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

CHALLENGES OF THE DIGITAL MONEY PROVIDERS

AYE THANDAR TUN
MBF 4TH BATCH

DECEMBER, 2018

CHALLENGES OF THE DIGITAL MONEY PROVIDERS

A thesis submitted as a practical fulfillment towards the requirements for the degree of Master of Banking and Finance (MBF).

Supervised By;   Submitted By;

Daw Yee Yee Thein   Aye Thandar Tun

Associate Professor   Roll No. MBF 37

Department of Commerce   MBF 4th Batch

ACCEPTANCE

Accepted by the Board of Examiners of the Department of Commerce, Yangon University of Economics in partial fulfillment for the requirement of the Master Degree, Master of Banking and Finance.

…………………........................

(Chairman)

Prof. Dr. Daw Khin Naing Oo

Rector

Yangon University of Economics

……………………………

(Examiner)

Prof. Dr. Tun Aung

Pro-Rector

Yangon University of Economics

………………………	….…………………...
(Supervisor)	(Examiner)
Daw Yee Yee Thein	Prof. Dr. Daw Soe Thu
Associate Professor	Programme Director
Yangon University of Economics	MBF Program
	Yangon University of Economics

……………………………

(Examiner)

Prof. Dr. Tin Tin Htwe

Professor

Yangon University of Economics

……………………..	…………..……………..
(Examiner)	(Examiner)
Daw Khin Nwe Ohn	Daw Htay Htay
Associate Professor	Associate Professor
Yangon University of Economics	Yangon University of Economics

DECEMBER, 2018

ABSTRACT

This study focuses on the challenges of digital money providers in Myanmar and mainly emphasis on M-Pitesan, Wave Money and OK Dollar. Objectives for this research are to identify the service procedures of digital money providers and to analyze the challenges of the digital money providers. This research objectives were chosen to obtain the data which are specific. The respondents during the data collection were the companies' staffs of M-Pitesan, Wave Money and OK Dollar in Yangon district and agents of those companies. This research found out that there are significant challenges affecting market penetration and expansion of mobile money. The users do not know the benefits of digital money exactly and they do not have enough knowledge on the way to use it. Sometime, the users cannot keep as a confidential of the PIN or password of their transaction and they even share it with others due to lack of awareness. As per the research findings users' requirement in anytime is the challenge for providers to fulfill and make settle in time for them. The call center of the providers take much time and ask so many questions to users and need to wait at least 24 hours to be settled but sometime it takes more than 3 days. Moreover, the network connectivity is unavailable or unstable in some places and sometime it has down during the transaction and users have to worry for losing their money at that time so the trust of them is losing for providers. In addition, this study found out that the agents are not everywhere and unavailable 24/7 services then some agents are not aware of their services certainly and are not well trained by the companies side so the users get the stuck when they go and get the services from such kind of agents. Ensuring widespread availability of agents in both rural and urban areas, stability of network, regular supply of electricity, training and information to users and agents are necessary measures to increase usage, penetration and expansion of mobile phone money services.

ACKNOWLEDGEMENTS

CONTENTS

CHAPTER V   **CONCLUSION**

REFERENCES

APPENDIX

LIST OF TABLES

CHAPTER I

INTRODUCTION

The financial services sector in Myanmar is till underdevelopment circumstance among the neighboring countries. Cash was the only payment method and the most used payment style in Myanmar and limited people use the banks and plastic cards around the country.

To transfer money within the country through a normal banking system was approximately impossible for the common people. Economic transactions were totally cash based mostly in rural area and no ATMs and no credit cards in use most of the place in Myanmar.

Starting the mid of 2014 the International telecommunication operators officially launched the telecom services in Myanmar. Since the International telecom operators do the business in Myanmar that they try to give not only telecom services but also financing facilities via telecommunication. And other Financial Service Companies also try to provide the Digital Money services around the country.

Mobile technology introduced the Myanmar people with 2G, 3G and 4G services in telecommunication to get the better customer experiences and also bring together the Digital Money for convenient and smart ways to make the payments for goods and services, bills and money transfer for various reasons by using the mobile payment ecosystem. The telecommunications industry in Myanmar has become essential in day to day life owing to its spread and opportuneness. As such it has found application in the financial sector more so in the settling of transactions and this has created a host of opportunities and new business structures in this fast-paced growing market.

By depositing money in a mobile account the one can transfer money to other users and non-users, Pay bills, Purchase airtime top up, Transfer money between the service and a bank account (in some markets), Pay salaries, Purchases, Insurance and so on. In Myanmar under Mobile Banking Directive there are – Myanmar Mobile Money (Innwa Bank), My Kyat (First Private Bank), 633 (Myanmar Citizen Bank), On-Go (MOB Bank), MAB Mobile, CB Pay and KBZ Pay. Under Mobile Financial Service Provider Regulation there are two telecom providers such as Ooredoo Myanmar Ltd's M-Pitesan (CB Bank), Telenor Myanmar Ltd's Wave Money (Yoma

Bank) and four online payment companies; Ok Dollar Company Ltd, Red Dot Company Ltd, Myanpay and True Money Ltd (AGD Bank).

1.1 Rationale for the Study

Electronic money services were introduced by private telecommunication providers and financial service organizations in several countries around the world especially in Africa, Asia, and Latin America. Mobile money services may not be similar; however the general idea was to enable money transfers between people that have access to a mobile phone. Mobile phone payment however, has been seen only to be a normal practice in a few countries, although it's huge possible.

In Myanmar the digital money service providers allow getting the people for all receipt and payment transactions in a smooth way. Although E-money systems are developing day by day in Myanmar there are some challenges to develop the system and to spread the acknowledgement to users. Technology adoption is a challenge as prior to the launch of digital money for many Myanmar mobile phone users who were familiar with the basic operations of a mobile such as texting and making voice calls.

Rural unbanked area is the main place to provide the services but the lack of education and technology issue that the E-money usage for them is a stuck for such service. Initially, operators did not invest a lot of resources in consumer education and this may be one of the key reasons that the service was slow to start.

To spread the acknowledgement to the users and open the agents around the country make difficult for providers to effectively roll out an extensive to do it. The coverage area is large, requiring more training and management resources, and the revenue per agent is lower since they are serving a smaller base of local customers. Furthermore, with an isolated population, consumer education strategies such as road shows and product demos can be costly and less effective. However, none of the studies carried out before addressed the specific challenges faced by all providers in developing and supporting its Digital Money (Mobile Money) product. The following research question is derived from the statement of the problem; what challenges have providers faced in developing the services.

1.2 Objectives of the Study

The objectives of the study are as follow;

(1) To identify the services procedure of Digital Money (Mobile Money) providers.

(2) To examine the Challenges of Digital Money (Mobile Money) providers.

1.3 Scope and Method of the Study

This study is mainly focus on challenges of the providers for Mobile Money. In Myanmar under Mobile Banking Directive there are – Myanmar Mobile Money (Innwa Bank), My Kyat (First Private Bank), 633 (Myanmar Citizen Bank), On-Go (MOB Bank), MAB Mobile, CB Pay and KBZ Pay.

Under Mobile Financial Service Provider Regulation there are two telecom providers such as Ooredoo Myanmar Ltd's M-Pitesan (CB Bank), Telenor Myanmar Ltd's Wave Money (Yoma Bank) and four online payment companies; Ok Dollar Company Ltd and True Money Ltd (AGD Bank) and Red Dot Company Ltd and Myanpay.

Although 13 Mobile Financial Services are mentioned in above paragraphs that this study will be mainly focus on M-Pitesan, Wave Money and Ok Dollar providers which are more popular in the market.

Data were collected from primary and secondary sources and Descriptive Statistics Method was used. Quantitative and Qualitative Method were used in this research and primary data were collected through questionnaires and conducting interview with responsible persons of agents. Secondary data have been generated from report, research paper that done for such services and relatives websites. This study focuses on Yangon region and there were 120 agents and 40 respondents from M-Pitesan, 40 respondents from Wave Money and 40 respondents from OK Dollar.

1.4 Organization of the Study

The paper consists of five chapters as below. Chapter I is the introduction, rationale of the study, objectives of the study, scope and method of the study and organization of the study. Chapter II represents theoretical background of mobile money services. Chapter III overview on digital money market. Chapter IV analyzes the challenges of providers. Chapter V is conducted with finding and conclusion.

CHAPTER II
THE ORETICAL BACKGROUND OF MOBILE FINANCIAL SERVICES

This chapter organized with the theoretical background on Mobile Financial Services in Myanmar. That focuses the Definition of mobile banking, Payment system in Myanmar, Mobile payment system in Myanmar and Challenges of the Mobile payment system in Myanmar.

2.1 Definition of Digital Money

Mobile money is an electronic wallet service. This is available in many countries and allows users to store, send and receive money using their mobile phone. The electronic payments make mobile money a popular alternative to bank accounts. Most mobile money services allow users to purchase items in shops or online, pay bills, school fees and top-up mobile airtime. Cash withdrawals can also be carried out at authorized agents. To pay a bill or send money to another person, the user select the relevant service from their phone's mobile money menu.

Paying with mobile money is just like sending a text message – it's simple and easy. Mobile money stores funds in an electronic account linked to a mobile phone number. In some cases the wallet number will be the same as the phone number, but not always – they can be different. Before sending funds to a mobile money wallet, the user need to check their recipient to determine the correct number. Mobile money is a term used to refer the money stored using the Subscriber Identity Module (SIM) card as an identifier as opposed to an account number in the conventional banking sense (Ndiwalana, Morawczynski and Popov, 2011).

The users have the access to the account at any point of time provided that there is network availability. A service is considered as mobile money if it fulfills the following criteria (Desai, 2011);

(a) The service must offer at least P2P transfers, bill payments, bulk payments, and storage of value

(b) A service must exploit a network of transactional agents outside bank branches for cash in or cash out

(c) The service must offer an interface for initiating transactions for customers and agents

(d)   Customers must be able to use the service without being previously banked.

Physical cash withdrawals and deposits are facilitated by a network of retail agents. The mobile-money can be said to include all the various initiatives covering long-distance remittance, micro-payments, and informal air-time trading schemes aimed at bringing financial services to the unbanked using mobile technology. In Myanmar mobile money service is very important and useful for all under - banked or unbanked people.

2.2   Payment System in Myanmar

The majority cities of Myanmar still have cash and cheque economies. Cash payment system is the most used in Myanmar as a cash payment is simply using physical cash to make payments. This is the most common form of payment usual in most developing countries as well. Cash is the popular form of payment with customers as transactions are completed immediately and it can also be used for another transaction.

