.4	Performances of Agent Banking	33
	4.5	Performances of Shwe Bank by measuring ROA	36
CHAPTER	5	CONCLUSION	39
	5.1	Findings of the study	39
	5.2	Suggestions	40
	5.3	Needs for further research	41
REFERENCES			42

LIST OF FIGURES

Figure No.	Title	Page
2.1	Segments and elements of Fintech	6
2.2	Technology Acceptance Model (TAM)	12
2.3	Conceptual Framework	16
3.1	Typical Core Banking System	21
3.2	Fintechs of Shwe Bank	23
3.3	Services of Mobile & Internet Banking	24
3.4	Services of Electronic Banking	25
3.5	Services of Electronic Banking	27
4.1	Performances of Mobile & Internet Banking by Number of Users	29
4.2	Performances of Mobile & Internet Banking by Transaction Volume	30
4.3	Performances of Mobile & Internet Banking by Transaction amount	30
4.4	Performances of Electronic Banking by issued card volume	32
4.5	Performances of Electronic Banking by transaction volume	32
4.6	Performances of Electronic Banking by transaction amount	33
4.7	Performances of Agent Banking by number of Agents	34
4.8	Performances of Agent Banking by number of customer	35
4.9	Performances of Agent Banking by transaction number	35
4.10	Performances of Agent Banking by transaction amount	36
4.11	Performances of Shwe Bank by ROA percentage	37

LIST OF TABLES

Table No.	Title	Page
4.1	Performances of Mobile & Internet Banking	29
4.2	Performances of Electronic Banking	31
4.3	Performances of Agent Banking	34
4.4	Performances of Shwe Bank based on ROA	37

ABBREVIATIONS

AGD	-	Asia Green Development Bank
ASEAN	-	Association of South East Asian Nations
ATM	-	Automated Teller Machines
B2B	-	Business to Business
B2C	-	Business to Customers
CBM	-	Central Bank of Myanmar
CAMEL	-	Capital adequacy, Asset Quality, Management, Earnings, Liquidity, Sensitivity
Fintech	-	Financial Technology
ICT	-	Information and Communication Technology
JCB	-	Japanese Credit Bureau
KPMG	-	Klynveld Peat Marwick Goerdeler
MAB	-	Myanmar Apex Bank
MBA	-	Myanmar Bank Association
MBF	-	Master of Banking & Finance
MFS	-	Mobile Financial Services
MPU	-	Myanmar Payment Union
P2P	-	Pier to Pier
POS	-	Point of Sales
ROA	-	Return on Assets
ROE	-	Return on Equity
TAM	-	Technology Acceptance Model
UAB	-	United Amara Bank
UPI	-	Union Pay International

CHAPTER 1

INTRODUCTION

In contrast with other ASEAN countries, Myanmar's financial system is still at a very early stage of development. Myanmar is an economy that largely relies on cash, with financial exclusion remaining a major challenge to the country's development, particularly in rural areas. (GIZ, November 2018) (Transitional Myanmar Banking Sector). In the present, ICT is an important part in influencing all business around the world. ICT is also a part of the world. Businesses and the financial sector benefit by the use of these modern technologies and also spend a huge deal on running businesses, reducing operating costs and gaining competitive advantage over their competitors. Their mobile banking, ATM cards, payment applications, E wallets and agent Banking services offer customers improving services.

Financial Technology (Fintech) is a financial services sector that emerge in the 21st century. Fintech is any technological innovation in the financial sector which include advances in financial education, retail banking, investments and crypto currency. Examples of Fintech include mobile banking, stock trading websites, pier to pier lending through applications, ATMs, online personal finance management and payment applications.

(Studys, 2016) Myanmar Payment Union was launched in 2011 by comprising of 20 domestic banks. This initiative allows ATM card holders to withdraw cash from ATMs operated by all member banks, rather than being restricted to a single bank. Debit Cards returned in 2012 and three years later credit cards were introduced to the country. In January 2017, the government removed restrictions on international payment companies and allowed banks to issue co-branded cards with Visa, JCB, MasterCard and Union Pay International (UPI).

Central Bank of Myanmar directive (No. 4/2013) allows banks to operate mobile banking services under a bank-led model. Under this model, banks are required to obtain permission from CBM to operate mobile-banking services, either on their own or in partnership with a mobile money business, by using technical support from Mobile

Network Operators (MNOs) and mobile banking solution providers to develop mobile banking products and platforms.

(Research, 2019) The arrival of mobile financial services and FinTechs in the past years has opened up new opportunities in Myanmar. As Central Bank of Myanmar eagers to go “Cashless Society”, Financial Technologies (Fintechs) play a vital role in both banks and non-bank ventures.

1.1 Rationale of the Study

The increase in the use of the internet and technology in all business activities, particularly for the financial services sectors, was a recent commercial trend. The way banking providers deliver their services and clients conduct their banking needs has essentially altered modern key banking technology and easily valuable payment applications. In recent decades, the banking industry, including Myanmar banks, has rapidly developed. They are worldwide institutions, operate all over the country (some internationally) and use most of all the latest technology.

Myanmar banks were left in the dark for ages before 1992, which led them to system and technical shortages. Myanmar banks used traditional banking systems before local software companies introduce the banking software in 1990s. In 2010, Aya bank, MAB bank, AGD Bank and UAB bank come into Myanmar banking industry and start using centralized core-banking solutions. Core banking solutions today have become the basic amenity any financial institution must deploy for streamlining their operations. It facilitates banks to continually meet customer expectations while facing critical challenges revolving around profitability, compliance, management reports, loans, bad debts and more.

Before 2016, there were over 1500 bank branches all over Myanmar. Shwe Bank started its banking operation in 11th January 2016. As a Myanmar’s one of the latest operating bank, the management decided to use latest financial technologies to leap-frog and catch other banks which have been in the industry for decades. As a starting bank, it is not easy to overcome in terms of customer base, investments and branch coverage. Fin tech is the key to reach in both rural and urban areas. Shwe Bank is the very first bank which used Core-banking system, ATM and Debit Card since opening. By using Core Banking System, it helps in making the internal staff more competent, minimizes human

frauds and thefts with real-time banking facilities, reduces operational costs, aids in studying changing customer demands and facilitates decision making through reporting and analytic.

Managements from Shwe Bank understood that the stability, product variety, customer knowledge and financial strength of traditional banking experts combines with data enrichment, user experiences, modern platforms that latest technologies provide, both can build an amazingly rewarding experience for each other and bank's customers. That's the reason why Shwe Bank is using Oracle Flexcube Core Banking System, Cardzone switch for card payments, latest data center, mobile banking, internet banking and agent banking systems. The real goal for Shwe Bank is to find the right mix of Fintech solutions and traditional banking. Play to the tried and true strengths of each type of organization while also opening up to new opportunities to access tools that empower customers and reinvigorate marketing opportunities.

Fintech is the solution for creating convenience banking services directly to customers. Now in 2019, almost every bank in Myanmar is using Fintech and giving better services to their customer. Shwe Bank is one of them to reach its customer needs but are the effectiveness is questionable. Thus, this study is the effects of Fintech activities on Shwe Bank's performance, as there is no specialized paper on analysis of Fintech even thou most of Myanmar banks are using it. And this research provide the valuable information about Fintech activities relating bank's performances.

1.2 Objectives of the Study

The objectives of the study are as follow:

1. To identify the Fintechs which are using in Shwe Bank.
2. To analyze the Fintech activities and financial performances of Shwe Bank.

1.3 Scope and Methods of the Study

Scope of this study is to identify and analyze the effect of Fintech activities on Shwe Bank's performances by using internal datum (e.g customer numbers, usage). Descriptive research design is the foundation of this study. This analysis supported the layout of research that is causal because it included clearly stated hypotheses (Cooper and Schindler, 2003) aimed at establishing the relationship between causes and effects between two or more variables.

The population is defined as a whole group of people, activities and objects with common features that comply with a particular definition by Cooper and Schindler (2003). This research was a census of all the banking companies in Shwe Bank by Fintechs. For the period of January 2016 to November 2019, this review use secondary data, a maximum of 47 months and quarterly units of analysis. Primary data collected from ICT department, Electronic Banking Department, Agent Banking Department and management reports regarding the progress and performance of Shwe Bank. And also by interviewing the related department heads and top management on bank's strategies, ongoing activities, performances and customer feedbacks. The secondary data was collected from different published sources; reports, research papers, articles and news from internet, information from Myanmar Payment Union (MPU), Central Bank of Myanmar (CBM) and Myanmar Bank Association (MBA). And also from MBF subjects like Principles of Management, Bank Management, Risk Management & Financial Institution, Rural Banking & Microfinance and Research Methodologies.

1.4 Organization of the Study

The study is organized to include five chapters in all. Chapter 1 introduces a brief background and rationale of the study along with objectives, scope and method of study. Chapter 2 consists of theoretical background and concepts of the study. Chapter 3 identify the Fintechs of Shwe Bank that are using to meet customers' needs and satisfactions. Chapter 4 contributes effect of Fintech activities on Shwe Bank's performances according to research datum. Chapter 5 is conclusion and gives the summary of the main findings in relation to the original aims of the study, and also presents the appropriate suggestion based on the answers obtained.

CHAPTER 2

THEORATICAL BACKGROUND AND CONCEPTS OF FINTECH

Financial technology (Fintech) describes new technology aimed at improving and automating the provision and use of financial services. At its heart, Fintech is used by using specialized software and algorithms used on computers and increasingly on smartphones to help businesses, business owners and customers better manage their financial activities, transactions and lives. Fintech is a fusion of "financial technology."

2.1 Financial Technology (Fintech)

As Fintech first appeared in the 21st century, the term used in the historical structures of existing financial institutions was initially applied. Since then, a shift to more consumer-oriented services and therefore a more consumer-orientated definition has taken place. Fintech also encompasses various sectors and divisions, including finance, retail banking, crowd funding and non-profit, and investment management.

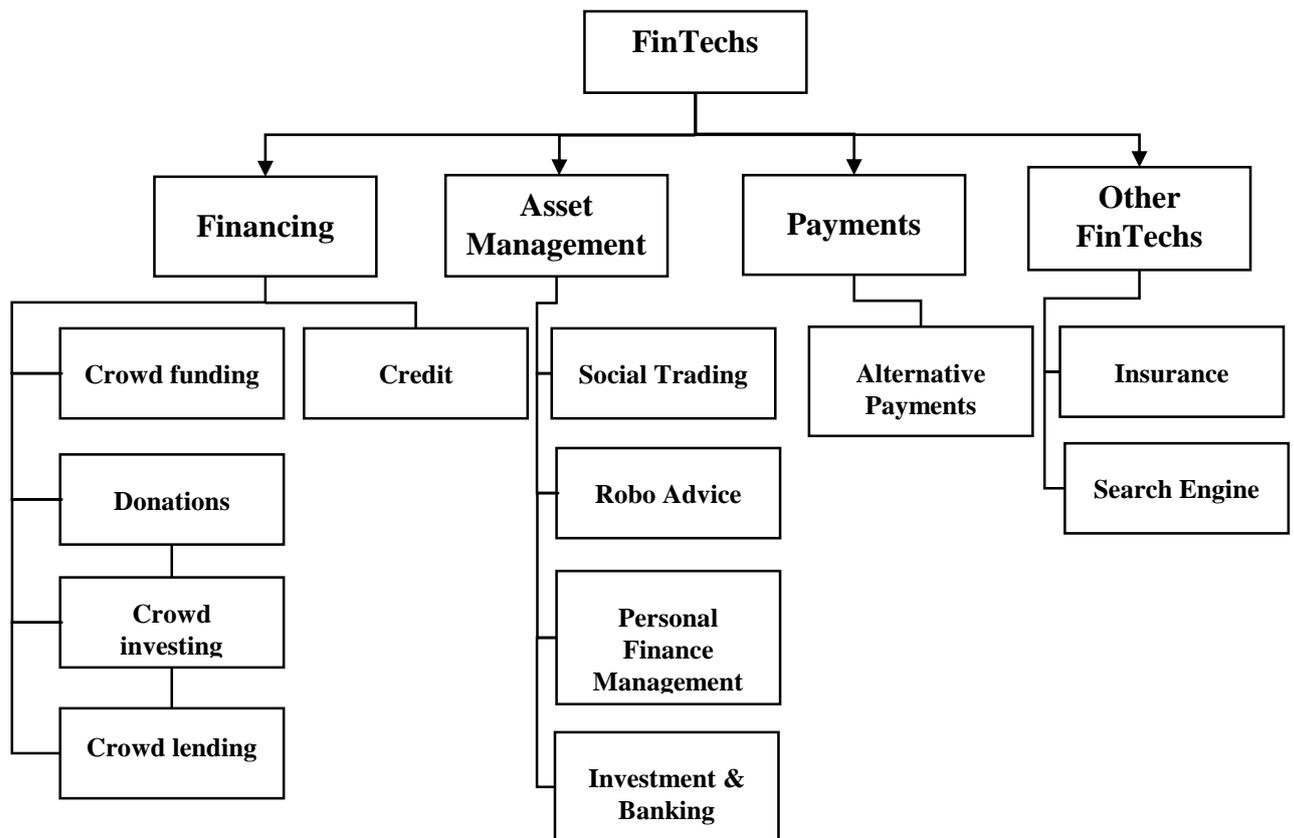
Any innovation in the way in which people operate can use the term "financial technology" from invention of digital money to double-entry bookkeeping. Nevertheless, financial developments have explosively evolved since the internet revolution and the mobile Internet / smartphone boom and Fintech, initially applied to computer technology used at banks or trading firms ' back offices, represents a broad range of applications in personal and commercial finance.

