

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

**USER SATISFACTION AND USER PERFORMANCE OF
CHEQUE TRUNCATION SYSTEM IN KBZ BANK**

THIRI THAUNG HTIKE

ROLL NO. 61

MBF (DAY) 3rd BATCH

FEBRUARY, 2023

USER SATISFACTION AND USER PERFORMANCE OF CHEQUE TRUNCATION SYSTEM IN KANBAWZA BANK

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

Supervised by

Dr. Thynn Thynn Myint
Professor
Department of Commerce
Yangon University of Economics

Supervised by

Thiri Thaung Htike
Roll No. 61
MBF (Day) 3rd Batch

FEBRUARY, 2023

ACCEPTANCE

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

BOARD OF EXAMINERS

.....

Prof. Dr. Tin Tin Htwe

(Chairman)

Rector

Yangon University of Economics

.....

(Supervisor)

Dr. Thynn Thynn Myint

Professor

Department of Commerce

Yangon University of Economics

.....

(Examiner)

Dr. Tin Tin Htwe

Professor / Head

Department of Commerce

Yangon University of Economics

.....

(Examiner)

Dr. Aye Thanda Soe

Professor

Department of Commerce

Yangon University of Economics

.....

(Examiner)

Dr. May Su Myat Htway Aung

Professor

Department of Commerce

Yangon University of Economics

February, 2023

ABSTRACT

The purpose of this study is to find out the user satisfaction and user performance of cheque truncation system in Kanbawza Bank. This study used the quantitative research method. There are 70 users using the cheque truncation system in KBZ Bank. The primary data were selected 50 users with simple random sampling method using structured questionnaires. Secondary data includes KBZ Bank and CBM records, previously published papers, earlier research papers, relevant text books and international studies through internet websites. This study analyzes three factors (system quality, information quality, and ease of use) of the cheque truncation system. According to the findings of multiple regression analysis, system quality and ease of use have a significant effect on user satisfaction. The study showed that system quality has the greatest impact on user satisfaction. As a result, KBZ Bank's responsible persons should investigate the user satisfaction and user performance of the existing information system in the bank such as core banking system, printing system, etc. The management should also analyze the system quality, information quality and ease of use of information system before buying new information system in the future. This study also investigates the user performance of cheque truncation system with linear regression analysis. The user satisfaction has a significant effect on user performance. It is suggested that the banks continuously upgrade their information technology, not only to provide their service with a minimum amount of time to solve some inconveniences but also to increase user performance and fulfill consumer needs for the clearing process.

ACKNOWLEDGEMENTS

After completing this research paper, I would like to express my heartfelt gratitude to everyone who participated and helped me in various ways before, during, and after the study's preparation.

First and foremost, I would like to express my sincere appreciation to Prof. Dr. Tin Tin Htwe, the Rector of Yangon University of Economics, for the generous opportunity to participate in this Executive Master of Banking and Finance Programme.

Second, I would like to thank Prof. Dr. Tin Tin Htwe, Programme Director and Head of the Department of Commerce at the Yangon University of Economics, for her kind effort, valuable support, and encouragement to our Master of Banking and Finance program.

Third, I would like to express my deepest appreciation with a lot of to my supervisor, Prof. Dr. Thynn Thynn Myint, Professor, Department of Commerce, Yangon University of Economics, for her invaluable guidance, support, patience, support, and opinions from the beginning to the end of its completion.

Furthermore, I would like to thank all of the professors, associate professors, Lectures, and classmates who have shared their knowledge and time with me during this thesis period.

In addition, I would like to thank the management team, CBM-Net CTS operation team, Technology Function (Support and Operation Section) and all KBZ Bank respondents in my organization for their honesty, participation, and supervision, which enable this study to be completed.

TABLE OF CONTENTS

	Page
ABSTRACT	i
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF ABBREVIATIONS	vii
CHAPTER I INTRODUCTION	1
1.1 Rationale of the Study	2
1.2 Objectives of the Study	5
1.3 Scope and Method of the Study	5
1.4 Organization of the Study	5
CHAPTER II THEORETICAL BACKGROUND OF THE STUDY	6
2.1 Theory and Model of Information System	6
2.2 Influencing Factors of User Satisfaction	8
2.3 Previous Study	12
2.4 Conceptual Framework of the Study	14
CHAPTER III PROFILE OF KBZ BANK & CHEQUE CLEARING	17
3.1 Overview of Payment and Settlement in Myanmar	17
3.2 Clearing System Development in Myanmar	19
3.3 Profile of KBZ Bank	24
3.4 Product and Services of KBZ Bank	25
3.5 Cheque Truncation System of KBZ Bank	28
3.6 Process of Cheque Truncation System in KBZ Bank	30

CHAPTER IV ANALYSIS OF USER SATISFACTION AND USER PERFORMANCE OF CHEQUE TRUNCATION SYSTEM	34
4.1 Research Design	35
4.2 Demographic Profile of Respondents	36
4.3 Reliability Test for Study Variables	37
4.4 Descriptive Analysis on the Factors Influencing User Satisfaction and User Performance of Cheque Truncation System	38
4.5 Analysis of Factors Influencing User Satisfaction of Cheque Truncation System in KBZ Bank	45
4.6 Analysis of the Effect of User Satisfaction with the Cheque Truncation System on User Performance in KBZ Bank	48
CHAPTER V CONCLUSION	50
5.1 Findings and Discussions	50
5.2 Suggestions and Recommendations	52
5.3 Needs for Further Study	53
REFERENCES	
APPENDIX	

LIST OF TABLES

Table No.	Title	Page
3.1	Cheque Clearing Settlement amount Banks in Myanmar (FY 2019 -2020)	18
4.1	Demographic Information of Respondents	35
4.2	Rules of Thumb for Alpha Result	37
4.3	Reliability Test of the Constructed Variables	37
4.4	Average Mean Score Level	38
4.5	User Perception on System Quality	38
4.6	User Perception on Information Quality	40
4.7	User Perception on Ease of Use	42
4.8	Summary of Overall Mean Value	43
4.9	User Satisfaction of Cheque Truncation System in KBZ Bank	43
4.10	User Performance of Cheque Truncation System in KBZ Bank	44
4.11	Correlation Analysis of User Satisfaction	45
4.12	Regression Analysis of User Satisfaction	46
4.13	Regression Analysis of User Performance	48

