

**UNIVERSITY OF CO-OPERATIVE AND MANAGEMENT,  
SAGAING  
DEPARTMENT OF COMMERCE  
MASTER OF ACCOUNTING AND FINANCE**

**A STUDY ON DETERMINANTS OF CUSTOMERS' ADOPTION  
OF DIGITAL PAYMENT AMONG UNIVERSITIES'  
EMPLOYEES OF SAGAING CITY**

**THAZIN NYEIN THU  
JANUARY, 2023**

**UNIVERSITY OF CO-OPERATIVE AND MANAGEMENT,  
SAGAING  
DEPARTMENT OF COMMERCE  
MASTER OF ACCOUNTING AND FINANCE**

**A STUDY ON DETERMINANTS OF CUSTOMERS' ADOPTION  
OF DIGITAL PAYMENT AMONG UNIVERSITIES'  
EMPLOYEES OF SAGAING CITY**

**THAZIN NYEIN THU**

**2MAF-1**

**JANUARY, 2023**

**A STUDY ON DETERMINANTS OF CUSTOMERS' ADOPTION  
OF DIGITAL PAYMENT AMONG UNIVERSITIES'  
EMPLOYEES OF SAGAING CITY**

**This thesis is submitted to the Board of Examiners in partial fulfillment of the  
requirement for the degree of Master of Accounting and Finance**

**Supervised by**



**Daw Ei Ei Po**

**Associate Professor (Head)**

**Department of Commerce**

**University of Co-operative and Management, Sagaing**

**Submitted by**



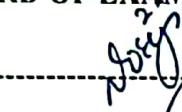
**Thazin Nyein Thu**

**2MAF-1**

## ACCEPTANCE

This is to certify that this paper entitled "A Study on Determinants of Customers' Adoption of Digital Payment among Universities' Employees of Sagaing City", submitted as a partial fulfillment towards the degree of Master of Accounting and Finance has been accepted by Board of Examiners.

### BOARD OF EXAMINERS

  
(Chairman)

Prof. Dr. Moe Moe Yee

Rector

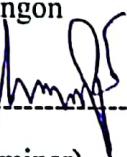
University of Co-operative and Management, Sagaing

  
(External Examiner)

Dr. Daw Tin Hla

Professor

Myanmar Imperial University,

  
Yangon

(Examiner)

Dr. Htet Htet Hlaing

Associate Professor

Department of Commerce

University of Co-operative and

Management, Sagaing

  
(External Examiner)

Prof. Daw Khin Aye Myint

Head of Department of Statistics (Retired)

University of Co-operative and Management,

  
Sagaing

(Examiner)

Daw Aye Aye New

Lecturer

Department of Commerce

University of Co-operative and

Management, Sagaing

  
(Supervisor)

Daw Ei Ei Po

Associate Professor (Head)

Department of Commerce

University of Co-operative and Management, Sagaing

  
OJ

JANUARY, 2023

## ABSTRACT

The aim of the study is to analyze the determinants of customers' adoption of digital payment among universities' employees of Sagaing City. Cluster sampling method was used to collect data from the universities' employees of Sagaing City. Primary data was collected from 238 employees who used digital payment in selected universities of Sagaing City. And the data were analyzed through descriptive statistics, reliability analysis, pearson correlation analysis and multiple regression analysis. The Technology Acceptance Model (TAM) and Theory of Reasoned Action (TRA) were used to obtain the objective of the study. The result shows that independent variables (benefits, trust, ease of use and security) are positively associated with the adoption of digital payment. But independent variable (self-efficacy) is negatively associated with the adoption of digital payment. According to the multiple regression analysis, ease of use is the most influential factors for customers' adoption of digital payment, followed by security and benefits factors. Trust and self-efficacy are not significantly associated with customers' adoption of digital payment. Therefore, digital payment providers should improve the level of trust by solving the security concerns that encountered by customers. They should also create the features of their products in the common language or Burmese to be easy to use by customers. By creating their products features with common language or Burmese, users can understand the transaction steps and easily use their products with few barriers.

## **ACKNOWLEDGEMENTS**

Firstly, I would like to express my deep and sincere gratitude to Dr. Moe Moe Yee, Rector, University of Co-operative and Management, Sagaing for her kind permission to submit this study and for taking responsibilities as the Chairman of Master of Accounting and Finance Steering Committee and for her generous support.

Secondly, I also would like to express my gratitude to Dr. Tin Hla, Professor, Myanmar Imperial University, Yangon for her valuable comments and suggestions on this study. I also would like to convey my gratitude to Professor Daw Khin Aye Myint, Former Head of Department of Statistics, University of Co-operative and Management, Sagaing for her sound advice and suggestions concerning statistical tools and methods to improve and compute my study.

In particular, I would like to express my special thanks to my supervisor Daw Ei Ei Po, Associate Professor, Head of Department of Commerce for her valuable guidance, assistance, supervision and encouragement to complete my study. Without her kind support, encouragement and suggestion, my study could not be finished.

Moreover, I would like to show my deepest thanks to Dr. Htet Htet Hlaing, Associate Professor, Department of Commerce and Daw Aye Aye Nwe, Lecturer, Department of Commerce, for her valuable support and monitoring along the program. Also, my special thanks go to Daw Theint Myat Noe, Lecturer, Department of English, for her valuable support.

Especially, I would like to thank to Dr. Nyunt Soe, Rector, Technological University, Sagaing for his valuable time and permission to collect required data from his employees. And I would like to thank to all the people who have supported me in collecting data and analyzing the factors until successful completion of this study.

I would like to say thanks to digital payment users of the two universities of Sagaing City for their willingness to respond survey questionnaires and for getting high value of information to complete this study. Last but not least, I would like to thank my family, friends, colleagues and everyone who helped directly or indirectly toward the successful completion of this study.

**Thazin Nyein Thu  
2MAF-1**

## CONTENTS

	<b>Page No.</b>	
<b>Abstract</b>	<b>i</b>	
<b>Acknowledgements</b>	<b>ii</b>	
<b>Contents</b>	<b>iii</b>	
<b>List of Tables</b>	<b>v</b>	
<b>List of Figure</b>	<b>vi</b>	
<b>List of Abbreviations</b>	<b>vii</b>	
<b>Chapter 1</b>	<b>Introduction</b>	
1.1	Rationale of the Study	3
1.2	Problem Statements of the Study	5
1.3	Aim of the Study	6
1.4	Objectives of the Study	6
1.5	Research Questions	6
1.6	Hypotheses of the Study	6
1.7	Methods of Study	7
1.8	Scope and Limitations of the Study	7
1.9	Organization of the Study	8
<b>Chapter 2</b>	<b>Literature Review</b>	
2.1	Digital Payment	9
2.2	Adoption of Digital Payment	10
2.3	Determinants of Customers' Adoption of Digital Payment	11
2.4	Theoretical Background	18
2.5	Conceptual Framework of the Study	20
2.6	Previous Studies	21
<b>Chapter 3</b>	<b>Research Methodology</b>	
3.1	Research Design	32
3.2	Data Collection Methods	33
3.3	Target Population and Sampling Design	34
3.4	Data Analysis	35
3.5	Measurement Items	39

<b>Chapter 4</b>	<b>Profile of Digital Payment and Digital Payment Users in Universities of Sagaing City</b>	
4.1	Revolution of Digital Payment in Myanmar	43
4.2	The Mostly Used Digital Payment in Selected Universities of Sagaing City	44
4.3	Demographic Factors of Respondents	49
4.4	Usage of Digital Payment of Respondents	50
<b>Chapter 5</b>	<b>Analysis of Customers' Adoption of Digital Payment among Universities' Employees of Sagaing City</b>	
5.1	Analysis on Reliability and Validity of the Variables	53
5.2	Descriptive Statistics of the Variables	54
5.3	The Correlation Analysis of Variables	60
5.4	Multiple Regression Analysis	61
5.5	Achieving of Hypothesis Testing	63
5.6	Summary	64
<b>Chapter 6</b>	<b>Conclusion</b>	
6.1	Findings and Discussion	66
6.2	Contributions and Recommendations	69
6.3	Needs for Further Study	72
<b>References</b>		
<b>Appendices</b>		

## LIST OF TABLES

<b>Table No.</b>	<b>Descriptions</b>	<b>Page No.</b>
Table 2.1	Previous Studies	21
Table 3.1	Weighted Mean- Level of Agreement	36
Table 3.2	Items Measuring Digital Payment System Variables	39
Table 4.1	Gender of Respondents	49
Table 4.2	Marital Status of Respondents	49
Table 4.3	Education Level of Respondents	50
Table 4.4	Usage Frequency of Digital Payment of Respondents	51
Table 4.5	Types of Digital Payment	51
Table 4.6	Cash Transactions Made by Respondents	52
Table 5.1	Results from Reliability and Validity Test	54
Table 5.2	Mean and Standard Deviation of Benefits	55
Table 5.3	Mean and Standard Deviation of Trust	56
Table 5.4	Mean and Standard Deviation of Self-efficacy	57
Table 5.5	Mean and Standard Deviation of Ease of Use	58
Table 5.6	Mean and Standard Deviation of Security	59
Table 5.7	Mean and Standard Deviation of Adoption of Digital Payment	60
Table 5.8	Correlation Analysis for Benefits, Trust, Self-efficacy, Ease of Use, Security and Adoption of Digital Payment	61
Table 5.9	Multiple Regression Analysis on Benefits, Trust, Self-efficacy, Ease of Use, Security and Adoption of Digital Payment	62

## LIST OF FIGURE

Figure No.	Description	Page No.
Figure 2.1	Conceptual Framework of the Study	21

## **LIST OF ABBREVIATIONS**

Adjusted R <sup>2</sup>	Adjusted Coefficient of Determination
AGD	Asia Green Development Bank
ANOVA	Analysis of Variance
ATM	Automated Teller Machine
CBM	Central Bank of Myanmar
FinTech	Financial Technology
GDPs	Gross Domestic Products
GOM	Government of Myanmar
ICT	Information and Communication Technology
IS	Information System
MBL	Mobile Banking License
MFS	Mobile Financial Service License
MIS	Management Information System
MOB	Myanmar Oriental Bank
MPU	Myanmar Payment Union
R <sup>2</sup>	Coefficient of Determination
SD	Standard Deviation
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
VIF	Variance Inflation Factors

## CHAPTER 1

### INTRODUCTION

The increased development of Information and Communication Technology (ICT) has brought many benefits to society and affected the lives, attitudes and social events of human being. New business activities and long-term careers can be optimized by using information technology (Afsharpour & Pahlevani, 2013). New technologies and the wider global network are now being used in the digital economy, the online retail and finance and electronic banking sectors. All countries around the world aim to get a high level of electronic commerce (e-commerce) (Taghizadeh & Shafiq, 2013). Information technology and internet advances are rapidly growing and are widely regarded as a key driver of expanded use in the field of e-commerce services. E-commerce has facilitated the financial need for digital payment to work more efficiently, which cannot be fulfilled by the traditional payment system. Due to the advance in technology, the process of transitioning from cash to card payments is level up to the process of transitioning from card payment to online payment.

In the modern era, the transactions are made by digital payment system using digital currencies with the help of an electronic medium. Digital payment refers to the set of rules and regulations, procedures, method, medium, processes and interbank funds transfer systems which accelerate the circulation of money in the country or currency area (Kokkola, 2010). Digital payment systems are a key component of a country's economic and financial infrastructure. Their proper performance in safe and timely transfer of money has the most important impact on the economic system's overall performance.

Almost all digital payment systems are proposed to apply for multi-purpose, so that they can be used for all kinds of payments. Kumar (2019) stated that payer and payee both utilize electronic modes to transfer and receive money through digital payment without using hard cash. Digital payment refers to the payment of goods and services using a mobile device that uses wireless and other communication technologies. Digital payment is a channel that enables users to accurately perform their financial transactions in a timely manner (Meharia, 2012). Digital payment is also an alternative way to help the government to prevent the spread of Covid-19.

The Government of Myanmar (GOM) aims to reach 40 percent of the total population, including the currently unbanked population, using financial services via

mobile technology through 2020 and targets 15 percent of the total population to use more than one type of financial service. This ambitious target creates opportunities for both domestic and international Financial Technology (FinTech) firms to serve the unbanked population; the traditional local banks still have not reached some rural parts of the country due to the lack of banking infrastructure. According to the McKinsey Global Institute, financial inclusion is essential to economic development in emerging markets. Widespread implementation of digital finance systems could increase the GDPs of all emerging economies by 6 percent in 2025.

Due to updated information technology, local people were aware the success story and the benefits of using digital payment in making payment transactions. Business also recognizes the importance of digital transformation for their success. So their positive attitudes on digital payment have dramatically increased. In today's fast paced life, people are willing to change most of their daily usage. Variety of digital payment methods comes with a growing middle class and the rapid growth of smartphone usage and penetration. People are increasingly using internet as the rapid growth of the economy. Today, digital payment is becoming popular in making payment transactions. Growth of the internet have significantly impacted and facilitated the development of digital payment which have becoming popular (Teoh, Chong, Lin & Chua, 2013). Many digital payment providers and digital payment methods are rapidly and increasingly emerged as the popularity of digital payment among local people.

The Central Bank of Myanmar (CBM) allowed to the banking sectors and the other sectors such as telecommunications and organizations related with financial services to apply technology in mobile financial services. The CBM also issued Mobile Financial Service License (MFS) to non-bank entities in March 2016. Now, digital payment providers can digitally connect the non-bank firms in Myanmar and the CBM drive the financial culture of Myanmar by changing shift from cash-based to digital economies in the country (Ei Ei Phyu, 2019).

In Myanmar, there are three types of digital payment applications; bank-led applications, telecom-led applications and other independent applications. Bank-led applications include KBZPay (KBZ Bank), CBPay (CB Bank), AYAPay (AYA Bank), Onepay (AGD Bank), Shwe Eait (Shwe Bank), uabpay (UAB Bank), Ongo Pay (MOB) and Citizens Pay (MCB). Amidst them, KBZPay is the largest adoption that can be used in many places. CBPay and AYAPay are next to best with their bill

payments, loan payments, mobile top-up, money transfer and MPU and visa card top up functions. Telecom-led applications include MPT Pay (MPT), M Pitesan (Ooreedoo) and Mytel Pay (Mytel). M Pitesan is the leading player among them offering payment functions for high way bus ticket, prepaid cards, iTunes card and so on. Other independent applications include Wave Pay, Easy Pay, True money, OK Dollar, Oway Pay, Mandalay Smart Pay, Shal Pay, City Sky Pay and TRUSTY. Wave Pay is the most popular digital payment solution in Myanmar. It used to be under Telenor group until they agreed to sell their entire stake to Yoma Strategic Holding Ltd in January 2022.

Nevertheless, people in Myanmar are still carrying a risky large amount of cash to make payment for buying a large amount of goods and services. Meanwhile, people in developed country have been conducting electronic mean shortly. Even though a variety of digital payments were introduced, Myanmar has lots to be done to be nearly 100 percent digital society. There are some user adoption issues such as convenience, cost, connectivity and marketing in the implementation to go to digital society. Digital payment may be susceptible to fraud or human error. When using the internet for financial transactions, there is the risk of internal or external fraud, which may cause users to less confident on using digital payment. In the long term, it is very important for an organization to control trust and customer loyalty for the continuous development of digital payment. According to Abrazhevich (2004), users need to trust that payment will be conducted properly and that their money will not be stolen or misappropriated. The user's perception on the adoption of digital payment is of necessity for further more implementation processes towards digital society (Zin Myo Naing, 2019). Therefore, this study analyzes the factors affecting the customers' adoption of digital payment in order to encourage the use of digital payment in Myanmar.

### **1.1 Rationale of the Study**

The advancement of wireless and internet technology has created opportunities and challenges for goods and services commerce. The growth of electronic commerce is built upon digital payment that most of the business cooperation views this digital payment as very important concerns for successful business and financial services. Chou, Lee and Chung (2004) stated that in correlation with the traditional payment methods, digital payment in the market have few

constructive characteristics such as convenience, reliability, security, privacy and acceptability.

Unlike early 2000s, when even a sim card costs fortunes, construction of internet infrastructure and FinTech has been hailed as a success in Myanmar in the last few years. The use of digital payments in Myanmar, particularly at shopping centers and in online shopping, has been dramatically improving because the government prioritized digital technology in the 2015 National Export Strategy.

In addition to banks issuing Myanmar Payment Union (MPU) cards for digital payment, digital payment application like CBPay, KBZPay, AGD Pay and MAB Mobile have appeared. Since then, digital payment providers were emerged as the Central Bank of Myanmar issued Mobile Financial Services License. Digital payments can be readily adopted and easily performed payment transactions with just a mobile phone even though users have never been used digital payment. So, digital payments are widely applied in various kinds of fields such as government department, universities, supermarket etc.

Nowadays, Myanmar felt Covid-19 pandemic like other countries and current political and economic changes, so people are not able to make payment transactions directly with the vendors and go outside for a long time. Therefore, people are now using digital payment more and more as compared to the past. Especially, government staffs are not able to go out for financial transactions for a long time according to the political and economic situation of the country. And they avoid going to the mart in order to prevent the spread of Covid-19. Thus, they are using digital payment to make variety of payment transactions like top up bill, purchase goods and services from online shop, transfer funds to another etc.

According to the above situation, digital payment providers need to investigate whether there is weakness on benefits, trust, self-efficacy, ease of use and security in performing digital payment transaction by customers especially government staffs and construct the structure of digital payment features according to the needs of government staff. By this way, digital payment providers can encourage the usage of digital payment and then improve the level of e-commerce services. So, this study focuses on the determinants of customers' adoption of digital payment among universities' employees of Sagaing City.

## 1.2 Problem Statements of the Study

Payment for goods and services is characterized by long queues; long distance traveling and time wasting that generally affect business activities and ultimately economic development of the country. Settling utility bills, payment for goods and services, and money transfers has been a major headache for individual and firms. Therefore, with the view of these problems digital payment has been developed to benefit customers in terms of convenience and lower transaction costs. The growth of internet has facilitated the popularity of digital payment as electronic commerce has created new financial needs where traditional payment systems cannot handle effectively (Sumanjeet, 2009). With digital payments, customers can easily pay their bills without physically visiting to the bank premises.