Also, people's trust on cash can be partly attributed to the professed instant purchasing power that cash gives them, and partly due to the fact that cash requires no authentication, as in the case of cheques and card payments where an authentication has to be carried out before a transaction is approved. There is also no transaction fee on cash payment, unlike cheques and card payment where a fee is charged by the bank that issued the card.

However, with the cash system, people stand a great risk of insecurity, such as theft or robbery, with the thinnest hope of saving that money back. This is one of the great disadvantages of a cash system. Also, too much cash in circulation causes inflation to rise, and as inflation rises, it diminishes the purchasing power of consumers, making it undesirable to hold cash.

Cheque and bank transfer payment are being used as a second option in major cities of Myanmar. It's needed a bank account for the user so the people who live in major cities use such payment method. Lack of education, infrastructures, electricity and internet in rural area most of the people cannot use such bank services and ATM (automated teller machine) to send or receive the money and other financial services so they mostly use cash basic for their businesses and daily activities.

In Myanmar electronic payment system is being used mostly in under-banked area than unbanked people. This payment system makes more use of computer networks and internet access. Electronic payment, popularly known as e-money, is a payment platform where users pay money in advance into their e-money account or create an e-money account that is linked to their credit card or bank account.

Card and electronic payment systems have certain advantages when compared to cash and cheque payment systems. For instance, unlike the cash payment system, where once the physical cash is stolen one's hope of getting that money back is minimal, with a card payment system, there is greater amount of security. Visa or MasterCard for instance have authentication and authorization features such as a card number, a CVV (card security code) and a secured PIN (personal identification number).

The PIN is only known to the card owner, so in the case an Automated Teller Machine (ATM) is a computer terminal with cash and a system that keeps the bank records from which cardholders can withdraw money from their accounts. Where the card is stolen, it will be difficult for an unauthorized person to withdraw money.

However, one of the limitations of the card payment system is that to withdraw money or to make payment, one has to look for the appropriate terminal, such as an ATM or a POS before their transaction can be effected. This is a disadvantage, especially in a situation where there are not many ATMs deployed, or where the ATMs machines are out of service.

2.3   Mobile Payment System (MPS)

Myanmar people are becoming to use the digital money (mobile money) during these years. No need to have bank account for such financial services is the better circumstance for both urban and rural area people in Myanmar. MPS mode of operation can be described in five models, namely: SMS, Direct Mobile Billing, Mobile Web Payment (WAP), and Contactless Near Field Communication (NFC).

As an SMS operation, to make payment, a consumer has to send their request in a form of text through an SMS to a short code or to a particular number (this number being the merchant's or the other recipient's number), the recipient will then be informed about the payment's success and then finalize the transaction.

The Direct Billing operation of MPS is prevalent in Asia, and does not require the linkage of a credit/debit card or bank account to the MPS account. It is simply

using the direct billing option, where the Mobile Network Operator acts as an MPS service provider as well. A person on the Direct Billing option is billed periodically for MPS transactions initiated, as part of the service bill. This option uses a two-factor authentication to make purchases. The two-factor authentication used here are: a PIN and a onetime Password.

As an application developed in programming languages such as Java 2nd Micro Edition (J2ME), Python or Wireless Application Protocol (WAP), MPS transactions are initiated through an interface application with a walk-through menu from which the appropriate transaction type is selected. This requires the creation of a virtual currency account that is linked to the sources of finance of the consumer such as a bank account, credit card and virtual-money through a vouchers upload. A list of types of transaction is also provided in the menu from which a user must select one before authorizing a transaction.

As an NFC application, a user uses a mobile phone equipped with a smartcard or a microchip that is embedded in the phone, and waves his/her phone near a reader module, such as a credit card scanner to make payment. Most transactions do not require authentication, but some require authentication using PIN, before a transaction is completed.

Most people in Myanmar do not have a bank account. In 2013, only 17 percent of the population had one, and even today only four percent of people with savings keep money in a bank. In the Southeast Asian country, people lack trust in banks, according to research by the Milken Institute, a US-based think tank.

By using digital money the user can send and receive the money, pay bills, top up, fees and online shopping payment as well. Some services have not only inbound but also outbound payment. Mobile Payment System (MPS) consists of using mobile devices such as Mobile Phone, PDA (a palmtop computer), Wireless Tablet and Other devices connected to a Mobile Telecommunication Network, to initiate a transaction, such as a purchase request, and finalizing that transaction by authorizing payments for the exchange of goods and services.

In Myanmar OK Dollar, M-Pitesan, Wave Money and other financial services are available around the country and they are being used not only in urban but also in rural area. It is now possible to deposit and withdraw money through smartphone apps. Moved by the strong growth of Myanmar's mobile phone market, which grew

from a penetration rate of seven percent in 2011 to 90 percent in 2016 (Ate Hoekstra 02/2018) and now 2018 most of the people have a phone themselves.

Cell phones with Mobile Payment technology were first introduced in Singapore in 2001 and in Japan in 2004 with over 5 million wallet phones sold the first year on the market. The vision of MPS is to transform the mobile phone into a "future wallet" holding credit card, debit account information and mobile "cash" for transactions.

2.4   Challenges of Mobile Payment System

Supply side factors are as below to become challenges which are challenged by providers;

- Business Infrastructure
- Fraud and Money Laundering
- Technology
- Security Framework
- Agent Distribution
- Liquidation and Rebalancing Requirements
- Customer Education & Awareness
- Customer Trust
- Customer Support Operation

→ Challenges of the Digital Money Providers
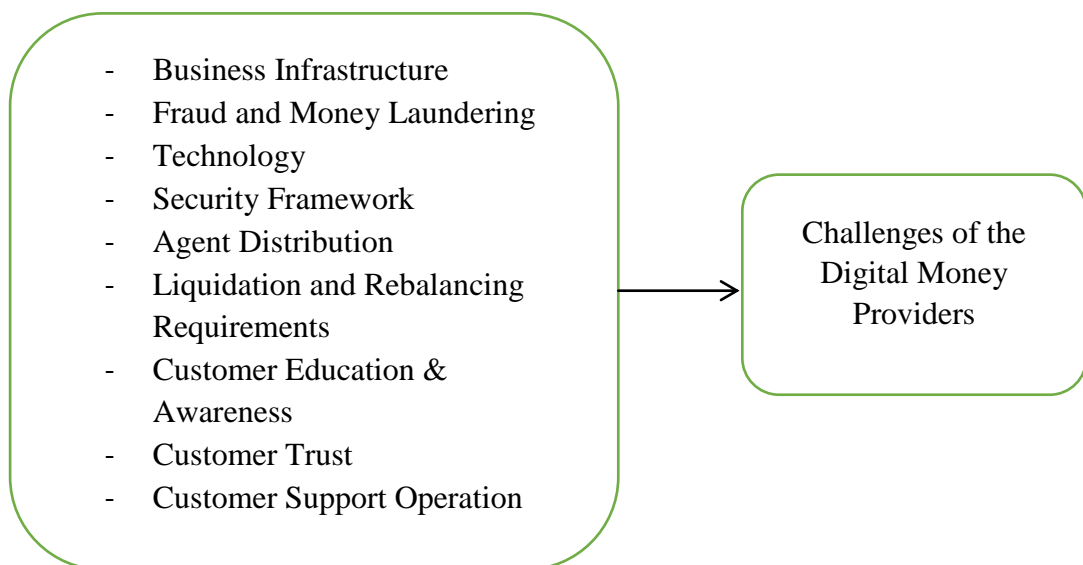
Source: Juliet K. TUMUZOIRE, MTN Mobile Money, Uganda, East Africa

Experts say many difficulties still need to be cleared to move the mobile payment system into the mainstream. These include user awareness, technology challenges, the security framework of electronic payment system, Infrastructure improvement challenges, fraud and money laundering and so on.

(a) Business Infrastructure

Digital Money business infrastructure is provided by mobile network operators, equipment manufacturers and platform providers including a wide range of stakeholders like mobile phone makers and vendors, network equipment vendors as well as application providers. Networks of organizations and individuals as well as appropriate infrastructures and processes must be in place and be well aligned for mobile money to take core, increase and go to scale.

Basic infrastructure refer to physical and financial infrastructure that supports mobile money. Mobile phone, Mobile network coverage and electricity are the physical infrastructure. The growth of mobile commerce is directly related to the increase of ownership and use of mobile communication devices which including personal digital assistants (PDAs) and mobile phones. These devices provide effective authorization and management of payment and banking transactions since they are capable of offering security and convenience advantages compared with existing methods, among them debit/credit card transactions as well as online payments through a personal computer.

Physical access to customers is an important aspect of building a mobile money service, and building this infrastructure from scratch, in advance of uncertain revenues, can be a very risky and expensive proposition. Thus, entities which already have retail points and / or existing distribution agents in the target markets can more easily, and with less risk, deploy such a service.

Although ultimately, as described earlier, most mobile money services will need to develop an agent network, the management of such an agent network can be greatly facilitated by having company owned stores in close proximity.

A reliable mobile network is a critical component of a mobile payment service, as customers have much less patience for transmission problems when they impact financial transactions. Therefore, access to a reliable network, either an organization's own or a partner's is critical, particularly as reliability among mobile networks in emerging markets can vary considerably.

(b) Fraud and Money Laundering

According as per Michael Levi (2000) the global networks, credit, debit and charge cards can never avoid the risk of crime entirely. The individual crime victims, merchant service providers and retailers always encountered the conflict of interest. Electronic payments frauds are rapidly emerging in the organization.

It becomes a major problem for business today. As organizations struggle to remain competitive in a global marketplace, the business is more complex, systems are left open to employee manipulation and without a finely tuned internal control system, and the opportunity for significant loss is always present. Electronic payments fraud and computer crime are not limited to a country and it always try to hit all countries.

From the finding, there are several internal forces which can make electronic

money fraud more likely in the organization, such as poor internal controls, poor personnel policies and practices, and poor examples of honesty at the top levels of an organization.

Money laundering is defined as the act of disguising the origin or ownership of illegally gained funds to make them appear legitimate. The huge sum of money is obtained through illegal activities and has been linked to nearly all kinds of crime for profit including organized and white collar crimes. Money laundering was first declared as a crime under the Money Laundering Control Act of 1986 of the U.S Code.

The process of transferring funds through electronic messages between banks is known as wire transfers. It acts as the primer step in money laundering where the profits from organized crimes, for instance drugs, gambling, racketeering, and prostitution must be somehow slipped into the banking systems before it can be safely spent.

Mobile Cross-border payments and ecommerce still have many challenges ahead. The natural concerns of security, a multiplicity of devices and operating systems, slow adoption, and the technological limitations all contribute to the obstacles facing mobile payments, today. But they are being successfully overcome through careful planning, education, marketing, and by choosing the right payment service provider as a partner.