LIST OF FIGURES

Figure No.	Title	Page
2.1	Technology Acceptance Model (TAM)	7
2.2	Information Success Model	8
2.3	Users Attitudes toward Electronic Cheque Clearing System	12
2.4	User Satisfaction and Individual Performance of E-Procurement System	13
2.5	Influence of Cheque Truncation System Project on Financial Performance of Kenyan Commercial Banks	14
2.6	Conceptual Framework of the Study	15
3.1	Daily Time Schedule of Cheque Clearing before Using CBM-Net CTS	22
3.2	Daily Time Schedule of Cheque Clearing Using CBM-Net CTS	23
3.3	Process of Cheque Truncation System in KBZ Bank	31

LIST OF ABBREVIATIONS

CBM	-	Central Bank of Myanmar
CBM-Net CTS	-	Central Bank of Myanmar Financial Network System Cheque Truncation System
CTS	-	Cheque Truncation System
ECCS	-	Electronic Cheque Clearing System
IT	-	Information Technology
KBZ	-	Kanbawza Bank
MCH	-	Mechanical Clearing House
MICR	-	Magnetic Ink Characters
RTGS	-	Real-Time Gross Settlement
SPSS	-	Statistical Packages of the Social Science

CHAPTER I

INTRODUCTION

Nowadays, innovation of technology is rapidly improving in the banking system. The banks are now changing the way of providing services from manual to automatic. The fundamental requirement for the country's development is directly related with financial sector development. The expansion of e-commerce and the development of electronic payment systems are directly related, as demonstrated by (Papameletiou, 1999). The government urges businesses and banks to use innovative products and services by using technology.

Technology is the understanding of and use of systems, tools, procedures, and products that generate or create commodities and services. In reality, human assistance comes from the application of knowledge and skills (Khalil, 2000). One of the main economic growth drivers are regarded to be innovations in the service sector (Morrar, 2014). All organizations, private or public, in manufacturing or services industries use various forms of Technology to support their operations.

The banking sector in many parts of the world today is increasing competition for customers. In order to get competitive advantages than other banks, the bank should be adopted new technologies that enable operational efficiency. Innovation is the institution's capacity to discover what is new and to implement it more quickly than its rivals in the market (Nadler, 1990). The government also encourages the banks to improve the payment and settlements among the banks to meet the changes in banking channels. The development countries mostly use the electronic based payments and settlement process. The US, Hong Kong, Singapore and several developed countries implemented cheque truncation system to improve and develop the cheque clearing process.

The Union of Myanmar is one of the developing countries in the world. In Myanmar, basic financial transactions heavily relied on cash. That is one of the barriers to the financial development of the country (Sun, 2017). Mostly, dominating cash in financial transactions can slow economic development, reduce the living standards of citizens, and increase transaction costs. Heavily relying on cash cannot create opportunities. In Myanmar, wage payments, utility payments, and government transfers were all paid in cash before 2014. Transferring the cash between the banks

and branches needs physical transformation of stacks of cash from one location to another that increases risks, thus these kinds of transaction use the cheque to reduce risk. Inter-bank clearing transactions of instruments such as cheques, payment orders are processed through the clearing system. Under the guidance of the Ministry of Finance & Revenue, CBM performs as a clearing house and manages the clearing and settlement process. In Myanmar, cheque clearing processing is done manually, increasing human errors and delays. When it comes to the timing of the funds being available from the deposit of other bank's cheques, the cheque conversion facility, and the return of unpaid cheques to payees, the adoption of the cheque truncation system benefits both customers and businesses.

The Cheque Truncation System is a modernized cheque clearing procedure that recognizes magnetic ink characters (MICR) data from the MICR code using electronic pictures rather than physical cheques, eliminating the need to move actual cheques around. Instead of using physical cheques, the image and cheque data, including MICR fields, issuing bank, etc., collected and communicated electronically throughout the compensation process. Consequently, there is no physical movement of cheque between the presenting bank, the clearing house and the issuing bank. (Sreedevi, 2013)

The government provides to improve the financial sector. The improvement of the financial sector requires the involvement of all the parties, the government, CBM, private and public sector banks and the citizens. The government works closely with the Japanese International Cooperation Agency to implement the automatic clearing system for CBM. That is one of the improvements to the financial sector in Myanmar.

1.1 Rationale of the Study

The cheque is used widely around the world as a financial instrument. Financial transactions have become convenient, safe and secure for payments by using cheques . Most of the bill payments, government payments and large amounts of transfers between two parties use cheques in Myanmar. For the large of payments are doing with transferring money with cheque that is more secure way of transferring money than cash.

In 2016, CBM-Net, the country's first real-time gross settlement (RTGS) system, started in Myanmar and the Financial Institutions Law was approved by the government to provide CBM the authority to establish rules and regulations for an

electronic payment system and to provide financial institutions with guidance on how to set up the necessary infrastructure. Over the first half of 2021, CBM enhances the CBM-Net to CBM-Net version 2 which includes the Cheque Truncation System. Cheque Truncation System is to replace a physical cheque with a cheque image at the presenting bank and to transmit the cheque data to the issuing bank through the clearing house (including Cheque and Payment Order). Member banks do not have to go to the clearing house anymore. The Central Bank of Myanmar is the only one electronic clearing house that covers the entire nation.

One of Myanmar's largest private banks is KBZ Bank. KBZ Bank provides a variety of banking products and services to customers, retail businesses and corporates. KBZ Bank is using technology-innovated products and services to get competitive advantages among the banks. KBZ bank uses the international core banking system, internet banking, and mobile banking and KBZ pay services. To improve the interbank payment transactions and clearing process, KBZ adopts CBM-Net CTS. Under the guidance of the Central Bank of Myanmar, all the banks in Myanmar, including KBZ Bank, use the cheque truncation system. All banks use the Cheque Truncation System to improve the cheque clearing process.