In Myanmar, banks and digital payment providers have been evolved around the country to facilitate the payment transactions. They have created the variety of digital payment products to make payment process easily such as bill payment, transferring and receiving funds, cash withdrawal, balance inquiry, online shopping etc. Using digital payment saves time and cost for users and more convenience than traditional payment system and especially in the Covid-19 pandemic it reduces the spread of virus among people. Thus, people are now widely used digital payment instead of performing traditional payment.

However, the majority of users of digital payment system are relatively unfamiliar with the technical details of digital payment. There are still little engaging in digital payment due to some challenges such as less knowledge on internet, computer and mobile phone. Because they are unsure of the advantages of digital payment, some customers continue to use cash. Additionally, dishonest people commit fraud, steal from banks or agents, hack into users' accounts, and take their money. These scenarios make users of digital payments to be less confident on digital payment. And the reasons for the low usage of digital payment can be some factors such as security concerns, privacy and usage barriers. Yang, Liu, Li and Yu (2015) stated that customers reluctant to adopt digital payment due to regulatory gaps in privacy protection in digital payment. Consequently, regulatory uncertainty around digital payment raises customers' privacy and financial concerns.

Therefore, digital payment providers need to know the customers' adoption of digital payment in order to upgrade their payment system and to retain the current users and attract the potential users. By understanding the customers' adoption, they

will be able to improve their products to be reliable and secured more than the last products. Thus, this study focuses on analyzing the determinants of customers' adoption of digital payment among universities' employees of Sagaing City.

### **1.3 Aim of the Study**

The aim of this study is to analyze the determinants of customers' adoption of digital payment among universities' employees of Sagaing City.

### **1.4 Objectives of the Study**

The objectives of the study are as follow:

- 1) To examine the effect of benefits on customers' adoption of digital payment.
- 2) To examine the effect of trust on customers' adoption of digital payment.
- 3) To examine the effect of self-efficacy on customers' adoption of digital payment.
- 4) To examine the effect of ease of use on customers' adoption of digital payment.
- 5) To examine the effect of security on customers' adoption of digital payment.

### **1.5 Research Questions**

The research question of this study is as follow:

- 1) What are the determinants of customers' adoption of digital payment among universities' employees of Sagaing City?

### **1.6 Hypotheses of the Study**

The following hypotheses can be presented for this research as follow;

- H<sub>1</sub>: Benefits has a positive effect on customers' adoption of digital payment.
- H<sub>2</sub>: Trust has a positive effect on customers' adoption of digital payment.
- H<sub>3</sub>: Self-efficacy has a positive effect on customers' adoption of digital payment.
- H<sub>4</sub>: Ease of use has a positive effect on customers' adoption of digital payment.

- H<sub>5</sub>: Security has a positive effect on customers' adoption of digital payment.

## 1.7 Methods of Study

This study applied both primary data and secondary data. The primary data was collected from employees of the two universities of Sagaing city that used digital payment with structured questionnaire. The structured questionnaire consists of two sections. Section A is made up with the personal factors of respondents. Section B includes benefits, trust, self-efficacy, ease of use and security that affect the customers' adoption. This study used cluster sampling method. There are 278 employees in University of Co-operative and Management, Sagaing and 90 employees in Technological University, Sagaing. Among them, 238 respondents who are using digital payment (155 employees in University of Co-operative and Management, Sagaing and 83 employees in Technological University, Sagaing) were selected by using cluster sampling method. In addition, the secondary data was obtained from articles, research journal, previous thesis papers and internet website. Descriptive analysis, reliability test, pearson correlation and the multiple regression analysis were used to analyze the obtained data.

## 1.8 Scope and Limitations of the Study

This study analyzed the determinants of customers' adoption of digital payment among universities' employees of Sagaing City. There are five universities in Sagaing city: Sagaing University of Education, Technological University, Sagaing, University of Co-operative and Management, Sagaing, Union National Races Development University (Sagaing) and Sagaing University. Among them, two universities (University of Co-operative and Management, Sagaing and Technological University, Sagaing) were selected in this study by using cluster sampling methods. All respondents were selected from employees of these two universities who are using digital payment (155 employees in University of Co-operative and Management, Sagaing and 83 employees in Technological University, Sagaing). All respondents of the two universities are teaching staff and administrative staff.

### 1.8.1 Working Definition of Digital Payment

Digital payment is a system to facilitate payment transactions for people via mobile phone by making own accounts.

## **1.9 Organization of the Study**

The study consists of six chapters. Chapter one provides about the introduction which includes the rationale of the study, problem statements of the study, aim of the study, objectives of the study, research questions, hypotheses of the study, methods of the study, scope and limitations of the study and organization of the study. Chapter two presents the literature reviews discussing the relevant literature associated to digital payment and its key outcome (i.e., adoption of digital payment). Chapter three presents research methodology of the study. Chapter four discloses the profile of digital payment and demographic characteristics of digital payment users in selected universities of Sagaing City. Chapter five analyzes the determinants of customers' adoption of digital payment among universities' employees of Sagaing City. At last, chapter six describes the conclusion in which findings and discussion, contributions and recommendations and needs for further study.

## CHAPTER 2

### LITERATURE REVIEW

This chapter explores the findings of related literature review about customers' adoption of digital payments and provides the definition of influencing factors on digital payment which is benefits, trust, self-efficacy, ease of use and security. It also describes the theories that are used in this study: Technology Acceptance Model and the Theory of Reasoned Action.

#### 2.1 Digital Payment

Digital payment is a method of payment which is made through digital modes. In digital payments, payer and payee both apply digital modes to transfer and withdraw cash. It is likewise called electronic payment. The digital payments do not include hard money. All the exchanges in digital payments are finished on the web. It is a moment and advantageous approach to make payments. According to Briggs and Brooks (2011) digital payment is a way to make monetary transaction digitally that is provided by banks and interconnected between individuals and banks. Peter and Babatunde (2012) saw digital payment as a mode of payment, transaction or transfer of money with the help of internet. In the same context Adeoti and Osotimehin (2012) referred digital payment as a way of making payment online or in any particular place using the digital mean. Kaur and Pathak (2015) suggested that digital payments are payments which are done for e-commerce purpose where money is exchanged through digital mode.

Digital payment is an electronic service for storing payment instrument data as payment tools, which can also save funds, speed up payments, ease of use, efficiency, effectiveness, transparency, and accessibility (Wu et al., 2016). Digital payment refers to conducting payment transaction over an electronic device. The phenomenon of e-commerce fosters the development of digital payment. Sumanjeet (2009) has highlighted that this payment instrument has gained their popularity as it has been facilitated by the internet growth as many cases cannot be effectively fulfilled by traditional payment systems, so electronic commerce (e-commerce) has created new financial needs for it. Since then, many digital payment systems and their providers have arisen and slowly expand along with the advancement of an e-commerce transaction.

Shon and Swatman (1998) define digital payment as any exchange of funds initiated via an electronic communication channel. Gans and Scheelings (1999) define digital payment as payments made through electronic signals linked directly to deposit or credit accounts. Adding another perspective, digital payment represents any kind of non-cash payment that does not involve a paper cheque (Hord, 2005). Digital payments are also considered as transactions associated with e-commerce, which involves making digital payment for buying and selling goods or services via the internet.

Digital payment systems consist of different forms. Some study (Kaur & Pathak, 2015) has categorized digital payment systems into four groups: electronic cash systems, online credit card systems, smart card based digital payment systems, and online check systems. Each category has features and weakness both for the merchants and consumers. Tan (2004) categorized digital payment transactions into three segments: retail digital payment, corporate digital payment, and wholesale digital payment. The retail digital payment segment involves three types of transactions: consumer-to-business, business-to-consumer, peer-to-peer, or consumer-to-consumer. Digital payment is becoming essential for facilitating daily work. According to Sharma et al., (2020) and Venkatesh et al., (2012), users can conveniently make payment transactions online via smartphones without carrying cash.

## **2.2 Adoption of Digital Payment**

The digital payment system has many limitations that prevent users from using them. Significant difference exists between adoption of customers towards digital payment and their socioeconomic status. The rate of adoption of digital payment of customers depend on the superiority, efficiency, safe and secured, convenient, cost and time savings, user friendly, easiness and protection of privacy of digital payment. Customers' adoption of the digital payment system is assessed in terms of attitude, as it is more efficient than traditional payment systems, can be easily used, and is more secure and trusted. Attitude toward use is also determined by perceived ease of use of that IT application. Customers will usually adopt a new service only when they have similar before. In addition, the feasibility of technology in terms of security, trust, and efficiency will also affect users' decision to use digital payment.

There is a large volume of publications that describe the factors affecting adoption of digital payment; perceived ease of use, perceived usefulness, perceived cost, mobility, perceived trust, perceived expressiveness, relative advantages, compatibility, complexity, network externalities and costs. In Korea, a research studied how the factors (innovativeness, m-payment knowledge, mobility, reachability, compatibility, convenience, perceived usefulness and perceived ease of use) affect the adoption of digital payment, and it has reported that the most important indicators of adoption of digital payment are perceived usefulness and perceived ease of use (Kim et al., 2010). Yang et al. (2015) found that behavioral beliefs, social influence and personal traits have direct and significant influence on the adoption of digital payment. Zhou (2013) showed that flow is the most important factor affecting continuance to use digital payment. In the same study, it is emphasized that quality of service is the most significant indicator of flow and trust.

### **2.3 Determinants of Customers' Adoption of Digital Payment**

A comprehensive literature review helped to identify five factors as possible influential factors of customers' adoption of digital payment systems. They are benefits, trust, self-efficacy, ease of use and security. These variables were found to have an impact on customer adoption of digital payment systems according to many prior research studies. The following are a review of prior research studies related to the independent variables chosen for this research study.

#### **2.3.1 Benefits**

Digital Payments as argued by Cobb (2005) have a significant number of economic benefits apart from their convenience and safety. Economic development of a nation will be growth by improving these benefits. According to Cobb (2005), efficient safe and convenient digital payments carry a significant range of macroeconomic benefits. Chou et al., (2004) identify benefits as a significant driver for digital payment systems acceptance and use. In traditional payment, cash has to be printed, securely transferred, maintained securely and re-used repeat. The prepayment cost is high and will always remain high whereas the costs of digital system are fixed. Once the digital payment has been built, the costs per-transaction is very low.

Besides providing customers with a convenient means of payment which includes users' ability, digital payment provides ways to spend, store, and transport a currency value through the payment systems (Chakravorti, 2003). According to

Forsythe et al., (2006), perceived benefit refers to the gains a customer expects to make from making use of the internet, especially for online transactions. The more the use of digital payment, the less money is spent on paper and cheque. Offering digital payment can also help businesses improve customer retention.

Eastin (2002) who studied four e-commerce activities (online shopping, banking, investing, and digital payment systems) found that prior to adoption, perceived convenience and financial benefits predict the adoption decision. Gerrard and Cunningham (2003) view perceived economic benefits to include fixed and transaction costs in adopting digital payment. Fixed costs refer to the costs of installing payment equipment such as card readers and payment software, while transaction costs are those incurred by customers and merchants every time they carry out a business transaction. Accordingly, users can enjoy the benefits of low cost when they involve in online transactions as they only need to pay a nominal fee to their respective banks for the services used (Gerrard & Cunningham, 2003; San-Martin & Lo'pez-Catala'n, 2013).

Hord (2005) stated that customers prefer to use the same digital payment site where their data have already been stored. Cobb (2005) further added that governments play a critically important role in achieving the benefits of digital payment in order to reach their own economic development plans. Humphrey et al., (2001) supported that the development of digital payment brings many benefits to business and customers such as lower cost, greater convenience and secure, reliability and settling for vast range of goods and services over the internet.

H<sub>1</sub>: Benefits has a positive effect on customers' adoption of digital payment.

### 2.3.2 Trust

Trust is defined as a function of the degree of risk involved in financial transactions, and the outcome of trust is reduced perceived risk, leading to positive intentions toward digital payment adoption (Yousafzai et al., 2003). In an online environment, McKnight (2002) conceptualize trust as the belief of customers to willingly taking risk for an expected service after considering the vendors' characteristics. Customers trust over payment provider is greatly influenced by the organization's reputation (Xu & Gutierrez, 2006; Anderson & Weitz, 1989). As a matter of fact, trust has long been a catalyst for buyer-seller transactions that provide customers with high expectations of satisfying exchange relationships (Peha &

Khamitov, 2004). Because of this, many researchers maintain that trust is essential for understanding interpersonal behavior and economic exchanges which affects customers' adoption toward digital payment systems (Abrazhevich, 2001; Tsiakis & Sthephanides, 2005). According to Gefen (2000), extremely important users' trust in an internet environment is safety with a little more guarantee that the online seller will not perform any unethical and undesirable behavior such as offering incorrect information, unfair pricing, issuing individual data, and purchase activities without any users' prior permission.

Zhao and Kurnia (2014) described perceived trust as the willingness of the customers to take a risk to fulfill their demands based on the expectation towards the service provider. In other words, if the provider of the service is able to give the customers an impression that their personal details, payment credentials, behavior are protected in a safe and secure manner, the customers will have more confidence to use the service to perform their demand. If customers believe digital payment, then they will trust in digital payments. It means that customers have a reliable basis on digital payments.

Grabner-Krauter and Kaluscha (2003) pointed out that measuring the technical capabilities of e-commerce websites could use the reliability of software and hardware, the stability of electronic systems and security mechanisms. Nowadays, digital payments apply encryption, firewall and security authentication to reduce the privacy risk to strengthen customers trust in digital payments and increase the utilization rate. In addition, it also needs to disclose one's own financial information. Therefore, the use of digital payment does not only involve the customers' trust, but the security and stability of transactions are also one of the important reasons that affect customers' use of digital payments. Moreover, the establishment of a security mechanism can enable customers to generate trust in digital payments, so that customers are willing to trade in a risky environment.

Customers can make a rational decision based on the knowledge of possible rewards for trusting and not trusting. Customers' attitudes toward digital payment system are associated with their adoptions of the systems' security. In other words, customers' adoptions of security-enforcement principles augment their beliefs in security, and hence contribute to their adoptions of trust for electronic transactions (Cho Zin Phyo, 2019). Consumers' trust in digital payment is defined as consumers' belief that digital payment transactions will be processed in accordance with their

expectations (Tsiadkis & Sthephanides, 2005). Results of a study conducted by Hampshire (2017) revealed that customers with high confidence level for the digital payment services have higher tendency to use the services.

Prior studies found trust to be a significant determinant influencing customers' willingness to conduct e-commerce transactions and engage in online exchanges of money (Hoffman et al., 1999; Wang et al., 2003). Study done by Zhou (2011) due to the high degree of uncertainty and risk present in lots of online transactions, this will more emphasize on the importance of trust in digital payment. Without trust in the system, it will be very difficult for digital payment to achieve broader usage (Lim et al., 2006).

Consequently, customers may often choose the unreliable digital payment from a company that they trust even though untrustworthy company or a completely new company offers a reliable digital payment. Some researchers argue that trust alone is not sufficient to attract individuals adopting digital payment systems; for instance, if a reputed organization offers digital payment functions, the consumer will willingly use them. However, the user will hesitate in using the digital payment services provided by an untrustworthy organization. Others found that trust is not significantly associated with individuals' adoption of digital payment.

$H_2$ : Trust has a positive effect on customers' adoption of digital payment.

### 2.3.3 Self-efficacy

Self-efficacy clarifies the person's belief and understanding to perform a task, based on his or her own capability and skills (Dory et al., 2009). In fact, study of Bandura (1997) suggests that peoples' belief in their capabilities will increase their ability to successfully complete tasks. Self-efficacy is defined as customer's belief and understanding of their capability to complete tasks using new technology (Oh, 2016). In the context of digital payment, self-efficacy refers to the judgment of a user's ability to use the system. It is an important determinant of customer's adoption of digital payment systems. Cassar and Friedman (2011) developed the usage of self-efficacy instead of widely used self-efficacy because efficacy has appeared to come across with potential powerful prediction when illustrating certain circumstances (Fryer et al., 2020). There are various types of self-efficacy such as technological, computer, internet, smartphones, investing, financial etc. (Shiau et al., 2020). Internet users must have sufficient self-efficacy to perform online shopping and transportation

(San-Martín et al., 2020). Moreover, when a customer demonstrates their level of technological self-efficacy and then considers their capacity to accomplish an activity in a mobile phone. Thus, digital payment services include two self-efficacies containing technological and smartphone self-efficacy.

Many studies found that self-efficacy has a significant positive influence on adoption and behavioral intention to use information systems (IS) (Hill et al., 1987; Luarn & Lin, 2005). As O'Cass and Fenech (2003) pointed out, when internet users accumulate enough personal experience to use computer technology over time, it helps them to build confidence in their ability to use the internet for commercial purposes. Compeau and Higgins (1995) found that self-efficacy has a significant impact on individuals' expectations of outcomes in relation to the use of computers, emotional reactions (affect and anxiety) to computers, and their actual computer use. Self-efficacy has been distinguished as an important factor that has direct or indirect relationship affects user intention to use FinTech service context (Kim et al., 2016; Shiau et al., 2020). Alternatively, few scholars mentioned that self-efficacy has immediate effect, but can't use it to determine a concept on a universal level since functions to use in FinTech digital payment services are domain specific.

$H_3$ : Self-efficacy has a positive effect on customers' adoption of digital payment.

#### **2.3.4 Ease of Use**

Ease of use is defined as to which extent a person will not spend effort while using digital payment system. According to Taylor and Todd (1995), ease of use refers to the adoption of an individual that using a particular system will be easy to handle, simple and effortless. It can be attained via several factors, such as the content, design information management, and speed (Abrazhevich, 2004). Digital payments system can be affected significantly by these factors. Ease of use can be explored by the number of efforts that a user dedicates their time to use a FinTech digital payment service to make online transportation payment. Time consumed by using digital payment service is a constraint factor on customers. In addition, ease of use points out to when a customer feels it is easier to use a certain technology more than other after time is controlled (Kim et al., 2015). Technology has played a splendid role in improving the lifestyle of individuals and it is more useful for them when easier to use (Wulandari et al., 2018). Results have demonstrated that the ease of use and intention to use e-money shared a positive relation with each other.