(c) Technology

Evidence suggests that technology integration helps improve firm performance by reduced cycle time, improved customer service, and lowered procurement costs (Barua et al. 2004). Correspondingly, a greater integration of existing infrastructure and technology represent a greater capacity of conducting business. (Al- Qirim, 2007; Mirchandani & Motwani, 2001; Premkumar, 2003; Zhu et al. 2006).

According to Bhide (1996) businesses need a sustainable strategy capable of maintaining the competitive advantage of the firm over a longer period of time, because due to rapid technological changes firms are more vulnerable to lose their competitive edge acquired due to technology. Long term competitive advantage of a firm is determined by the infrastructure which either it holds or it has access to (Barney, 1991). Regulatory regime is conceptualized as 'any type of authority (industrial, national, international) which can influence, direct, limit or prohibit any

activity in the innovation system, the marketplace or the regulatory regime itself'(Tilson & Lyytinen, 2006).

Economically, the regulatory regime needs to ensure that services are supplied under conditions of economic efficiency and also satisfy the full range of customer demand. From a social perspective, the regime needs to ensure that such services are available to everyone, on reasonable terms, whether or not it is profitable to do so (Melody, 2007).

International and national regulatory bodies are concerned about 'emerging services' and/or 'emerging markets' and how Next Generation Networks should be treated within or outside existing regulatory frameworks (Richards, 2006). The adoption and diffusion of competing mobile services using both the regulated licensed and unregulated unlicensed spectrum, raises issues such as cost of service, quality of service net neutrality, congestion management and industry structure and requires further examination (Lehr & McKnight, 2003).

Challenges in technological advancement and the high cost of adoption to both consumers and service providers, are other challenges facing MPS as well. In many developing countries, internet connection speeds are slow, network reach is minimal, and the infrastructure is weak. All of these are driving the ever-increasing demand for the development of digital and mobile payment technology.

Additional restrictions are set by the slow deployment of new generation smart phones. The majority of the population still uses older phones, which do not support apps. This requires mobile payment providers to develop a bridge between old and new technologies. Every new technology, when exposes and comes to the public, it faces to so many difficulties. It takes time that people getting familiar with it.

The other point is that since the technology like e-payment is new, there should be so many thing invented and prepared as a base for expanding of e-payment. The other important problem as mentioned as above is not having good infrastructure to extend and expand the e-payment sequentially e-commerce. Most of equipment of e-payment are expensive and not easy and simple to anybody to apply them.

The other problem is to expand and grow the other part that are engage in or are part of e-commerce, like telecommunication and their services. In the case of e-commerce and e-payment every end user (home or office user) must have at least one phone line and the connection to the Internet. As to be integrated system in all over

the world, the infrastructure should be well developed in all country to have a real integration in this field.

A potential problem to Internet access on mobile is "data traffic jams". Due to the projection of an increase in the number of people to be using their mobile phones to access the net, make payments and do other things by 2012 , it means hackers, cyber criminals and eavesdroppers will now 18 shift their attention to mobile phones.

(d) Security Framework

Globally, numerous events of hacking occur, of email accounts, databases, bank details tec. The increasing digital transactions pose cyber security as the main challenge for public, institutions and government. Mobile Banking Malware is sophisticated virus infecting banks mobile apps user to steal password details and even Hinders the two factor authentication, by presenting victims with a fake version of the login screen when they access their legitimate banking application. Jailbreak or Rooted Devices, this is a practice to gain unrestricted or administrative access to the device's entire file system, by breaking its inherent security model and limitations, allowing mobile malware and rogue apps to infect the device and control critical functions.

Outdated OSs and No Secure Network Connections Factors such as outdated operating system versions, use of no secure or public WIFI network in mobile devices allow cyber criminals to exploit an existing online banking session to steal funds and credentials.

Mobile Payment System security requirements needs can be grouped as Follows. Confidentiality relates to how to protect transaction information, such as PIN, Password, and others being exchanged during a transaction. Authentication ensures that both parties in the Mobile Payment System flow are who they claim they are. i.e.: MPS service provider, Customer, Merchants, Banks, and others.

Integrity also deals with protection by ensuring that there is no data modification between the time data was sent and the time data was received by any spy. Authorization is to ensure that only authorized parties can access the MPS system.

Non-repudiation ensures that no party in the MPS transaction negotiation can falsely claim they did not participate in a transaction. Even though the adoption of the GPRS and WAP 2.0 allows for end-to-end encryption and decryption between the mobile device and the service provider, there is still more to be desired, when it

comes to security. MPS may also increase physical insecurity in some communities or nations.

"The big hurdle on everyone's mind is how to ensure that the payments are secure and as secure as possible" says Jim Pitts of the Financial Services Technology Consortium (FSTC) [28]. The two main areas of relevance to MPS security are: networking technology and the mobile payment process

(e) Agent Distribution, Liquidation and Rebalancing Requirements

Most of the agents were undertaking their mobile money services' agency as a secondary or tertiary business. Therefore, they were likely to diversify the limited capital to other business portfolios as well, depending on the demand or other investment opportunities that were available to them.

Those who gave their suggestions on how to improve mentioned that loans can be provided from parent mobile service providing companies or aggregators and attractive commissions would encourage agents to improve their working capital. These can result in improved transaction volume per day.

Moreover providers in different countries see the rise in agents using smartphones as an advantage in agent training. Some have started creating short training videos that agents can watch on their smart devices and refer back to later, whether to learn about new product and service developments or take refresher training.

Providers are also exploring more cost-effective training methods, such as self-directed learning, that allow agents to take different training modules at their convenience, and some are turning to social media and other online platforms as a more affordable and efficient way to pass on information to agents. All these approaches are improving the effectiveness of agent training and reaching a wider audience in real time.

In Bangladesh, Grameenphone creates short tutorial videos for agents and partners on various topics, such as how to conduct transactions, handle customer queries, and sales training. These videos are uploaded to their platform and are available both online and offline through their G-LEAP app. Grameenphone has developed these videos in the regional language as well as multiple local languages to make it easier for agents in different areas to understand. Field staff visit agent outlets to provide on-the-spot training on G-Pay using these tutorial videos. Eko India also creates short videos that are uploaded to their platform for agents to access.

Training is vital to a healthy agent network because it communicates the provider's policies, processes, products and services to an agent, which in turn educates customers. It also helps to ensure that agents understand the risks involved in the mobile money business, as well as the mitigation strategies. It is crucial that agents have a strong understanding of these elements and are capable of managing customer relationships.

Traditionally, agents have received three types of training:

i) Initial training immediately after onboarding or when new staff is hired;

ii) Periodic refreshers depending on the provider calendar; and

iii) One-off training sessions whenever new products or services are added or there are changes to operational processes.

At onboarding, it is common practice for providers to assemble agents at a central venue for one to three days or deliver training sessions at agent outlets. Both are costly exercises that involve hiring venues, printing training materials, providing refreshments, and paying staff to train the agents.

Most providers, however, do not have the resources to measure the quality and effectiveness of their training, especially when agents send representatives to attend on their behalf. As agent operations grow and change, better planning could improve the efficiency and effectiveness of refresher and one-off training sessions.

There are also opportunities to customize training to agents' needs, and to incorporate their experiences in the business. Many agents run parallel business and see Mobile Money as a supplementary side business. These Agents normally had little prior knowledge of financial transactions and therefore had to learn-by-doing from scratch. The handling and stocking up of large amounts of cash were Potential bottlenecks for many agents that found it difficult to plan the demand for customer withdrawals and deposits.

In Myanmar mobile financial service providers are trying to raise their agents in various ways. The agents who are not only from rural but also from urban area don't have enough knowledge and trust on digital money themselves so they cannot share the benefits of mobile money although they do the business as agents as for their daily life.

But nowadays Myanmar digital money providers are trying all the time to promote the service quality and to control the market share percent to be higher day

by day then they also try to upgrade their agents to be educated well to overcome the challenges.

(f) Customer Education, Awareness, Trust and Support Operation

As most of the researchers as described the difficulties which customers aware facing in using mobile commerce services, as well as the problems which agents of Mobile Money Transfer are facing in providing services to their customers. The researchers had not identified some of the problems which the Mobile Network Operators were facing as well as the impacts of Mobile Commerce to other sectors of economy such as Banks. Also there are some of the problems which are facing users of M-commerce who are living in rural areas such as in adequate skills in using Mobile Money service. Also the Researchers in international and regional level had not indicate culture if was one of the barriers to users as well as providers of mobile commerce services.

Awareness about using the digital solutions like smartphone based transactions, feature phone based transactions, use of credit/debit cards at PoS solutions etc is still a persistent issue. A survey conducted by Bill and Melinda Gates Foundation shows that till January 2017 only 8 percent of the users are aware of the mobile money. The other key issue is lack of bandwidth and reach of technology to various locations. Though, it is being sounded that every corner of India shall have ICT (information and communication) services in place, still in many of the locations services are not available for the customers.

Gaining the trust of consumers is one of the key challenges facing the mobile wallets, digital transaction service providers like telecom companies, banks, fin-tech companies etc. After the above discussion the different questions about the usage, security, problems faced and preparedness of the public to make a switch to cashless society are left to know. Many people are simply familiar to the payment methods they have been using their entire lives.

Cash and credit cards are still within their comfort zones, and learning a new payment method or changing their way of paying for things might seem silly or pointless to them. Other people still consider their mobile phones as insecure and not as reliable for payments as other methods, such as credit cards or even direct bank transfers and even in the 21st century, who are not agreed and accept the all new technologies. They are always not certain and assured to the technologies. They do everything like old people.

The job is very hard to pursue and to make these people eager to do in this way and accept the technologies. One reason is because of so many malfunctions, fraud, and unavailability of devices in the time of need. Every defection makes the public opinion divert from the advantages of new technologies. Payment services providers and merchants need to educate consumers, earn their trust, help them become familiar with the mobile payment experience, and make them feel rest assured that security is a prime concern.

Any financial services provider who wants to retain customers must figure out how to handle customer complaints effectively. The previous actual cases highlight the importance of efficient customer recourse system. Recourse systems can help consumers overcome the challenges related to product adoption and continued use by helping resolve initial problems or challenges quickly, which can build trust in providers and their products, and increase uptake and customer retention.

Effective recourse—and the key principles of awareness, access, timeliness, and fairness associated with effective recourse systems—becomes all the more relevant in the case of digital financial services (DFS), which still face trust deficits among some consumers. Mobile phones and agents are driving expansion of formal financial services by allowing for new delivery models and product designs that target base of the pyramid (BoP) consumers. These new access points and transaction types also create new challenges and opportunities for delivering timely, accessible, and effective complaints resolution. This Brief highlights lessons from CGAP research on recourse systems developed and being implemented for DFS from six markets using a range of different DFS business models and product lines.