One of the problems about using Information System in the banking sector is to identify factors that cause impacts of systems implemented on users. Information System researchers explore a variety of ways to evaluate the effectiveness of systems through system usage, user satisfaction, and user performance categories. Analyzing the IS impact on user's performance and productivity is essential for researchers. Various theories and approaches have been addressed this problem. Based on these studies, there are many variables in the IS environment that affect user satisfaction directly and indirectly. Through this study, the management can see how using Cheque Truncation System effects on user satisfaction and performance. According to IS literature, a system is effective or successful when it increases user satisfaction, maximizes employee effectiveness, and enhances performance.

User satisfaction is the summation of one's attitudes and sentiments toward all of the situation's influencing aspects (Bailey, 1983). User satisfaction has been considered as the measure of information system effectiveness success. Users who are the right fit may respond by being more achievement motivated to perform their tasks effectively and efficiently.

Using technology-based innovative systems in business can increase user productivity, eliminate repetitive manual tasks, and be easier for their jobs. The use of IT has the potential to significantly improve white collar performance (Sharda, 1988). The use of new technology in an organization has an impact on every aspect of the business, particularly on human resources. User satisfaction is defined as the active reactions of individuals toward the use of computer applications. In the development of information systems, user satisfaction plays a central role. System Quality measures the information processing system itself that is how well the hardware and the software work together. The impact of system quality on assessing the usage of information systems has been the subject of several research. The conclusion shows that system quality considerably improves user satisfaction and usage. (Rammutloa M. , 2017). From various literature, there are four attributes of system quality: that includes ease of use, navigation, response time, and security.

The desirable properties of an information system's output are determined by the information quality. An example, an employee uses the up-to-date status of cheques, accounts and customer information of the bank using the system. Several studies investigated that Use and user satisfaction are greatly influenced favorably by information quality (Romi, 2013) (Rammutloa M. , 2017) (Šmýkala, 2018). According to the information success model, DeLone and McLean defined that user satisfaction is one of the measures more widely used when studying IS success mainly. Impact includes the individual impact and organizational impact. Measuring the effects that an information system has on certain users is known as individual impact. E.g.; user performance, changes in user productivity and decision making. User performance impact, according to DeLone and McLean, is another indication that the given IS has given the user a thorough understanding of the decision context, has increased the user's productivity, or has changed the user's view of the value or usefulness of the IS. One of the most popular measures of an information system's success is end-user satisfaction. The notion that greater levels of end user satisfaction result in better individual performance is the one that is most commonly utilized in user satisfaction studies (Manal M. N. Sharabati, Computer Theory and Engineering, 2015).

All businesses must fully comprehend how information systems affect user performance since doing so may enhance both organizational and individual performance. The importance of comprehending how information systems affect user performance hasn't, however, gotten the attention it deserves. This study intends to find

out the user satisfaction and user performance of the Cheque Truncation System in KBZ Bank. This study investigates how Perceived Ease of Use, System Quality and Information Quality of Cheque Truncation System affect user satisfaction and analyzes the individual impact as user performance. This study uses Technology Acceptance Model and Information Systems Success Model (DeLone & McLean,1992) to show the user satisfaction of the CTS system and individual performance as the individual impact of using CTS in KBZ Bank.

1.2 Objectives of the Study

The primary objectives of this study are the following:

- To identify the process of using the Cheque Truncation System
- To study the factors influencing user satisfaction with the cheque truncation system in KBZ Bank
- To investigate the user performance of the cheque truncation system in KBZ Bank

1.3 Scope and Method of the Study

This study focuses on the user satisfaction and user performance of cheque truncation system in KBZ Bank. The total population is 70 users using the cheque truncation system, and the study analyzes 50 users, which is 70% of the total population, by using a simple random sampling method. This study employs both primary and secondary data to examine descriptive and analytical research methodologies. The sample users' primary data is gathered via a Google form. The secondary information is gathered from records of earlier research publications, online scholarly journals, and websites. Multiple linear regression is applied to the test objective.

1.4 Organization of the Study

This study includes five chapters. The first chapter provides an introduction of the study. The second chapter shows the theoretical background of the study. The third chapter states the profile of KBZ bank and the cheque truncation system. The fourth chapter presents the user satisfaction and user performance of cheque Truncation System in KBZ Bank. Finally, chapter five shows findings and appropriate suggestion.

CHAPTER II

THEORETICAL BACKGROUND OF THE STUDY

This chapter includes theory and model, previous study and conceptual framework of cheque truncation system in KBZ bank.

2.1 Theory and Model of Information System

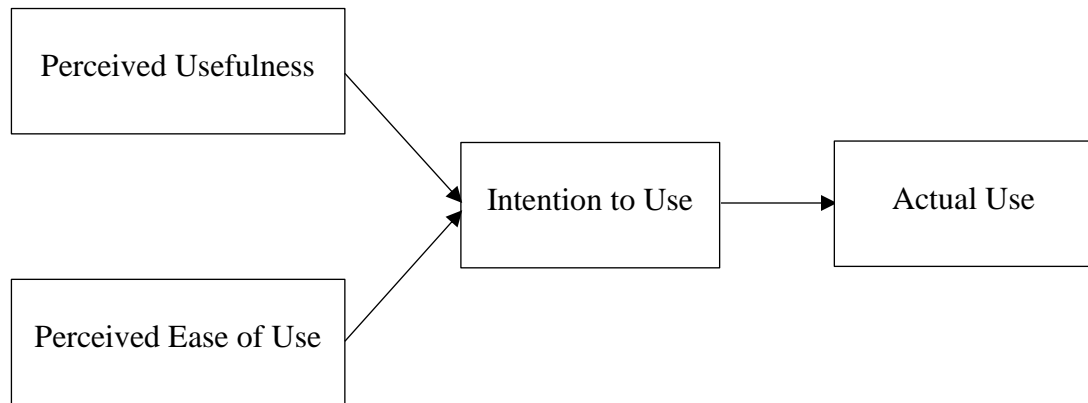
To analyze the information system, the researchers are using many methods and models. Among these methods, this study uses the Delone and McLean Information Success Model and Technology Acceptance Model (TAM).

Technology Acceptance Model (TAM)

Firstly, this study is theoretically based on the Davis (1989) Technology Acceptance Model, which investigates the user acceptance of technology in Figure (2.1). Using the TAM model to utilize the primary determinants for acceptance or not for using new technology tools. The fundamental goal of TAM was to provide the mechanisms underlying the adoption of technology and offer a theoretical justification for its effective use. Davis conducted a TAM investigation in 1989. At the corporate and individual levels, the adoption and use of information technology may lead to both short-term and long-term advantages, such as enhanced performance, increased financial and time efficiency, and convenience. (Foley Curley, 1884).