The convenience will impact behavior, where the higher a person's adoption of the ease of using the system, the higher the information technology utilization level. Although digital payment brings a lot of benefits to both users and the merchant, some individuals might find it difficult to master (Davis, 1989). To people who are not that familiar with information technology, the design of a system should be fully adaptable to their capabilities and skills (Kourouthanasis, Giaglis & Karaikos, 2010). It is for these reasons that Abrazhevich (2001) concludes that a successful design of digital payment systems from the user standpoint is important to attract users' acceptance toward digital payment. In short, easy structure and content design of the web and learning to use digital payment systems are very important characteristics leading to perceived ease of use and subsequently influence customers' adoption of digital payment systems. Dai and Palvia via Nguyen and Pham (2014) made a statement that the usability and learnability of the digital payment service are of great importance; regardless the users are technology-savvy or technology-inexperienced.

Previous researchers found that ease of use has a positive effect on the adoption of digital payment systems. Different studies have shown that technology will be perceived as more useful if it is easier to handle and use (Legris et al, 2003; Wang & Li, 2012). Roy and Sinha (2017) found that the focus of customers towards the adoption of digital payment and clearing system will increase when only customers believe that the services of digital payment system are easy to use.

Numerous studies such as Legris, Ingham and Collerette (2003) and Zhu, Luo, Wang and Li (2011) have shown that a user-friendly technology or system that is easier to use and apply is more likely to be beneficial. Hong, Thong and Tam (2006) and Chiu, Chang, and Cheng (2009) had proved that perceived ease of use influence in repurchase intention. Furthermore, the result of Gao, Koufaris and Ducoffe (2004) show that perceive ease of use is classified as the subjective understanding by the customers that learning and using the website requires.

H<sub>4</sub>: Ease of use has a positive effect on customers' adoption of digital payment.

### **2.3.5 Security**

Security is measured based on whether all the technological steps and procedures involved are satisfied and secured in terms of protecting confidentiality, integrity, availability and accountability of the transaction (Karnouskos, Hanroudaki, Vilmos & Csik, 2004). Security issues will increase the risk adoption among the users

and lowers their intention to continue using it (Shao et al., 2019). In general, security is a set of procedures and programs for verifying the source of information and ensuring the integrity and confidentiality of the information (Tsiakis & Sthephanides, 2005). When it comes to digital payments, security can be divided into three areas. They are security, transactional, and legal system. This is because digital payments can only be considered as confidential if all stages of the transaction process are able to meet users' needs and their security expectations (Baddeley, 2004).

In the context of internet, security is the adoption of payment means and mechanisms for storing and transmitting information (Lim et al., 2006). Many researchers had stated that the digital payment system focused on the technical details of protection that are privacy and integrity in making transaction procedures such as authentication, modification and confirmation (Tsiakis & Sthephanides, 2005; Kousaridas et al., 2008). The availability, comprehensibility, and accessibility of security statements in the digital payment transactions are listed important components (Mukherjee & Nath, 2003; Lim, 2008) as users are sensitive when come to involvement of personal information privacy and security. Users increasingly want to control the data collected and the purpose of processing their data (Kobsa, 2002). Thus, for these reasons, security could affect users' decision to use digital payment systems (Abrazhevich, 2001).

According to the report of Mukherjee and Nath (2003), security statements on digital payment system websites are a crucial factor influencing customers' trust in online activities. By informing and reassuring customers regarding the security of their payment options, it will be possible to influence customers' adoptions of security and trust in digital payment system (Lim, 2008). If normal customers remain unaware of the level of security that is inherent to their transactions, they will be reluctant to engage in digital payments (Hegarty et al., 2003; Lim, 2008). Cheney (2010) further revealed that the increment of system security incidents could potentially exert harmful consequences on the level of confidence in digital payment instruments among customers. Customers' decisions to use any digital payment system will be considerably influenced by the quality of security statements available to them. Kim et al., (2010) studied some issues about digital payment security from the point of view of customers and discovered that adoptions of the security of digital payment systems have become a core issue in the growth of e-commerce in the marketplace.

Some studies (Flavián & Guinalíu, 2006) posit that to guarantee confidentiality, integrity, and authentication, basic security techniques such as digital signature, encryption, and checksum algorithms are used. Jose (2014) found that perceived security had a negative relationship with adoption to use due to different adoptions by individuals that caused uncertainty, especially to new users. Therefore, movement towards digital payment could encourage by enhancing and developing better and safer security level in the systems.

H<sub>5</sub>: Security has a positive effect on customers' adoption of digital payment.

## 2.4 Theoretical Background

User's adoption on use of digital payment system can be studied by using several models: Technology Acceptance Model (TAM) and Theory of Reasoned Action (TRA).

The Technology Acceptance Model has been used in various other technologies beyond computers, including use of telemedicine services, digital technologies for teachers, phone apps, and e-learning platforms for students. The Technology Acceptance Model states that actual technology use is directly determined by an individual's intentions to use the technology. The more the individual's intentions to use the technology, the more they are likely to actually use the technology. In previous studies, information technology researchers used TAM to better understand the adoption of information technology and its usage in variety of fields (Chismar & Wiley-Patton, 2002). However, Legris et al. (2003) argued that there remains a wide variation in the predicted effects in various studies with different types of users and systems. This study aims to analyze the determinants of customers' adoption of digital payment in a new setting.

The Theory of Reasoned Action was developed by Fishbein and Ajzen in 1975 as an improvement over the information integration theory. The main difference between the Theory of Planned Behavior and the Theory of Reasoned Action is that there is a greater chance of being able to understand a person's actual attitudes through the Theory of Planned Behavior that result in the physical behavior that is being carried out (Martin, 2017). The Theory of Reasoned Action can be used in all different sorts of fields and industries ranging from the healthcare field, politics, and even general businesses and organizations. This theory is based around understanding and predicting human behaviors, which allows for such a wide range of uses.

#### **2.4.1 Technology Acceptance Model**

The Technology Acceptance Model (TAM) was developed by Davis (1989) and is useful in assessing peoples' preference for digital mode of payments. The Technology Acceptance Model (TAM) is a model developed to examine the technology acceptance by individuals who take into account the basics, both the ease of use and the use of technology. TAM consists of two beliefs, perceived utilities, and application-based considerations, which determine the attitude of adopting new technologies. TAM suggests that when new technologies being introduced to users, several factors will decide their decision on how and when they will use it. Technology acceptance models evolved over time and various versions available (Priyanka & Kumar, 2013). Furthermore, the Technology Acceptance Model (TAM) is attained from the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), in which TRA describes the theory of behavior while the TAM is more specialized information systems.

According to the TAM, perceived usefulness (PU) and perceived ease of use (PEU) determine technology adoption. User behavior is determined by intent (Davis, 1989; Davis et al. 1989). A person's belief that utilizing a particular system will improve job performance is referred to as PU. The PEU is defined as the degree to which an individual believes that using the system will be effortless.

#### **2.4.2 Theory of Reasoned Action**

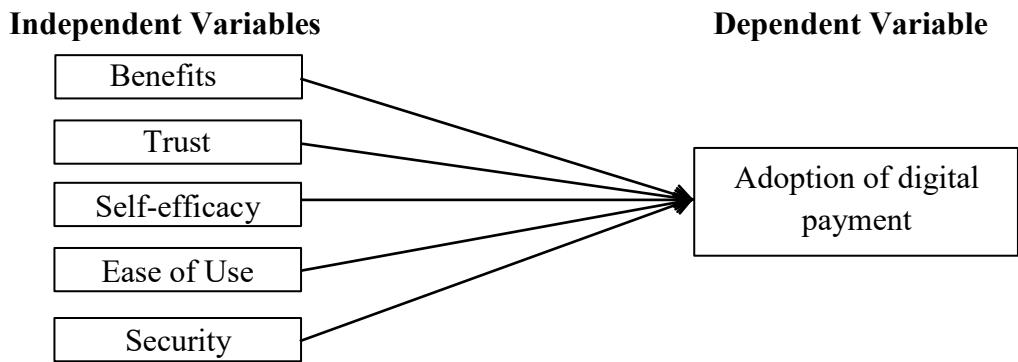
The theory of reasoned action (TRA or ToRA) aims to explain the relationship between attitudes and behaviors within human action. It is mainly used to predict how individuals will behave based on their pre-existing attitudes and behavioral intentions. An individual's decision to engage in a particular behavior is based on the outcomes the individual expects will come as a result of performing the behavior. Developed by Fishbein and Ajzen in 1967, the theory derived from previous research in social psychology, persuasion models, and attitude theories. Fishbein's theories suggested a relationship between attitude and behaviors (the A-B relationship). However, critics estimated that attitude theories were not proving to be good indicators of human behavior. The TRA was later revised and expanded by the two theorists in the following decades to overcome any discrepancies in the A-B relationship with the theory of planned behavior (TPB) and reasoned action approach (RAA). The theory is also used in communication discourse as a theory of understanding.

Ajzen and Fishbein (1980) used the Theory of Reasoned Action (TRA) to develop a general structure for explaining human behavior. When predicting an individual's behavior, the role of beliefs should be considered. According to TRA, an individual's behavioral intention to exhibit a specific behavior is formed in response to his or her attitude toward the behavior and perceived subjective norms. The attitude towards behavior refers to a person's adoption that his or her actions have consequences, as well as the person's assessment of those consequences, whether positive or negative. The more positive one is, the more powerful the behavioral intention.

The primary purpose of the TRA is to understand an individual's voluntary behavior by examining the underlying basic motivation to perform an action. TRA states that a person's intention to perform a behavior is the main predictor of whether or not they actually perform that behavior. Additionally, the normative component (i.e. social norms surrounding the act) also contributes to whether or not the person will actually perform the behavior. According to the theory, intention to perform a certain behavior precedes the actual behavior. This intention is known as behavioral intention and comes as a result of a belief that performing the behavior will lead to a specific outcome. Behavioral intention is important to the theory because these intentions are determined by attitudes to behaviors and subjective norms. TRA suggests that stronger intentions lead to increased effort to perform the behavior, which also increases the likelihood for the behavior to be performed.

## **2.5 Conceptual Framework of the Study**

The main aim of the study is to analyze the determinants of customers' adoption of digital payment among universities' employees of Sagaing City. The conceptual framework of the study is described in figure 2.1.



Source: Adaptation from Wendy, Siong, Binshan and Wei (2013)

**Figure 2.1 Conceptual Framework of the Study**

In the conceptual framework, there are five independent variables that influenced on dependent variable; adoption of digital payment. These five independent variables are benefits, trust, self-efficacy, ease of use and security. This study explains how these five independent variables affect the adoption of digital payment. The research framework is the basis of this study and help to explore and analyze the determinants of customer's adoption of digital payment.

## 2.6 Previous Studies

In this section, the previous studies are presented and have been attained for the purpose of studying as the secondary data.

**Table 2.1 Previous Studies**

Author	Title	Variables	Methods	Findings
Aryal (2021)	Factors Affecting Consumers Perception on Electronic Payment System	Consumers' Perception, Benefits, Trust, Security, Self-efficacy, Ease of use	Convenience Sampling Method, Multiple Regression Analysis, Reliability and Validity test, Pearson Correlation	The findings of a sample set of respondents (384) analyzed using multiple regression analysis indicate that benefit, ease of use, security and self-efficacy influence Nepal consumers' perception of e-payment systems, while trust is not significantly associated with consumers' perception of e-payment.
Purbaa, Samuela	Collaboration of digital payment	Financial Technology	Multiple Regression	All variables have positive strong effect on driving the

and Budionoa (2021)	usage decision in COVID-19 pandemic situation: Evidence from Indonesia	Trust, Self-efficacy, Security, Ease of use, Benefits	Analysis, Reliability and Validity Test	choice of digital FinTech technology in ordering food and others to survive during the pandemic of Covid-19. The existence of digital-based technology applications related to the internet, big data, smart mobile phones, safe and comfortable technology power has motivated consumers to use them.
Teoh, Chong and Lin (2013)	Factors Affecting Consumers' Perception of Electronic Payment: An Empirical Analysis	Consumers' Perception Benefits, Trust, Security, Self-efficacy, Ease of use	Convenience Sampling Method, Multiple Regression Analysis, Reliability and Validity test, Pearson Correlation	The multiple linear regression results reveal that benefits, self-efficacy, and ease of use exert significant influences on consumers' perception towards e-payment. However, the insignificant results obtained for trust and security warrant further investigation.
Alyabes, Alsalloum and Riyadh (2018)	Factors Affecting Consumers' Perception of Electronic Payment in Saudi Arabia	Consumers' Perception Benefits, Ease of use, Security, Trust, Self-efficacy	Descriptive Statistics, Reliability and Validity Test, Multiple Regression	The findings of a sample set of respondents (229) indicate that benefit, ease of use, and self-efficacy influence Saudi consumers' perception of e-payment systems, while trust and security are not significantly associated with consumers' adoption of e-payment.
Ghrbeia (2020)	Customer Perception towards The	Customers' Perception Trust, Security, Self-efficacy	Descriptive Statistics, Reliability	There was "strong correlation" existing between the benefits and the ease of

	Digital Payment	efficacy, Benefits, Ease of use	and Validity Test, Pearson Correlation	use of the Digital Payment System. An almost moderate correlation existed only between the trust and customers' perception of the Digital Payment Systems alongside the true perception attained by customers while using the Digital Payment System and its basic ease of use. There was a rather weak negative correlation between the average security and the benefits of the Digital Payment System.
Kulathunga and Ekanayake (2019)	Antecedents to Adoption of Electronic Payment Systems in Sri Lanka	Consumers' Perception on EPS Benefits, Trust, Self-efficacy, compatability, Security	Descriptive Statistics, Multiple Regression Analysis, Reliability and Validity Test, Pearson Correlation	The multiple regression results indicated that benefits, trust and compatibility have a significant positive impact on consumers' perception of E-Payment Systems and hence, they can be considered as the key antecedents influencing the perception of consumers in using different electronic payment systems. Moreover, security and self-efficacy also showed a positive relationship with consumers' perception of E-Payment Systems even though they were found to be not significant.

Wei (2017)	Factors Affecting Adoption of E-Payment among Private University Students in Klang Valley	Intention attitude, subjective norm, perceived ease of use, perceived usefulness, perceived security, trust, benefit and self-efficacy	Pearson Correlation, Multiple regression, Reliability and Validity Test	It can be concluded that there is a significant relationship between the attitude, subjective norm, and perceived ease of use, perceived usefulness, perceived security, trust, benefit and self-efficacy to the e-payment intention of private universities' students. Besides, he found out that self-efficacy has the strongest relationship with online shopping intention.
Timilsina (2021)	User Perception on Electronic Payment Services in Kathmandu Valley	Perception on the usage of EPS Perceived usefulness, Perceived ease of use, Perceived security, Perceived trust	Multiple Regression Analysis, Reliability and Validity Test	Results of the survey show that there are low average mean scores for security and trust when compared to perceived usefulness and ease of use. Further, perceived usefulness and ease of use have higher effect on willingness to adopt EPS in future when compared to perceived security and perceived trust.
Roseli et al., (2021)	Factors Influencing Consumers' Perception towards Mobile Payment Usage in	Customers' Perception, Ease of use, Trust, Security	Convenience Sampling Method, Multiple Regression analysis,	The results show that three factors; trust, ease of use and security are significantly linked to the perception of consumers as dependent variables towards mobile

	Malaysia		Pearson Correlation	payment. Researchers found, based on the results that goals were achieved, and all the hypotheses accepted.
Coskun , Saygili and Karahan (2022)	Exploring Online Payment System Adoption Factors in the Age of COVID-19— Evidence from the Turkish Banking Industry	Behavioral Intention to use perceived ease of use, perceived usefulness, perceived trust, perceived risk, self-efficacy, social influence, relative advantages, health and epidemic effects, complexity, personal innovativeness, perceived integrity	Multiple Regression Analysis, Reliability and Validity Test	The results suggest a strong influence of these factors on attitude and behavioral intention. Relative advantage, perceived trust, perceived usefulness, personal innovativeness, perceived integrity, perceived ease of use, health and epidemic effects, income, private sector employment and self-employment all have a positive effect on actual online payment system usage. However, perceived risk and age have a negative impact on the actual online payment system usage.
Najdawi , Chabani and Said (2021)	Factors Impacting Digital Payment Adoption: An Empirical Evidence from Smart City of Dubai	Customers' Perception, Usefulness, Trust, Personal Innovativeness, Ease of use, Risk	Descriptive Statistics, Multiple Regression Analysis	The results of this research confirm that all proposed factors significantly affect the adoption of e-payment in Dubai as a case of a smart city; however, the perceived usefulness is not as significant as the other factors.
Zin Myo Naing (2019)	Merchant Perception on Adoption of	Merchant Perception Ease of use,	Reliability and Validity Test,	Ease of use for cashless payment get the highest score followed by external variable,

	Cashless Payment System in Sawbwargyigone Wholesale Market	Accessibility, Cost, Security, External Variables	Descriptive Statistics	accessibility, security and cost. Cost is the weakest part since it gets the lowest result in the findings.
Chen (2020)	A Case Study Taiwanese's Perception on Electronic Payments	Customers' Perception Privacy risk, trustworthiness, ease of use	T-test, Multiple regression analysis, Reliability and validity test, Pearson Correlation	Within the analysis, this research has also explored the opinions of respondents. It is expected that the finding factors would be able to improve the user's perception on electronic payment and use electronic payment in the future with comfortable mind.
Cho Zin Phyo (2019)	Factors Influencing User Adoption of E-Payment Services of KBZ Bank	Attitude, Subjective norms, perceived ease of use, usefulness, trust, benefit, security	Adoption of e-payment services	To identify e-payment services of KBZ Bank and to analyze the factors influencing user adoption of e-payment services of KBZ Bank among Yangon University of Economics students
Matarneh (2016)	Factors Influencing Intention(s) to Use Electronic Payment Systems: The Case of North Cyprus	intention to use EPS General confidence, Specific confidence, Perceiveed benefits, Perceived Risk	Multiple Regression Analysis, Reliability and Validity Test	The findings showed that both general and specific self-confidence do not have a significant effect but perceived benefit and perceived risk have a significant positive effect on the intention to use electronic payment systems. Moreover, it was also found that there was a positive relationship

				between perceived benefit and perceived risk
Tu (2019)	Factors Influencing Consumer's Intention to Adopt Mobile Wallet in Ho Chi Minh City	Consumers' Intention Perceived Usefulness, Perceived Ease of Use, Social Influence, Credibility, Variety of Services, Mobility	Reliability and Validity test, Pearson Correlation	The results showed that usefulness, ease of use, social influence, credibility, variety of services and mobility were deemed influential to the intention of the respondents.