Fintech is now describing a range of financial activities, like money transfers, payment of a smartphone's check, bypassing a bank branch for a loan, raising funds for a business startup or managing investments, usually without a person's support. According to EY's 2017 Financial Adoption Index (Gulamhuseinwala, 2017), at least one quarter of customers are using Fintech products two or more, and they are increasingly aware of Fintech as part of their daily lives. In Fintech there are four broad categories for users: (1) B2B in banks and (2) their clients, and (3) B2C for small businesses and (4) consumers. Mobile banking patterns, improved content, data and more accurate analysis and access decentralization create opportunities for all four parties to engage in historically unimaginable ways.

The younger the customer is, as with most innovation, the more likely to be aware of what Fintech is and can accurately describe it. The reality is that consumer-oriented Fintech is primarily tailored for millennials despite the enormous size and increasing profit (and heritage) opportunity of this high-profile market. Many Fintech analysts consider that this center of attention on millennials is more about the scale of that industry than Gen Xers and Baby Boomers are willing and active in using Fintech. Fintech continues to give aging customers little because the issues are not discussed.

When it comes to companies, a business owner or entrepreneur would have went to a bank before Fintech's arrival and acceptance to secure financing or venture money. For credit card payments to be accepted, they must have a relationship with a credit provider and even have infrastructures installed, such as a fixed-line card reader. Such barriers are now a thing of the past with mobile technology.

Figure 2.1: Segments and elements of Fintech



(Source: Dortfleitner et al. 2017:37)

2.2 Fintech in International Banking Industry

Xavier Vives (2016) from (Vives, 2016) IESE Business School stated that, Lending networks for peer-to-peer (P2P) offers loans without bank intermediation where individuals and companies invest in small enterprises. Some sites fit borrowers directly: some allow lenders to choose the lenders; others build loan bundles, where electronic auctions are used. Such sites often provide the business risk ratings collected from algorithms to track Big Data lenders. The borrowing of the P2P in the USA (with Lending Club and Prosper as leaders) and in the UK (with Zopa as an example) is growing at a moderate rate. Britain, France and Finland are also the top European countries for P2P loan lending. P2P business borrowing in China is prevalent but its position in the EU is minimal. Platforms for crowd-financing have increased significantly in EU countries, led by France, the Netherlands, Italy and Germany.

The money payments industry is still dominated by banks and by Visa and MasterCard, but the advances in payment are coming from non-banks like PayPal, Apple or Google. It is important to note that mobile payment systems have a major impact in countries where the share of people who own a bank's account is small. In Africa, for example, where only one in four residents have a bank account, but according to The Economist (2015), more have access to a mobile phone, new payment mechanisms are being developed and mortgage loans that have a poor history of credit are being lent from.

Digital currencies such as Bitcoin can also disrupt traditional payment systems. Encryption techniques control the production of monetary units using blockchain technology in these currency systems or cryptocurrencies. Its infrastructure consists of a shared electronic registry in which payments can be checked decentrally using a system of document blocks. It enables the exchange of ownership between peers without intermediaries to validate the transaction, with a large number of computers sequentially authenticating that transaction. Blockchain technology can be disruptive as it opens the door to many cost-saving innovations. It also makes a currency without government backing or a reliable intermediary feature for which banks are qualified.

Fintech rivals disrupt traditional banks, despite the fact that banks respond to the digital world. New entrants were able to utilize hard (modifiable) information on the basis of sound data to erode the traditional relationship between the bank and the customer.

Nonetheless, most new competitors are free to request a banking license to avoid compliance costs and attempt to steal profitable business from the banks. A potential benefit for new entrants is to leverage the skepticism of banks that centuries have built when providing digital services to a younger generation. Banks have historically focused on commodities and new entrants have become more involved.

According to Deloitte Report (2016), Fintech rivals are pressurizing the banks' traditional business model. Two competitive advantages for banks that could be undermined by new retail competitors are that (1) banks can borrow cheaply and directly or indirectly government insurance with access to cheap shops and (2) have privileged access to a secure customer base with which a range of products can be marketed. The availability of deposit insurance may make new rivals as banks easier to enter, but the entrants must pay the cost of the banking license and enforcement expenses in this situation. Buchak et al. (2017) found in the US mortgage market that traditional banks have somewhat lower shadow financing costs and that they provide better products than shadow banks (but still lose market share in terms of the rise in their regulatory burden). Fintech companies benefit from the situation, but rely on state guarantees both explicitly and implicitly. This reality suggests that the entrance into the new technology intermediation market would depend greatly on the implementation of regulations and government guarantees.

The full-scale entrance of leading global Internet companies bring real disruption. In reality, companies like Amazon, Apple and Google already have Fintech operations but have not resolutely entered the market. Nonetheless, their ability is very growing, as they have access to massive amounts of customer data and can monitor the financial services network for them. Payment services are growing rapidly, with nearly 150 million customers in the first half of 2017. Since its launch in 2011, Amazon's lending has been growing steadily. Also social media platforms may use their awareness of their users to cross-sell financial services.

The impact of Fintech firms on capital markets and the banking sector is starting to be felt. This work aims to explore its growth and development, its effect on the structure and strategies of the chosen institution and of incumbents and potential participants. Fintech firms have high welfare capabilities for people and the business world, but they are disruptive in the banking sector whereby legislation should be adjusted sufficiently to

achieve the results of the new technology without interfering with financial stability. Although Fintech may be considered to be the integration of financial services using revolutionary knowledge, according to the Bank for International Settlement (2018), new business models arose as a result of the use of large amounts of data which presented Fintech with the ability to challenge traditional financial intermediaries such as banks. The effects of new techniques lead to lower prices of financial intermediation and better goods for customers. (KPMG 2017).

While banks are quickly adapting to the digital world, Fintech rivals slowly infiltrate their traditional business model. Vives (2017) notes that the new competitors were likely to use complicated data to avoid the banking and consumer partnership based on knowledge obtained from banks and customer relations. Nonetheless, most new competitors avoid seeking banking licenses to reduce compliance costs and to miss banks' profitable trade. The potential benefits for Fintech firms are based on the ability to benefit from the existing frustration of banks established over the years by offering digital services that attract young people. Traditional banks are interested in products and customers are more interested in the new entrants (Philippon, 2016).

2.3 Theoretical Review

This section conceptual analysis discusses the concepts of financial intermediation, structural theory and technology acceptance model (TAM). The quantitative analysis summarizes banks' restructuring and financial performance theories.

2.3.1 Concepts of Financial Intermediation

Financial intermediation is the transfer of funds to those in need of funds from economic entities with surplus sums. The principles of financial intermediation advocate for financing intermediaries focused on the presence of asymmetric information, increased trade, costs, enormous surveillance costs and the existence of regulation of the financial sector. Theory is based on the concept of resource allocation and is based on complete and perfect markets. The hypothesis also indicates that competitive competition is important for understanding and appreciation of financial intermediation, such as asymmetry and transaction costs. Information asymmetries cause market flaws, and most of these flaws lead to specific forms of transaction and cost monitoring (Merton, 1995). Through way of screening, financial institutions require adverse selection to be through. We rising moral

hazards in financial markets by introducing debtor control systems. The hypothesis also suggests that asymmetric data between surplus and deficit economic units contributes to financial market imperfections.

The second dimension of the principle relies on transaction costs. Through taking advantage of economies of scale, financial institutions tend to reduce transaction costs as economic entities deal directly with each other. The third argument is the method of controlling savings and investments in the economy. For example, the legislation can require financial institutions to retain rates of liquidity above the relevant thresholds and to recommend such deposit-to-capital ratios (Andries & Cuza 2009).

The theory of financial intermediation is vital to explain the relationship between restructuring and the attributes of no excluded commercial banks of financial institutions. The asymmetrical information component of the theory shows that, where financial institutions exist, regulation of the provision of information facilitates access to information on financial markets for the financial market participants. This also means lower costs to deal with adverse selection and moral hazards that reduce the risk of non-performance of loans and thus increase financial performance. The cost to carry out the transactions would lead to increased volume, technology development and managerial expertise leading to more financial services provided at a lower cost (Merton, 1995). The main critics of theory argue that the theory requires a large number of institutions which issued different types of securities. The existence of continuous time techniques for optional model pricing. Dynamic financial asset trading in technologically advanced financial markets enables these markets to compete effectively even if there are limited financial securities and financial institutions.

Two financial intermediation services are provided by the fintechs and commercial banks. Fintech has used innovation and technology to provide financial services more effectively and reliably at low transaction costs. They are also much less regulated than commercial banks. This has made them more competitive than banks. This research aims to find out what effect this has had on the Myanmar banking industry, particularly on traditional bank performances.

2.3.2 Structural Theory

The theory argues that institutions are social structures with standards and expectations that need to achieve a high degree of resilience. Institutions work in a wide range. We have different levels of authority for regional interpersonal relations from a hierarchical environment to another (Lounsbury, 2008). Institutional theory examines the deeper qualities of the social structure and takes into account mechanisms through which the accepted guidelines on social behavior in organization structures such as schemes, standards, routines and rules are embedded (Scott 2004). Banks undergo consolidation to deliver services to remain competitive with different customers. Restructuring allows businesses to adjust their design and form to increase their performance.

Scott (2004) argues that organizations must conform with environmental rules and values in order to survive in a competitive environment, because isomorphic entities continue to gain legitimacy as a result of processes or practices, like goods or services provided by an entity. For example, MNCs in different countries with different institutional contexts tend to face differential pressures and are required to use the approach of restructuring which takes account of the circumstances in the world, including its ownership. In every market the business approach continues to be affected by conditions in these economies. Knetter (1989) states that businesses in multiple industries have different responses to the same problems (economic, political, social) which form an institutional framework for environments that provides companies with advantages in certain activities.

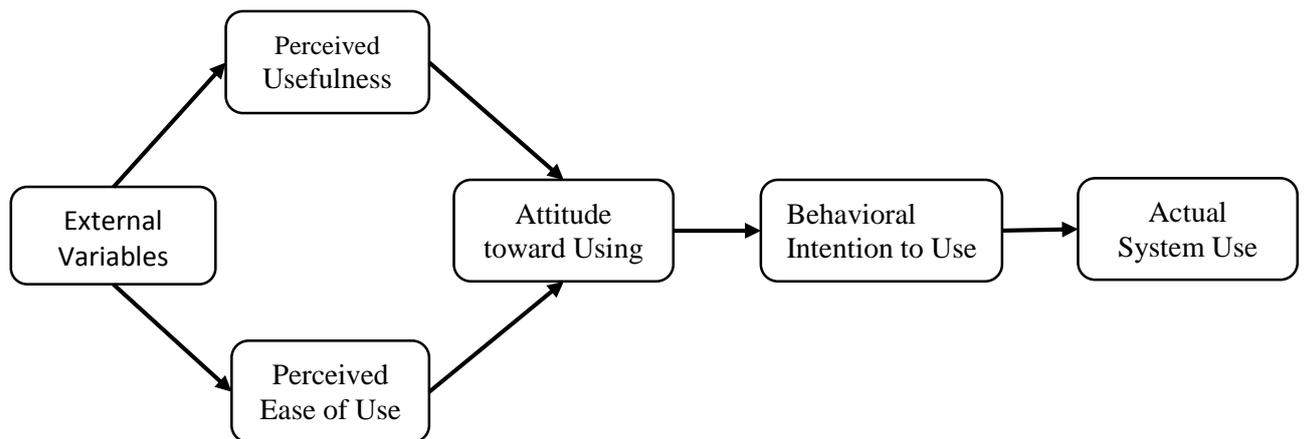
Consequently, structural theory requires that organizations should adapt with their conditions. The environment has progressed to the use of mobile telephones, which have greatly increased convenience and transaction costs. Social media and other Web channels, which have generated large data that Fintech uses to minimize asymmetries of information when providing financial services, are also available. To be able to survive and thrive, banks must adhere to the present social structure and environmental behaviors.