For a long time, the potential for technology to be useful has motivated IS management studies to consider people's openness to embracing new technologies (Davis, 1989). TAM claims that a three-stage procedure is necessary for technology adoption. Higher emotional responses increase the probability that the conduct will occur. It is crucial to include this variable when anticipating behavior since it might have a direct impact on actual use. Despite the fact that perceived ease of use has no direct impact on user behavior, it supports the impact of perceived usefulness (Davis, 1993).

Figure (2.1) Technology Acceptance Model (TAM)



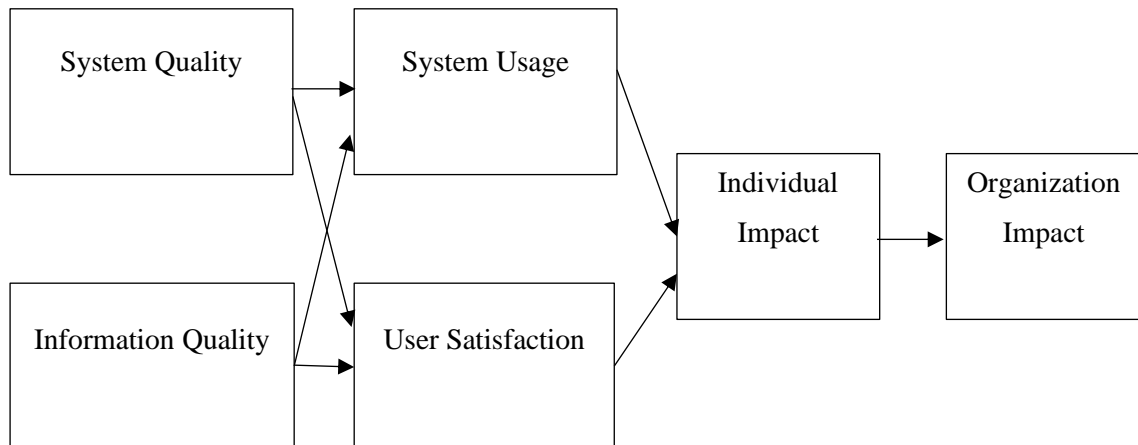
Source: Davis (1989)

Delone and Mclean Information Success Model (1992)

Depending on the requirements of users and businesses, information systems are developed and upgraded from traditional to automatic systems to improve daily working activities. Users and information system developers must take equal responsibility for the implementation of information systems. To determine requirements and preferences, the user must be included in the development of the information system. A good system is one that can benefit its users and deliver performance. The success of information systems is something that researchers are always looking for ways to measure. To identify the elements responsible for the success of information technology systems, significant study has been conducted. One of the most well-known models for evaluating an information system is the information success model, which Delone & Mclean created in 1992.

This model may be used to assess the performance of the complete information system or just a specific component within it shown in Figure (2.2). The model includes system quality, which measures the information processing system. Information system output is measured by information quality. Usage refers to how users interact with an information system. User satisfaction gauges how effectively people use information systems. An information system's influence on a person's behavior is measured by individual impact. Information system use's effects on an organization are measured by organizational impact.

Figure (2.2) Information Success Model



Source: Delone and Mclean (1992)

2.2 Influencing Factors of User Satisfaction

A number of factors, such as information quality, system quality, system use, perceived usefulness, perceived usability, user characteristics, organizational structure, and management style, can affect how satisfied users are with information systems. If all these factors are properly taken into account while building, planning, implementing, or acquiring information systems, then higher user satisfaction with the system is to be expected. In this study, the perceived ease of use, system quality, and information quality were examined as user satisfaction affecting variables.

System Quality

System quality is a measurement used to assess efficiency. The results of user-system interactions are the main focus of an assessment of the information system process known as "system quality." Flexibility, accessibility, availability, modifiability, performance, security, testability, usability, and others are characteristics of high-quality systems.

Bailey measured the convenience of access, the flexibility of the system, integration of systems, and response time of the system for system quality (Bailey, 1983). The ability of a system to adjust to the user's changing needs is referred to as flexibility (Shibly, 2006). Greater flexibility should characterize an effective CTS,

which would in turn make the banks more receptive to its always changing cheque clearing process needs and requirements. This research suggested that the greater the perceived system quality of CTS, the higher is the CTS effectiveness.

The degree to which a user can access the system with the help of its technological components is determined by the user's perception of accessibility (Shibly, 2006). Security is an important attributes of system quality. System quality can be defined as an information system designed with useful characteristics, adequate response time, and an adequate level of integration and security (Rajiv Sabherwal, 2006).

Information Quality

Information quality is a significant factor in predicting customer satisfaction (Delone and Mclean,1992). The information quality dimension, which has been viewed as a key indicator for the effective adoption of information systems in businesses, attracts the attention of several researchers.

The information systems among the user managers measured with uniqueness, conciseness, clarity, and readability of the information system (Swanson, 1974). The appearance and accuracy are added as measures of information quality (Ives, 1982). Ahituv analyzed five information characteristics to measure the utility of information value, such as accuracy, timeliness, relevance, aggregation, and formatting (Ahituv, 1980). The term "information quality" refers to the completeness, usefulness, relevance, and timeliness of information as well as its aesthetic quality. Information completeness and depth are two aspects of information comprehensiveness (Shibly, 2006).

Timeliness includes updating of the information. The information must be easy to understand and interpret (al, 2008). The material must be clear and simple to understand in order to be considered understandable. Previous research have demonstrated that information comprehensiveness, timeliness, and understandability all significantly contribute to improving the quality of the information.

Perceived Ease of Use

The degree to which users perceive how simple it is to utilize a technology is known as perceived ease of use (Davis F. D., 1989). TAM shown that perceived usability is a key success component, either directly or through perceived utility. PEOU directly enhances the effectiveness of information systems (Davis V. V., 2000). Since they are so simple to use, internet banking systems are more likely to be used and

preferred by the target users. In this study, ease of use is the users' perception that using the CTS system involves a minimum of effort.