Source: Previous Studies, 2022

Aryal (2021) studied the factors affecting consumers perception on electronic payment system with five independent variables; benefits, trust, security, self-efficacy and ease of use. This study aims to find the factors affecting consumer's perception on electronic payment system in Butwal Sub-metropolitan city. The findings of a sample set of respondents (384) analyzed using multiple regression analysis indicate that benefit, ease of use, security and self-essence influence Nepal consumers' adoption of e-payment systems, while trust is not significantly associated with consumers' perception of e-payment. Purbaa, Samuela and Budionoa (2021) studied the collaboration of digital payment usage decision in Covid-19 pandemic situation in Indonesia with five independent variables; trust, self-efficacy, security, ease of use and benefits. The objective of the study is to provide an attempt by raising a framework for assessing the digital technology perspective in the application of Financial Technology (FinTech) by consumers, especially in the era of the Covid-19 pandemic in 2020 in Indonesia. All variables have positive strong effect on driving the choice of digital FinTech in ordering food and others to survive during the pandemic of Covid-19. The existence of digital-based technology applications related to the internet, big data, smart mobile phones, safe and comfortable technology power has motivated consumers to use them.

Teoh, Chong and Lin (2013) investigated the factors affection consumers' perception of electronic payment. Independent variables are benefits, trust, security,

self-efficacy and ease of use and dependent variable is consumers' perception. The objective of the study is to discover the factors influencing perception towards electronic payment (e-payment) from the Malaysian consumers' perspective. The multiple linear regression results reveal that benefits, self-efficacy, and ease of use exert significant influences on consumers' perception towards e-payment. However, the insignificant results obtained for trust and security warrant further investigation. Alyabes, Alsalloum and Riyadh (2018) explored the factors affecting consumers' perception of electronic payment in Saudi Arabia. Benefits, ease of use, security, trust and self-efficacy are independent variables and customers' perception is dependent variable. The objective of the study is to examine the determinants of the significant factors that influence consumers' perception of e-payment in Saudi Arabia. The findings of a sample set of respondents (229) indicate that benefit, ease of use, and self-efficacy influence Saudi consumers' perception of e-payment systems, while trust and security are not significantly associated with consumers' adoption of e-payment.

Ghrbeia (2020) explored the customers perception towards digital payment with five independent variables; trust, security, self-efficacy, benefits and ease of use. This study aims to establish reasons and incentives for consumers to use digital payments and to provide solutions to ensure that digital payment systems maintain and improve their quality of service in order to encourage repeat patronage and loyalty, and attract new customers in Libya. The finding reveals that there was "strong correlation" existing between the benefits and the ease of use of the digital payment system. An almost moderate correlation existed only between the trust and customers' perception of the digital payment systems alongside the true perception attained by customers while using the digital payment system and its basic ease of use. There was a rather weak negative correlation between the average security and the benefits of the digital payment system. Kulathunga and Ekanayake (2019) studied the antecedents to adoption of electronic payment systems in Sri Lanka. The independent variables are benefits, trust, self-efficacy, compatibility and security and the dependent variable is consumers' perception. This study aims to identify critical factors affecting the customer perception towards the use of e-payment system. The multiple regression results indicated that benefits, trust and compatibility have a significant positive impact on consumers' perception of e-payment systems and hence, they can be considered as the key antecedents influencing the perception of consumers in using different electronic payment systems. Moreover, security and self-efficacy also

showed a positive relationship with consumers' perception of e-payment systems even though they were found to be not significant.

Wei (2017) explored the factors affecting the adoption of e-payment among private university students in Klang Valley with seven independent variables; subjective norm, perceived ease of use, perceived usefulness, perceived security, trust, benefit and self-efficacy. The objective of the study is to examine the factors affecting adoption of e-payment among private universities student in Klang Valley. The research finding reveals that there is a significant relationship between the attitude, subjective norm, and perceived ease of use, perceived usefulness, perceived security, trust, benefit and self-efficacy to the e-payment intention of private universities' students. Besides, it also found out that self-efficacy has the strongest relationship with online shopping intention. Timilsina (2021) also studied the user perception on electronic payment services in Kathmandu Valley with four independent variables; perceived usefulness, perceived ease of use, perceived security and perceived trust. This study shows that there are low average mean scores for security and trust when compared to perceived usefulness and ease of use. Further, perceived usefulness and ease of use have higher effect on willingness to adopt electronic payment system in future when compared to perceived security and perceived trust.

Roseli et al. (2021) studied the factors influencing consumers' perception towards mobile payment usage in Malaysia with three independent variables; ease of use, trust and security. The objective of this study is to explore the relationship between trust, ease of use, security and perception of consumers towards mobile payment. The research finding shows that three factors, trust, ease of use and security are significantly linked to the perception of consumers as dependent variables towards mobile payment. Researchers found, based on the results that goals were achieved, and all the hypotheses accepted. Coskun, Saygili and Karaham (2022) explored online payment system adoption factors in the age of Covid-19 from Turkish Banking industry. This study aims to determine the factors that influence the adoption of online payments systems among the customers of a Turkish bank during the Covid-19 pandemic. The results suggest a strong influence of these factors on attitude and behavioral intention. Relative advantage, perceived trust, perceived usefulness, personal innovativeness, perceived integrity, perceived ease of use, health and epidemic effects, income, private sector employment and self-employment all have a

positive effect on actual online payment system usage. However, perceived risk and age has a negative impact on the actual usage of online payment system.

Najdawi, Chabani and Said (2021) studied the factors impacting digital payment adoption in Smart City of Dubai. Usefulness, trust, personal innovativeness, ease of use and risk are independent variables and customers' perception is dependent variables. This study aims to examine the significant factors that influence the adoption of new e-payment technologies, specifically in smart cities, as in Dubai. The results of this research confirm that all proposed factors significantly affect the adoption of e-payment in Dubai as a case of a smart city; however, the perceived usefulness is not as significant as the other factors. Zin Myo Naing (2019) investigated merchant perception on adoption of cashless payment system in Sawbawgyigone Wholesale Market with five independent variables; ease of use, accessibility, cost, security and external variables. The objectives of the study are to identify current payment systems in Myanmar and to analyze the merchant perception on cashless payment systems in Sawbawgyigone Wholesale market. The finding shows that ease of use for cashless payment get the highest score followed by external variable, accessibility, security and cost. Cost is the weakest part since it gets the lowest result in the findings.

Chen (2020) investigated Taiwanese's perception on electronic payment. Privacy risk, trustworthiness and ease of use are independent variables and customers' perception is dependent variable. The objective of the study is to explore Taiwanese's cognitive on electronic payments. Within the analysis, this research has also explored the opinions of respondents. It is expected that the finding factors would be able to improve the user's perception on electronic payment and use electronic payment in the future with comfortable mind. Cho Zin Phyo (2019) studied the factors influencing user adoption of e-payment services of KBZ Bank with six independent variables; Subjective norms, perceived ease of use, usefulness, trust, benefit, security. This study aims to identify e-payment services of KBZ Bank and to analyze the factors influencing user adoption of e-payment services of KBZ Bank among Yangon University of Economics students. The finding revealed that attitude, subjective norms, trust and benefit have significant influence on user adoption of e-payment services. Perceived ease of use, perceived usefulness and perceived security did not have a significant impact on the adoption of e-payment services. The result found that benefit is the most significant influence on user adoption of e-payment services.

Matarnech (2016) explored the factors influencing intention to use electronic payment systems in North Cyprus with four independent variables; general confidence, specific confidence, perceived benefits and perceived risk. This study aims to determine the factors affecting intention to use electronic payment systems among consumers in North Cyprus. The findings showed that both general and specific self-confidence do not have a significant effect but perceived benefit and perceived risk have a significant positive effect on the intention to use electronic payment systems. Moreover, it was also found that there was a positive relationship between perceived benefit and perceived risk. Tu (2019) also investigated the factors influencing consumers' intention to adopt mobile wallet in Ho Chi Minh City. Perceived usefulness, perceived ease of use, social influence, credibility, variety of services and mobility are independent variables and consumers' intention is dependent variable. The results showed that usefulness, ease of use, social influence, credibility, variety of services and mobility were deemed influential to the intention of the respondents.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

This chapter aims to present the design and method used to acquire the required data. It includes the explanation of the research design, data collection methods, target population and sampling design, data analysis and measurement items.

#### **3.1 Research Design**

Research design is the framework of research methods and techniques chosen by a researcher to conduct a study. The design allows researchers to sharpen the research methods suitable for the subject matter and set up their studies for success. Creating a research topic explains the type of research (experimental, survey research, correlational, semi-experimental, review) and its sub-type (experimental design, research problem, and descriptive case-study). There are three main types of designs for research: data collection, measurement and analysis. The research problem an organization faces will determine the design, not vice-versa. The design phase of a study determines which tools to use and how they are used. The type of the research design can be broken down into five categories.

Descriptive research is a theory-based design method created by gathering, analyzing, and presenting collected data. This allows a researcher to provide insights into the why and how of research. Descriptive design helps others better understand the need for the research. Experimental research establishes a relationship between the cause and effect of a situation. It is a causal design where one observes the impact caused by the independent variable on the dependent variable. Correlational research is a non-experimental research technique. It helps researchers establish a relationship between two closely connected variables. There is no assumption while evaluating a relationship between two other variables, and statistical analysis techniques calculate the relationship between them. This type of research requires two different groups. A correlation coefficient determines the correlation between two variables whose values range between -1 and +1. If the correlation coefficient is towards +1, it indicates a positive relationship between the variables, and -1 means a negative relationship between the two variables.

In diagnostic design, the researcher is looking to evaluate the underlying cause of a specific topic or phenomenon. This method helps one learn more about the

factors that create troublesome situations. Explanatory design uses a researcher's ideas and thoughts on a subject to further explore their theories. The study explains unexplored aspects of a subject and details the research questions' what, how, and why. This study will be used the descriptive research for analyzing the customers' adoption of digital payment. Descriptive research is a quantitative research method that attempts to collect quantifiable information for statistical analysis of the population sample. It is a popular market research tool that allows us to collect and describe the demographic segment's nature. This design is selected for the study because it allows for obtaining numerical and structured description of the population and will give clear understanding of the customers' adoption of digital payment.

### **3.2 Data Collection Methods**

Data is a collection of facts, figures, objects, symbols, and events gathered from different sources. Organizations collect data to make better decisions. Without data, it would be difficult for organizations to make appropriate decisions, so data is collected at various points in time from different audiences. Data collection methods are primary methods of data collection and secondary methods of data collection. Primary data is collected from the first-hand experience and is not used in the past. The data gathered by primary data collection methods are specific to the research's motive and highly accurate. Secondary data is the data that has been used in the past. The researcher can obtain data from the data sources, both internal and external, to the organization. In this study, primary method was selected because it provides an efficient means by which statistical quantifiable information could be collected.

Questionnaires are distributed to digital payment users that are selected for the study. Primary data is collected through questionnaires survey with closed-ended questions. A structured questionnaire is used in large surveys where specific answers are anticipated, in the form of multiple choices or scale questions. Closed-ended questions limit the response to predetermined categories and this makes the respondents quick and easy to answer. The second part of questions are used with 5-point Likert scale in which 1 represented strongly disagree, 2 represented disagree, 3 represented neutral, 4 represented agree and 5 represented strongly agree. The advantages of using questionnaires for this study are able to collect enough data from large numbers of respondents in a way that is cost effective and requires a short time period.

### **3.3 Target Population and Sampling Design**

This section presents the target population and sampling design that are used in this study to collect data from selected universities' employees of Sagaing City.

#### **3.3.1 Target Population**

A research population is generally a large collection of individuals or objects that is the main focus of a scientific query. It is for the benefit of the population that researches are done. However, due to the large sizes of populations, researchers often cannot test every individual in the population because it is too expensive and time-consuming. This is the reason why researchers rely on sampling techniques. A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common, binding characteristic or trait.

There are two types of population in research: target population, accessible population. Target population refers to the entire group of individuals or objects to which researchers are interested in generalizing the conclusions. The target population usually has varying characteristics and it is also known as the theoretical population. The accessible population is the population in research to which the researchers can apply their conclusions. This population is a subset of the target population and is also known as the study population. Researchers draw their samples from the accessible population. The target population of the research is employees of selected universities of Sagaing City.

#### **3.3.2 Sampling Design**

A sample design is a definite plan for obtaining a sample from a given population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample. Sample design may as well lay down the number of items to be included in the sample i.e., the size of the sample. Sample design is determined before data are collected. There are many sample designs from which a researcher can choose. Some designs are relatively more precise and easier to apply than others. Researcher must select/prepare a sample design which should be reliable and appropriate for his research study. Two types of sample design are Probability Sampling Design and Non-probability Sampling Design. In probability sampling design, each element/respondent has a known probability of being included in the

sample. In non-probability sampling design, each element/respondent in the population is not given equal chance of selection.

Probability sampling designs include simple random sampling, systematic, stratified random sampling, cluster sampling, area sampling, multi-stage sampling and sequential sampling. Non probability sampling designs involve convenience sampling, judgment sampling and quota sampling. In this research, cluster sampling will be used to collect the data from the employees of the selected universities' of Sagaing City. Cluster sampling is more economical or more practical than stratified sampling or simple random sampling. This method is less of cost than simple or stratified random sampling when the cost of obtaining a frame that lists all population elements is very large and the observations cost increases as the distance separating the elements increases. When a researcher can't get information about the population as a whole, the cluster sampling method is used.

There are five universities in Sagaing city. These five universities would constitute cluster. In cluster sampling, this five would be as a population and then randomly selected two clusters to be included in sample. Among 278 employees in University of Co-operative and Management, Sagaing and 90 employees in Technological University, Sagaing, 155 employees who are using digital payment in University of Co-operative and Management, Sagaing and 83 employees who are using digital payment in Technological University, Sagaing are selected to analyze the determinants of customers' adoption of digital payment by using cluster sampling method. This study conducted a sample survey on situations of customers' adoption of digital payment in selected universities of Saging city. Required customer data on customers' adoption of digital payment were collected from University of Co-operative and Management, Sagaing and Technological University, Sagaing by using questionnaires.

### **3.4 Data Analysis**

Various types of statistical techniques have been utilized to analyze the questionnaires data. The data collected from the respondents are analyzed in Statistical Package for Social Sciences (SPSS). Descriptive statistics, reliability analysis, Pearson correlation analysis and multiple regression analysis were applied in this study.

### 3.4.1 Descriptive Statistics

Descriptive analysis, also known as descriptive analytics or descriptive analysis, is the process of using statistical techniques to describe or summarize a set of data. As one of the major types of data analysis, descriptive analysis is popular for its ability to generate accessible insights from otherwise uninterpreted data. Unlike other types of data analysis, the descriptive analysis does not attempt to make predictions about the future. Instead, it draws insights solely from past data, by manipulating in ways that make it more meaningful. According to Campus.Lab.com, descriptive analysis can be categorized as one of four types. They are measures of frequency, central tendency, dispersion or variation, and position (Bush, 2020).

This study has employed descriptive statistics analysis to calculate means and standard deviation (SD) for dependent and independent variables in the study. Mean values have been measured to observe the average response and SD analysis has been used to measure the variability. Table (3.1) shows the level of agreement associated with each weighted average mean range.

**Table (3.1) Weighted Mean-Level of Agreement**

Weighted Mean	Level of Agreement
More than 4.2 - 5	Very High
More than 3.4 - 4.2	High
More than 2.6 - 3.4	Average
More than 1.8 - 2.6	Low
1.8 and less	Very Weak

Source: Al-Khadash (2015)

### 3.4.2 Reliability Analysis

The reliability refers to a measurement that supplies consistent results with equal values (Blumberg et al., 2005). It measures consistency, precision, repeatability, and trustworthiness of a research (Chakrabarty, 2013). It indicates the extent to which it is without bias (error free), and hence insures consistent measurement cross time and across the various items in the instruments (the observed scores). Some qualitative researchers use the term ‘dependability’ instead of reliability. It is the degree to which an assessment tool produces stable (free from errors) and consistent results. It indicates that the observed score of a measure reflects the true score of that measure.

In quantitative research, reliability refers to the consistency, stability and repeatability of results, that is, the result of a researcher is considered reliable if consistent results have been obtained in identical situations but different circumstances. But, in qualitative research it is referred to as when a researcher's approach is consistent across different researchers and different projects (Twycross & Shields, 2004). It is a concern every time a single observer is the source of data, because we have no certain guard against the impact of that observer's subjectivity (Babbie, 2010). Reliability issues are most of the time closely associated with subjectivity, and once a researcher adopts a subjective approach towards the study, then the level of reliability of the work is going to be compromised (Wilson, 2010).