2.3.3 Technology Acceptance Model (TAM)

Davis, Bagozzi, and Warshaw (1989) first proposed the Technology Acceptance Model (TAM) to examine the conceptual model of the user intention or the extent to which the information system or new technology was done. TAM was built on the basis of

the new technology's expected ease and utility. Perceived technical utility requires a person's belief in enhancing job performance by using information systems or new technologies. The easy use of the new technology means how easy an individual learns how the new information system and technology can be used or operated (Baker et al. 2015). The TAM concept has stressed further how perceived ease of use of new technology has a direct effect on the understanding of technological usefulness. An external parameter, such as variables related to the environment, influences perceived utility and ease of use. Thus, the Technology Acceptance Model has a basis in both important perception factors which are perceived to be easy to use and useful. The Engineering Acceptance Model was widely applicable to research involving IT. Liu and Arnett (2000) analyzed the key variables to create a lucrative TAM model website.

Figure 2.2: Technology Acceptance Model (TAM)



(Source: Marina, 2009)

Study by Luarn & Lin (2003) combines technology acceptance and trust to develop a new integrated model that explain consumer behavior while interacting with online technology. Pavlou (2003) suggested an electronic customer adoption e-commerce system by distinguishing and using innovative models and surveys. Horst, Kuttschreuter and Gutteling (2007) conducted subsequent research. Experts discussed whether or not the Dutch government should provide people with an online portal for access to government

facilities such as other nations. They research TAM influences such as perceived risk, confidence and public knowledge. The results of the empirical study demonstrated the e-government principle based on full confidence in government firms and IT-related citizens. The empirical study showed that the Framework for the adoption of technology does not simply explain how new-technology consumers embrace and implement the media, but also means that it is appropriate for understanding the actions of the digital user of software (Pavlou, 2003; Horst et al., 2007).

The Model of Technology Acceptance is a key element in the current study on Shwe Bank's performance by fintech companies. Just as fintech firms embrace and expand, it is not only enough for banks to create new banking solutions, but innovation must also be embraced and adopted by bank customers. TAM is designed to ensure that the new technology is considered valuable and convenient to use. Perceived engineering utility implies an individual's confidence in enhancing the level of job success through a certain information system or new technology. New technology can be quickly interpreted to make it easy for a person to learn to use or run a new information or computer program (Baker et al. 2015).

2.4 Deciding factors of Financial Performance

Financial performance of banks are mostly measured by CAMELS rating. Capital adequacy, assets, management capability, earnings, liquidity and sensitivity are the indicators to measure bank's financial performances. But ROA is mainly used to measure bank's performances in terms of business activities.

2.4.1 Capital Adequacy

In the determination of bank financial performance, Athanasoglou et al. (2005) report that capital is a significant variable. Capital is the investment of the holder which finances the operations of the bank and serves as a hedge against negative events. In capital markets that do not look perfect, well-capitalized banks must reduce borrowing in order to support a certain asset index and tend to be subordinated to lower financial costs due to lower prospective bankruptcy costs.

A well-capitalized bank shows the market that a higher average performance is expected. Athanasoglou et al. (2005) found that capital investments impacted the

competitiveness of banks positive, which represents the banks ' sound financial position. Berger et al. (1987) have acknowledged strong causalities between capital investment and organizational productivity.

2.4.2 Size

Bank size defines the degree to which legal and financial considerations impact a bank. The Bank's size is also strongly linked to capital adequacy, as large banks collect less volatile assets and earn enormous profits. The size of the bank has a positive correlation with the return on capital that indicates that large banks can achieve scales savings that reduce operational costs and therefore help banks improve their financial performance (Amato & Burson 2007). Magweva and Marime (2016) link bank size to capital ratios, which claims that they are related positively to each other, suggesting that profitability increases as size increases.

An organization's own resources decide their scale (Amato & Burson, 2007). It is suggested that big businesses have sufficient resources to pursue a number of large ventures with better returns than organizations with small amounts of total assets. In fact, companies with large sums of total assets may continue to allocate credit and other lending instruments in comparison to their smaller counterparts (Njoroge 2014). They are subject to sufficient guarantees. Lee (2009) determined that the total assets controlled by a company as measured by the total assets affect the profitability recorded from year to year.

2.4.3 Liquidity

Liquidity is the rate in which an individual is willing, by cash or cash equivalents, to cope with debt obligations that occur in the next twelve months, e.g. investments that are short-term, easily be turned to money. Liquidity is the product of managers ' ability to fulfill their policyholders and other lenders ' commitments, without having to increase the income from performing, acquisition, and liquidation operations. (Adam & Buckle, 2003) 2003)

According to Liargovas and Skandalis (2008), in the absence of foreign funding, liquid assets may be used by businesses for the financing of their operations and

development. Higher liquidity companies are able to deal with unexpected and unforeseen contingencies and meet their obligations in low-earnings periods. Almajali et al. (2012) observed that stability may have a significant impact on financial performance for insurance companies and proposed that insurance undertakings would seek to increase their current assets while at the same time reducing their current liabilities. Jovanic (1982) observed, however, that liquidity excess may sometimes lead to more harm. The effect of volatility on the financial performance of businesses is therefore unclear.

2.4.4 Return on Assets (ROA) and Return on Equity (ROE)

Gregory Ibendahl (2018) stated that, The Federal Financial Institutions Examination Council currently has 21 metrics to be used to determine a bank's financial status. The ROA (Return on Assets) and the ROE (Return on Equity) are two of the metrics most used.

Those two ratios offer information on a bank's productivity. ROA reveals a return on its assets, while ROE reveals a return on its equity. Depending on the circumstances, values for what are considered "good" values for ROA and ROE can vary. Although the ROA ratios are generally considered good at about 5% or higher, the ROE ratios are regarded as good at about 10% or higher. Overall, though, banks' earnings ROA and ROE have "good" rates of return far below the "healthy" returns one could expect from buying shares or investing in similar risk capital.

ROA and ROE only tend to be small to other assets, including shares, owing to the measurement of proportions. In calculating the investment in stocks, both the increase in stock price and any stock dividend would be included in calculating the rate of return. ROA and ROE only include in the calculation the income of the bank. Every change in prices are left out of the estimate. Value increases are where most shareholders see improvements in income.

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income}}{\text{Net Total Assets}}$$

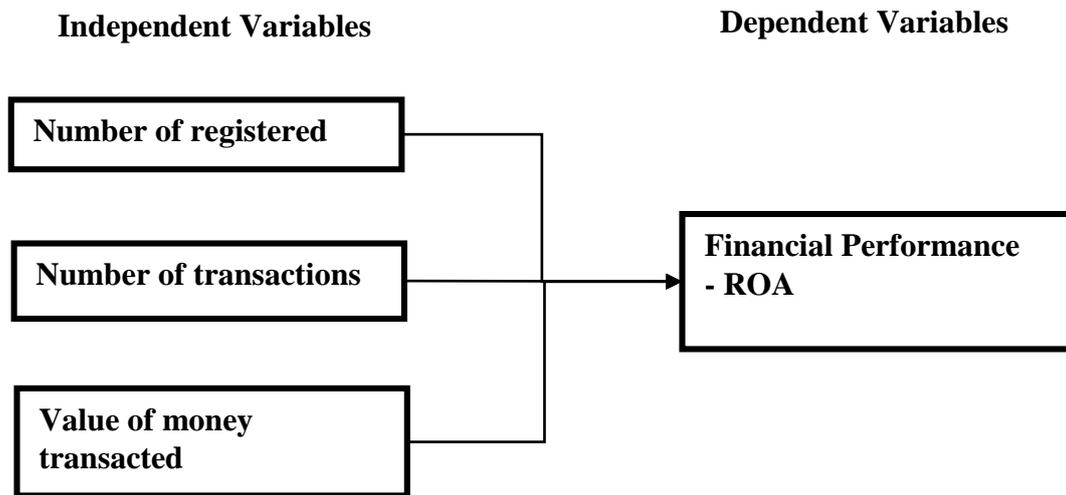
$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Shareholder Equity}}$$

Equations of ROA & ROE (Source: Investopedia)

2.5 Literature Review

In order to achieve the research objectives different variables in the analysis can be described as related as shown in Figure 2.3 below.

Figure 2.3 : Conceptual Framework



Source : Nguna Kiilu (2016)

Independent variables are number of registered users, number of transactions and value of money transacted. As a successful business is based on customer base and repetitive customers, these independent variables will describe financial performance of Shwe Bank in term of Return on Assets (ROA). Independent variables of Shwe Bank from January 2016 to December 2019 was used in this study.

CHAPTER 3

FINTECHS OF SHWE BANK

This chapter provides overview of financial technologies in Myanmar banking sector together with profile of Shwe Bank and its fintech.

3.1 Overview of Financial Technologies in Myanmar Banking Sector

Myanmar's banking history dating back to the 19th century when, during Britain's colonial rule, Myanmar opened its Yangon branch in 1861 and the Indian Presidency Bank in Bengal (Tin 2013). The Yangon Branch of the Reserve Bank of India was Myanmar's first Central Bank (1939-1947). After the independence of Myanmar in 1948, the banking sector, including local authorities, accounted for at least one quarter of Myanmar's gross domestic product (Tin 2013). But in 1963, after the taking over of state power by the Revolutionary Council, all the banks (10 domestic and 14 foreign banks) were nationalized. As a result of the existing democratic banking system, nationalized banks had been introduced, aimed at increasing the level of coverage (banks were present almost solely at Yangon before).

After independence the nation has received a total of three demonetization waves, the last in 1987, which made 75% of the currency worthless. A new financial legislation was promulgated in July 1990 such as the Central Bank of Myanmar Legislation and the Financial Institutions of Myanmar Law. The first private bank licenses were eventually issued in 1992.

In early 2003, the collapse of several unregulated finance companies of the Ponzi kind, which at that time benefited from a poor interest rate regime, finally led to a banking, financial and economic crisis in Myanmar. The banks stopped most monetary transactions, including payment of employees and business operations. Although private banks tried to gain liquidity by selling their assets, they often recalled their loans, which in effect compelled individuals and companies to sell and terminate or shut their business activities in order to meet their credit obligations. A secondary market for frozen bank accounts, with rates well below face value, was one of the repercussions. This banking crisis has severely affected confidence in the banking and financial system, already rocked by the waves of demonetization.

In order to regain public trust, private banks are making great efforts to provide good customer service. Since 2006-2007, their activities have been active in growing loan and deposit portfolios. Nevertheless, the banking sector in Myanmar remains underdeveloped and the economy is mostly in currency.

Financial inclusion is one of the government's top goals as Myanmar continues its economic transformation. In Myanmar, a nation in which money is still dominant, dramatic technical changes have occurred over the years in its banking and finance industry. Residents are gradually moving away from their homes to save and raise money and to save money in banks and use cards such as ATM cards and Myanmar Payment Union (MPU) cards. (The central payment network is MPU). In addition, the mobile telephone connectivity rate in 2019 reached 95%, compared with less than 10% in 2014. Mobile telephone coverage and Internet penetration have increased significantly, allowing people in Myanmar to access virtual financial services through mobile applications and internet portals. The percentage of the population of the country with a bank account remains below 20 percent.