The following are three key considerations that can significantly influence the effectiveness of recourse systems in Digital Financial Services:

1. New touch points and distribution channels. These expand recourse options, but can also lead to complaints getting lost in the resolution process as there are multiple levels for customer interaction.

2. User-led versus agent-led transactions. The primary transaction point, whether it is at an agent or the consumer on his or her own mobile wallet, will influence the proper design of the recourse system and likely channel for complaint resolution.

3. More advanced services beyond payments. Offering more complex products such as credit, savings, and insurance via these channels will raise new issues,

so recourse systems of DFS providers will need to evolve in response to these product innovations

The researchers did for low-income customers and came up with some fairly common sense recommendations to improve the handling of complaints. These commendations include:

1. Make the call center free with a dedicated hotline for agents. This may seem obvious, particularly when serving low-income customers who watch their airtime very closely, but many providers still do not offer a toll-free line. Both agents and consumers interviewed for CGAP's research mentioned the lack of a free hotline as a deterrent to lodging complaints.

2. Use agents to do triage and detect problems like fraud. Make them the frontline customer care contact. When properly trained, agents triage consumer complaints. They should be able to manage basic questions, which will limit the volume of minor inquiries that often clog up hotlines. Another useful tool is to provide agents with their own dedicated complaint hotline, enabling them to quickly resolve nerve-wracking inquiries such as payment reversals.

3. Take advantage of multiple channels to lodge complaints. For example, one mobile network operator in Ghana offers at least seven different channels where customers can present an initial customer complaint, including toll-free call center numbers, agents, sales offices and periodic road shows by staff. A mobile network operator in Kenya has a dedicated social media team that uses channels such as WhatsApp, Facebook and Twitter to resolve complaints.

4. Have a plan for value-added services and partnerships. The expansion of digital financial services beyond money transfers to include credit, savings and insurance products also expands the need for support. Special units should be established and staff trained to handle inquiries for these more complex products, and customers should be given information about options for seeking recourse at the sales point where the transaction takes place.

In Myanmar most of the users are not really familiar with digital financial services because this time is developing time in this field so people try to use it as initial period. When user face the issues that they do an item of digital financial service they must have free hot line or social helpline or agents in everywhere.

Sometime the call center of the providers take much time and ask so many questions to user then they need to submit the information to their respective team and need to wait at least 24 hours to be settled but sometime it takes more than 3 days. It is really stuck for the users who need the services seriously. Customer's requirement in anytime is the challenge for providers to fulfill and make settle in time for them.

Beyond customer trust and loyalty, important as those are, there are other benefits for providers who offer efficient recourse systems—including better data on consumer behavior and product preferences.

CHAPTER III

OVERVIEW ON DIGITAL MONEY MARKET

This chapter presents the overview on digital money market such as the service procedures of Digital Money, regulation of digital money services and the history of Ooredoo Myanmar Ltd – M-Pitesan, Telenor Myanmar Ltd – Wave Money, OK Dollar and all the digital money providers how to penetrate Myanmar market and also contributions of those providers.

3.1   The service procedures of Digital Money

The mobile money payment system procedure requirement specification describes in detail, the requirements of the application as a digital payment system – how it should operate: what it should do or not do.

3.1.1   Mobile Application

The specific mobile application need to be installed on mobile phones to function as a payment system. A user simply starts the application on his/her mobile phone, creates an initial virtual currency account through a step-by-step registration process, enters password and a PIN is generated automatically upon completion and used for authorizing payments. Customers can then log into their account using their phone number and password. From their account, customers can pay bills, make purchases both online and at merchants' stores, transfer money and receive money into their virtual accounts, and carry out other payments transactions. The providers based application and uses General Packet Radio Service (GPRS) for communication which supports Https for secure transactions and Short Message Services (SMS) for sending successful transaction details to customers as a "receipt".

3.1.2   Functional Requirements

This section states the functions of the system – what it should do and what it should not:

i)   Start-Up

On start-up, ask for user's phone number and password or ask user to create an account. If user clicks on "Create Account" the system takes the user through the initial registration process. On the other hand, if user enters phone number and password, that user is allowed into the system by loading user's account details.

This functionality makes it possible for an account holder to use the account

details on any phone (whether owned or not) that has application on it, and also on respective website.

ii)   Authorization

Upon registration, the PIN generated would be used for confirming any payments, when a user accesses her account and initiates a transaction.

iii)   Payment Options

The applications will be usually made up of at least five subaccounts. To make payments, the user must choose which sub account from which to make payment

iv)   Balance Look-Up

When making payment, the user shall specify which account to debit. When an account is selected a quick check is made to find out whether there are sufficient funds available for the payment amount.

v)   Balance Checking

The system will support balance checking in two ways. One, the user can check the total balance in the Virtual account. Second, the user can check the balance of each subaccount, as it is in the third party database. Third party databases are banks and other external databases.

vi)   Bill Payment

The system shall support bill payments by providing a list of service providers to be selected and give user the option to add a service provider to pay bill to.

vii)   Online Purchase

When a user selects "Purchase Online" or visits an online shop directly, the user pays for the Internet services using the user's top-up credit. The user must visit a content provider that is set up specifically for easy mobile access and payment. When the user chooses to pay using her mobile payment, the providers should prompt the user to confirm payment by asking user to enter PIN.

viii)   Money Transfer and Receipt

The service application should support both the transfer of monetary amount to Person-to-Person (P2P) and Business-to-Business (B2B). Moreover the service application should also facilitate both the receipt of monetary amount from Person-to-Person (P2P) and Business-to-Business (B2B).

3.1.3 Non-Functional Requirements

Response time of the application should be less than 3 seconds most of the time. The system must be reliable, be strong enough to have a high degree of fault tolerance, be easy to use, be efficient enough to support a large number of parallel transactions. The systems are available 24 hours a day and 7 days a week.

3.1.4 Interface Requirements

The application will provide an easy-to-use user interface (UI) as part of the average user's mobile environment, which will be used for collecting user inputs and processing those inputs. The system will provide an interface for the user to enter registration information, account creation information and transaction processing information. The system will provide interface in human language for interaction with the system and not system language. The system will provide user freedom such as to cancel a transaction, adding or deleting a service provider from the "Bill Payment List" and others.

3.1.5 Applications Data Requirements

Applications data requirements are General Information, Virtual Account Creation and User Information Collecting. In virtual account creation section that the user's mobile phone number is used as the virtual money account. The account is further subdivided into three (3) sub accounts: Cash account this is direct deposit through authorized agents, and also to receive money that is transferred to the recipient's mobile phone. Cards account this hold card detail of the user such as: credit cards, prepaid cards, postpaid cards, and others. Direct debit Bank accounts this access the user's bank account directly. Moreover, users' information gathered through registration shall be stored in providers' database. User inputs for transaction initiation shall be kept in a log.

3.1.6 Connection Requirements

This section states the connection requirements base for the application: the application is a General Packet Radio Service (GPRS) based application; it uses Https for secure transaction processing and uses Short Message Service (SMS) as a "receipt" for the customer's records.

3.1.7 Security Requirements

This section describes the security requirements included in application. The security requirement is divided into Authentication and Data protection.

i)   Authentication

Password Authentication:

Authentication is the technique for proving identity between two processes. The providers employs Password authentication to identify the parties in a transaction. A user, when creating an account shall choose a password which is secret to alone. User's phone number and password shall be supplied when logging in to their account. The providers' server will check the user's phone number and password against a database, if the supplied data is correct the user is authenticated.

PIN Authorization:

Upon successfully creating an account, a PIN shall be automatically generated for that user, which the user shall keep secret and use it to authorize transactions. This is to ensure that, even if someone is able to guess the user's password through a dictionary attack, they would not be able to initiate any transaction, as a prompt would request for the PIN to be entered.

3.1.8   Data Protection

i)   Data Integrity:

Data integrity is to ensure the data being exchanged between user's handset and the providers' server is not getting modified or corrupted in any way.

ii)   Confidentiality:

Confidentiality is ensuring that when data is being exchanged over the internet, other people should not be able to view that information.

3.2   Regulation of Digital Money Services

The Central Bank of Myanmar has released regulations on mobile financial services, spreading a market previously limited to banks to include non-banking financial institutions. The Central Bank announced that it had issued rules on mobile financial services at the end of March 2016 to build an enabling regulatory framework for efficient and secure mobile financial services in Myanmar.

According as per Central Bank of Myanmar regulations that the applicant shall have a minimum capital of three billion kyat, submit the following documents and information to apply for a registration certificate to the Central Bank of Myanmar;

(i) an application fee of 0.1 percent of the minimum capital;

(ii) details on the nature and functionality of the mobile financial services operations;

(iii) proposed types of mobile financial services to be offered;

(iv) proposed business plan for a minimum of coming three years including information such as, geographical coverage, agent network, proposed range of fees and charges and staffing;

(v) details of the board of directors and senior managers of the applicant including, compliance with the fit and proper requirements;

(vi) in the case of MNO (Mobile Network Operator), a letter of no objection from the Ministry of Communication and Information Technology and in the case of a non-bank financial institutions, a no-objection letter from the primary regulator of that entity; and

(vii) other information and documents as the Central Bank may require to consider the application.

The Central Bank shall process the application and make a decision to approve or reject the application within ninety days from receipt of a complete application. In order to avoid the market monopolization, the Central Bank may from time to time, if necessary, prescribe the range of fees and charges that can be imposed by a MFSP (Mobile Financial Service Provider).

For agent appointment requirements that the MFSP shall provide the Central Bank the following information about a person (natural or legal) appointed as agent within two weeks of appointment- (i) the name of the agent; (ii) the physical location, GPS co-ordinates; (iii) contact details of the agent; and (iv) any material variations in the terms and conditions to the standard agency agreement. The MFSP shall notify the Central Bank of any change of the information mentioned in above paragraph within two weeks of such change.

A commercial bank seeking to conduct mobile financial services shall apply to the Central Bank for product approval and provisions of these regulations shall apply to commercial bank in so far as they do not conflict with the Financial Institutions Law. MFSP shall implement mobile financial services that are able to provide interoperable services with other MFSPs at various level of interoperability suitable to the market demands including at agent, customer or mobile platform level.

A MFSP and its agents shall not at any time, whether through its marketing material, logo, signage or activities whatsoever, give the impression that it is a bank licensed under the Financial Institutions Law, 2016. Noncompliance of these regulations shall constitute and offence under the Financial Institutions Law.

3.3 Background and Products of the providers

(i) M-Pitesan

Ooredoo is an international telecommunications company headquartered in Doha, Qatar. Ooredoo provides mobile, wireless, wire line, and content services with market share in domestic and international telecommunication markets, and in business (corporations and individuals) and residential markets.