The coefficient of reliability falls between 0 and 1, with perfect reliability equaling 1, and no reliability equaling 0. The test-retest and alternate forms are usually calculated reliability by using statistical tests of correlation (Traub & Rowley, 1991). For high-stakes settings (e.g., licensure examination) reliability should be greater than 0.9, whereas for less important situations values of 0.8 or 0.7 may be acceptable. The general rule is that reliability greater than 0.8 are considered as high (Downing, 2004). Reliability is used to evaluate the stability of measures administered at different times to the same individuals and the equivalence of sets of items from the same test (Kimberlin & Winterstein, 2008). The better the reliability is perform, the more accurate the results; which increases the chance of making correct decision in research. Reliability is a necessary, but not a sufficient condition for the validity of research (Feldt & Brennan, 1989).

### **3.4.3 Pearson Correlation Analysis**

Correlation analysis shows the association between two or more variables. Correlation coefficients report mathematical values to measure the strength of the linear relationships between variables and take values from -1 to +1. The higher value of correlation coefficient indicates a stronger association between variables in general. There are three types of correlation measured in statistics such as Pearson correlation, Spearman correlation and Kendall rank correlation (Gujarati & Porter, 2009).

The Pearson correlation coefficient ( $r$ ) is the most widely used correlation coefficient and is known by many names: Pearson's  $r$  (or) bivariate correlation (or) Pearson product-moment correlation coefficient (PPMCC) (or) the correlation coefficient. The Pearson correlation coefficient is a descriptive statistic, meaning that

it summarizes the characteristics of a dataset. Specifically, it describes the strength and direction of the linear relationship between two quantitative variables. The Pearson correlation coefficient is also an inferential statistic, meaning that it can be used to test statistical hypotheses. Specifically, it can test whether there is a significant relationship between two variables (Turney, 2022).

This study has used Pearson correlation ( $r$ ) because of interval data (Tabachnick & Fidell, 2007). This study interprets correlation analysis based on the following criterion to deduce the size of correlation coefficient amongst different variables (Tabachnick & Fidell, 2007).

- +1 (-1) refers to perfect positive (negative) correlation
- 0.70 to 0.99 (-0.70 to -0.99) refers to very strong positive (negative) correlation
- 0.50 to 0.69 (-0.50 to -0.69) refers to strong positive (negative) correlation
- 0.30 to 0.49 (-0.30 to -0.49) refers to moderate positive (negative) correlation
- 0.10 to 0.29 (-0.10 to -0.29) refers to weak positive (negative) correlation
- 0 to 0.09 (0 to -0.09) refers to no correlation or negligible correlation

#### **3.4.4 Multiple Regression Analysis**

Multiple linear regression (MLR), also known simply as multiple regression, is a statistical technique that uses several explanatory variables to predict the outcome of a response variable. The goal of multiple linear regressions is to model the linear relationship between the explanatory (independent) variables and response (dependent) variables. In essence, multiple regression is the extension of ordinary least-squares (OLS) regression because it involves more than one explanatory variable.

Simple linear regression is a function that allows an analyst or statistician to make predictions about one variable based on the information that is known about another variable. Linear regression can only be used when one has two continuous variables—an independent variable and a dependent variable. The independent variable is the parameter that is used to calculate the dependent variable or outcome. A multiple regression model extends to several explanatory variables. The estimated multiple regression model is

$$Y = f(X_1, X_2, X_3, \dots)$$

Where,  $Y$ = the value of dependent variable

$X_1, X_2, X_3, \dots$  = the value of independent variables

### 3.5 Measurement Items

A questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents. Questionnaires can be thought of as a kind of written interview. They can be carried out face to face, by telephone, computer or post. Questionnaires provide a relatively cheap, quick and efficient way of obtaining large amounts of information from a large sample of people. All the research constructs were measured on five-point Likert-type scales ranging from 5 “Strongly Agree” to 1 “Strongly Disagree.” A small section was also included in the questionnaire to study the respondents’ characteristics. Table (3.2) shows constructs’ measurement items and their sources of operationalization.

**Table (3.2) Items Measuring Digital Payment System Variables**

Variables		Sources of Digital Payment System Operationalization
<b>Benefits</b>		
1	It saves time and cost for using digital payment system.	Wendy, Binshan and Chong (2013)
2	Digital payment system is convenient to use.	
3	The billing and transaction process are accurately handled.	
4	Speed of digital payment system flow is faster than traditional payment system.	
5	It is easier to conduct financial transaction.	
6	Digital payment system offers a greater choice for consumer and merchant in the way they send and receive payment.	
7	Digital payment can make transaction at any time.	
8	Using digital payment system no need to go out with cash.	
<b>Trust</b>		
1	Digital payment system has the ability to protect privacy.	Wendy, Binshan and Chong (2013), Melih, Ebru and Karahan (2022) and Jarollahi (2013)
2	Digital payment system will not lead to transaction fraud.	
3	Confidential information is delivered safely to customers.	
4	The risk associated with digital payment system is low.	
5	Paying online will be safe and secure.	

6	While making payment transactions online, it is safe when sending sensitive information requested for the transaction.	
7	Sites will not disclose any information to a third party without users' permission.	
8	Privacy is guaranteed for sites.	
9	Online payment transactions can be trusted as a physical payment.	
10	Trust each participant, such as seller and buyer, involved in digital payment system.	
11	Trust the security mechanisms of digital payment system.	
12	Trust digital payment system services.	
13	Trust the information provided during the digital payment system process.	

#### **Self-Efficacy**

1	Using digital payment system only with a heard.	Wendy, Binshan and Chong (2013), Melih, Ebru and Karahan (2022)
2	The comments of other people will influence intention to use digital payment system.	
3	Use digital payment system when friends introduce it.	
4	If there are directions in the system about how to make transactions, it can be made payments online.	
5	Making payment online by seeing someone else use it before trying to use.	
6	Making online payment without performing a transaction before.	
7	Complete online transaction using the digital payment system, if there was no one around to tell what to do.	
8	Using digital payment system well if wanted to.	
9	Using the digital payment system well for any financial transactions	
10	Using digital payment system would be entirely within control.	
11	Having the resources, knowledge and ability to use digital payment system.	

<b>Ease of Use</b>		
1	The structure and contents of the web site are easy to understand.	Wendy, Binshan and Chong (2013), Melih, Ebru and Karahan (2022) and Wei (2017)
2	Learning to use digital payment is easy.	
3	The online payment process is clear and understandable.	
4	Easily perform transactions such as shopping, public payments	
5	Easy to complete payment transactions online.	
6	It is easy to adapt to paying online.	
7	Flexible in performing digital payment.	
8	Less effort is needed when perform digital payment.	
9	Design of website is friendly for using.	
10	There are instruction manuals available for using digital payment system.	
<b>Security</b>		
1	Most digital payment provides adequate payment security.	Wei (2017), Hahn and Kodo (2017) and Jarollahi (2013)
2	Digital payment has minimum financial risk.	
3	Using digital payment when the software is protected by the latest know-how.	
4	Using digital payment provides security insurance.	
5	Secure when sending sensitive information via the Internet.	
6	Secure transferring money via the Internet.	
7	Digital payment system is secure.	
8	The information relating to user and digital payment system transactions is secure.	
9	The information provided in previous digital payment system is helpful for secure payment transactions.	
10	Do not fear hacker invasions into digital payment system.	
<b>Adoption of Digital Payment</b>		
1	Digital payment system is better than traditional payment channels.	Wendy, Binshan and Chong (2013)
2	Digital payment system is much more efficient than traditional payment channels.	

3	Choosing the trusted digital payment system to make transaction.	
4	A user-friendly digital payment system will influence to adopt the system.	
5	Digital payment system can be easily understood and readily adopted.	
6	Digital payment systems are better than cash.	
7	Using digital payment is beneficial to users.	
8	Having positive adoption about using digital payment system.	

Source: Wendy, Binshan and Chong (2013), Melih, Ebru and Karahan (2022), Jarollahi (2013), Wei (2017)

## **CHAPTER 4**

### **PROFILE OF DIGITAL PAYMENT AND DIGITAL PAYMENT USERS IN UNIVERSITIES OF SAGAING CITY**

This chapter shows the profile of digital payment in Myanmar and demographic characteristics of digital payment users in selected universities of Sagaing City.

#### **4.1 Revolution of Digital Payment in Myanmar**

Financial inclusion is one of the top priorities for the Government of Myanmar (GOM) as the country moves ahead with its economic transition. Myanmar's banking and finance sector experienced drastic technology-led changes over the years. People are not keeping and saving cash in their homes and saving money in banks and using cash cards, such as ATM cards and Myanmar Payment Union (MPU) cards. In addition, the mobile phone connectivity rate jumped to 95 percent in 2019 from 10 percent in 2014. The rapidly increasing mobile phone connectivity and internet penetration make people in Myanmar to apply the digital financial services via mobile technology.

In March 2016, the Central Bank of Myanmar regulated on Mobile Financial Services (MFS) to create a safe mobile financial services regulatory environment. An MFS license allows Mobile network operators and non-bank financial institutions to provide electronic money transfer and other tech-based financial services within the country. Singapore and Thailand have formed partnerships with local FinTech companies to provide tech-based financial services in Myanmar digital payment services are the most promising FinTech sectors in Myanmar. Nowadays, there are many FinTech companies providing online shopping, top ups and various e-bill payment services. Myanmar businesses and customers are rapidly familiar with FinTech because of increasing smartphone and internet penetration.

As financial transaction changes from traditional to digital, both financial and non-financial institutions in Myanmar are interested in digital payment and attention to digital security. FinTech firms are using advanced cyber security solutions to prevent cyber-attacks and reduce reputational risk due to potential data breaches and monetary losses.

FinTech and digital payment offerings are rapidly increasing since the outbreak of the coronavirus pandemic, expectation for the expansion of financial

inclusion in a country where banking penetration remains below the regional average rise. After Covid-19 arrived in Myanmar, FinTech solutions are effective in encouraging social distancing and limiting community transmission.

In Myanmar, there are three types of digital payment applications; bank-led applications, telecom-led applications and other independent applications. Bank-led applications include KBZPay (KBZ Bank), CB Pay (CB Bank), AYA Pay (AYA Bank), Onepay (AGD Bank), Shwe Eait (Shwe Bank), uabpay (UAB Bank), Ongo Pay (MOB) and Citizens Pay (MCB). Telecom-led applications include MPT Pay (MPT), M Pitesan (Ooredoo) and MytelPay (Mytel). Other independent applications include WavePay, Easy Pay, True money, OK Dollar, Oway Pay, Mandalay Smart Pay, Shal Pay, City Sky Pay and TRUSTY.

## **4.2 The Mostly Used Digital Payment in Selected Universities of Sagaing City**

There are various kinds of digital payment available in Myanmar. Among them, KBZPay, MytelPay, WavePay, AYA Pay, CB Pay, OnePay and OK Dollar are the mostly used digital payment in selected universities of Sagaing City. Therefore, the followings are the profile of the mostly used digital payment in selected universities of Sagaing City because this study focuses on the two universities of Sagaing City.

### **4.2.1 Profile of KBZPay**

KBZ Bank was established on the first date of July, 1994 in Taunngyi Township, the Southern part of Shan State, Myanmar. KBZ Bank is leading the way, especially in digital and technology, for Myanmar's rapidly developing financial services industry. KBZ Bank is the leading and the largest private bank sector in Myanmar which currently offering mobile services. In 2018, KBZ Bank launched KBZPay: a mobile wallet platform.

KBZPay connects people to a digital economy previously inaccessible to many. It was aimed to reach 100 percent financial inclusion to support Myanmar's development ambitions and needs. KBZPay brings financial services beyond the bank's physical branches and into the hands of customers. KBZPay is now the leading mobile wallet in Myanmar, connecting customers with thousands of merchants and agents across the country every day with the best and safest technology. Anyone that uses MPT, Telenor, Ooredoo, and MyTel can register for KBZPay free-of-charge, even though the person has not a bank account. To sign up for KBZPay, customers

simply need to download the KBZPay app and create an account with basic details such as birth date, NRC, mobile number, and set the account password.

The KBZPay app allows customers to make cashless transactions, send and receive money, and withdraw physical cash from approved agents. With just a few taps on mobile phone, it is easy to make everything users wish to pay, transfer, cash in or cash out by using KBZPay. Recently, the app, available for download throughout the country, has crossed above 5 million download mark. Customers are using KBZPay to manage their money, pay for goods and services, store cash, remit to loved ones and conduct daily financial tasks that were once labor-intensive and time consuming. Users can benefit from KBZPay such as paying merchant and bills in time, repaying friends in a few seconds and top up mobile airtime on MPT, Telenor, Ooredoo and MyTel at anytime, anywhere.

#### **4.2.2 Profile of MytelPay**

Mytel is a major telecommunications company in Myanmar (Burma), as one of four national carriers. The company is a joint venture with Viettel, Star High Public Company and Myanmar National Telecom Holding Public Co Ltd, a consortium of local companies. In June of 2019, Mytel launched MytelPay to facilitate Myanmar customers in performing banking services anytime, anywhere through their smartphones.

MytelPay is designed to pay a boutique of services to be convenience everyday life of Myanmar People by providing all the payments needed in personal and business. MytelPay always strives to make the life of Myanmar people to be better. MytelPay facilitates all payment services. It supports multi-language of Burmese and English. Users can make top-up and buy data pack with the most reasonable prices and many discount programs and can easily transfer money by logging into MytelPay app and making an account with phone. There is a support for the various kinds of online bill payments and digital services and also give promotions for various kinds of services.

#### **4.2.3 Profile of WavePay**

Digital Money Myanmar Limited is a mobile financial service provider, offering reliable mobile financial services alternatively named as Wave Money services, to customers in Myanmar. Wave Money service is an innovative way to transfer money safely through mobile phone or from agent shops. Wave Money

launched a unique way of transferring money, WavePay in October 2016. WavePay is a mobile wallet application that bringing the digital solution for customers that can use with mobile phones anytime, anywhere. It brings millions of people in Myanmar access to formal financial services.

WavePay is a mobile wallet application that delivers reliable, secure, and instantaneous payments anywhere, anytime. For the ease of customers, WavePay helps all users to be able to use the digital payment easily and flexibly. It created higher security system to protect WavePay account with “One Wallet, One Device” (1W1D), a new feature that technically enables access to an account from only 1 device at a time. This is an enhanced security feature for keeping WavePay account safe and secure. Users can make Cash-In, Cash-Out at a Wave Shop, or transfer money directly by linking with a partner bank. It allows users to transfer money directly into the receiver’s WavePay account or to be collected at any Wave Money agent shops.

If customers do not have the WavePay accounts, they can collect money at the nearest Wave Money shop with the transactions ID and 6-digits secret code. Users can top up mobile balance and buy packages for Telenor, Ooredoo, Mytel and MPT. It can make insurance bill payments including – Prudential, ManuLife, Capital Taiyo, Young Insurance, KBZ MS General Insurance. Users can enjoy online shopping pay for shopping online directly using WavePay without worrying about cash on delivery.

#### **4.2.4 Profile of AYA Pay**

AYA Bank was established on 11 August 2010 to serve the people of Myanmar with its banking products and services at its first branch in Nay Pyi Taw with merely a hundred employees. AYA Bank is the first bank in Myanmar to be IFRS in compliance and the only one inspected under International Standards of Auditing by a big-four international firm. AYA Bank is continuously invested in digital era of the bank to provide great client experience. In this digital age, bank is also following the flow of digital revolution happening around the world. AYA Bank launched mobile wallet service, AYA Pay in August 2019 to support client needs to reach to the satisfaction level and towards the loyalty.

AYA Pay, a mobile payment platform, encourages the growth of digital finance in Myanmar. AYA Pay is linking people and businesses via smartphone, working in partnership with other digital companies to create an ecosystem of

enriching payment experiences. Everyone can send and receive money safely, secure and instantaneous payments - anywhere, anytime. Any financial transactions can be securely performed by using AYA Pay in one touch of fingertips. It is the first mobile wallet to be completely developed in-house to ensure limitless services provided to customers. The AYA Pay design principle is simple, build a robust digital wallet that will allow anyone to manage their personal finances with utmost ease.

#### **4.2.5 Profile of CB Pay**

CB Bank was established on 21 August 1992 that started as a small bank with 33 employees. CB bank always strives to offer enjoyable experiences for the customers with the best solution and most reliable financial services. With such objectives towards improving technology and innovation in the rapidly changing landscape of banking and financial services, it launched the CB Pay in July 2018. CB Pay not only facilitates banking at a fingertip but also eases lifestyle of people. CB Pay can be able to use in all mobile phone devices. Customers can install CB Pay app to mobile phones and make registration for wallet account themselves. If customers already have ATM card, they can register with ATM card number so that CB pay will automatically link with ATM card account.

CB Pay users can perform a variety of tasks such as instantly check the balance of accounts, top-up airtime, make bill payment, transfer money instantly through mobile number/account number and make payment using QR codes. CB Pay users can transfer money to their own accounts, other accounts and any individual with valid NRC card in Myanmar even without a bank account. CB Pay can be used to make payment to peers to peers, merchant and donations. Users can easily top-up Airtime for MECTel, MPT, Mytel, Ooredoo and Telenor and can easily obtain cash from their accounts at any CB Bank's ATMs and withdraw up to MMK 300,000 per transaction, MMK 1 million per day. If users have debit cards or credit cards, they can easily top-up their cards and can check the default account's balance at sneak peak and pay bills such as electricity bill or insurance. And users can look for up to date exchange rate in CB Pay.

#### **4.2.6 Profile of OnePay**

AGD Bank was established on 6 August 2010 to provide high quality financial services and products to clients and partners. AGD Bank delivers banking excellence through inspired and outstanding customers services and innovative products and

services that meet banking needs. Onepay is launched by AGD Bank in 2018 to be secure, easier and safer for users to pay for goods and services to provide a sound financial infrastructure. The app is simple and easy to use and is available to anyone with a smartphone. Onepay enables users to store, transfer and spend money straight from smartphone. Users can make payment for goods and services easily and conveniently acceptance by merchants with Onepay business.