In March 2016, the Central Bank released a ' Mobile Financial Services' (MFS) regulation to create a safe atmosphere to govern mobile financial services in Myanmar. Mobile network providers and non-bank financial institutions can now apply for a MFS license for electronic money transfers and other financial services based on technology in a region. Wave Money is the first mobile financial services provider to be awarded a MFS license for developing a mobile money transfer system. A joint venture project between Norway's Telenor, Yoma Bank and First Myanmar Investments. Platforms such as Wave Money permit workers to transfer money via their money transfer application to their families in rural areas. And funds are raised at mom-and-pop shops throughout the world before or after regular banking hours, creating a digital "real" network of "ATMs."

ASEAN countries like Singapore and Thailand have already taken up the field of Financial Technology (FinTech) in Myanmar and formed alliances with local FinTech companies to provide tech-driven financing services. The first e-commerce payment system for direct payments for online purchases was created by a well-established Singaporean payment service provider and MPU. A Thai e-wallet company has signed an e-wallet service that allow for online shopping and self-checking with a Myanmar retail chain.

Electronic payment systems and digital wallets are currently two of Myanmar's most exciting FinTech industries. There are currently at least 10 FinTech companies providing online banking, mobile telephone updates and multiple payment services including e-bills. Because of expanded mobile and Internet penetration, Myanmar companies and consumers quickly adapt to Fintech. Given the widespread population without bankruptcy, smartphone apps are an effective way to 'leapfrog' a higher standard of service and skip holding a bank account in a physical location, to provide digital finance services to rural residents. The new FinTech hub is Yangon, the financial capital of Myanmar.

When financial technologies and services move from manual to digital, financial institutions and non-financial institutions in Myanmar spend a great deal in digital security. FinTech businesses are adopting innovative cyber security technologies to deter cyber-attacks and reduce reputational risk due to potential data breaches and monetary losses.

3.2 Profile of Shwe Bank

On 14 February 2014, Shwe Rural and Urban Development Bank registered as a limited company to the Division of the Ministry of Planning and Environment of the Union government and issued a banking license to the Myanmar Central Bank on 28 July 2014. According to the aforementioned approval, on 11 January 2016 at the corner of Merchant Road and Pansodan Street, Yangon, by the Union Government and by the Central Bank, Shwe Rural and Urban Development Bank (Head Office) and Head Office Branch was opened.

Shwe Bank was established. It is a private bank with approved share capital of Kyat 100 trillion and paid-up capital of Kyat 60,525 trillion. The cutler, while catering to domestic and international finance industries at the same time. At December 2019, the bank's capital ratio was 25.57%, sufficient to meet the minimum 10% cap of the Central Bank of Myanmar. It aims not only to provide people with safe deposits, it also aims at facilitating the commercial development of individuals and businesses by giving loans and advances. It also supports Myanmar Economy.

Shwe Bank offers banking services such as domestic transfers, foreign transfers, exchange, the acceptance of savings, current or fixed deposits as well as credit and

deposits, the purchasing operations of operating hires, the issuance of bank guarantees, online payment system operations, business financial services, 24-hour ATM transactions and the provision of a customer calling centre. It also offers bank services in accordance with the provisions of the Central Bank of Myanmar's rules and regulations.

Also available in the banking industry are various other conventional services and modern related services known as agency services and utility services. This includes money transfers, regular payments, collections, drafts and other programs. Shwe Bank communicates not only in branches with its clients, but also through mobile phones and internet banking platforms. Bank services are offered not only in traditional ways but also through modern technological integration. For many years now, debit cards like MPU, VISA, Master, JCB and CUP are in use. It is a national payment platform that allows card holders to connect and withdraw to any Member Bank POS. MPU is a national payment platform.

3.3 Developments of Fintech in Shwe Bank

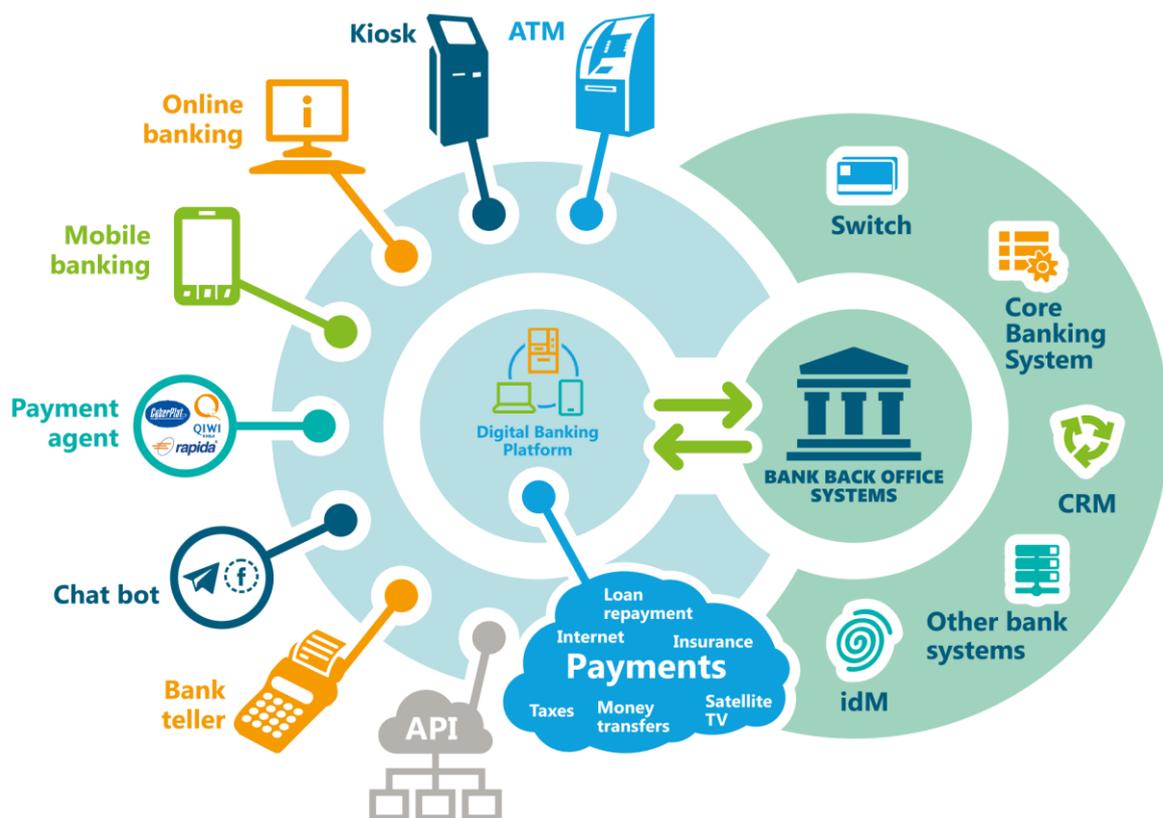
Until Shwe Bank was founded in 2016 there were over 24 banks and big players in major cities were mostly dominated by the industry. Yet Management has seen the new possibilities for banks around the globe and has opted to use the core banking system, the cornerstone of modern banking.

3.3.1 Core Banking System

The banking sector is expanding rapidly. In the past, what was a deposit-and-loaning network has become a full-service company delivering a range of services. However, it is a daunting task to implement a core banking system and many banks still hesitate to face up to this challenge. The enormous cost, time to complete, and cultural change are just a few of the obstacles a bank has to face. The Wikipedia states that "central banking is a financial service provided by a network of linked Bank branches where customers have access to their bank and carry out simple transactions from any of the member branches." Core Banking is, to put it simply, an interconnected banking system which allows customers to carry out diverse banking activities from all over the world and to conveniently benefit from superior banking services.

As Myanmar banking industry was outdated and it took a full day for a transaction to take into account several decades ago, as data from the local branch servers were only sent to the data center at the end of the day. That's a question of the past, however. Any financial operation can now be completed within a few minutes with the central banking transition. And the best thing is that the consumers need not even enter the branches of the bank. Core banking applications can simplify multiple banking operations while increasing front-end employees' workload. Staffs should focus on more important tasks such as selling new products and customer satisfaction, given that a lot of back-end work is carried out via automation. The unified communication system is also a useful feature that significantly helps improve workplace productivity. It enables employees from various industries to communicate more rapidly and seamlessly.

Figure 3.1. Typical Core Banking System



(Source : Raniel Core Banking 2019)

Core banking systems can integrate many separate programs while reducing maintenance and operational costs. This allows banks to move to a shared services model and to cut costs to maintain traditional systems. Banks can handle a large volume of

clients without a lot of infrastructure and support without locating independent banking. Services such as centralized backup and printing also help to reduce costs, as separate systems in the branches need not be maintained.

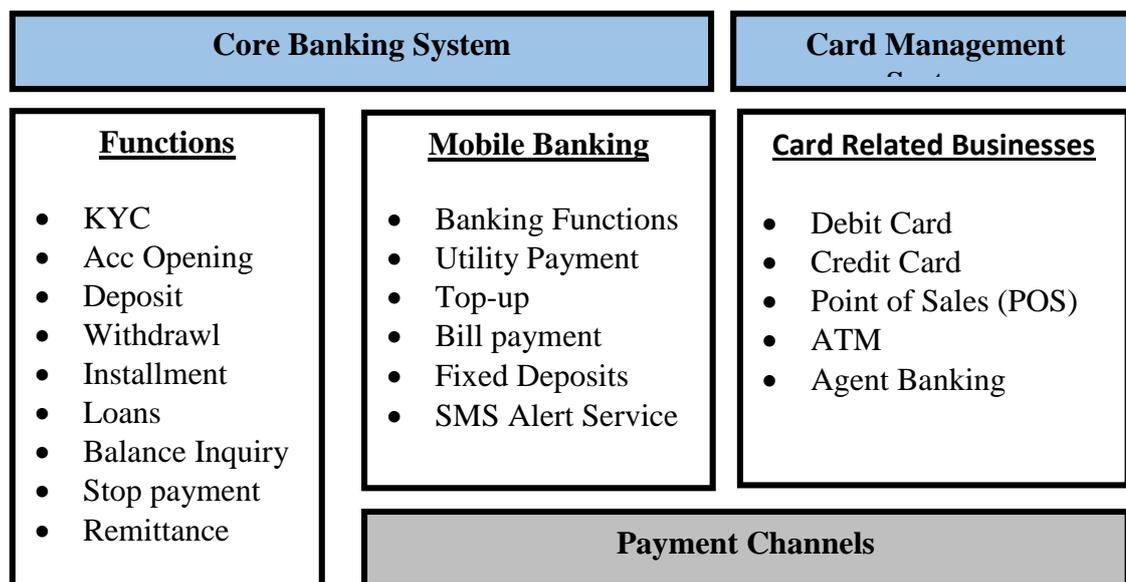
The days have passed where people have had to attend bank branches and wait in long queues to carry out every form of banking. Today customers are getting a better banking experience without having to fly to bank branches by incorporating key banking systems. Core banking services offer banks services on a range of channels, including internet banking, mobile banking, ATMs, etc. Customers can also enjoy banking from all over the world and carry out numerous bank operations.

Another explanation why banks should use core banking services is to standardize processes. Core banking solutions simplify and simplify business processes end-to-end while making them smarter and more efficient. The time to launch new products is growing as a result. Banks are able to minimize manual operations while avoiding human error by standardizing business processes. It helps banks to provide competitively priced products and to shift towards intelligent income growth.

Unless customers are satisfied with it, they are less likely to purchase additional products from existing suppliers. They also tend to switch suppliers, and not just that. It is essential to have your queries answered and resolved at the earliest opportunity to keep a customer happy and to ensure that they continue with a business. Core banking systems enable banking companies to provide and maintain better customer support for the long term.

Shwe Bank and its management decided to use Oracle Core Banking System to improve employee efficiency, to minimize the cost of operation, to convenience to the customers, to improve customer retention rate and to standardize banking processes. There are also some important reasons why banks should continue with the core banking cycle today. The trends of the industry are always evolving and consumer expectations are changing. To order to remain competitive on the market, a bank must choose the best core banking strategy and pursue the necessary measures to successfully implement it. Happy customers are the cornerstones of Shwe Bank. Core banking services allow banks to provide 24/7 banking services on an individual basis, while increasing customer satisfaction.