User Satisfaction

User satisfaction is the user's response to the output using an information system. Doll and Torkzadeh considered user satisfaction in term of system quality and information quality (Torkzadeh, 1988). User satisfaction is mainly used as a measurement of IS success (Delone and Mclean, 1992). User satisfaction is related to user attitude towards computer systems. User satisfaction is widely used for the measurement of information system success. User satisfaction has been linked in several studies to users' perceptions of computer systems. As a stand-in measure of the effectiveness of information systems, satisfaction with the cheque truncation system is utilized. User satisfaction can be measured by how well an application of the system performs when confronted with the expected performance of the system itself (Keller, 2016).

The advantages users can receive from using information systems are one of the numerous aspects that can affect user satisfaction with systems and information quality. This measurement is important in order to evaluate the effectiveness of information systems. An information system that can accommodate users' needs results in higher user satisfaction. Users satisfy with the system when they think the system is easy to use and useful. As the ease of use, system quality, and information quality improve, so does user satisfaction with information systems.

2.3 Individual Performance

DeLone and McLean recommended evaluating the effects of IS at both the individual and organizational levels (Delone and Mclean, 1992). This study investigates the effects of CTS on each individual. Examples of individual effects include the improvement of user decision-making effectiveness, a shift in user behavior, and a decision-perception makers' of the importance or worth of the information system. Employee performance suffers, though, if they are not provided the tools they need to execute their jobs quickly and effectively.

Technology innovation is one method an employer can use to increase user performance. An employee who performs well who can achieve good results according to predetermined goals. Electronic bank transfers improved service delivery of employees, easier their jobs and promoted customer retention and customer

satisfaction. Muda found that performance refers to the firm or individual level, where human resources are seen as being the most important aspect in achieving an organization's goals. Employee satisfaction will rise if employees can complete their tasks more quickly and easily. It has been demonstrated by researchers to be closely tied to individual performance, hence an IS that enhances performance has profited. (Iskandar Muda, 2014).

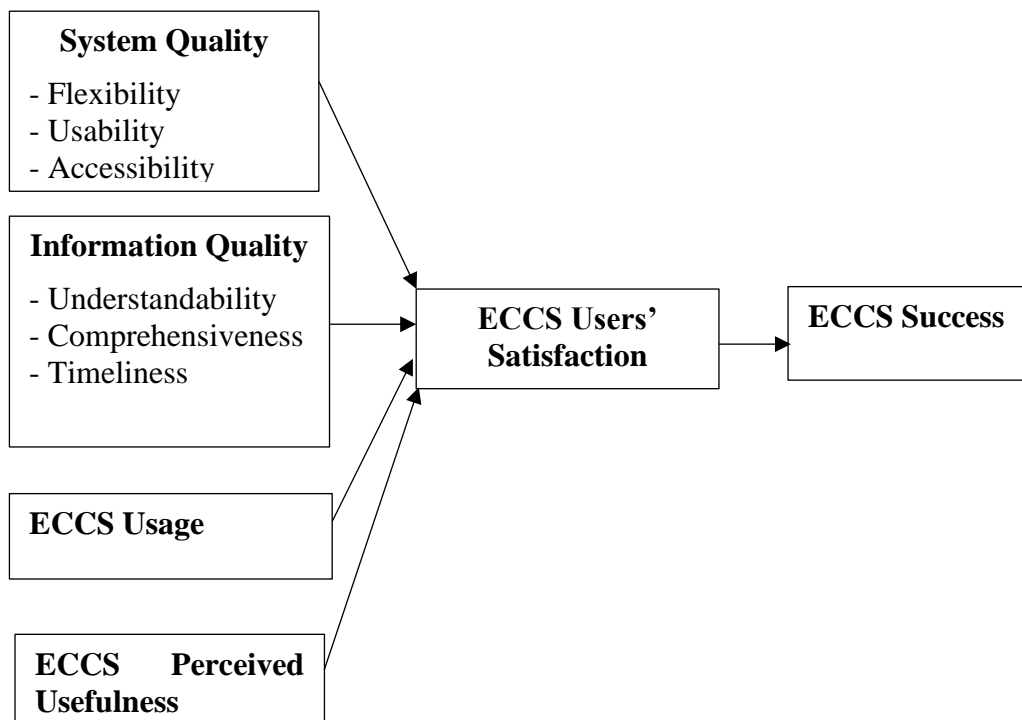
In addition to operationalizing individual impact in terms of decision-making quality, performance, productivity, and efficiency of the task, several research found a significant direct user satisfaction influence on individual impact of information system. In the context of business intelligence systems, user satisfaction strongly directly influences user performance. (Tor Guimaraes, 2007). Therefore, to analyze the individual impact of the cheque truncation system, individual performance as individual impact of using the cheque truncation system is more suitable. The technology innovation has significant effect on employee performance.

2.3 Previous Study

Alsoof studied users attitudes toward electronic cheque clearing system among Jordanian Commercial Banks. The objective of this study is to understand and learn about factors that affect the success of ECCS application (Alsoof, 2008). This study uses Technology Acceptance Model (TAM) and Information Success Theory show in Figure (2.3).

Usability and accessibility and are important elements of ECCS quality and without the convenience benefit of using ECCS cannot be achieved. This study shows the flexibility of ECCS adapting to different cheque clearing process needs, requirements, changes in the demands of the user and the speed with which ECCS responds have all led to achieving user's satisfaction. The results of this study demonstrate that the comprehensiveness, timeliness, and understandability of ECCS information had a positive impact on users' satisfaction. The user's satisfaction with ECCS is positively correlated with ease of use and usefulness. User satisfaction with ECCS is positively correlated with the system's success. The satisfaction of ECCS users is positively correlated with the ECCS system quality, the ECCS information quality, the ECCS usage, and the ECCS perceived usefulness. Moreover, ECCS is positively related to ECCS Success.