Ooredoo has operations in the Middle East, Europe and Asia, including Algeria, Indonesia, Iraq, Kuwait, Myanmar, Maldives, Oman, Palestine, Qatar and Tunisia. In June 2013, Ooredoo was chosen as one of the two successful applicants among 90 bidders to be awarded a license to operate in Myanmar, considered one of the Asia's last remaining green field telecom markets and formal licenses were granted in January 2014.

Ooredoo's entry into the increasingly competitive online mobile money industry namely M Pitesan, has launched in September 2017. M-Pitesan is Ooredoo's Mobile Money Service which is the easy and safe way to transfer and receive money, buy airtime or make payments using mobile phone instantly, anywhere, anytime.

An M-Pitesan Wallet is the same as normal wallet which is being carried in the bag or pocket. The digital wallet or M-Pitesan wallet is created when the users register for the M-Pitesan service using Ooredoo SIM. Once registered the users can deposit money or top up into your digital wallet at any of the Ooredoo Agents. Every transactions on M-Pitesan Wallet are secured by users secret PIN number.

M-Pitesan Agent is a store where the users can deposit money into own M-Pitesan wallet or withdraw money. Allowing users can transfer their mobile wallet balance to other users through their mobile phone number, and can withdraw from their balance at any other agent elsewhere in the country, as well as purchasing airtime top up, CB bank accounts and wallet money transfer, pay bills. Under pay bills service there are four sectors; 1)Payment – for all kind of payment via collection bank account number, 2)Gift Cards – EasyPoints and Viber Out, 3)E-Commerce Payment – Myanmar National Airlines MNA, NOK Air, Flymya.com for buying air tickets then SGSHOP Myanmar for shopping, Myanpwel for most of the occasions and parties tickets buying services and 4) Pay TV for CANAL + currently.

Ooredoo hopes to change the lives of the people of Myanmar with their new innovative wallet solution and develop the remittance process between users. They

have been serving inbound mobile financial services and are trying to promote outbound services as well in a short time in Myanmar.

(ii) Wave Money

Telenor was founded in 1855 and builds on over a 163 years of telecom experience and they operate across Europe and Asia. Telenor Group connects its 192 million customers across the countries. Telenor has been running the telecom services and mobile financial services in European countries such as Norway, Denmark and Sweden and in Asia Pakistan, Myanmar, Bangladesh, Thailand and Malaysia.

In October 2016, Digital Money Myanmar Limited which brand name is Wave Money became the first mobile operator to be registered under the new Mobile Financial Services Regulation in Myanmar. Wave Money is a joint venture between Telenor and Yoma Bank. It launches mobile financial services in Myanmar. Wave Money is the first company to receive a license under the new regulation released by the Central Bank of Myanmar. Wave Money offers mobile money financial services to the people of Myanmar through a convenient application and an network of over 18,000 Wave Shops nationwide currently.

Wave Money has launched with a simple offering that can be accessed by customers in two ways. Wave Shop Transfer transactions (OTC) can be completed with one of 18,000 agents nationwide, or customers can manage directly through mobile phone with their own Wave Account.

Because of the Mobile financial services have developed the way people store, remit and receive money in numerous developing countries across the globe. Most of the people who have never had access to formal financial services now do, and benefits to national economies have been reflective. Wave Money aims to make the services available for "everyone, everywhere". First launching time that services are available through a distribution network of more than 4,000 Wave Shops covering 60% of all townships and most economic routes in Myanmar. By the end of 2017, Wave Money aimed to serve all states and regions with more than 15,000 shops.

Wave Money introduced a Yellow Wave road show program, covering 28 small and large cities during the launch period to engage and to educate customers about Wave Money services. The Yellow Wave road show has been a powerful vehicle in which to engage with and sign up customers. Wave Money has launched with domestic remittance and phone top-up services and it's developing the product portfolio to include bill payments, saving and credit product with time.

(iii) OK Dollar

Internet Wallet Myanmar Limited, a Myanmar company trading as OK Dollar, a mobile payment and digital wallet provider in Myanmar has agreement with MySQUAR SQUAR PTE Ltd (the Company's wholly owned Singapore subsidiary). OK Dollar operates a fast, secure and safe mobile payment system that offers online purchase, mobile phone top-up, bill payment and money transfer among other services. It holds one of the three mobile financial licenses that have been issued in Myanmar on August 2017.

In Myanmar, it is expected that funds remitted will be transferred in real-time to an OK Dollar digital wallet where these funds can then be used for mobile purchases or for cash-out through OK Dollar's nationwide agent network. In addition, MySQUAR expects to integrate OK Dollar's payment services into its mobile games, social app and marketplace so that users with an OK Dollar digital wallet are able to make purchases. The agreement with OK Dollar is another solid step to become a leading payment solutions provider in Myanmar for OK Dollar founder. Eric Schaer, CEO of MySQUAR, said that currently, only about 10-20% of the population in Myanmar has a bank account. However, smartphone penetration is high.

This increases the likelihood for rapid adoption of digital wallets and makes the remittance process practically seamless. Inbound remittances from the Myanmar diaspora is reported to be around USD 8 billion annually according to the World Bank. With around 50% of these remittances occurring through informal channels, there is pressure to formalize cross-border remittances and our mobile money platform is expected to form a convenient, safe and affordable way of meeting this gap in the market.

Upon successful implementation of the Singapore-Myanmar remittance corridor, OK Dollar business will likely seek to expand into other markets with a large Myanmar diaspora and open new remittance corridors with expected target markets such as the Middle East, Thailand and Malaysia into Myanmar."

CHAPTER IV

ANALYSIS ON THE CHALLENGES OF DIGITAL MONEY PROVIDERS

This chapter is to analyze the challenges of digital money provider on the collected data from the study and presents them as per the study objectives and research questions formulated. The demographic characteristic of the total 120 sampled agents of selected three providers such as M-Pitesan, Wave Money and OK Dollar were interviewed by using questionnaires and interview attached in Appendix.

4.1   Research Design

Structured questionnaires and interview with agents was used as a survey tool and the questionnaire tool was divided into two parts. The first part is related with the questions on the providers' demographic characteristics such as gender, age, educational level. The second section indicates the providers' relationship with the companies. In addition, one question is used for detecting the challenges of providers about providing the digital money in second section. This section is made up of 45 pairs of five point Likert scale model from strongly disagree to strongly agree (Ranking from "strongly disagree=1, disagree=2, Not Sure=3, agree=4, strongly agree=5). Forty five questions were asked in the survey in order to collect data about the providers.

Interpreting the Averages Mean value will be using the Statistic Standard for Interpreting Averages Means table below.

Table 4.1 Mean and level of agreement

Mean	Agreement Level
1.00 - 1.08	Very Low
1.81 - 2.60	Low
2.61 - 3.40	Medium
3.41 - 4.20	High
4.21 - 5.00	Very High

Source: Tan and Teo, 2000

4.2 Demographic profile of the respondents

The demographic characteristics of 120 respondents from M-Pitesan, Wave Money and OK Dollar services who participated in this study are analyzed. Demographic characteristics such as gender, educational level, occupation are important factors in determining the challenges of the providers.

Gender of Respondents

The demographic characteristics of 120 respondents from three providers relating with gender are shown in Table (4.2).

Table (4.2) Respondents by Gender

Gender	Number of Respondents	Percentage
Female	39	33
Male	81	68
Total	**120**	**100**

Source: Survey Data, 2018

Based on the Table (4.2) there were 120 respondents who are providers of digital money on which 33% were female and 68% were male. This shows that there is significant male command in providing digital money services according to the surveyed when female were 33%.

Age Groups of Respondents

Age group was divided by four groups such as between 18 to 30, between 30 to 40, between 40 to 50 then 51 and above.

Table (4.3) Age Group of Respondents

Age in Year	Number of Respondents	Percentage
between 18 to 30	52	43
between 31 to 40	48	40
between 41 to 50	12	10
51 and above	8	7
Total	**120**	**100**

Source: Survey Data, 2018

As per Table (4.3), 40% respondents fall in the age group between 30 and 40 years, followed by 43% fall in the age between 18 to 30 after that 10% were in between 40 to 50 group and the last 7% were 51 and above receptively. This result

shows that the young and middle age people are more interested in mobile technology so they deal with such kind of business as a provider.

Respondents by Education

Below Table (4.4) presents the education levels of respondents and three levels are classified.

Table (4.4) Education of Respondents

Education Level	Number of Respondents	Percentage
Under Graduate	12	10
Graduate	99	83
Post Graduate	9	8
Total	**120**	**100**

Source: Survey Data, 2018

According to Table (4.4) 83% of respondents are degree holder and 8% are post graduate besides only 10% are under graduate. Therefore, majority of digital money providers and agents are graduate and post graduate.

Duration of the services of Digital Money by providers

The service life of digital money providers are classified as below Table (4.5).

Table (4.5) Duration of the services of Digital Money Providers

Duration	Number of Respondents	Percentage
1 year to 2 years	34	28
2 years to 3 years	33	28
above 3years	53	44
Total	**120**	**100**

Source: Survey Data, 2018

Table (4.5) shows that the respondents of 44% are above 3 years as providers, 28% are between 2 to 3 years relationship and the same 28% are between 1 to 2 years relationship with companies.

Types of Digital Money Services

The service types of digital money providers are as below Table (4.6).

Table (4.6) Types of Digital Money Services

Types of Services	Number of Respondents	Percentage
Phone Top-Up	30	25
Money Transfer by Agents	41	34
Bank Account and Mobile Money Transfer	23	19
Pay Bills	16	13
Online Shopping	10	8
Total	**120**	**100**

Source: Survey Data, 2018

As per Table (4.6) 25% of the providers out of 120 respondents answered the customers use the digital money for phone top up, 34% user consumption for money transfer, customer 19% use for the transfer between bank and mobile money accounts, 13% of the customers are interested to use for pay bills to save their time to go out to pay themselves then only 8% of customers use for online shopping.

The way of Advertising the Services by Providers

There are many ways to promote the products of the companies and they have categorized as below Table (4.7).

Table (4.7) The way of Advertising the Services by Providers

Type of Advertising	Number of Respondents	Percentage
Social Media	61	51
TV	10	8
FM Radio	21	18
Market Visit by Promoters	18	15
Printed Media	10	8
Total	**120**	**100**

Source: Survey Data, 2018

Table (4.7) shows that the way of introduction and penetration to the market via various ways of advertising. 51% of respondents spread the information via social media, 8% via TV, 18% are from FM Radio then 15% of respondents are going to the market themselves to get the exact information and feedback from the customers and only 10% of respondents share the information via printed media.