Figure 3.2. Fintechs of Shwe Bank



Source : Survey Data (2019)

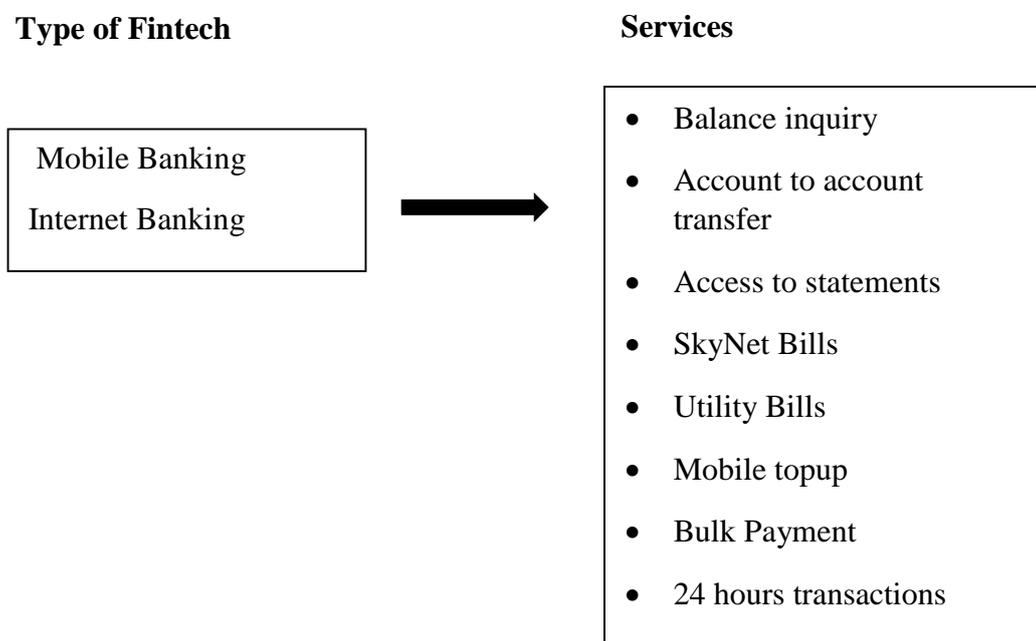
3.3.2 Mobile & Internet Banking System of Shwe Bank

Mobile banking is a Shwe Bank system that allows consumers to make financial transactions directly using a mobile phone or tablet, for example. Mobile banking is a network. It uses software, commonly known as an app, supplied for purposes by Shwe Bank. Mobile banking on a 24-hour basis is available. Customers determine which mobile banking accounts they can use and the amount to be transacted can be restricted. The availability of Internet or the data connection to a mobile device relies on mobile banking.

Mobile Banking transactions rely on the features of the mobile banking software which usually involves accessing account balances and lists of recent transactions, payment of online bills, P2P purchases and transfers of money between accounts of a company or another. The Shwe Bank Mobile Banking App also offers the possibility of downloading and sometimes printing copies of statements at customer premises. The use of a mobile banking app increases ease of use, speed, accessibility and privacy, also because it combines mobile security measures and consumer oriented application security

systems. In the banking context, mobile banking decreases transaction cost by minimizing consumers' need to visit a branch of the bank for non-cash withdrawal and deposit. Mobile banking does not comply with money-related payments and the customer may make a cash withdrawal or deposit at an ATM or bank branch. This reduces the expenses of Shwe's bank by using mobile banking, increases customer experience, enhances security and allows app data to be obtained and maintained.

Figure 3.3. Services of Mobile & Internet Banking



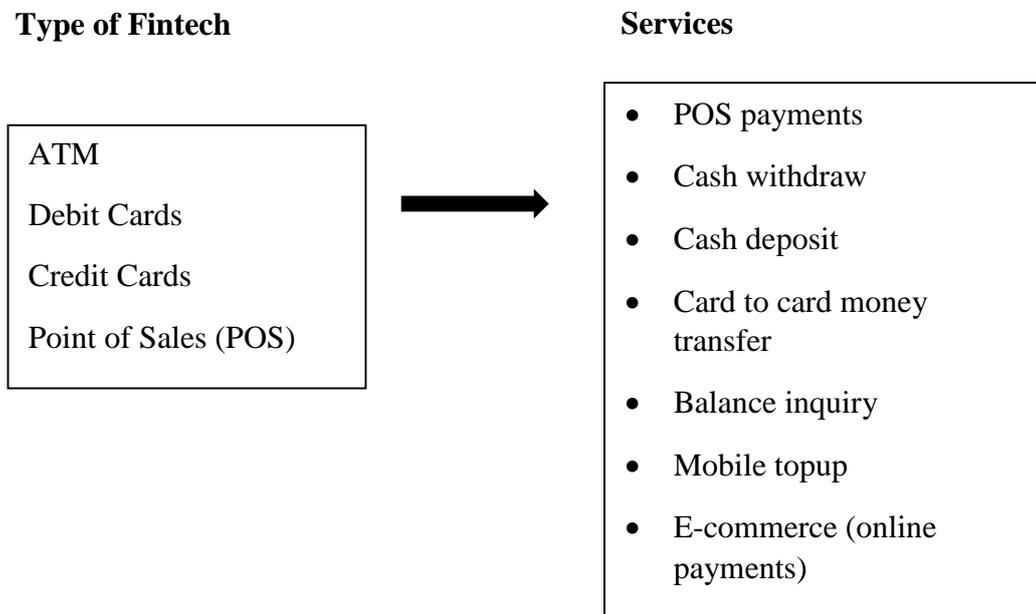
Source: Survey Data (2019)

3.3.3 Electronic Banking

From the beginning of the Shwe Bank Electronic Banking Department was set up. Since the first branch, the bank has become one of the first banks to offer services such as ATMs, POS (Sales Point) and Debit Card. Electronic banking is one mechanism that allows for the transfer of money, not through cash, checks or other forms of paper documents, by means of an electronic signals exchange. Transactions between banks and businesses, such as stores, take place. Whenever someone withdraws cash or pay for food by means of a debit card from an automatic teller machine (ATM), funds are transferred

via electronic banking (that draws the amount due from an savings and/or checked account in the store).

Figure 3.4. Services of Electronic Banking



Source: Survey Data (2019)

Electronic banking depends on comprehensive computer systems (Core Banking System) communicating through telephone lines. Such software systems record money transfers and ownership and monitor customer methods and banking use for accessing funds. Access code, such as a personal ID (PIN) can be used to collect the money from an ATM machine by a common method of access (or identification).

The electronic banking systems are different and vary in size. A small system is, for example, an ATM network, a series of linked, automated dealer systems connected to a centralized core banking system. As user convenience is that key in these days, and the country is going to a cashless society, ATM and bank card services (Debit & Credit) can boost the attractiveness of customers to the bank. It also offer E-commerce which customers can buy or sell products online, make and receive payments.

3.3.4 Agent Banking

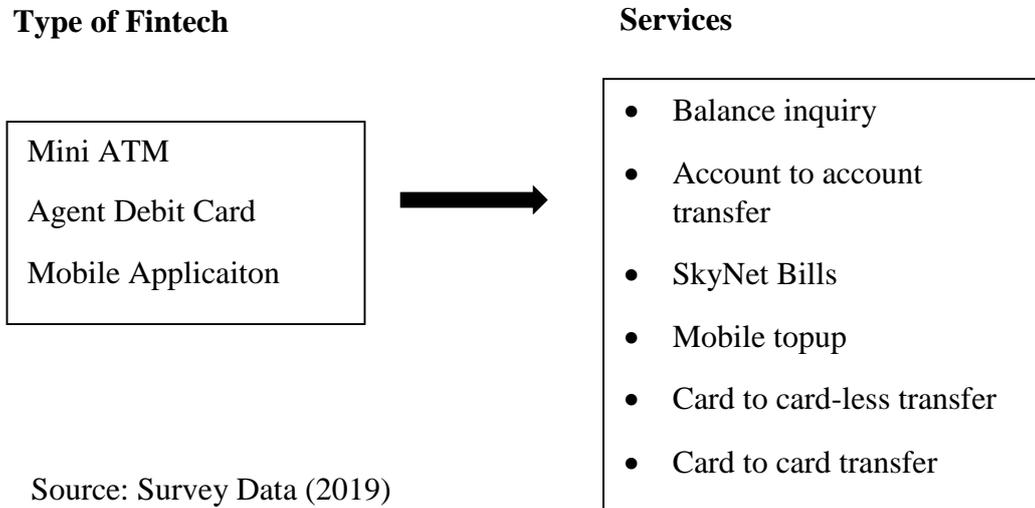
According to GIZ Report (2018) only 26% of adult population has access to bank accounts in Myanmar. While 70% of population are living in rural areas, it is not easy for them to come to bank branches which are only situated in towns and cities. Shwe Bank's aim is to give latest financial services to all rural and urban areas, Agent Banking also play the vital role to meet its vision.

A banking agent is a retail outlet contracted by Shwe Bank to process clients' transactions. The owner or retail employee conducts the transaction instead of a branch teller, allowing customers to pay, retire, redevide, or collect governmental benefits or direct deposits from their employer. Instead of a branch director, he is the owner or retail employee. Banking agents can be banks, supermarkets, food stores, lottery outlets, postal services, etc.

Such distributors were increasingly used for the Shwe Bank as major distribution channels. Agent are typically equipped with a combination of a card reader for point-of-sales (POS), a mobile phone, a mobile banking account, a personal ID (PIN) pad and, sometimes PCs that link via a personal dial-up or other data connection with the bank's database. Customers who transact with the agent have access to their bank account via a magstripe bank card and mobile phone. Usually, a PIN is used to identify customers. Banking agents are close to any other remote bank networks for the payment confirmation, authorizing and settlement system.

Banking agents allow the bank to draw existing clients from crowded branches which provide an often more convenient "complementary" network. Some financial institutions use agents to enter an "additional" consumer segment or geography, particularly in developing markets. The penetration of poor rural consumers also costs financial institutions prohibitively since the amount and size of transactions do not cover the cost of a business. In such settings, the banking industry make a significant contribution towards offering multiple low-income persons their first access to a range of financial services by focusing on existing retail networks—and reducing setting and operating costs. Low-income customers also often feel more at home banking than entering a business.

Figure 3.5. Services of Electronic Banking



Banking agents are the backbone of mobile banking, i.e. transactions are carried out over a mobile device, usually a mobile. Customers need to visit a store, an automated ATM machine or a bank officer in order to convert cash into electronic money and vice versa, which can be sent via their mobile phone. In particular, a mobile banking system relies on Banking Agents for efficient use of the services in rural or distant locations where cash is the most valuable way to pay and transact.

CHAPTER 4

EFFECT OF FINTECH ACTIVITIES ON SHWE BANK

4.1 Research Design

The chapter is divided into four sections. The chapter is divided into four sections. It include; findings of mobile & internet banking service, electronic banking service, agent banking service and ROA analysis. The study analyzed the effects of fintechs on Shwe Bank's performance. The study was conducted for a period of 16 quarters, from January 2016 to November 2019. Data on income before tax, total assets, the number of registered debit cards, mobile banking users, number of transactions and values of transactions were obtained from related departments of Shwe Bank. The seasonally adjusted measurement values are taken from the quarterly banking statements.

4.2 Mobile & Internet Banking Performances of Shwe Bank

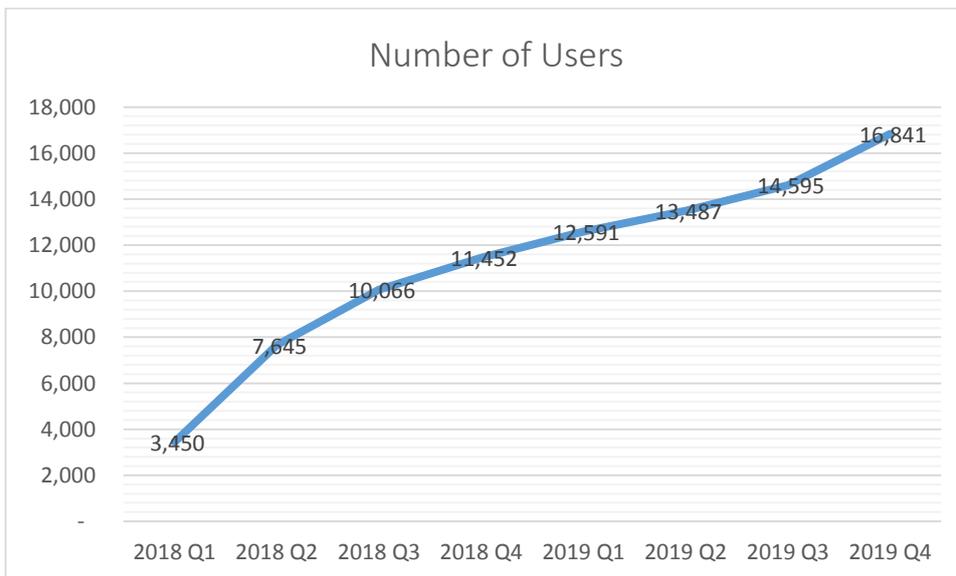
Shwe Bank launched Mobile & Internet banking service in January 2018. Despite bank branches operation hours, customers also want to use services 24 hours as their needs. Mobile & Internet banking filled their needs as they can operate easily from home or workplace. Customers need to open a Shwe Bank account whether its saving or current accounts, then they can apply this services. By using this services, customers can transfer money, pay bills, mobile top up and check their accounts within seconds. Below is the information of number of users, transactions and transaction volume in million kyats.