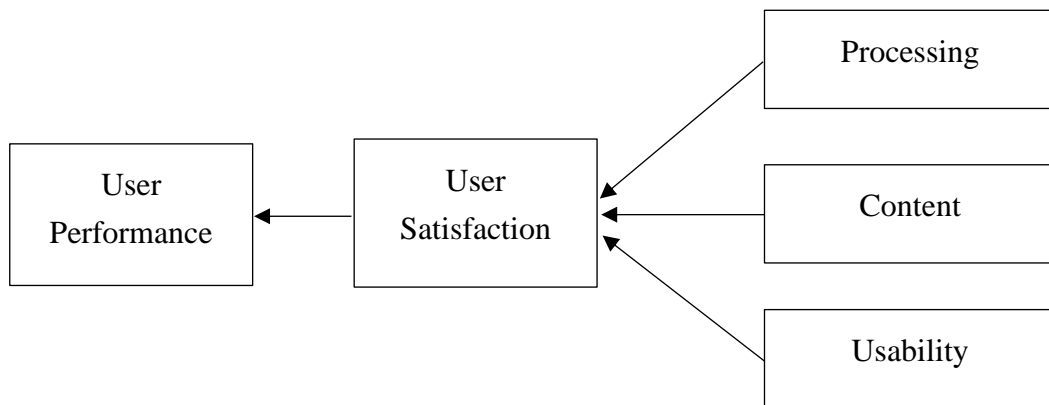
Figure (2.3) Users Attitudes toward Electronic Cheque Clearing System



Source: Yahya A. A. Alsoof (2008)

In Figure 2.4 shows the e-procurement system in 2015, user satisfaction and individual performance evaluation were assessed. Using the Information Success Theory, this study investigated the link between user satisfaction and individual performance. To evaluate the links described in the framework, data were collected from 432 end users of the e-procurement system in Malaysian government entities. The processing, content, and usability of the e-procurement system in this study have all had a substantial impact on end-user satisfaction, and greater levels of end-user satisfaction result in better individual performance.. (Manal M. N. Sharabati, Ainin Sulaiman, and Noor Akma Mohd Salleh, 2015)

Figure (2.4) User Satisfaction and Individual Performance of E-Procurement System

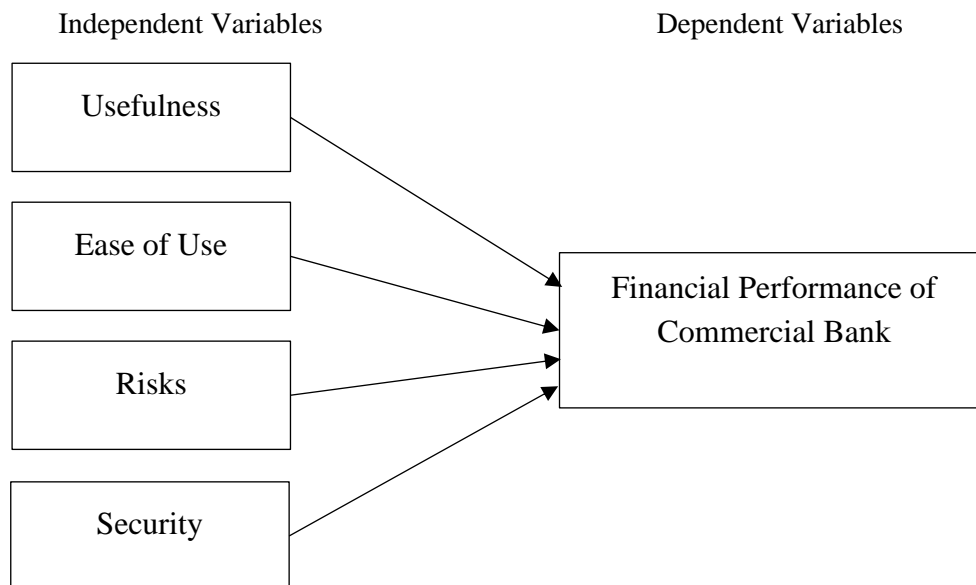


Source: Manal M. N. Sharabati, Ainin Sulaiman, and Noor Akma Mohd Salleh, 2015

Agnes Chepkemoi investigated at how the Nairobi Stock Exchange-listed Kenyan commercial banks' financial performance was affected by the check truncation system (CTS) (Chepkemoi, 2018). The Task Technology Fit Theory, Transaction Cost Innovation Theory, and the Technological Acceptance Model (TAM) are all used in this study. According to this study, the cheque truncation system and the usefulness of the financial performance of the Nairobi commercial banks are correlated. This study found a positive correlation between the system's financial success and ease of use. This study concluded that the system's usability and financial performance had a favorable relationship. The study found a significant association between the financial

performance of Kenya's commercial banks and the security and risks of the country's cheque truncation system shown in Figure (2.5).

Figure (2.5) Influence of Cheque Truncation System Project on Financial Performance of Kenyan Commercial Banks