4.3 The Challenges of the Digital Money Providers

These sections include analysis of providers' challenges on Digital Money Services. The 120 respondents were asked to rate challenges of mobile financial services. Every question has five alternative answers according to Likert Scale which consists of five degree (strongly disagree, disagree, not sure, agree, strongly agree).

Interpreting the Mean value will be using the Statistic Standard for Interpreting Averages Means table below.

Table (4.8) Mean and level of agreement

Mean	Agreement Level
1.00 - 1.08	Very Low
1.81 - 2.60	Low
2.61 - 3.40	Medium
3.41 - 4.20	High
4.21 - 5.00	Very High

Source: Tan and Teo, 2000

According to the Table (4.1) the mean level between 4.21 – 5.00 are in very high agreement level and between 3.41 – 4.2 are in high agreement level. Moreover the medium agreement level is between 2.61 – 3.40 and the low agreement level is between 1.81 – 2.60. Then, the very low level is between 1.00 – 1.08 respectively.

There are several challenges and the data will be interpret in below tables altogether with mean scores respectively.

Table (4.9) Mean of Business Infrastructure Challenge

No.	Statement	Mean
1	Mobile SIM are unavailable everywhere	2.33
2	The most user use the functional mobile handset are not cheap and not updated to be supported digital money functions	3.21
3	Mobile Tower are not everywhere for good network connectivity	3.92
4	Digital money service Agents area are unavailable everywhere	3.61
5	Mobile Technology are already upgraded	2.09
	Overall Mean	**3.03**

Source: Survey Data, 2018

The Table (4.9) indicates the mean score of the business infrastructure challenge on digital money providers. The overall mean score is 3.03 achieved that show the providers are getting the challenge on their business infrastructure. The

providers' highest mean score is on statement three; mobile tower are not everywhere for good network connectivity with mean score 3.92. The second highest challenge is digital money service agents area are unavailable everywhere with 3.61 mean score. The third highest mean score is on the most people use functional mobile handset are not cheap and not updated to support digital money functions with 3.21 mean score and mobile SIM are unavailable everywhere is 2.33 so it's medium mean score for challenge. The last mean score is 2.09 and statement is the mobile technologies are already upgraded.

Table (4.10) Mean of Fraud & Money Laundering Challenge

No.	Statement	Mean
1	Fraud is happening due to unsecure of PIN	3.98
2	Fraud can happen when mobile phone lost the customer	3.61
3	Fake mobile money withdrawal SMS cause the fraud for both customers and agents	3.76
4	Money laundering can't be happened if unlimited transactions are allowed	3.48
5	Daily transaction within limitation is not acceptable to protect money laundering	4.03
Overall Mean		**3.77**

Source: Survey Data, 2018

The Table (4.10) presents the providers' challenge on fraud and money laundering. The overall mean score is 3.77 that represent providers' challenge is high on fraud and money laundering. The highest mean score is 4.03 that is daily transaction within limitation is not acceptable to protect money laundering with high trust. The second highest is the fraud is happening due to unsecure of PIN with 3.98 mean score then the third one is fake mobile money withdrawal SMS cause the fraud for both customers and agents side with 3.76 mean score. Fraud can happen when mobile phone lost the customer is with 3.61 mean score and the last one is money laundering cannot be happened if unlimited transactions are allowed with 3.48 so the providers believe that the limitation on transactions is not protection for money laundering and it's a stuck and a challenge to spread their business in the worldwide market.

Table (4.11) Mean of Technology Challenge

No.	Statement	Mean
1	Network and technology losing is a main challenge	4.70
2	Unavailable of network is problem for both customers and providers side	4.53
3	Due to loss of connectivity during the transaction , the risk of cash losing can happen	4.15
4	Data cost for mobile phone is not cheap and unaffordable to browse the digital money	3.44
5	Agents are unavailable in all network coverage areas	4.46
Overall Mean		**4.26**

Source: Survey Data, 2018

Table (4.11) represents the technology challenge on the digital money providers. The overall mean score is 4.26 on technology challenge and it is on very high level. The highest mean score is 4.70 with network and technology losing is a main challenge for providers. The second one is the unavailable of network is a problem for both customers and providers side with 4.53 mean score and the agents are unavailable in all network coverage areas is the third mean score 4.46. Due to loss of connectivity during the transaction, the risk of cash losing can happen with 4.15 mean score. And the last one is data cost for mobile phone is not cheap and unaffordable to browse the digital money is the fourth with 3.44 mean score. As per the analysis results the network losing and agents unavailable in all network coverage area are the main challenges for the providers in technology challenge.

Table (4.12) Mean of Security Framework Challenge

No.	Statement	Mean
1	Mobile banking is unsecured from unauthorized third parties	3.38
2	If the user lost the phone, they may lose their money	3.50
3	The agents and companies are not aware of its security during the transaction	3.72
4	Due to transaction errors, there might be loss of money	3.83
5	There is a fear of providing mobile money, that other people may access the user accounts through hacking from providers' database	4.19
Overall Mean		**3.72**

Source: Survey Data, 2018

The Table (4.12) mentions the mean of security framework challenge for providers. The overall mean score is 3.72 and it's in high level. Among them the lowest score is 3.38 and it's related with mobile banking is unsecured from unauthorized third parties. The highest mean score is 4.19 with there is a fear of providing mobile money, that other people may access the user accounts through hacking from providers' database. Due to transaction errors, there might be loss of money with the second highest one with 3.83 mean score and the agents and companies are not aware of its security during the transaction is the third with 3.72 mean score. The fourth highest mean score is 3.50 and the statement is if the user lost the phone, they may lose their money. Among the security framework challenge statements that the providers are most afraid for hacking the database and transaction errors due to customers or agents cause it's leading to lose the money.

Table (4.13) Mean of Agent Distribution Challenge

No.	Statement	Mean
1	The services are unavailable 24/7	3.93
2	Agents' cash flow are irregular and unreliable in some area	3.35
3	Agents don't have enough training provided by providers	4.31
4	Agents don't have knowledge well on mobile money	3.83
5	Agents face the difficult due to lack of knowledge of customers	4.13
Overall Mean		**3.91**

Source: Survey Data, 2018

The Table (4.13) provides the mean of agent distribution challenge and the overall mean score is 3.91 and it's in high agreement level. The highest mean score is 4.31 and relating with agents doesn't have enough training provided by companies' side. And agents face the difficulties due to lack of knowledge of customers is with 4.13 mean score and it's the second highest. Moreover, the digital money services are unavailable 24/7 is with 3.93 mean score and it's the third one and agents doesn't have knowledge well on mobile money is with 3.83 mean score. The final one is agents' cash flow are irregular and unreliable with 3.35 mean score. In this case the main reason for agent distribution is that they doesn't have enough training from companies' side so that they are not aware of digital money's benefits and procedures

sometime as well and due to the customers who don't have enough knowledge on digital money is a kind of challenge for both agents and companies side.

Table (4.14) Mean of Liquidation & Rebalancing Challenge

No.	Statement	Mean
1	Agents have enough cash flow to provide the customers	3.08
2	Companies side provide not enough incentives to agents for target achievement	3.43
3	Agents don't use the customers' money for their personal	3.09
4	Handling physical cash a lot is a big risk for agents	3.92
5	Management of wallet and physical cash is not easy for agents in rural and unsecured urban area	3.84
Overall Mean		**3.47**

Source: Survey Data, 2018

The Table (4.14) shows the mean of liquidation and rebalancing challenge and overall mean score is 3.47. Handling physical cash a lot is a big risk for agents is with highest mean score 3.92 and on high agreement level of challenge. Then, the second highest mean score is 3.84 and relating with management of wallet and physical cash is not easy for agents in rural and unsecured urban area. Companies side provide not enough incentives to agents for target achievement is with 3.43 mean score and it's the third highest mean score and the fourth mean score is 3.09 which is agents use the customers' money for their personal. Agents have enough cash flow to provide customers are with 3.08 mean score and it's the last highest one. In this statement the agents are afraid of handling a lot of physical cash and they see it as risk so they may have cash flow problem when the transactions are happened with customers and it's a challenge from them.

Table (4.15) Mean of User Education and Awareness Challenge

No.	Statement	Mean
1	User aren't enough educate to use digital money	4.33
2	Lack of user awareness is the main stuck for providers	4.48
3	Users don't know the benefits of digital money well	4.73
4	Providers couldn't spread the way to use and benefits of digital money to the users successfully	4.35
5	User are not familiar with banking and digital money in both rural and urban areas	3.94
	Overall Mean	**4.37**

Source: Survey Data, 2018

The Table (4.15) represents the mean of user education and awareness challenge and overall mean score is 4.37 and it's in very high agreed level. The highest mean score is 4.73 and concerning with users don't knows the benefits of digital money well and the second one is lack of user awareness is the main stuck for providers with 4.48 mean score. Providers could not spread the way to use and benefits of digital money to the users successfully is the third highest mean score with 4.35 and user aren't enough educate to use digital money is with 4.33. Users are not familiar with banking and digital money in both rural and urban areas is with 3.94 mean score and it's the last one. Lack of customer awareness on the digital money services' benefits is the main challenge for the providers as per the research result.

Table (4.16) Mean of Customer Trust Challenge

No.	Statement	Mean
1	User feel unsecure to use digital money via agents	4.61
2	User feel unsafe to use digital money via their mobile phone	4.51
3	Providers can't persuade customers to feel Digital money services are safe and useful	4.23
4	Customer doesn't have enough knowledge and understanding on technology issues and fraud/cheat on digital money	4.46
5	Customer doesn't believe agents to do transaction for various reasons	3.61
	Overall Mean	**4.28**

Source: Survey Data, 2018

The Table (4.16) provides the mean of customer trust challenge and overall mean score is 4.28 and it's very high agreed level. The highest mean score is 4.61 and linking with user feel unsecure to use digital money via agents. User feel unsafe to use digital money via their mobile phone is with 4.51 mean score and it's the second highest one. Customer doesn't have enough knowledge and understanding on technology issues and fraud/cheat on digital money is with 4.46 mean score and providers can't persuade customers to feel digital money services are safe and useful is with 4.23 mean score and its fourth highest agreed level. The mean score 3.61 is concerning with the customer doesn't believe agents to do transaction for various reasons. To be analyzed the customer trust challenge that the customer doesn't believe and feel unsafe to use digital money is the main problem at the same time the providers are not able to share the way of using to be secured and benefits of digital money to the customers are the challenges for them.