Table 4.1: Performances of Mobile & Internet Banking

No	Quarter	Number of Users	Transaction Volume	Transaction Amount (Kyats in millions)
1	2018 Q1	3,450	3,521	327
2	2018 Q2	7,645	14,517	1,033
3	2018 Q3	10,066	23,535	1,318
4	2018 Q4	11,452	33,216	1,828
5	2019 Q1	12,591	37,568	2,873
6	2019 Q2	13,487	36,919	2,952
7	2019 Q3	14,595	33,033	2,990
8	2019 Q4	16,841	28,833	2,690

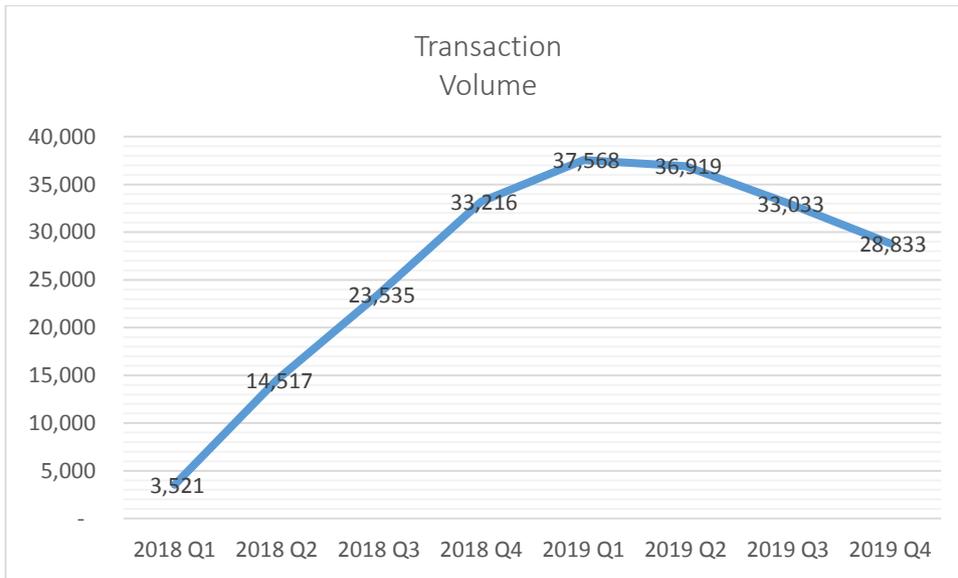
Source: Survey Data (2019)

Figure 4.1: Performances of Mobile & Internet Banking by Number of Users



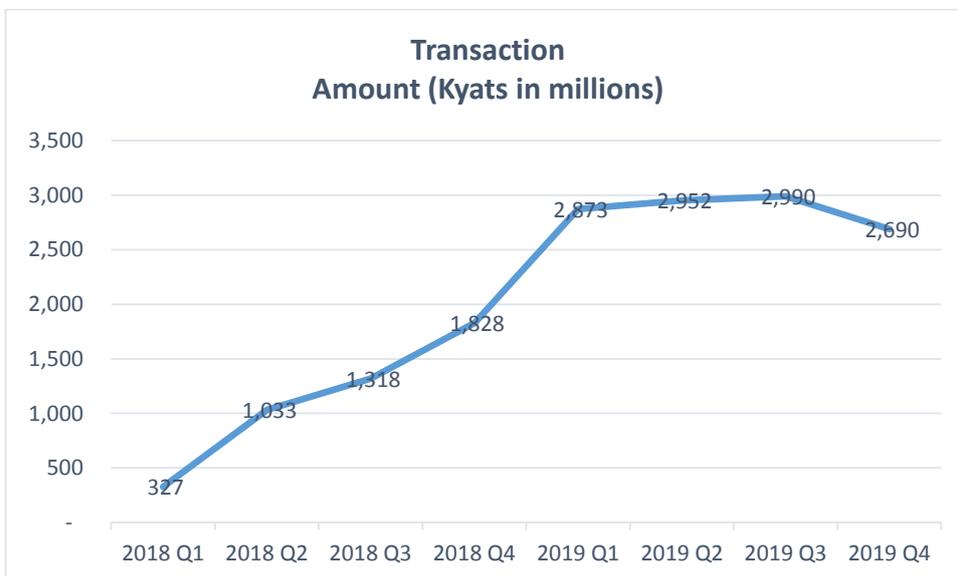
(Source: Survey Data 2019)

Figure 4.2: Performances of Mobile & Internet Banking by Transaction Volume



(Source: Survey Data 2019)

Figure 4.3: Performances of Mobile & Internet Banking by Transaction amount



(Source: Survey Data 2019)

There are significant user growth in mobile and internet banking from 3521 people on first quarter of 2018 to 16841 people on last quarter of 2019. Transaction volume between users seems high in number but growth rate wasn't in steady state. It went up to

312% in second quarter of 2018 (6 months after launching) but it went down to -2% on Q2 2019. Transaction growth rate even went down to -11 % and -13% respectively on Q3 and Q4 of 2019. As transaction growth rate went down, transaction amount also went down from 2990 million kyat to 2690 million kyat in Q4 2019.

4.3 Performances of Electronic Banking

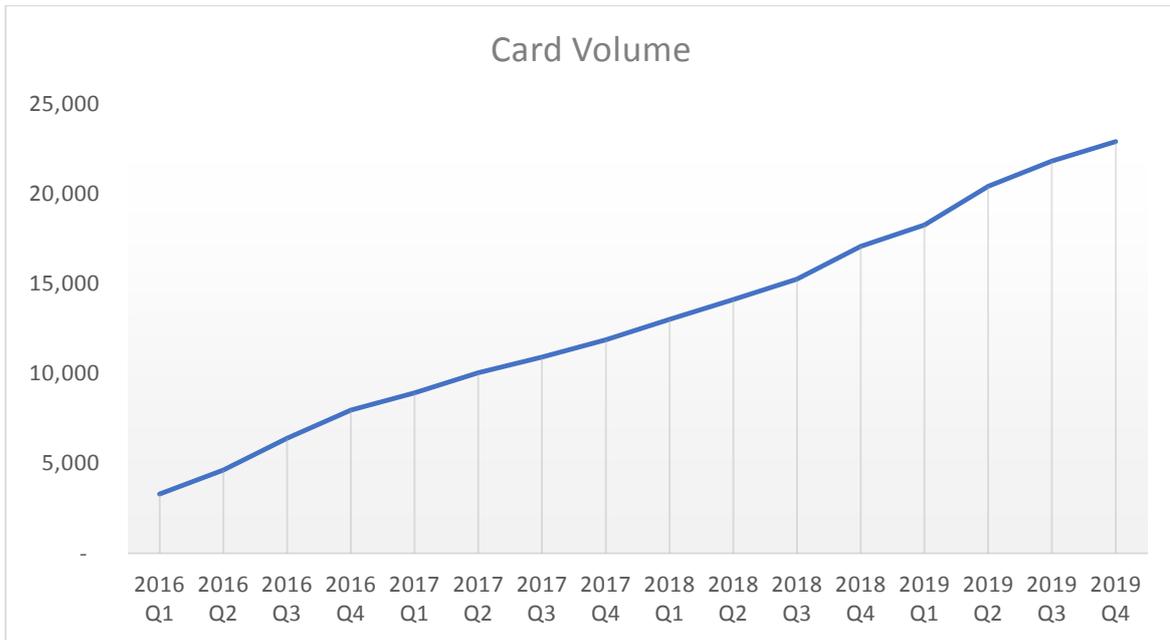
Shwe Bank was one of the very first banks that launched banking services using ATMs and Debit Cards. Shwe Bank installed 22 ATMs in Yangon, Mandalay and Mawlamyaing for customers. MPU Debit Cards can also be used across the country in all ATMs, POS and also in E-commerce. Below is the information of number of users, transactions and transaction volume in million kyats from January 2016 to December 2019.

Table 4.2: Performances of Electronic Banking

No	Quarter	Card Volume	Transaction Volume	Transaction Amount (Kyats in Millions)
1	2016 Q1	3,305	4,778	425.39
2	2016 Q2	4,642	12,897	1,936.19
3	2016 Q3	6,421	23,358	2,949.88
4	2016 Q4	7,981	24,036	2,860.50
5	2017 Q1	8,934	29,702	3,560.43
6	2017 Q2	10,055	27,885	3,938.62
7	2017 Q3	10,930	29,376	4,900.99
8	2017 Q4	11,895	39,011	5,206.29
9	2018 Q1	13,028	41,879	5,875.75
10	2018 Q2	14,123	42,351	6,441.86
11	2018 Q3	15,262	46,535	7,035.43
12	2018 Q4	17,101	58,093	6,979.39
13	2019 Q1	18,287	71,218	6,260.95
14	2019 Q2	20,430	91,892	8,003.11
15	2019 Q3	21,846	98,859	8,685.48
16	2019 Q4	22,924	75,131	6,282.48

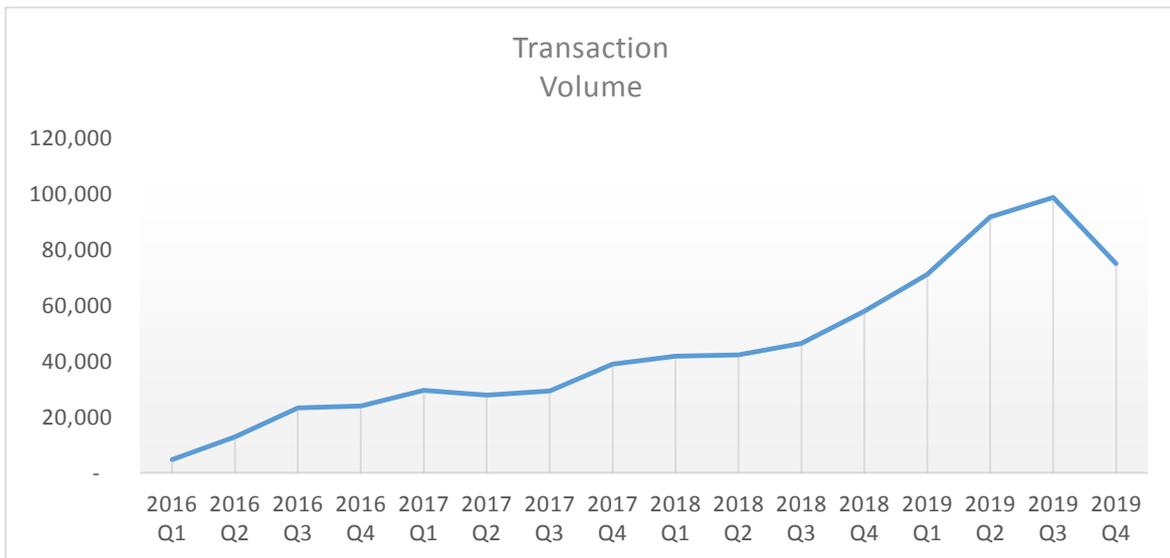
(Source: Survey Data 2019)