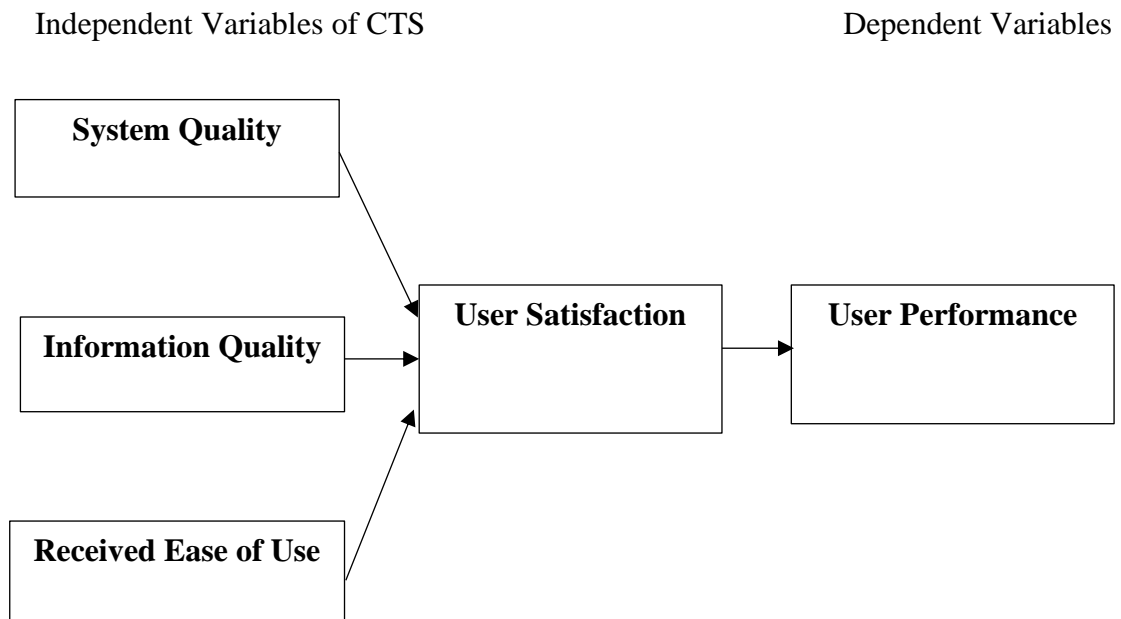


Source: Agnes chepkemoi, 2018

2.4 Conceptual Framework of the Study

To study the individual impact as user performance of using cheque truncation system, we cannot use only the Technology Acceptance Model alone, so this study additionally uses Information Success Model like User Attitude toward Electronic Cheque Clearing System by (Alsoof, 2008) and user satisfaction and individual performance assessment in e-procurement system by Manal M. N. Sharabati, 2015. Perceived can define as people's judgment on whether their decision to use or implement a specific technology is advantageous for themselves (Tsarenko Yelena, 2012). The Information Success Model (Delone and Mclean, 1992, 2003) and the Technological Acceptance Model (TAM) Davis, 1989 are integrated in this study to examine user satisfaction and user performance as well as the individual impact of using the Cheque Truncation System.

Figure (2.3) Conceptual Framework of the Study



Source: Own Compilation

According to Figure (2.6), to analyze factors influencing the KBZ Bank cheque truncation system, this study uses system quality, information quality, and perceived ease of use as independent variables of user satisfaction. To examine the effect of user satisfaction on user performance, the dependent variable is user performance, whereas the independent variable is user performance, as individual impact of using a cheque truncation system in KBZ Bank.

2.4.1 Working Definition

For the purpose of this study, the following words were taken to mean:

System Quality

The system quality is the combination of hardware and software together to provide the user. This study examined the system quality using four check truncation system attributes. They are system flexibility, security, accessibility, and response time.

Information Quality

The output of the cheque truncation system, which provides information to users, is the quality of the information. This study analyzed the information using three attributes of the cheque truncation system. They are understandability, comprehensiveness, and timeliness.

Perceived Ease of Use

The perceived ease of use of the cheque truncation system refers to the user's attitude toward using the check truncation system. This study assesses user friendliness, which is defined as the ease with which a transaction can be reconciled, traced, remembered, and mastered.

User Satisfaction

This study investigates the system quality, information quality and perceived ease of use influenced on the user satisfaction of cheque truncation system. This study used user satisfaction as a dependent variable. This study investigates user satisfaction with a system that meets user expectations, is easy to use, and provides information that is satisfactory to users.

User Performance

This study investigates how the Cheque Truncation System assists users in eliminating repetitive manual tasks, reducing manual errors, tracing transactions easily, and improving their tasks.

CHAPTER III

BACKGROUND STUDY OF CHEQUE CLEARING AND KBZ BANK

In this chapter, the study is explained about the cheque clearing through cheque truncation system. Before presenting about Payment and Settlement in Myanmar, the nature of cheque truncation system, clearing system development in Myanmar, profile of KBZ Bank, product and service of KBZ bank.

3.1 Overview of Payment and Settlement in Myanmar

In the early 1960s, Myanmar's economy was a cash-based system. In 1990, the State Law and Order restoration Council enacted the Central Bank of Myanmar Law to exchange knowledge of Myanmar's banking sector, which allowed the establishment of privately owned banks. After the 1997 East Asian financial crisis, licenses issued to privately owned banks were revoked. Early 2003, a bank run hit private banks which reduced public confidence in the banking sector.

Myanmar authorities tightened the banking regulations which allowed them to provide basic banking services and not be allowed to use ATM, debit cards and credit cards. The government reformed the banking sector and permitted private banks to set up ATM and exchange counter transactions in 2011. The government approved the Foreign Exchange Management Law (2012) and enactment of the Central Bank of Myanmar (CBM) Law in 2013. In 2016, Myanmar planned to launch the ASEAN Economic Community and Myanmar payments and settlement tried to provide international trade payments and services. The government also regulates the Financial Institutions Law of Myanmar (2016). The Central Bank of Myanmar encourages the private banks in Myanmar to improve the non-cash payment and settlement process (Maw, 2012).

Non-cash payment uses cheques and payment orders through CBM-Net CTS.

Cheque

Cheques are written requests from account holders to their banks requesting that certain amounts be paid to specific recipients. (Hancock, 1997). A "cheque" is a bill of exchange drawn by a specific banker and not expressly stated to be due other than on

demand, as per the stamp laws of Myanmar. Both public and private sector organizations frequently utilize cheques to make payments.

Payment Order

A payment order is one of the financial instruments that is only issued after the money is deposited, which gives guarantees that the bank will issue money if the payment order is submitted.

The cheque clearing settlement amount among banks in FY 2019-2020 is shown in Table 3.1 of the CBM 2019-2020 annual reports. According to volume, Yangon is the first highest transactional city, and the second-highest transactional city is Mandalay. In terms of value, Yangon has the highest transaction amount, while Naypyitaw has the second-highest transaction amount.