Table (4.17) Mean of Customer Support Operation Challenge

No.	Statement	Mean
1	The companies side are not supporting to the agents to be available 24/7	4.63
2	The transaction can't be done 24/7 via mobile phone	4.03
3	The call center are unavailable all the time for customer complaint	3.66
4	All issues on the transactions aren't resolved within one day	4.08
5	Customer doesn't know well where to contact when they get issues during transactions	4.08
Overall Mean		**4.10**

Source: Survey Data, 2018

The Table (4.17) represents the mean of customer support operation challenge and overall mean score is 4.10 and it's high. The lowest mean score is 3.66 and relating with the call center are unavailable all the time for customer complaint and the highest mean score is 4.63 and linking with the companies are not supporting to the agents to be available 24/7. The same two mean scores which is 4.08 relating with all issues on the transactions aren't resolved within one day and customer doesn't know well where to contact when they get issues during transactions. The fourth highest mean score is 4.30 and relating with the transaction can't be done 24/7 via mobile phone. In customer support operation section the providers feel challenges for

the agents are not able to run the business 24/7 and the providers can't resolve the issues in a short time and customers don't know where to contact when they get the issues during the transactions.

Table (4.18) Overall Mean of Providers' Challenges

No.	Statement	Mean
1	Business Infrastructure Challenge	3.03
2	Fraud & Money Laundering Challenge	3.77
3	Technology Challenge	4.26
4	Security Framework Challenge	3.72
5	Agent Distribution (Training & Management) Challenge	3.91
6	Liquidation & Rebalancing Challenge	3.47
7	Customer Education and Awareness Challenge	4.37
8	Customer Trust Challenge	4.28
9	Customer Support Operation Challenge	4.10

Source: Survey Data, 2018

The Table (4.18) shows the overall mean of providers' challenges and among the challenges lack of customer education and awareness on digital money services are the main risk for providers and mean score is 4.37. Then, customer trust challenges is the second highest problem for the providers and mean score is 4.28 and the third one is 4.26 which represents technology challenge for providers. Moreover, customer support operation challenges is the fourth highest issue for the providers and mean score is 4.10. So the main challenges for the providers of digital money are concerned with customers' awareness, education, trust and to support them in a very good way.

After that agent distribution challenge mean score is 3.91 and it's the fifth highest mean score level then fraud and money laundering challenge mean score is 3.77. Security framework challenge mean score is 3.72 and it is giving the challenges to the providers to penetrate the market to spread the digital money services. Liquidation and rebalancing challenge is a kind of problem for the providers and mean score is 3.47 and the business infrastructure challenges mean score is 3.03 so that two challenges is in high and medium level of agreement.

CHAPTER V

CONCLUSION

This chapter describes the findings from the analysis on the challenges of the digital money providers and suggestions as well.

5.1   Findings

In this study the key purpose was to identify the services procedures of the digital money providers and to examine the challenges of the digital money providers. The services procedures were presented step by step in second part of the analysis section. Then, a total of 120 providers were being interviewed with constructed questionnaires and firstly, the data was analyzed from demographic characteristics. As per primary data resulted on the providers, male providers are more included then female providers in providing the services.

According to the data, it mentioned between 18 and 30 years age group is the largest number assuming that more interested in digital money services compared to the rest groups. Regarding the educational background that graduates with 83% is the highest number than under/post graduates and agents were 120 persons. 44% of respondents have already over 3 years' experience in serving digital money and they are agents for M-Pitesan, Wave Money and OK Dollar. They have many products for the users and let user knows about of their products via social media mostly.

From the analysis carried out, the respondents from companies' side said that the network establishes a mobile money ecosystem is a challenge and it is a community supported by a foundation of interacting organizations and individuals to achieve a certain goal. Participants and stakeholders in the mobile money ecosystem include mobile network operators, equipment manufacturers, regulators, banks, airtime sales agents, retailers, utility companies, employers, other institutions, and users.

Addition, general support and basic infrastructure are being covered with supporting technology. Technology allows financial institutions, and other related institutions, including merchants to link to one or multiple mobile money services. Furthermore this technology automates use of mobile money services by small and medium size enterprises. General Support Technology includes Cloud Services, Service Oriented Architecture, as well as Cyber Security.

In Myanmar digital money culture is being tried to develop and not yet settled because network connectivity issue is happening, no space for the towers in somewhere (both rural and urban area), companies are not using the modernize devices to build up the infra and provide to the agents or sometime agents cannot use it in right way due to their lack of educational level although they got the training and latest model device for their services.

Although there are some issues and challenges in establishing of the fully business structure that the providers have created a dedicated Call Centre and Service Centres for EcoCash customer support already to overcome the challenges. As per research's result fraud is hindering growth and marketing penetration of mobile money services. Providers claimed that the customers were often the victims of fraud because in case they have not sufficiently protected their PIN. Additional they lost access to the mobile money services when their mobile phones were stolen for a significant range of time. In case of mistakes in entering recipients' number, the risk of loss was directly borne by the customer.

Fraud issues were a matter of concern for many agents, as different fraud modalities and cheating methods were used. Swapping of SIM cards, unfaithful workers, and transfer of money from one account to another unknowingly due to PIN leakage, fake money and fake mobile money withdrawal text messages were commonly observed by both the agents and the customers.

Moreover anti money laundering which have been established by the central bank of Myanmar requires the transactions need to be within limitation receptively, which is not useful for people who need to makes transactions which is above that amount. M-Pitesan offers the following accounts types for Mobile Money customers with applicable balance limits and transaction limits set out in the table below which is in accordance with the limits set out under the Mobile Money regulations governed by the Central Bank of Myanmar.

M-Pitesan's daily cumulative transaction limit are 50,000 Kyat for level 1 customer account and 1 million Kyat for business level account and 500,000 Kyat for level 2 customer account. Monthly cumulative transaction limit for level 1 user is 1.25 million Kyat, for level 2 user is 12.5 million Kyat and 1 million Kyat is for business level account. Moreover, maximum balance limit are 200,000 Kyat, 1 million Kyat and 10 million Kyat respectively for level 1, 2 and business level accounts. Wave Money set the maximum amount up to 5 lakh to send and 10 lakh to receive per day.

OK Dollar service allow that if the customers are using with personal account, there is a limit set at 3 transactions a day with a maximum total amount of 10 lakh.

This has been set by the Central Bank of Myanmar. If customers are using with business account, there is no limitation for the number of transaction times. Myanmar is developing in telecommunication time by time but some area rural and urban area hasn't got enough services not only for telecommunication but also for data and internet so that the services which totally rely on the internet has many kinds of issues. The respondents said that network and technology is a major challenge which they are facing. The major factor that hindered large population of customers from using the service was network or service failures. Many times there were network connectivity problems causing customers and agents to receive messages stating that 'service is not available please keep trying, or try again later' or service hanging.

To customers and agents this is a more challenging aspect as they were exposed to the risk of losing their cash, wasting time and other problems like loss of customer goodwill. Hence its low market penetration. Even if this company network was available in the urban areas, it could not achieve market penetration in mobile money services. Therefore, the enhanced connectivity to rural customers was required. In Myanmar connectivity problem is happening most of the places and as per agents' information even in Yangon downtown area that the network is not so stable and out of service in some places. So the mobile money service especially Wave and M-Pitesan are not working in some places due to limited network availability.

Providers from operators and companies side also claimed that more efforts are to be put on covering rural unreached areas. Absence of network was forcing people to travel longer distances to avail the service. In general, providers specified that more improvements were required in rural areas where large population was unbanked. For urban areas also improvement was required due to several occasions of service unavailability and frequent hanging transactions without prior information or notification to users.

The security improvements were required in terms of starting from agents or their workers who were likely to be share information of the confidential PIN codes of customers. As per the operators' information that Some customers reported to the call center or companies' customer care that to have lost their money in many instances by

fraudulent practices faced in the process. This could be misused by some unfaithful agents or workers. A few customers mentioned that they shared their PIN with agents or close family members in case of emergencies.

This also posed a threat of security issues as the providers have faced again and again. Education to the end users and agents was essential to make them aware of all possible frauds, risks and the ways to prevent them. The operators said that the services are not available 24 hours and some of agents do not have cash flow that companies face. This means that customers who need to send or withdraw money cannot get a service during the night hours. It is a challenge of companies' side although they try the best to serve the customer but their agents cannot provide the services anytime.

Agents' presence is a requirement along with network availability and reliability in order for mobile money services to penetrate the market and grow. The limited numbers of agents were available in rural areas. The working capital for agents is a matter of concern in both urban and rural locations. On the other hand agents claimed that the companies do not providing training frequently. Agents are trained on all aspects of the operation of the system including anti money laundering (AML) policies and the training is delivered by an external agency and is tailored to the role of the person being trained. But training is not on- going process which is updated regularly to reflect developments to the platforms and changes takes place to the laws and regulations as well as money laundering and terrorist financing trends and development.

Other challenges mentioned by the agents are such as; most of their customers do not have sufficient knowledge on using digital money, most of their customers do not have identity cards, and agents are not getting enough cooperation from companies specifically from customer care services as well. To promote the digital money trend in the country both operators and agents' sides must obey the rules and regulations of mobile financial services by Central Bank of Myanmar. And all services must be smooth and available around the country and customer experiences on the services have to be the most reliable and the best. In this way the users is going to use the digital money and it'll upgrade their living standard in financial sector.

Around the world that the liquidity and rebalancing management challenge is one of the issues getting mobile money providers that the respondents said. All providers have figured out solutions that will work across the country. The challenges

are intensified in rural areas because some providers focus on urban areas where there is access to bank branches. Thus the company avoids liquidity problems in harder to reach areas.

Management of electronic value in the mobile wallet and cash management are the forms of liquidity management. The agents need to have cash value in their mobile wallet to be done the mobile money transactions between an agent and a customer. It is becoming more common for electronic liquidity to be handled not only by the agents. Technology is also being developed to help the agents and the Mobile Financial Service Providers manage liquidity.

The other form of liquidity management relates to physical cash. Customers who are seeking to make cash deposits into their mobile wallets or to withdraw cash from their accounts will go to agents. While mobile money customer bases remain small or primarily urban, cash liquidity issues have not been a significant problem for many mobile money providers.

But if the retail agent either has too much cash on hand, increasing security risks, or not enough cash on hand to handle customers' withdrawal requests, then there needs to be a movement of physical cash. As transaction volumes increase, cash liquidity is likely to be a more challenging problem than electronic liquidity. As mentioned previously, none of the mobile money providers have solved the problem of liquidity management adequately. This is true for both electronic as well as cash liquidity issues. There are no easy solutions or silver bullets. There has been progress, however, which points to some qualification options. As per the research answers lack of customer awareness, trust and education are the main problem for the mobile financial services in Myanmar. Most customers are using mobile phone for Call, SMS and Data but they seldom deal with financial sectors because they don't have trust, enough knowledge and experiences on it. Providers penetrate the market and share the guidelines but most people are not really interested due to their daily life is familiar with cash and it is because of the country is not yet developed in digitalization as well. Then, Government should be educated towards cash less transactions services. Government need to tries to promote customers mind towards the risk factors as well. The providers and agents also answered that most people don't know the real benefits of mobile financial services to use. There are many benefits by using mobile money such as confidentiality - a secret PIN is used to access information on the account, ease of use - as the agent assists in carrying out the transaction/can is used even by

uneducated people/easy to understand, fast transfer of money to the receiver/without delay, convenience - the agents (where money can be deposited/withdrawn) are located close to the user/the service is easily accessible to the users/agents/phones are found throughout the country/even in remote places/one can send/receive money at any place.