Figure 4.4: Performances of Electronic Banking by issued card volume



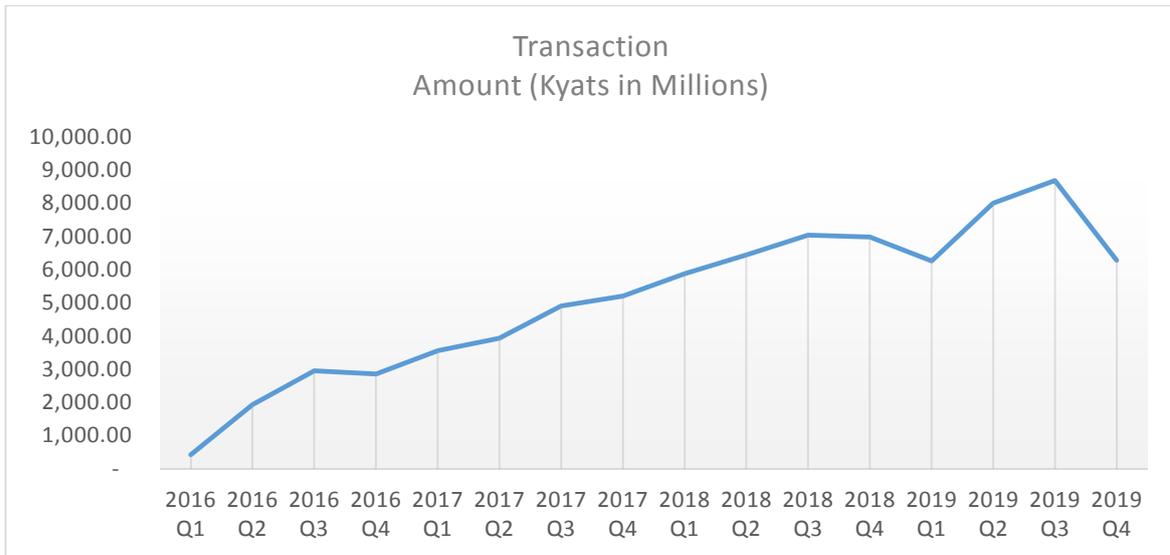
(Source: Survey Data 2019)

Figure 4.5: Performances of Electronic Banking by transaction volume



(Source: Survey Data 2019)

Figure 4.6: Performances of Electronic Banking by transaction amount



(Source: Survey Data 2019)

Electronic banking services started since first quarter of 2016. Users of debit card volume started from 3305 cards in Q1 2016 to 22924 cards in Q4 2019. Transaction volume also grew gradually from 4778 to 75131 transaction within 16 quarters. Transaction amount also grew from 425.39 million to 6282.48 million. The amount of card volume, transaction volume and transaction amount seems increase quarter by quarter but average usage didn't grow much as it should be. For instinct, transaction volume and transaction amount seemed high in Q4 2019 but average usage per card produced was only 3.3 times per quarter. To be cleared, a user only use once in a month to withdraw 85,000 kyats from own account.

4.4 Performances of Agent Banking

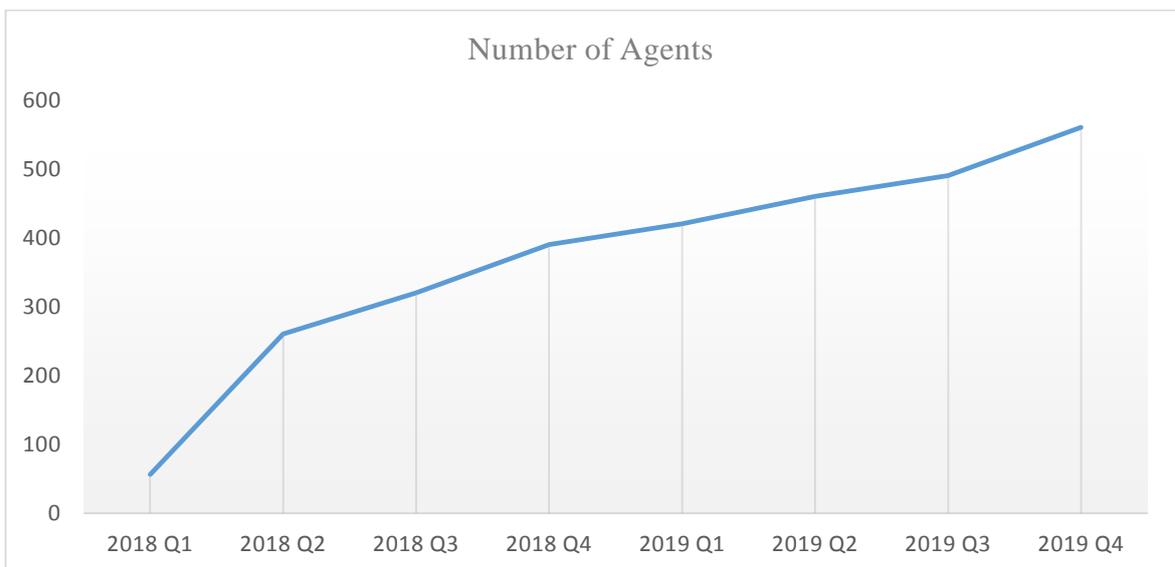
Shwe Bank's Agent Banking Department was established in January 2018. As it's stated in section 3.3.4, agent banking reaches from urban to rural areas to spread its financial services. Shwe Agents around Myanmar are giving services like, account opening, cash in, cash out, account transfers, cardless reservation, cardless withdraw, mobile top-up and off us transactions. Below is the information of number of agents, number of users, transactions and transaction volume in million kyats from January 2018 to December 2019.

Table 4.3: Performances of Agent Banking

No	Quarter	Number of Agents	Number of Customers	Transaction Volume	Transaction Amount (Kyats in Millions)
1	2018 Q1	56	1,826	7,523	325.32
2	2018 Q2	260	3,256	11,236	925.36
3	2018 Q3	320	9,562	36,985	3,122.20
4	2018 Q4	390	16,325	65,896	7,296.36
5	2019 Q1	420	19,655	89,632	8,325.22
6	2019 Q2	460	23,021	105,486	8,258.10
7	2019 Q3	490	25,223	125,623	10,212.96
8	2019 Q4	560	29,321	169,365	11,253.34

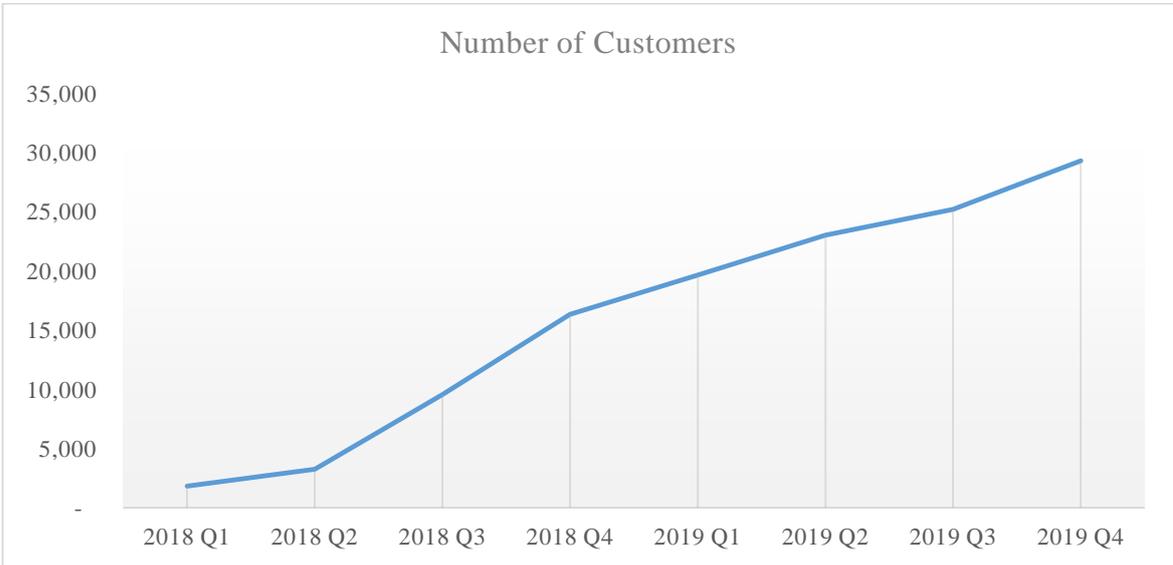
(Source: Survey Data 2019)

Figure 4.7: Performances of Agent Banking by number of Agents



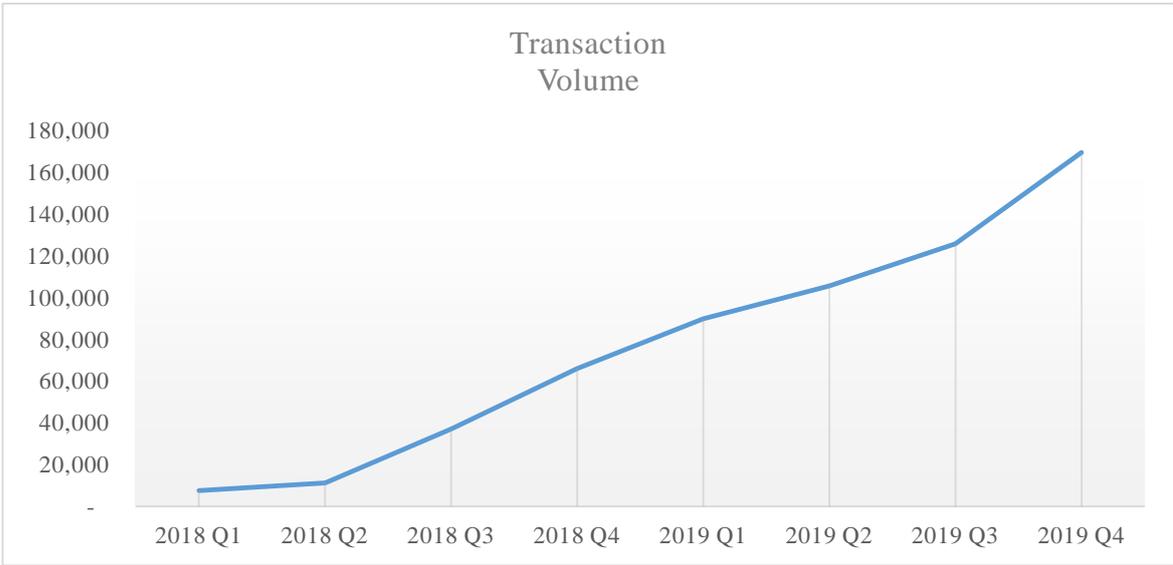
(Source: Survey Data 2019)

Figure 4.8: Performances of Agent Banking by number of customer



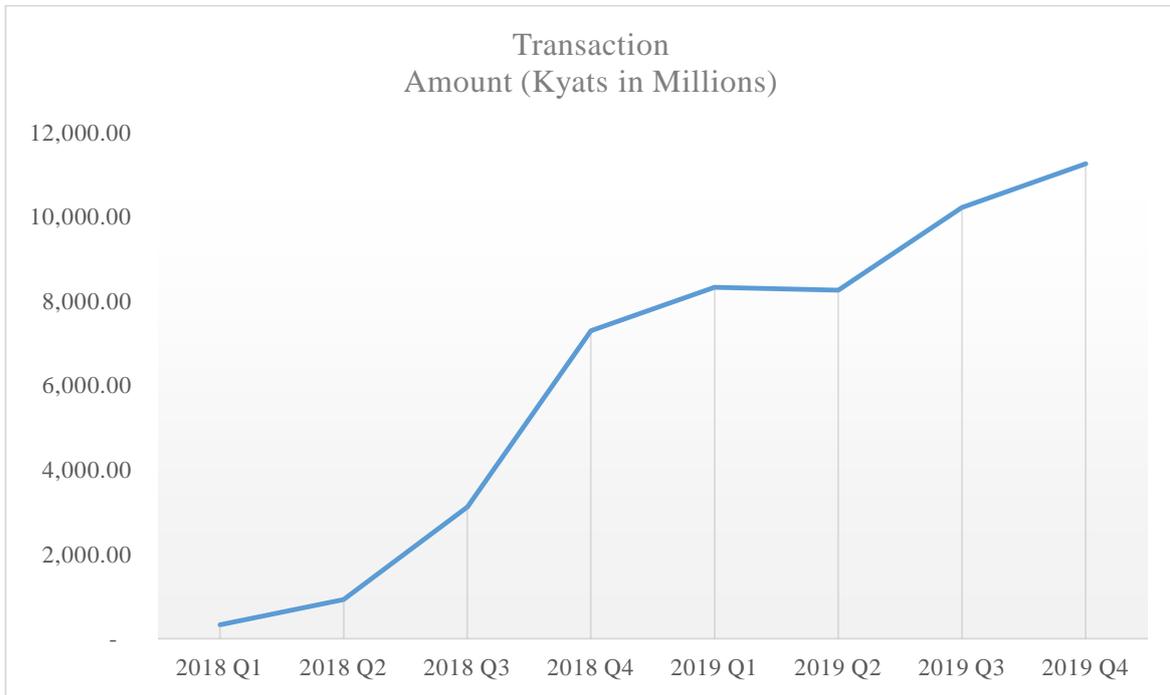
(Source: Survey Data 2019)

Figure 4.9: Performances of Agent Banking by transaction volume



(Source: Survey Data 2019)

Figure 4.10: Performances of Agent Banking by transaction amount



(Source: Survey Data 2019)

Agent banking was started the operation in Q1 2018 with 56 agents across Myanmar. Their number of customers, transaction volume and transaction amount grew significantly within 2 years' time. Agent banking is now operating with 560 agents now. Total transaction amount tolled up to 11253 million kyat in Q4 2019, as well as transaction volume reached to nearly 170000.