Mobile phone top-up for all local telecom operators can be made by using Onepay. It can make bill payments for utilities and lifestyle services and shopping easily with a huge variety of brands. Users can also enjoy ordering and payment for food to be delivered from popular restaurants in town. Users can purchase tickets for domestic bus and flights from Onepay and donate to charity and causes that they believe in. Onepay was developed by AGD Bank, so users can link quickly to their AGD bank account for top ups and withdrawal. It has the ability to save and add funds to e-wallet from any local or international Visa and Mastercard credit cards. Users can transfer money to other Onepay users for free. Verified users can perform interbank transfer up to 16 local banks within ONE working day, FIRST mobile interbank transfer in Myanmar.

#### **4.2.7 Profile of OK Dollar**

OK Dollar is provided by Internet Wallet Myanmar Limited. It got license for providing mobile financial services from CBM at August 2017. The getting of this license allowed OK Dollar to step onto financial services industry against its telecom-backed competitors and bank-backed competitors. OK Dollar is headquartered in Yangon, Myanmar. OK Dollar lets users do fast money transfers, get deals and payments on the go. Users can make a fast and easy payment to shopkeepers or merchants using make payment option. Users can make payment to Toll, Entrance, Parking, Fuel, Restaurant, Hotel, Shop, Supermarket, Ferry, Train, Bus, Intercity Bus, Flight etc. If users have very low balance and need to make a very urgent payment, users can make use of request money option to request money from friend.

Users can transfer money to OK Dollar wallet from debit card, credit card, online banking, bank counter, OK Dollar agent. They can top up to friends' sim card instantly using OK Dollar top up feature. Users can do top ups for Ooredoo, MPT, Telenor, MECTEL both GSM and CDMA and can also do data pack recharge and special offers to friends. Users can share bills with friends. OK Dollar notify user if

any payment is done, payment is received, or the request received like bill splitter and request money. Users can enjoy monthly electricity bill payments online using OK Dollar App.

### 4.3 Demographic Factors of Respondents

This section describes the profile of 238 employees who are using digital payment among selected universities of Sagang City. Respondents' gender, marital status, education status, frequency of usage, types of digital payment and cash transactions related to demographic profile are presented in the following sub-sections.

#### 4.3.1 Gender of Respondents

The respondents in this study include both male and female. Table (4.1) describes the gender of the respondents as percentage.

**Table (4.1) Gender of Respondents**

Gender	Frequency	Percent
Male	37	15.5
Female	201	84.5
Total	238	100.0

Source: Survey Data, 2022

As shown in Table (4.1), most of the respondents are female and it has 84.5% of the total respondents. The rest 15.5% of total respondents are male. So, female respondents are more than male respondents. According to the results, female are more likely to use digital payment than male.

#### 4.3.2 Marital Status of Respondents

**Table (4.2) Marital Status of Respondents**

Marital Status	Frequency	Percent
Single	134	56.3
Married	104	43.7
Divorce	0	0
Widow	0	0
Total	238	100.0

Source: Survey Data, 2022

Marital status of respondents is categorized as four types; Single, Married, Divorce and Widow. However, as a result of analysis, there are only single and married respondents. In Table (4.2) 56.3% of respondents fall into single types and 43.7% of respondents fall into married types.

### 4.3.3 Education Level of Respondents

In this study, respondents' education level is divided into five groups. They are undergraduate, graduate, master, Ph.D and other. Table (4.3) provides the education level of respondents.

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

Education Level	Frequency	Percent
Undergraduate	10	4.2
Graduate	132	55.5
Master	76	31.9
Ph.D	8	3.4
Other	12	5.0
Total	238	100.0

Source: Survey Data, 2022

According to Table (4.3), majority of respondents are graduated and it has 55.5% of total respondent and then 31.9% of total respondents are master degree level, 4.2% of respondents are undergraduate, 3.4% of respondents are Ph.D level and 5% of respondents are other education level.

## 4.4 Usage of Digital Payment of Respondents

This section shows the frequency of usage of respondents, types of digital payment used by respondents and cash transactions made by respondents.

### 4.4.1 Frequency of Usage of Respondents

The usage frequency of respondents are grouped into three; at least once a week, at least once a month and other. The Table (4.4) illustrates the usage frequency of respondents.

**Table (4.4) Usage Frequency of Digital Payment of Respondents**

Usage Frequency	Frequency	Percent
At least once a week	47	19.7
At least once a month	136	57.1
Other	55	23.1
Total	238	100.0

Source: Survey Data, 2022

The above table describe that most of the respondents are using digital payment at least once a month, 23.1% of respondents are using digital payment at other time and 19.7% of respondents are using at least once a week.

#### 4.4.2 Types of Digital Payment Used by Respondents

The types of digital payments are divided into six. They are KBZPay, MytelPay, WavePay, AYAPay, CBPay and other. Table (4.5) shows the types of digital payment used by respondents.

**Table (4.5) Types of Digital Payment**

Digital Payment	Frequency	Percent (%)
KBZPay	176	73.9
MytelPay	37	15.5
WavePay	69	29.0
AYA Pay	8	3.4
CB Pay	9	3.8
Other	24	10.1

Source: Survey Data, 2022

As a result, KBZPay is used by most respondents and it explores in Table as 176 respondents out of 238 respondents, followed by WavePay as 29% of total respondents. It is found that AYAPay has smallest amount of respondents and it describes in percentage as 3.4% of all respondents. Fifteen point five percent of 238 respondents are using MytelPay and 3.8% of 238 respondents are using CBPay. And then it also shows that 10.1% of all respondents are using other types of digital payment like Onepay and OK Dollar.

#### 4.4.3 Cash Transactions

In this study, cash transactions made by respondents are classified as fund transfer, balance inquiry, bills payment, savings, withdrawal and other periodical

payment. The following table identifies the types of cash transactions made by 238 respondents.

**Table (4.6) Cash Transactions Made by Respondents**

<b>Cash Transactions</b>	<b>Frequency</b>	<b>Percent (%)</b>
Fund transfer	147	61.8
Balance Inquiry	76	31.9
Bills payment	203	85.3
Savings	26	10.9
Withdrawal	68	28.6
Another Periodical Payment	19	8.0

Source: Survey Data, 2022

As shown in the table, the majority of respondents are using digital payment to make bills payment and it represents 85.3% of total respondents. It can be seen that fund transfer transaction is made by 61.8% of total respondents, balance inquiry is 31.9% of total respondents, savings transaction is 10.9% of total respondents, withdrawal transaction is 28.6% of total respondents and other periodical payment transaction is 8% of total respondents.

# **CHAPTER 5**

## **ANALYSIS OF CUSTOMERS' ADOPTION OF DIGITAL PAYMENT AMONG UNIVERSITIES' EMPLOYEES OF SAGAING CITY**

This chapter presents the data analysis, interpretation and presentation of the findings. This study aims to analyze the determinants of customers' adoption of digital payment among universities' employees of Sagaing City. The results of the study are explained by using reliability test, descriptive analysis, Pearson correlation analysis and regression analysis.

### **5.1 Analysis on Reliability and Validity of the Variables**

Cronbach's alpha measures are carried out to test the validity and reliability of questionnaires items. After conducting the survey, reliability and validity test for benefits, trust, self-efficacy, ease of use, security and customers' adoption were performed. In this study, the internal consistency of variables and an accurate representation of the data are measured by Cronbach's Alpha reliability test method. Cronbach's Alpha test is most commonly used to assess the internal consistency of a survey questionnaire that is made up of five points Likert-type scales and items. The reliability coefficient indicates how well items in a set are positively correlated to one another (Sekaran & Bougie, 2016). Using the data collected, the instruments were tested from reliability using Cronbach's Alpha reliability test. Since the reliability coefficient is above the recommended value of 0.7, the instruments can be considered sufficiently reliable.

The study also conducted the validity test which is a technique used as a data reduction or structure detection method. This technique explores maximum common variance from all variables and places them into a common score. In order to ensure the usability of a factor, the factors with an eigenvalue higher than 1.0 were maintained. The data for the analysis was measured by KMO (Kaiser- Meyer\_ Olkin) value and the factor between 0.5 and 1 was regarded as appropriate.

The results of the reliability and validity test for each variable in this study are presented in Table (5.1). This research includes two dimension such as independent variables (benefits, trust, self-efficacy, ease of use and security) and dependent variable (adoption of digital payment).

**Table (5.1) Results from Reliability and Validity Test**

No.	Factors	No. of Items	Items Retained	Reliability Cronbach's Alpha	Validity	
					KMO	Barlett's Test
1	Benefits	8	8	0.851	0.841	0.000
2	Trust	13	13	0.906	0.881	0.000
3	Self-efficacy	11	11	0.829	0.818	0.000
4	Ease of Use	10	10	0.890	0.910	0.000
5	Security	10	10	0.859	0.850	0.000
6	Adoption of Digital Payment	8	8	0.908	0.863	0.000

Source: Survey Data, 2022

Table (5.1) summarizes the results of reliability and validity test for questionnaire items of benefits, trust, self-efficacy, ease of use, security and adoption of digital payment. The result indicates the consistency and usability of variables in the analysis. All of the reliability coefficients of questionnaire items are greater than the recommended value of 0.7. And the results from the validity test for all questionnaire item is above the recommended value of 0.5 ( $KMO > 0.5$ ). Therefore, the instruments can be considered sufficiently as reliable and valid for the analysis.

## 5.2 Descriptive Statistics of the Variables

Descriptive statistics is used in this study not only to express the demographic factors but also to describe the mean values and standard deviation of the observed variables. Descriptive statistics in the form of means and standard deviations for respondents were computed for the various dimensions of customers' adoption. If the calculated mean values of all items are greater than 3.5, it is good.

### 5.2.1 Agreement Level of Benefits

The following table shows mean and standard deviation of benefits. Eight items of benefits factor are asked to respondents by using five-point likert scale.

**Table (5.2) Mean and Standard Deviation of Benefits**

No.	Benefits Measures	Mean	SD
1	It saves time and cost for using digital payment system.	4.08	0.701
2	Digital payment system is convenient to use.	3.95	0.590
3	The billing and transaction process are accurately handled.	4.06	0.744
4	Speed of digital payment system flow is faster than traditional payment system.	4.03	0.639
5	It is easier to conduct financial transaction.	3.92	0.680
6	Digital payment system offers a greater choice for consumer and merchant in the way they send and receive payment.	3.87	0.622
7	Digital payment can make transaction at any time.	3.66	0.856
8	Using digital payment system no need to go out with cash.	3.81	0.835

Source: Survey Data, 2022

As can be seen in Table (5.2), the mean of benefits measures ranged between 3.66 and 4.08. The highest mean value was for “It saves time and cost for using digital payment system” and the lowest mean value was for “Digital payment system can make transaction at any time”. Respondents got the benefits of time and cost saving by using digital payment. Digital payment providers need to upgrade their system to be able to perform payment transaction at any time.

### 5.2.2 Agreement Level of Trust

Mean and standard deviation of trust are shown as follow. Thirteen items of the trust are asked to respondents by using five-point likert scale.

**Table (5.3) Mean and Standard Deviation of Trust**

No.	Trust Measures	Mean	SD
1	Digital payment system has the ability to protect privacy.	3.37	0.750
2	Digital payment system will not lead to transaction fraud.	3.13	0.841
3	Confidential information is delivered safely to customers.	3.54	0.709
4	The risk associated with digital payment system is low.	3.28	0.682
5	Paying online will be safe and secure.	3.39	0.696
6	While making payment transactions online, it is safe when sending sensitive information requested for the transaction.	3.08	0.791
7	Sites will not disclose any information to a third party without users' permission.	3.70	0.668
8	Privacy is guaranteed for sites.	3.35	0.723
9	Online payment transactions can be trusted as a physical payment.	3.57	0.694
10	Trust each participant, such as seller and buyer, involved in digital payment system.	3.35	0.729
11	Trust the security mechanisms of digital payment system.	3.42	0.636
12	Trust digital payment system services.	3.51	0.600
13	Trust the information provided during the digital payment system process.	3.48	0.667

Source: Survey Data, 2022

According to the above table, the mean of trust measures ranged between 3.08 and 3.70. The highest mean was for “Sites will not disclose any information to a third party without users' permission” and the lowest mean was for “While making payment transactions online, it is safe when sending sensitive information requested for the transaction”. All respondents are agreed to the fact that the digital payment will not disclose any information to a third party without their permission. But respondents do not absolutely trust the digital payment while sending sensitive information requested for the transaction.

### 5.2.3 Agreement Level of Self-efficacy

Mean and standard deviation of self-efficacy are shown as follow. Eleven items of self-efficacy factor are asked to respondents by using five-point likert scale.

**Table (5.4) Mean and Standard Deviation of Self-efficacy**

No.	Self-efficacy Measures	Mean	SD
1	Using digital payment system only with a heard.	3.16	0.731
2	The comments of other people will influence intention to use digital payment system.	3.32	0.739
3	Use digital payment system when friends introduce it.	3.24	0.859
4	If there are directions in the system about how to make transactions, it can be made payments online.	3.62	0.681
5	Making payment online by seeing someone else use it before trying to use.	3.04	0.940
6	Making online payment without performing a transaction before.	3.35	0.763
7	Complete online transaction using the digital payment system, if there was no one around to tell what to do.	3.45	0.839
8	Using digital payment system well if wanted to.	3.83	0.727
9	Using the digital payment system well for any financial transactions	3.53	0.756
10	Using digital payment system would be entirely within control.	3.57	0.758
11	Having the resources, knowledge and ability to use digital payment system.	3.53	0.679

Source: Survey Data, 2022

As shown in Table (5.4), the mean of self-efficacy ranged between 3.04 and 3.83. The highest mean was for “Using digital payment system well if wanted to” and the lowest mean was for “Making payment online by seeing someone else use it before trying to use”. Respondents will be able to use digital payment well if they wanted to and there are directions in the system about how to make transactions. But no one can make payment transactions without trying themselves even though they have seen someone use digital payment.

#### 5.2.4 Agreement Level of Ease of Use

Mean and standard deviation of ease of use are shown as follow. Ten items of ease of use factor are asked to respondents by using five-point likert scale.

**Table (5.5) Mean and Standard Deviation of Ease of Use**

No.	Ease of Use Measures	Mean	SD
1	The structure and contents of the web site are easy to understand.	3.57	0.670
2	Learning to use digital payment is easy.	3.83	0.573
3	The online payment process is clear and understandable.	3.81	0.613
4	Easily perform transactions such as shopping, public payments	3.92	0.698
5	Easy to complete payment transactions online.	3.78	0.620
6	It is easy to adapt to paying online.	3.81	0.606
7	Flexible in performing digital payment.	3.88	0.584
8	Less effort is needed when perform digital payment.	3.89	0.823
9	Design of website is friendly for using.	3.63	0.673
10	There are instruction manuals available for using digital payment system.	3.34	0.711

Source: Survey Data, 2022

According to the Table (5.5), the mean of ease of use ranged between 3.34 and 3.92. The highest mean was for “Easily perform transactions such as shopping, public payments” and the lowest mean was for “There are instruction manuals available for using digital payment system”. All respondents can be able to use digital payment easily. The instruction manuals available for using digital payment are not enough to be able to perform payment transactions.

### 5.2.5 Agreement Level of Security

Mean and standard deviation of security are shown as follow. Ten items of security are asked to respondents by using five-point likert scale.

**Table (5.6) Mean and Standard Deviation of Security**

No.	Security Measures	Mean	SD
1	Most digital payment provides adequate payment security.	3.41	0.680
2	Digital payment has minimum financial risk.	3.06	0.862
3	Using digital payment when the software is protected by the latest know-how.	3.65	0.707
4	Using digital payment provides security insurance.	4.01	0.746
5	Secure when sending sensitive information via the Internet.	3.18	0.832
6	Secure transferring money via the Internet.	3.29	0.686
7	Digital payment system is secure.	3.34	0.693
8	The information relating to user and digital payment system transactions is secure.	3.44	0.651
9	The information provided in previous digital payment system is helpful for secure payment transactions.	3.41	0.648
10	Do not fear hacker invasions into digital payment system.	2.54	0.926

Source: Survey Data, 2022

As shown in Table (5.6), the mean of security ranged between 2.54 and 4.01. The highest mean was for “Using digital payment provides security insurance” and the lowest mean was for “Do not fear hacker invasions into digital payment system”. The digital payment is a way to make payment, so it is associated with financial transaction and currency amount. Thus, unethical person are trying to get money and hack the users’ accounts. Majority of users are willing to use the secured digital payment in order to perform the payment transactions confidentially.

### 5.2.6 Agreement Level of Adoption of Digital Payment

Mean and standard deviation of adoption of digital payment are shown as follow. Eight items of customers’ adoption factor are asked to respondents by using five-point likert scale.

**Table (5.7) Mean and Standard Deviation of Adoption of Digital Payment**

No.	Adoption of Digital Payment Measures	Mean	SD
1	Digital payment system is better than traditional payment channels.	3.70	0.662
2	Digital payment system is much more efficient than traditional payment channels.	3.80	0.604
3	Choosing the trusted digital payment system to make transaction.	3.76	0.607
4	A user-friendly digital payment system will influence to adopt the system.	3.44	0.776
5	Digital payment system can be easily understood and readily adopted.	3.75	0.584
6	Digital payment systems are better than cash.	3.76	0.659
7	Using digital payment is beneficial to users.	4.00	0.522
8	Having positive adoption about using digital payment system.	4.02	0.529

Source: Survey Data, 2022

According to the table above, the mean of adoption of digital payment measure range between 3.44 and 4.02. The highest mean was for “Having positive adoption about using digital payment system” and the lowest mean was for “A user-friendly digital payment system will influence to adopt the system”. Respondents perceived that digital payment is superiority, efficiency, safe and secured, convenient, cost and time savings, user friendly, easiness and protection of privacy for users. It can also be said that respondents get satisfaction in making payments by using digital payment. And they think digital payment is much more efficient than traditional payment system.

### 5.3 The Correlation Analysis of Variables

A Pearson Correlation analysis was performed to determine whether there was a statistically significant linear relationship between customers’ adoption and independent variables such as benefits, trust, self-efficacy, ease of use and security.

### **5.3.1 Correlation Analysis for Benefits, Trust, Self-efficacy, Ease of Use, Security and Adoption of Digital Payment**

Table (5.8) demonstrates the results of Pearson Correlation for benefits, trust, self-efficacy, ease of use, security and adoption of digital payment.