Then, affordability - the charges for sending/receiving money is low/affordable, security/safety – Digital Money is safer than carrying cash/one needs a pin to send/receive money, acceptability - many people accept it as a way of transferring money/means of payment, facilitates m-banking - money can be withdrawn/transferred the mobile phone through bank ATM machines/transferred to/from bank accounts, no account maintenance fee for keeping money in the mobile phone and short/simple procedure to register for the service.

There is still a lack of trust for digital payments for many people. There are those that don't yet feel safe using this as they don't trust the Internet and the perceived security risks. Moreover, customer support refers to the options available to help customers with questions about the service, problems with transactions, or other concerns. This could include interaction via phone, SMS, or in-person (such as visiting an agent or operator retail location). Effective support is support that is 1) available whenever a customer has a problem, 2) accessible from wherever a customer might be at that moment, and 3) resolves the problem in a reasonable amount of time.

As both formal and electronic financial services are often very new to mobile money customers, they will typically have a large number of questions and / or problems as they get used to the service. Problems relating to financial transactions are also of the highest concern to consumers, particularly for those who are cash-constrained, so any delays in resolving even a small problem can cause a customer to stop using the service and/ or create negative word-of-mouth attitude. So the main challenge is happening regarding customer support for the providers to fulfill customers' needs.

Simply being able to speak with a representative can give customers confidence that their issue is being handled, and can go a long way in building goodwill for the service as a whole. This level of customer support is not always the standard for providers serving these customer segments, so it's important to take a different approach for mobile money services to overcome challenges.

5.2   Suggestions

The following are the recommendations which are being suggested for the purpose of solving the challenges which are facing providers of digital money. Training is needed to be provided to agents and users. The providers need to communicate with its customers through the varied messages regarding the value and use of Digital Money services. M-Pitesan, Wave Money and OK Dollar must invest more resources in radio advertisements and print publications to clearly communicate the benefits and use of their services.

And before the companies grant permission to a person to work as its agents its capacity in terms of financial and efficiency should be measured properly and he should be kept under probation of at least the period of 6 months. Agents have to be trained to offer customer support and education. And the providers need to try to provide 24/7 dedicated customer care call center for users. Calls to the customer care center should be free and response times are quite good.

On the side of network problem which is a major difficulty on the efficiency of the providers. The providers should increase number of staff on engineers department or establish a department which will be dealing with networks solutions. The customers not to lose the connectivity while the transaction is happening that the providers emphasize to upgrading their network level from 2G to 3G then to 4G and next higher technology levels as well.

There is a need to amend anti money laundering policy by the central bank of Myanmar by set a limit of amount of money which could be useful also to business organizations. And agents should be up dated on changes taking place on Anti money laundering policy as well as other changes taking place on the operations of the providers' services.

The providers also need to increase the number of agents by ensuring that number of agents goes together with the increase of number of users. Also the government is needed to ensure all of its citizens get national identity cards so as to minimize the possibility of criminal issues to take place. There is a need for the providers to reduce the transaction fees so as to enable people with lower income to use the service. As well as not to charge fee to both the person who send money and the person who receive money.

In conclusion, the providers need to form dedicated teams to support the development and management of their Digital Money Services including skilled staffs

from Product Development, Customer Care, Technical, Finance, Sales and Marketing. In addition, the operator has recruited an external agency to manage and train their agent network to be successful their digital money business.

REFERENCES

1. Central Bank of Myanmar (March 30, 2016) Regulation on Mobile Financial Services.

2. Adam J and Kamuzora F (2008), Research Methods for Business and Social Studies, Mzumbe Book project, Morogoro

3. Cohen L, Manion L, Morrison K (2008), Research methods in education (5th ed.), Routlege Falmer, London

4. Crossman, A (2011), Convenience sample, retrieved on 16 Oct 2012 from http://sociology.about.com/od/Types-of Samples/a/Convenience -sample.htm

5. Davidson, N. and Leishman, P (2012), The case for interoperability, Assessing value that interconnection for mobile money services would create for customer and operators,' GSMA report 2012, London.

6. Davidson, N. & Pénicaud, C. (2012) State of the Industry: Results from the 2011 Global Mobile Money Adoption Survey, GSMA, London

7. Desai S (2012), Mobile money for the unbanked, GSMA (annual report 2012) accessed from http://www.gsma.com/mobilefordevepment/wpcontent/uploads/2012/10/ 2012

8. Frey L.R, Botan C.H, Kreps G L (1991), Investigating communication: An introduction to research methods (2nded), Prentice Hall, Englewood Cliffs, NJ.

9. Harrell, M. C. and Bradley, M.A (2009), Data Collection Methods: Semi-structured interviews and focus groups, Rand Corporation, Pittsburgh

10. Foster, T., Hope, R., Krolikowski, A. and I. Cohen (2012), 'Mobile water payments in urban Africa: adoption, implications and opportunities', GWF Discussion Paper 1206, Global Water Forum, Canberra, Australia

11. Kombo D (2006), Proposal and Thesis writing: An Introduction, Pauline's Publications, Nairobi.

12. Aziz W. & Hashmi Y.(2009) Usability principles for Mobile Commerce. Lulea

13. Implementation. GSMA.

14. Chew. Anthony A (2006). Adoption of mobile commerce in USA. California State

APPENDIX

CHALLENGES OF THE DIGITAL MONEY PROVIDERS PROVIDED BY M-PITESAN, WAVE MONEY AND OK DOLLAR

This survey questionnaires are to use only for the thesis paper "Challenges of the Digital Money Providers" provided by Ooredoo Myanmar Ltd – M-Pitesan, Telenor Myanmar Ltd – Wave Money and Internet Myanmar Ltd – OK Dollar. To submit as a partial fulfillment toward the Degree of Master of Banking and Finance (MBF) in Yangon University of Economics. It is guaranteed that information about respondents will be kept as confidential.

Appreciation for all answers via questionnaires and interviews with you all providers.

I. Providers' Demographic Information

1. What is the Gender?

   o Male

   o Female

2. What is the range of your age?

   o 18 to 30

   o 30 to 40

   o 40 to 50

   o 51 and above

3. What is the Educational Level?

   o Under Graduate

   o Graduate

   o Post Graduate

II. Business Relationship with Companies

1. How long have you been working for the companies?

   o 1 to 2 years

   o 2 to 3 years

   o Above 3 years

2. What kinds of services do you serve?

   o Phone Top-Up

   o Money Transfer

- o Bank Account and Mobile Money Transfer
- o Pay Bills
- o Online Shopping

3. How do you advertise to the market and users for your services?

- o Social Media
- o TV
- o FM Radio
- o Market visit by promoters
- o Printed Media

III. Analysis on Challenges of the Digital Money Providers

(Check the Reponses that you feel apply to you)

Scales (1: Strongly Disagree, 2: Disagree, 3: Not Sure, 4: Agree, 5: Strongly Agree)

Please use this scale (Tick one box against each statement) for the following statements.

"Business Infrastructure Challenge"

No.	Statement	1	2	3	4	5
1	Mobile SIM are unavailable everywhere					
2	The most user use the functional mobile handset are not cheap and not updated to be support digital money functions					
3	Mobile Tower are not everywhere for good network connectivity					
4	Digital money service Agents area are unavailable everywhere					
5	Mobile Technology are already upgraded					

"Fraud & Money Laundering Challenge"

No.	Statement	1	2	3	4	5
1	Fraud is happening due to unsecure of PIN					
2	Fraud can happen when mobile phone lost the customer					
3	Fake mobile money withdrawal SMS cause the fraud for both customers and agents					
4	Money laundering can't be happened if unlimited transactions are allowed					
5	Daily transaction within limitation is not acceptable to protect money laundering					

"Technology Challenge"

No.	Statement	1	2	3	4	5
1	Network and technology losing is a main challenge					
2	Unavailable of network is problem for both customers and providers side					
3	Due to loss of connectivity during the transaction , the risk of cash losing can happen					
4	Data cost for mobile phone is not cheap and unaffordable to browse the digital money					
5	Agents are available in all network coverage areas					

"Security Framework Challenge"

No.	Statement	1	2	3	4	5
1	Mobile banking is unsecured from unauthorized third parties					
2	If the user lost the phone, they may lose their money					
3	The agents and companies are not aware of its security during the transaction					
4	Due to transactions errors, there might be loss of money					
5	There is a fear of providing mobile money, that other people may access the user accounts through hacking from providers' database					

"Agent Distribution Challenge"

No.	Statement	1	2	3	4	5
1	The services are unavailable 24/7					
2	Agents cash flow are irregular and unreliable in some area					
3	Agents don't have enough training provided by providers					
4	Agents don't have knowledge well on mobile money					
5	Agents face the difficult due to lack of knowledge of customers					

"Liquidation & Rebalancing Challenge"

No.	Statement	1	2	3	4	5
1	Agents have enough cash flow to provide the customers					
2	Companies side provide not enough incentives to agents for target achievement					
3	Agents don't use the customers' money for their personal					
4	Handling physical cash a lot is a big risk for agents					
5	Management of wallet and physical cash is not easy for agents in rural and unsecured urban area					

"Customer Education and Awareness Challenge"

No.	Statement	1	2	3	4	5
1	User are not enough educate to use digital money					
2	Lack of user awareness is the main stuck for the providers					
3	Users don't know the benefits of digital money well					
4	Providers couldn't spread the way to use and benefits of digital money to the users successfully					
5	User are not familiar with banking and digital money in both rural and urban areas					

"Customer Trust Challenge"

No.	Statement	1	2	3	4	5
1	User feel unsecure to use digital money via agents					
2	User feel unsafe to use digital money via their mobile phone					
3	Providers can't persuade customers to feel Digital money services are safe and useful					
4	Customer doesn't have enough knowledge and understanding on technology issues and fraud/cheat on digital money					
5	Customer doesn't believe agents to do transaction for various reasons					

"Customer Support Operation Challenge"

No.	Statement	1	2	3	4	5
1	The companies side are not supporting to the agents to be unavailable 24/7					
2	The transaction can't be done 24/7 via mobile phone					
3	The call center are unavailable all the time for customer complaint					
4	All issues on the transactions are not resolved within one day					
5	Customers doesn't know well where to contact when they get issues during transactions					