4.5 Performances of Shwe Bank by measuring ROA

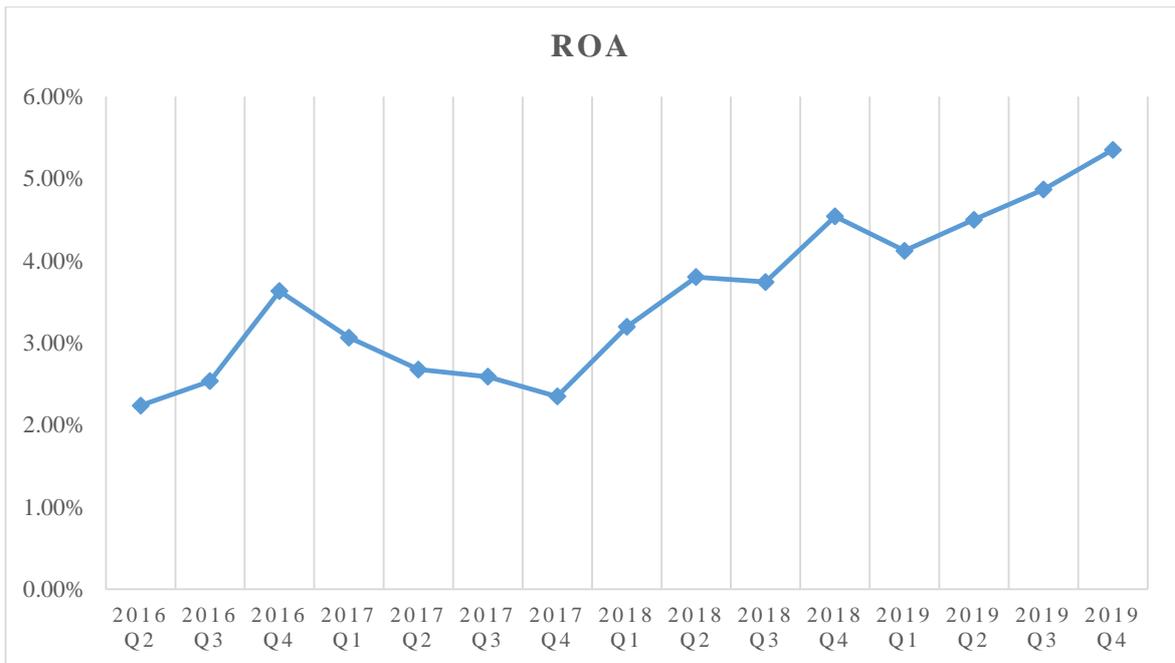
Return on assets (ROA) is a significant indicator of performance to assess Shwe Bank's success. ROA indicates that Shwe Bank is rentable compared with its total assets. ROA also provides an idea of how effective management uses its assets for profit generation. ROA is the Shwe Bank's average net profit ratio. For January 2016 to December 2019, the following information used Shwe Bank's net income and total assets.

Table 4.4: Performances of Shwe Bank based on ROA

Quarter	Net Income	Total Assets	ROA
2016 Q1	712.85	736.62	97%
2016 Q2	912.85	40,807.76	2.24%
2016 Q3	1,112.85	43,921.67	2.53%
2016 Q4	1,612.85	44,437.29	3.63%
2017 Q1	1,412.85	46,105.92	3.06%
2017 Q2	1,257.14	46,969.26	2.68%
2017 Q3	1,219.87	47,129.07	2.59%
2017 Q4	1,119.87	47,715.87	2.35%
2018 Q1	1,518.75	47,544.75	3.19%
2018 Q2	1,836.26	48,312.77	3.80%
2018 Q3	2,032.16	54,336.38	3.74%
2018 Q4	2,532.62	55,797.59	4.54%
2019 Q1	2,356.97	57,170.41	4.12%
2019 Q2	2,632.79	58,527.17	4.50%
2019 Q3	2,863.25	58,845.25	4.87%
2019 Q4	3,214.79	60,085.94	5.35%
			*Kyats in Millior

(Source: Survey Data 2019)

Figure 4.11: Performances of Shwe Bank by ROA percentage



(Source: Survey Data 2019) of Shwe Bank is measured in Return on Assets (ROA). ROA is calculated on net income over total assets. As far as assets increase, the percentage of ROA goes down if net income couldn't catch up the growth rate. A bank's financial performance is considered good when ROA rate is 5% and above. Shwe Bank's net income increase quarter by quarter, as well as total assets. Maximum ROA was 97% on Q1 2016 but it was just because of there was only 736.62 worth of assets in balance sheet. IN Q2 2016, ROA was 2.24% only. But it gradually increased on Q1 2018 to 3.19% and up to 5.25% on Q4 2019.

CHAPTER 5

CONCLUSION

This chapter includes three main sections: finding, suggestions and need for further research. First part consists of the finding of the study and research analysis of effects of Fintech activities on financial performances of Shwe Bank. In second part, it includes recommendations that are from findings. The last part presents limitations and needs for further research.

5.1 Findings of the Study

This study analyze effect of Fintech on financial performances of Shwe Bank. There are two main objectives in this study; to identify the fintechs which are using in Shwe Bank and to analyze the effects of Fintech activities on financial performance of Shwe Bank from January 2016 to December 2019.

To meet the objectives of the study and to analyze, data from Fintech activities of number of registered users, transactions and value of money transacted are collected through survey. Over 1.5 million transactions were made during 48 months from over 20000 customers. Analyzing the effect of Fintech activities of Shwe Bank were mainly focused in three areas of mobile & internet banking, electronic banking and agent banking services.

Shwe Bank's mobile & internet banking service was started in January 2018. During the first quarter, there was not much users, transaction volume and transaction amount. But in the last quarter of 2018, not only users increment went up to four times, but transaction volume also increased to ten times with total transaction amount boosted nearly 2 billion Kyats. During first three quarters of 2019, there was normal increment of users but transaction volume wasn't stable. It went up on Q1 2009 but slightly went down on Q2 2019. And it also went down continuously on Q3 and Q4 2019 too, till down even further than Q4 2018 numbers. But the transaction amount grew gradually on first three quarters. But as the transaction volume went down on Q4 2019, transaction amount also went down significantly.

Electronic banking is the department which is giving ATM, Debit Card and POS services to customers. Shwe Bank's electronic banking department started since January

2016. Card volume of 2016 grew gradually, but transaction volume and transaction amount went up to seven times. It showed that there were repeated customers who used these services. There was a consistent growth from 2017 to Q4 2019 for card volume. But transaction volume had a jump rise on Q1 2019 to Q3 2019 but it fell down again on Q4 2019 resulting a unstable transaction amount.

Shwe Bank's Agent Banking was started its operation on January 2018. It started with 56 agents and managed to gather some customers with reasonable transaction volume. Due to their hard works, agents number and number of customers went up to eight times at the end of 2018. Transaction volume and amount had a substantial amount of growth in 2018. In Q1 and Q2 of 2019, there was expansion in number of agents , customers and transaction volume but transaction amount didn't grow much. In Q4 2019, number of agents reached to its highest with spectacular amount of customers and transaction volume. Even though transaction volume went up, the transaction amount didn't grow as it should be. It seems that customers are using agent banking for smaller amount of transactions than before.

Shwe Bank's financial performance is measured in Return on Assets (ROA). ROA is measured against total assets on net income. As far as assets increase, the percentage of ROA falls if net income is unable to reach the rate of growth. When the ROA rate is 5 percent and above, the financial performance of a bank is considered good. Shwe Bank's quarter-by-quarter growth in net income and total assets. At Q1 2016, the overall ROA was 97 percent, but it was just because the balance sheet stood at only 736.62 million kyats worth assets. Net income went down during 2017 and total assets went up, ROA dropped in that year comparing to 2016. But since 2017 there was a steady growth in net income and also in ROA percentage. As net income had a steady growth quarter by quarter, the ROA of Shwe Bank become higher. But total assets tolled up to 60 billion Kyats and net income didn't came up, the ROA is still in an average percentage.

5.2 Suggestions

Upon evaluating the findings, Shwe Bank has been proposed to enhance its own financial performance on the following guidelines and suggestions.

Shwe Bank is recommended to improve customer maintenance because customer growth rate of using Fintech is high. But transaction volume per customer isn't good enough for a technical oriented bank. Shwe Bank should listen to its customers' feedbacks on Fintech products and services and try to improve.

Banks' main businesses are loans and advances. But Shwe Bank is currently giving only on payment and transaction business. It would be better if Shwe Bank can give latest crowd funding technologies in short term loans and credits. It would add more income to the bank and would effect on ROA increment.

Shwe Bank will guarantee customers that Fintech services are safe and reliable, through the provision of safe and reliable services. Shwe Bank can effectively communicate with customers that the security action is solid and delete third-party instructions. Shwe Bank must also improve its internal customer security mechanism to emphasize its rigorous security procedures. This will give Fintech customers a positive impression of security measures and a clear effect on the growing use of mobile and Internet banking, electronic banking and agent banking.

5.3 Needs for further research

Financial performance of a bank can be measured in CAMELS ratings, ROA and ROE. This study was only focused on effects of Fintech activities on financial performance of Shwe Bank. So, it's only focused on business related fintechs which customers are using directly. Other bank businesses like loans, international banking and bank branches aren't included in this study. Secondary data was solely utilized in the study, alternative research can be employed using primary sources of data like in-depth questionnaires and structured interviews to be administered key personnel in Shwe Bank.

References

- Bank, S. (2016). *Shwe Bank Annual Report*. Yangon: Shwe Bank.
- Barako, D. (2013). *Firm specific factors and access to financial services*. New South Wales: University of New South Wales.
- Berger, R. (2016). *Myanmar Banking Sector 2025: The Way Forward*. Yangon: Roland Berger.
- D., A. (2018, June 20). *Why Banks Need Mobile Apps: 7 Significant Benefits*. Retrieved from www.rubygarage.org: <https://rubygarage.org/blog/mobile-banking-benefits>
- EY. (2017). *The Rapid Emergence of Fintech*. EY.
- GIZ. (November 2018). *Myanmar's Banking Sector in Transition - Current Status and Challenges Ahead*. Yangon: Deutsche Gesellschaft für.
- Gulamhuseinwala, I. (2017). *EY Fintech Adoption Index 2017*. London: Ernst & Young Global Limited.
- Matters, B. (2019, November 6). *BM Magazine*. Retrieved from www.bmmagazine.co.uk: <https://www.bmmagazine.co.uk/business/5-reasons-why-banks-should-use-core-banking-services/>
- Research, I. (2019). *Financial Education for Sustainable Growth - Myanmar Financial and Payment Attitudes Study*. Yangon: Visa Myanmar.
- (2017). *Shwe Bank Annual Report*. Yangon: Shwe Bank.
- (2018). *Shwe Bank Annual Report*. Yangon: Shwe Bank.
- Studys, R. B. (2016). *Myanmar Banking Sector 2025: The Way Forward*. Munich: Roland Berger GmbH.
- Vives, X. (2016). *The Impact of Fintech on Banking*. Chigo: IESE Business School.