**Table (5.8) Correlation Analysis for Benefits, Trust, Self-efficacy, Ease of Use, Security and Adoption of Digital Payment**

No.	Independent Variables	Dependent Variable (Adoption of Digital Payment)	Sig (2-tailed)
1	Benefits	0.592**	0.000
2	Trust	0.602**	0.000
3	Self-efficacy	0.562**	0.000
4	Ease of Use	0.723**	0.000
5	Security	0.709**	0.000

Source: Survey Data, 2022

\*\*. Correlation is significant at the 0.01 level (2-tailed).

According to the Table (5.8), correlation coefficient between benefits and customers' adoption is 0.592 at the significant level at 1% level. Correlation coefficient between trust and customers' adoption is 0.602 at the significant level at 1% level. Correlation coefficient between self-efficacy and customers' adoption is 0.562 at the significant level at 1% level. Correlation coefficient between ease of use and customers' adoption is 0.723 at the significant level at 1% level. Correlation coefficient between security and customers' adoption is 0.709 at the significant level at 1% level.

Pearson correlation coefficient illustrates that there is positive relationship between independent variables (benefits, trust, self-efficacy, ease of use and security) and adoption of digital payment.

### **5.4 Multiple Regression Analysis**

Multiple regression analysis was applied to investigate the most influential factors on customers' adoption. To develop the multiple regression model, adoption of digital payment was used as dependent variable and benefits, trust, self-efficacy, ease of use and security were used as independent variables.

### 5.4.1 Multiple Regression Analysis on Benefits, Trust, Self-efficacy, Ease of Use, Security and Adoption of Digital Payment

The estimated multiple regression model;

$$Y = f(X_1, X_2, X_3, X_4, X_5)$$

In constructing the model, the variables are noted as:

$Y$  = Adoption of digital payment

$X_1$  = Benefits

$X_2$  = Trust

$X_3$  = Self-efficacy

$X_4$  = Ease of Use

$X_5$  = Security

**Table (5.9) Multiple Regression Analysis on Benefits, Trust, Self-efficacy, Ease of Use, Security and Adoption of Digital Payment**

Dependent Variable (Adoption of Digital Payment)	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	Beta	Std. Error	Beta			
Benefits	0.146	0.045	0.150*	3.259	0.001	1.633
Trust	0.049	0.033	0.072	1.342	0.181	2.210
Self-efficacy	-0.035	0.039	-0.047	-0.901	0.369	2.092
Ease of Use	0.355	0.045	0.429*	7.945	0.000	2.242
Security	0.312	0.042	0.399*	7.434	0.000	2.223
R <sup>2</sup>	0.699					
Adjusted R <sup>2</sup>	0.692					
F-value	107.654					

Source: Survey Data, 2022

\*. Indicate statistical significance at the 1% level,  $p<0.01$

According to Table (5.9), regression analysis is conducted with customers' adoption and the independent variables. From the coefficient table, the explanatory variables include in this study were not significantly suspected to multi co-linearity problem because all of the VIF values are less than 10. It is shown that the independent variables: benefits, ease of use and security are making a significant unique contribution to the prediction of customers' adoption of digital payment

$p=0.000$  ( $p<0.01$ ). The adjusted R square is 0.692 that reveals 69.2% of total variance in customers' adoption is explained by variation in independent variables. Result shows that F value is 107.654 that is significant at  $p=0.000$  ( $>0.01$ ).

The value of regression coefficient between benefits and customers' adoption is 0.150 ( $t = 3.259$ ,  $p = 0.001$ ). This shows that there is a positive relationship between benefits and customers' adoption at 1% level significant. The value of regression coefficient between trust and customers' adoption is 0.072 ( $t = 1.342$ ,  $p = 0.181$ ). This shows that there is a positive relationship between trust and customers' adoption but it is not significant. The value of regression coefficient between self-efficacy and customers' adoption is -0.047 ( $t = -0.901$ ,  $p = 0.369$ ). This shows that there is a negative relationship between self-efficacy and customers' adoption. The value of regression coefficient between ease of use and customers' adoption is 0.429 ( $t = 7.945$ ,  $p = 0.000$ ). This shows that there is a positive relationship between ease of use and customers' adoption at 1% level significant. The value of regression coefficient between security and customers' adoption is 0.399 ( $t = 7.434$ ,  $p = 0.000$ ). This shows that there is a positive relationship between security and customers' adoption at 1% level significant. Besides that, ease of use consider as main predictor that has the strongest influence on adoption of digital payment where the standardized beta is equal to 0.429, follow by security (0.399), benefits (0.150), trust (0.072) and lastly self-efficacy (-0.047).

According to the above results, benefit, ease of use and security are significantly associated with customers' adoption. Among them, ease of use is the most influential independent variables on customers' adoption. However, trust and self-efficacy are not significantly associated with customers' adoption of digital payment. Therefore, digital payment providers can foster and increase customers' adoption through benefit, ease of use and security.

## **5.5 Achieving of Hypothesis Testing**

Multiple regression analysis is conducted to examine the five independent variables; benefits, trust, self-efficacy, ease of use and security, significantly explain the adoption of digital payment among universities' employees of Sagang City. As a result, ease of use consider as main predictor that has the strongest influence on adoption of digital payment where the standardized beta is equal to 0.429, follow by security (0.399), benefits (0.150), trust (0.072) and lastly self-efficacy (-0.047).

A significant effect occurs in the linkage between ease of use and adoption of digital payment ( $\beta = 0.429$ ,  $p = 0.000$ ). Thus, hypothesis H<sub>4</sub>: ease of use has a positive effect on customers' adoption of digital payment, is accepted. Respondents may feel that they can be able to use digital payment easily, flexibly and less effort and the instruction for digital payment process are readily available.

A significant effect also occurs in the linkage between security and adoption of digital payment ( $\beta = 0.399$ ,  $p = 0.000$ ). Thus, hypothesis H<sub>5</sub>: security has a positive effect on customers' adoption of digital payment, is accepted. Digital payment providers can assure with customers that website is a safer and secure in performing payment transactions. This can be done through educating customers about safety and secure features availability of their secure transactions which web are safe to surf on with digital certificates and secure servers.

A significant effect also occurs in the linkage between benefits and adoption of digital payment ( $\beta = 0.150$ ,  $p = 0.001$ ). Thus, hypothesis H<sub>1</sub>: benefits has a positive effect on customers' adoption of digital payment, is accepted. Respondents agree with the facts that using digital payment save time and cost. And digital payment is convenient to use and faster than traditional payment systems. They also thought that digital payment gives a greater choice for them to send and receive payment.

There is no significant effect of trust on adoption of digital payment ( $\beta = 0.072$ ,  $p = 0.181$ ). Thus, hypothesis H<sub>2</sub>: trust has a positive effect on customers' adoption of digital payment, is rejected. This result indicates that trust is not related with the adoption of digital payment. Trust is not sufficient to motivate user to adopt digital payment due to other factors.

There is also no significant effect of self-efficacy on adoption of digital payment ( $\beta = -0.047$ ,  $p = 0.369$ ). Thus, hypothesis H<sub>3</sub>: self-efficacy has a positive effect on customers' adoption of digital payment, is rejected. The result shows that respondents cannot make payment transaction without trying themselves even though they have heard or seen someone else use digital payment. And they are not influenced by peers, friends, family, and other people who have experience in using the digital payment of their adoption of digital payment.

## 5.6 Summary

This chapter presents the analysis of the data collected in the research study. The empirical data used in this study is based on the questionnaires structured with

five-point Likert scale. SPSS package 25 is used to analyze the data. Results are presented in the form of tables. Results also highlight significant relationships and differences between the variables of study. From the data analysis, ease of use is the most influential independent variable and self-efficacy is the least influential independent variable on customers' adoption.

## CHAPTER 6

### CONCLUSION

This research aims to analyze the determinants of customers' adoption of digital payment. This chapter aims to summarize the findings and results that have emerged from the data analysis presented in chapter five. This chapter presents the findings and discussion, contributions and recommendations and needs for further study based on the findings.

#### 6.1 Findings and Discussion

The study is interesting to examine these factors due to the intriguing developments that are currently taking place, more so on the prediction that using digital payments will grow at a significant rate within the next few years. The findings will identify significant factors to formulate appropriate strategies for promoting digital payment usage among people. In addition, banking institutions, online transaction facility providers, and software developer firms will be understand customers' concerns and issues when using digital payment according to the result. It provides insights which will lead to wider digital payment acceptance and use in the country.

In accordance with the demographic factors, most respondents are female and single. Most respondents are graduated and all respondents are applying digital payments to do fund transfer to their beloved and mostly used to top up bill. According to the descriptive analysis, the majority of the respondents are using digital payment at least once a month. Digital payment is an easy way to make payment transactions online, so respondents are using this system to make their payment. All respondents are likely to use digital payment because it can save time and costs. The more the digital payment has the good reputation, the more people plan to use this digital payment. According to the result, there are seven types of digital payment that are used in selected universities of Sagaing City. They are KBZPay, MytelPay, WavePay, AYAPay, CBPay, OnePay and OKDollar. Among them, KBZPay is the mainly used digital payment among employees and followed by WavePay, MtelPay, AYAPay, CBPay, OnePay and OKDollar. So it can be concluded that KBZPay is the safest digital payment among others digital payment available in Myanmar. Respondents make a lot of transactions like fund transfer, balance inquiry, top up bill, fund withdrawal etc.

According to the result of Pearson Correlation coefficient, it illustrates that there is a very strong positive relationship between ease of use and security and customers' adoption of digital payment. There is a strong positive relationship between benefit, trust and self-efficacy and customers' adoption of digital payment.

According to the results, multiple regression is analyzed with customers' adoption of digital payment and five independent variables. The adjusted R square of the independent variables states that 69.2% of total variance in customers' adoption of digital payment is explained by independent variables. Result shows that F value is 107.654 that is significant at  $p=0.000 (<0.01)$ . According to the results, benefit, ease of use and security are positively associated with customers' adoption. Also, benefit, ease of use and security among independent variables are the most influential independent variables on customers' adoption.

Ease of use is the most influence factor among benefit, trust, self-efficacy, ease of use and security on customers' adoption of digital payment. Digital payment users can easily understand the structure and contents of website and the digital payment process clearly. Digital payment providers should maintain and improve the level of ease of use to attract more customers to use digital payment.

The second influence factor is security. Customers perceived that information provided by digital payment were reliable, financial risk associated with payment transactions could be reduced. In addition, customers would like to use digital payment that provide security insurance and is protected by the latest know-how. But they feared hackers' invasions into their accounts, so digital payment providers should always update their security mechanism of the system in order to protect from hackers' invasions.

Benefit also influences customers' adoption of digital payment. Customers get a lot of advantages from digital payment. Customers thought that digital payment can easily handle the process of billing and payment transactions faster than traditional payment system and users perceived that using digital payment no need to go out with cash. Thus, customers believed that using digital payment is the best choice for merchant and them.

Self-efficacy is one of the factors that analyze the customers' adoption of digital payment. Theoretically, it should be positive relationship between self-efficacy and customers' adoption. According to the Appendix F, the value of standard error 0.39 is greater than the value of beta 0.35. But, self-efficacy is negatively associated

with customers' adoption in this study. Besides, it can be a sampling error. So, self-efficacy does not influence on customers' adoption of digital payment. Thus, digital payment providers should endeavor that customers to be familiar with their digital payment by advertising on public platform and celebrating events and campaign. Digital payment providers should create their products features with the simple ways and steps to transact digital payment process easily for customers.

Trust also does not influence on customers' adoption of digital payment. Customers felt like their information requested for the transactions are not secured when sending to the system, there had no guarantee for their privacy, participants in digital payment would be fraud to them and digital payment had poor security mechanisms. Therefore, digital payment providers should pay attention to the trust factor to make satisfied customers as their needs and wants. Digital payment providers should improve the security mechanism to be sound in order to protect the invasion of customers' privacy and transactions fraud. In addition, they should try to reduce the risk associated with digital payment transactions such as customers neither withdraw nor transfer money as much as they want.

As a result, ease of use consider as main predictor that has the strongest influence on adoption of digital payment follow by security, benefits, trust and lastly self-efficacy. Benefits, ease of use and security are significantly associated with customers' adoption of digital payment and trust and self-efficacy are not significantly associated with customers' adoption of digital payment. Thus, proposed hypothesis ( $H_1$ ,  $H_4$  and  $H_5$ ) are accepted and  $H_2$  and  $H_3$  are rejected. Digital payment providers can foster and increase customers' adoption of digital payment through benefit, ease of use and security. They should also emphasize on trust and self-efficacy of customers.

The results show that usage of digital payment is growing and this study guides the digital payment providers for more improvement of the services to be provided in efficient ways. The study is based on benefits, trust, self-efficacy, ease of use and security. Among them, benefits, ease of use and security have a significant impact on customers' adoption of digital payment. But trust and self-efficacy does not have a significant impact on customers' adoption of digital payment although the result presents the high correlation. The results of this study can be used as a reference to encourage the usage of digital payment, allowing provider to understand the

customers' adoption and improve their products more secured and easy to use by users through this research and better understand their needs and wants.

## **6.2 Contributions and Recommendations**

The research study analyzed the determinants of customers' adoption of digital payment. The multiple regression analysis shows that benefits, ease of use and security are significantly associated with customers' adoption of digital payment. But, trust and self-efficacy are not significantly associated with customers' adoption of digital payment although the correlation coefficient results show otherwise. This means that trust and self-efficacy need further investigation. This study also provides digital payment providers to understand the customers' adoption of digital payment and customers' basic needs and requirements that can lead to increase the usage of digital payment.

### **6.2.1 Managerial Implications**

According to the answers from the questionnaires of this research paper and the researcher's observation, this study analyses five factors (benefit, trust, self-efficacy, ease of use and security). The multiple regression results show that benefits, ease of use and security have a significant positive impact on customers' adoption of digital payment, so that they can be thought as the key antecedents influencing the customers' adoption in using digital payment. Digital payment providers should consider these characteristics in making enhancement of the current digital payment system. AYA Pay and CB Pay are the least adoption of digital payment by users. So they should arrange awareness campaign at the private businesses, the public places like universities, colleges and government departments etc., in order to literate public about the benefits of their products. Digital payment providers have to increase its advertising in television media and sponsor TV programs in order to increase the awareness to the general public. And digital payment providers should go to the customers and enquire about their requirements and problems they face. All government department and offices should involve at all levels of the country to improve the awareness and promote digital payment.

Ease of use was the most influence factors among these factors on customers' adoption of digital payment. Digital payment providers should maintain and improve the level of ease of use to attract potential customers to use digital payment. They should upgrade the services and provide their services with advanced features. They

should make for customers to perform payment transactions at any time and should make convenient for any kind of users. Security also plays an important role in the scope of the internet-based business, so digital payment providers should always update the security system.

Although trust and self-efficacy were not significant, trust has positive relationship and self-efficacy has negative relationship with customers' adoption. According to the current situation of Myanmar, there were happened many cases such as internet connection are poor and in some place completely cut out. In addition to these situations, their accounts have been invaded by hackers due to the poor function of digital payment security system. Thus, digital payment providers should effectively and efficiently handle by reporting their situations and linking to the government for the best solution. Customers prefer to use products from trustworthy providers. In this digital payment services, it should be able to reduce the level of risk in order to get trust from customers and must be improved the service even though the service has started to be better as compared to previous years. Digital payment providers should also provide the best upgrade security systems and IT control system to protect customers' privacy well. Nowadays, some of the digital payment providers emphasize on the digital payment security systems to retain trust from customers like upgrading the level of digital payment account. So other digital payment providers should also pay attention to their security systems. The policy makers, banking institutions, online transaction facility providers, and software developers all play an important role in order to guarantee the trustworthiness of the systems.

The result of self-efficacy point out that customer really needs to be educated to use the various kinds of digital payment. Most people cannot use digital payment like a pro because they are not familiar with digital technology and the internet. Digital payment providers should inform and educate customers about terms and conditions for payment, guarantee, and policy and security system of their digital payment. And they should also create the features of their products in the common language to be easy to use. By creating their products features with common language or Burmese, users can understand the transaction steps and easily use their products with few barriers. The payment transactions were difficult for customers to understand, and there was an unexpected delay in transaction processing. Therefore, digital payment providers should not only address this issue but also expedite the

payment transaction process. And then digital payment providers can foster and increase customers' adoption of digital payment.

### **6.2.2 Literature Implications**

This research can be applied as a roadmap to continuously improve the strengths, further improve the weaknesses of the digital payment system based on the research findings and to develop the appropriate strategies for the enhancement of digital payment services. It was found out that prior researchers focused on customer intention and attitudes towards the usage of digital payment and a few research on customers' adoption of digital payment. Therefore, this research focused on these prevailing research gaps in this field. And other researchers can be applied this research study as a reference for the further research on customers' adoption of digital payment.

The research findings show that benefits, ease of use and security are significantly associated with customers' adoption of digital payment. And trust and self-efficacy are not significantly associated with customers' adoption of digital payment. The results of the prior research show that trust is not significantly associated with customers' adoption of digital payment and now this research also found that trust is not significantly associated with. It can be found that political and economic changes in Myanmar have a negative impact on trust of digital payment. It is because digital payment users experienced the causes that they become worried about the waste of the money in their digital payment accounts, they cannot pay for the goods and services they buy and other payment etc. from their digital payment accounts. Therefore their trust on digital payment is suddenly slow down. According to the continuous development usage of digital payment, digital payment provider should find the government organizations related with their business like central bank and Ministry of Science and Technology for IT control to guarantee the security level of digital payment and to enhance trust of customers. In addition to this, digital payment providers should investigate and handle well the security and IT concerns with customers.

In this research, self-efficacy is also not significantly associated with customers' adoption of digital payment. In the demographic analysis, the education levels of most respondents are graduated and most respondents are not familiar with digital technology. And this study focused on digital payment. Therefore, they have

experienced barriers such as language and technological methodology in performing payment transactions. Thus, self-efficacy of the respondents on digital payment fell down. To improve the level of self-efficacy, the features and the language of the digital payment application should be design with the easy way and the steps of payment transaction should be reduced as much as possible to perform payment transactions easily and quickly. And digital payment in Myanmar is just developing and regulations are still weak. Therefore, government regulators, banking institutions, other financial technological institutions etc. should play in digital payment to encourage the growth of digital payment in Myanmar.

### **6.3     Needs for Further Study**

The future research should conduct in the other universities of Sagaing City since this research is only conducted in selected two universities of Sagaing City with sample size of 238, and the sample is only for experienced people in digital payment. A larger sample size is needed to be representative in order to equal the sample mean to the population mean. Therefore, future research is recommended that a larger sample size is needed to draw to generate a more accurate and representative manners. As there can have different results on customers' adoption of digital payment, future study should be investigated in other universities of Sagaing City, government office and wards and quarters of Sagaing City, the whole Sagaing District and other fields of the country. In addition to analyzing customers' adoption, future research should analyze the gap between customers' expectation and customers' experiences as a gap analysis in order to facilitate the improvement of digital payment. This study identifies the customers' adoption of digital payment via benefit, trust, self-efficacy, ease of use and security. There are still many factors that can influence on customers' adoption such as compatibility, usefulness, technology literacy, subjective norms and so on. So in future, which factors can influence customers' adoption and how to encourage the usage of digital payment should be studied.

## References

Alyabes, A. F., & Alsalloum, O. (2018). Factors affecting consumers' perception of electronic payment in Saudi Arabia. King Saud University, Riyadh, Saudi Arabia. *European Journal of Business and Management*, 10(27), 36-45.

Aryal, S. (2021). Factors Affecting Consumers' Perception on Electronic Payment System. Tribhuvan University, Lumbini Banijya Campus, Butwal. *The Lumbini Journal of Business and Economics*, 9(1-2), 86-99.

Chen, J. Z. (2020). *A Case Study Taiwanese's Perception on Electronic Payments* (Master's thesis). Wenzao Ursuline University of Languages, Taiwan.

Coskun, M., Saygili, E., & Karahan, M. O. (2022). Exploring Online Payment System Adoption Factors in the Age of COVID-19—Evidence from the Turkish Banking Industry. Yasar University, Izmir 35100, Turkey. *International Journal of Financial Studies*, 10(2), 39.

Ghrbeia, S. (2020). *Customer Perception towards the Digital Payment* (Master's thesis). Near East University, Libya.

Goh, S. W. (2017). *Factors affecting adoption of e-payment among private university students in Klang Valley* (Doctoral dissertation, UTAR). Universiti Tunku Abdul Rahma, Klang Valley.

Kulathunga, D., & Ekanayake, K. W. (2019). Antecedents to Adoption of Electronic Payment Systems in Sri Lanka. University of Sri Jayewardenepura Nugegoda, Sri Lanka. *Scientific Research Journal (SCIRJ)*.

Matarneh, O. (2016). *Factors Influencing Intention (s) to Use Electronic Payment Systems: The Case of North Cyprus* (Master's thesis). Eastern Mediterranean University (EMU).

Naing, Z. M. (2019). *Merchant Perception on Adoption of Cashless Payment System in Sawbawgyigone Wholesale Market* (Master's thesis). Yangon University of Economics, Myanmar.

Najdawi, Z. C., & Said, R. (2021). Factors impacting digital payment adoption: An empirical evidence from Smart City of Dubai. Amity University, Dubai. *Advances in Science, Technology and Engineering Systems Journal*, 6(1), 1208-1214.

Phyo, C. Z. (2019). *Factors Influencing User Adoption of E-Payment Services of KBZ Bank* (Master's thesis). Yangon University of Economics, Myanmar.

Purba, J.T., Samuel, S., & Budiono, S. (2021). Collaboration of digital payment usage decision in COVID-19 pandemic situation: Evidence from Indonesia. Universitas Pelita Harapan, Tangerang, Banten Indonesia. *International Journal of Data and Network Science*, 5(4), 557-568.

Roseli, N. H. M., Azhar, N. H. N., Sauid, M. K., Hasan, Z., & Othman, Y. (2021). Factors Influencing Consumers' Perception towards Mobile Payment Usage in Malaysia. Universiti Teknologi MARA, Cawangan Melaka, Malaysia. *International Journal of Small and Medium Enterprises*, 4(1), 26-34.

Teoh, W., Chong, S., & Lin, B. (2013). Factors affecting consumers' perception of electronic payment: an empirical analysis. Multimedia University, Malaysia. *Internet Research*, 23(4), 465-485.

Timilsina, S. (2020). User Perception on Electronic Payment Services in Kathmandu Valley. Andhra University, Visakhapatnam, India. *NRB Economic Review*, 32(1), 1-14.

Tu, N. V. (2019). *Factors influencing consumers' intention to adopt mobile wallet in Ho Chi Minh City* (Master's thesis). University of Applied Sciences, Vietnam.

## Appendix-A

### Questionnaires

#### Part (1) Demographic profile

The following questions are asking your views towards the digital payment. Data are collected only for my research paper. I am thankful of your patient participation of answering the questions below.

##### 1. Gender

- Male
- Female

##### 2. Marital Status

- Single
- Married
- Divorce
- Widow

##### 3. Education Level

- Undergraduate
- Graduate
- Master
- PhD

Other \_\_\_\_\_

##### 4. Which types of digital payment are you using now?

- KBZPay
- MytelPay
- WavePay
- AYA Pay

CB Pay

Other \_\_\_\_\_

##### 5. Which types of financial transactions do you often make?

- fund transfer
- balance inquiry
- bill payment
- savings

cash withdrawal

another periodical payment

**Part (2) Evaluate the determinants of customers' adoption of digital payment among universities' employees of Sagaing City.**

Please indicate the extent to which you agreed or disagreed by ticking each statement using 5 points Likert scale. 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree

No	Statements	1	2	3	4	5
	<b>Benefits</b>					
1	It saves time and cost for using digital payment system.					
2	Digital payment system is convenient to use.					
3	The billing and transaction process are accurately handled.					
4	Speed of digital payment system flow is faster than traditional payment system.					
5	It is easier to conduct financial transaction.					
6	Digital payment system offers a greater choice for consumer and merchant in the way they send and receive payment.					
7	Digital payment can make transaction at any time.					
8	Using digital payment system no need to go out with cash.					
	<b>Trust</b>					
1	Digital payment system has the ability to protect privacy.					
2	Digital payment system will not lead to transaction fraud.					
3	Confidential information is delivered safely to customers.					
4	The risk associated with digital payment system is low.					
5	Paying online will be safe and secure.					
6	While making payment transactions online, it is safe when sending sensitive information requested for the transaction.					
7	Sites will not disclose any information to a third party without users' permission.					
8	Privacy is guaranteed for sites.					
9	Online payment transactions can be trusted as a physical payment.					
10	Trust each participant, such as seller and buyer, involved in					

	digital payment system.				
11	Trust the security mechanisms of digital payment system.				
12	Trust digital payment system services.				
13	Trust the information provided during the digital payment system process.				
	<b>Self-Efficacy</b>				
1	Using digital payment system only with a heard.				
2	The comments of other people will influence intention to use digital payment system.				
3	Use digital payment system when friends introduce it.				
4	If there are directions in the system about how to make transactions, it can be made payments online.				
5	Making payment online by seeing someone else use it before trying to use.				
6	Making online payment without performing a transaction before.				
7	Complete online transaction using the digital payment system, if there was no one around to tell what to do.				
8	Using digital payment system well if wanted to.				
9	Using the digital payment system well for any financial transactions				
10	Using digital payment system would be entirely within control.				
11	Having the resources, knowledge and ability to use digital payment system.				
	<b>Ease of Use</b>				
1	The structure and contents of the web site are easy to understand.				
2	Learning to use digital payment is easy.				
3	The online payment process is clear and understandable.				
4	Easily perform transactions such as shopping, public payments				
5	Easy to complete payment transactions online.				

6	It is easy to adapt to paying online.				
7	Flexible in performing digital payment.				
8	Less effort is needed when perform digital payment.				
9	Design of website is friendly for using.				
10	There are instruction manuals available for using digital payment system.				
<b>Security</b>					
1	Most digital payment provides adequate payment security.				
2	Digital payment has minimum financial risk.				
3	Using digital payment when the software is protected by the latest know- how.				
4	Using digital payment provides security insurance.				
5	Secure when sending sensitive information via the Internet.				
6	Secure transferring money via the Internet.				
7	Digital payment system is secure.				
8	The information relating to user and digital payment system transactions is secure.				
9	The information provided in previous digital payment system is helpful for secure payment transactions.				
10	Do not fear hacker invasions into digital payment system.				
<b>Adoption of digital payment</b>					
1	Digital payment system is better than traditional payment channels.				
2	Digital payment system is much more efficient than traditional payment channels.				
3	Choosing the trusted digital payment system to make transaction.				
4	A user-friendly digital payment system will influence to adopt the system.				
5	Digital payment system can be easily understood and readily adopted.				
6	Digital payment systems are better than cash.				
7	Using digital payment is beneficial to users.				
8	Having positive adoption about using digital payment system.				

Source: Wendy, Binshan and Chong (2013), Melih, Ebru and Karahan (2022), Jarollahi (2013), Wei (2017)

## Appendix-B

### Demographic Factors

#### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	37	15.5	15.5	15.5
	female	201	84.5	84.5	100.0
	Total	238	100.0	100.0	

#### Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	single	134	56.3	56.3	56.3
	married	104	43.7	43.7	100.0
	Total	238	100.0	100.0	

#### Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate	10	4.2	4.2	4.2
	Graduate	132	55.5	55.5	59.7
	Master	76	31.9	31.9	91.6
	Ph.D	8	3.4	3.4	95.0
	Other	12	5.0	5.0	100.0
	Total	238	100.0	100.0	

#### Types of DP KBZPay

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	KBZ Pay	176	73.9	100.0	100.0
Missing	System	62	26.1		
Total		238	100.0		

#### Types of DP MytelPay

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mytel Pay	37	15.5	100.0	100.0
Missing	System	201	84.5		
Total		238	100.0		

### Types of DP WavePay

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	WavePay	69	29.0	100.0	100.0
Missing	System	169	71.0		
Total		238	100.0		

### Types of DP AYA Pay

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AYA Pay	8	3.4	100.0	100.0
Missing	System	230	96.6		
Total		238	100.0		

### Types of DP CB Pay

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CB Pay	9	3.8	100.0	100.0
Missing	System	229	96.2		
Total		238	100.0		

### Types of DP Others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other	24	10.1	100.0	100.0
Missing	System	214	89.9		
Total		238	100.0		

### Cash Transaction Remittance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remittance	147	61.8	100.0	100.0
Missing	System	91	38.2		
Total		238	100.0		

### Cash Transaction Balance Inquiry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Balance inquiry	76	31.9	100.0	100.0
Missing	System	162	68.1		
Total		238	100.0		

### Cash Transaction Bills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bills	203	85.3	100.0	100.0
Missing	System	35	14.7		
Total		238	100.0		

### Cash Transaction Savings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Savings	26	10.9	100.0	100.0
Missing	System	212	89.1		
Total		238	100.0		

### Cash Transaction Withdrawl

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Withdrawl	68	28.6	100.0	100.0
Missing	System	170	71.4		
Total		238	100.0		

### Cash Transaction Other monthly payment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other monthly payment	19	8.0	100.0	100.0
Missing	System	219	92.0		
Total		238	100.0		

## Appendix-C

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.851	.861	8

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.841
Bartlett's Test of Sphericity	804.062
df	28
Sig.	.000

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.906	.907	13

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.881
Bartlett's Test of Sphericity	1518.122
df	78
Sig.	.000

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.829	.833	11

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.818
Bartlett's Test of Sphericity	889.384
df	55
Sig.	.000

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.890	.896	10

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.910
Bartlett's Test of Sphericity	Approx. Chi-Square df	1146.969 45
	Sig.	.000

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.859	.868	10

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.850
Bartlett's Test of Sphericity	Approx. Chi-Square df	1275.772 45
	Sig.	.000

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.917	8

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.863
Bartlett's Test of Sphericity	Approx. Chi-Square df	3258.266 28
	Sig.	.000

## Appendix-D

### Item Statistics

	Mean	Std. Deviation	N
Benefits 1	4.08	.701	238
Benefits 2	3.95	.590	238
Benefits 3	4.06	.744	238
Benefits 4	4.03	.639	238
Benefits 5	3.92	.680	238
Benefits 6	3.87	.622	238
Benefits 7	3.66	.856	238
Benefits 8	3.81	.835	238

### Item Statistics

	Mean	Std. Deviation	N
Trust 1	3.37	.750	238
Trust 2	3.13	.841	238
Trust 3	3.54	.709	238
Trust 4	3.28	.682	238
Trust 5	3.39	.696	238
Trust 6	3.08	.791	238
Trust 7	3.70	.668	238
Trust 8	3.35	.723	238
Trust 9	3.57	.694	238
Trust 10	3.35	.729	238
Trust 11	3.42	.636	238
Trust 12	3.51	.600	238
Trust 13	3.48	.667	238

### Item Statistics

	Mean	Std. Deviation	N
Self-efficacy 1	3.16	.731	238
Self-efficacy 2	3.32	.739	238
Self-efficacy 3	3.24	.859	238
Self-efficacy 4	3.62	.681	238
Self-efficacy 5	3.04	.940	238
Self-efficacy 6	3.35	.763	238
Self-efficacy 7	3.45	.839	238
Self-efficacy 8	3.83	.727	238
Self-efficacy 9	3.53	.756	238
Self-efficacy 10	3.57	.758	238
Self-efficacy 11	3.53	.679	238

**Item Statistics**

	Mean	Std. Deviation	N
Ease of Use 1	3.57	.670	238
Ease of Use 2	3.83	.573	238
Ease of Use 3	3.81	.613	238
Ease of Use 4	3.92	.698	238
Ease of Use 5	3.78	.620	238
Ease of Use 6	3.81	.606	238
Ease of Use 7	3.88	.584	238
Ease of Use 8	3.89	.823	238
Ease of Use 9	3.63	.673	238
Ease of Use 10	3.34	.711	238

**Item Statistics**

	Mean	Std. Deviation	N
Security 1	3.41	.680	238
Security 2	3.06	.862	238
Security 3	3.65	.707	238
Security 4	4.01	.746	238
Security 5	3.18	.832	238
Security 6	3.29	.686	238
Security 7	3.34	.693	238
Security 8	3.44	.651	238
Security 9	3.41	.648	238
Security 10	2.54	.926	238

**Item Statistics**

	Mean	Std. Deviation	N
Adoption 1	3.70	.662	238
Adoption 2	3.80	.604	238
Adoption 3	3.76	.607	238
Adoption 4	3.44	.776	238
Adoption 5	3.75	.584	238
Adoption 6	3.76	.659	238
Adoption 7	4.00	.522	238
Adoption 8	4.02	.529	238

## Appendix-E

		Correlations					
		MA	MBenefit	MTrust	MSE	MeanEU	MS
MA	Pearson Correlation	1	.592 <sup>**</sup>	.602 <sup>**</sup>	.562 <sup>**</sup>	.723 <sup>**</sup>	.709 <sup>**</sup>
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	238	238	238	238	238	238
MBenefit	Pearson Correlation	.592 <sup>**</sup>	1	.463 <sup>**</sup>	.428 <sup>**</sup>	.582 <sup>**</sup>	.449 <sup>**</sup>
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	238	238	238	238	238	238
MTrust	Pearson Correlation	.602 <sup>**</sup>	.463 <sup>**</sup>	1	.550 <sup>**</sup>	.479 <sup>**</sup>	.704 <sup>**</sup>
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	238	238	238	238	238	238
MSE	Pearson Correlation	.562 <sup>**</sup>	.428 <sup>**</sup>	.550 <sup>**</sup>	1	.662 <sup>**</sup>	.554 <sup>**</sup>
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	238	238	238	238	238	238
MeanEU	Pearson Correlation	.723 <sup>**</sup>	.582 <sup>**</sup>	.479 <sup>**</sup>	.662 <sup>**</sup>	1	.509 <sup>**</sup>
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	238	238	238	238	238	238
MS	Pearson Correlation	.709 <sup>**</sup>	.449 <sup>**</sup>	.704 <sup>**</sup>	.554 <sup>**</sup>	.509 <sup>**</sup>	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	238	238	238	238	238	238

\*\*. Correlation is significant at the 0.01 level (2-tailed).

## Appendix-F

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	MS, MBenefit, MSE, MTrust, MeanEU <sup>b</sup>	.	Enter

a. Dependent Variable: MA

b. All requested variables entered.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.836 <sup>a</sup>	.699	.692	2.15247

a. Predictors: (Constant), MS, MBenefit, MSE, MTrust,

MeanEU

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2493.870	5	498.774	107.654	.000 <sup>b</sup>
	Residual	1074.886	232	4.633		
	Total	3568.756	237			

a. Dependent Variable: MA

b. Predictors: (Constant), MS, MBenefit, MSE, MTrust, MeanEU

### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	1.348	1.329	1.015	.311		
	MBenefit	.146	.045	.150	3.259	.001	.612 1.633
	MTrust	.044	.033	.072	1.342	.181	.452 2.210
	MSE	-.035	.039	-.047	-.901	.369	.478 2.092
	MeanEU	.355	.045	.429	7.945	.000	.446 2.242
	MS	.312	.042	.399	7.434	.000	.450 2.223

a. Dependent Variable: MP

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	MBenefit	MTrust	MSE	MeanEU	MS
1	1	5.957	1.000	.00	.00	.00	.00	.00	.00
	2	.014	20.423	.13	.10	.16	.00	.04	.23
	3	.010	24.299	.12	.16	.04	.48	.08	.02
	4	.008	26.884	.73	.44	.00	.01	.05	.00
	5	.006	31.030	.02	.01	.69	.04	.02	.73
	6	.005	35.711	.00	.29	.10	.47	.81	.02

a. Dependent Variable: MA