Table (3.1) Cheque Clearing Settlement amount Among Banks in Myanmar (FY 2019 -2020)

Sr.	Month	Naypyitaw		Yangon		Mandalay	
		Volume	Value (kyat in million)	Volume	Value (kyat in million)	Volume	Value (kyat in million)
1.	October (2019)	594	104,633	42,414	2,565,564	2,286	29,083
2.	November	956	83,654	42,841	2,279,708	2,389	24,757
3.	December	803	54,942	43,306	2,630,299	1,924	20,448
4.	January (2020)	964	169,972	47,202	2,981,139	1,753	32,571
5.	February	797	101,273	40,667	2,648,479	1,671	21,402
6.	March	765	93,230	42,444	3,089,851	1,671	25,363
7.	April	675	81,910	24,443	2,264,420	946	21,729
8.	May	1,041	81,087	36,750	2,611,941	1,590	33,589
9.	June	1,166	115,868	39,787	3,080,792	1,632	23,955
10.	July	1,094	184,053	39,712	3,012,015	1,681	33,489
11.	August	1,020	74,700	40,267	3,074,918	1,799	33,860
12.	September	1,485	327,643	14,841	1,311,253	1,505	66,405
Total		11,360	1,472,965	454,674	31,550,379	20,847	366,647

Source: CBM Annual Report

3.2 Clearing System Development in Myanmar

Manual Clearing System

In Myanmar, CBM operated and managed clearing houses. The cheque clearing process in Myanmar was manual before 2016. Three clearing houses are defined based on the area and payment instruments. They are Yangon Clearing House, Mandalay Clearing House, and Naypyitaw Clearing House. The branches of the Myanmar Economic Bank and private banks located in Lower Myanmar settle their transactions with each other at Yangon Clearing House. The corresponding banks for indirect participant payments are the branches of the Myanmar Economic Bank. Mandalay Clearing House performs the clearing process for the transactions of the branches of the Myanmar Economic Bank and private banks situated in the Upper Myanmar Region. The clearing process is executed manually by employees of CBM, public banks, and private banks.

Before starting the clearing sessions, bank employees of the banks manually counted the cheques, calculated the clearing amounts, and sorted the cheques as per payable banks. CBM arranged a clearing meeting from 1:00 to 2:00 p.m. on each business day. The value of these deposit cheques to the customers' accounts requires between 4 and 6 days to complete the manual clearing process. If the balance of cheques did not have a sufficient amount, these cheques needed to be returned to the issuing bank. The reason for returning cheques is not only the insufficient balance but also other financial/technical reasons. To clear that returned cheques required an additional 4 or 6 days.

The manual clearing process took 4 to 6 days, indicating that the clearing process takes a long time. Many employees and all parties are needed in the manual clearing process. The manual clearing process has human errors unrelated to the fraud that is occurring when transferring the cheques between presenting banks, CBM, and issuing banks. Before releasing clearing session results, banks had difficulty obtaining up-to-date cheque status and statistics on the cheque clearing process.

Mechanical Clearing House (MCH)

In January 2016, CBM upgraded manual clearing operations for payment orders and checks to the mechanized clearing system known as MCH (Mechanical Clearing House System), along with the creation of CBM-Net. Myanmar was the country to deploy Magnetic Ink Character Recognition (MICR) technology for automated cheque processing, and all CBM clearing houses used the MCH.

Concept of Cheque Truncation System

Despite the widespread quick introduction of electronic payment through credit cards, cheque transactions are still expanding globally despite being used for many years. (Madasu, 2005). In order to get payment finality, clearing involves giving instructions to a different participant. (Clacher, 2006).

This often occurs in a clearing house in accordance with well established policies and guidelines that cover both the operational requirements placed on such clearing institutions and the procedures for settling underlying values. Prior to recently, physical cheques from all banks had to be manually sorted, examined, and accepted by each bank before values could be transferred when clearing cheques issued on different banks. The cheques have to be physically moved from the collecting bank to the paying bank in order to finish the clearing process. This method was used to clear cheques over a period of days. (Norman, 2011).

Cheque Truncation System is to replace a physical cheque with a cheque image at the presenting bank and to transmit the cheque data to the issuing bank through the clearing house (including Cheque and Payment Order). With cheque imaging and truncation, physical cheques remain at the presenting bank if the presenting bank has commissioned the central bank to do the imaging on its behalf (CBJ website, 2009). After the teller in the bank of first deposit (BFD) receives it, the scanned copy of the check item is transferred to the paying bank through the central bank so that it may be technically and financially cleared through high speed secure connection lines. When the paying bank decides whether to accept or reject the check, it tells the central bank, which then transmits the message to (BFD) (Jresat, 2007).

The clearing of cheques is centered on the clearing house, central bank, monetary authority, or Federal Reserve. All of these governmental bodies have obligations that include keeping an eye on and ensuring that financial rules, laws, and regulations are being followed, as well as confirming the check clearing process (CBJ Website, 2009). The clearing house is at the center of the clearing of cheques procedure. The clearing house in Myanmar is the country's central bank. The Central Bank of Myanmar's responsibility is to check the clearance of checks. CBM also monitors and follows up on the execution of financial rules, legislation, and processes. The Central Bank of Myanmar has placed a strong emphasis on enhancing the effectiveness of the cycle for clearing checks.

Central Bank of Myanmar Financial Network Cheque Truncation System (CBM-Net CTS)

In Myanmar, clearing cheques and payment orders among the banks uses a clearing house (CBM-Net CTS). Section 90 of the Central Bank of Myanmar Law and Financial Institution Law Section 136 (a) founded CBM-Net CTS. CBM-Net CTS manages the physical transfer of cheques between banks for the purpose of electronically capturing and transmitting data and images of cheques to clearing institutions. For the registration and verification processes for checks, CBM provides three different types of connections.

Each bank chooses one of the connection types that is suitable for their bank. Type 1 (centralized access): A terminal can be used for both CBM-Net & CTS, and one image reader can be placed at FI. Type 2 (centralized access with intra-bank CTS): The FI must develop their own intra-bank CTS and install an image reader in each of their branches. The upload file is created by intra-bank CTS and posted to the HO terminal. Type 3 (optional connection for decentralized access): A terminal is placed at the head office and access branch.

KBZ Bank has adopted the Type 2 option for the cheque transaction system. KBZ Bank developed an intra-bank CTS and uploaded the file to the CBM-Net CTS through the HO terminal. Yangon, Mandalay, and Naypyitaw branches use the intra-bank CTS software to capture the data and images. The HO team uses the CBM-Net CTS terminal at the Head Office to upload the file to the CBM-Net CTS.

The following shows the daily time schema of the CBM-Net cheque truncation system (CBM-Net CTS) vs clearing process before using CBM-Net CTS.

**Figure (3.1) Daily Time Schedule of Cheque Clearing before Using
CBM-Net CTS**

Financial Institution	Time				
	~11:00 to 12:00	12:00 to 13:30	13:30 to 14:00	14:00 to 17:00	After 17:00
Presenting Bank	Bring Cheques to Clearing House				Credit to Customer
Issuing Bank				Bring Back & Verify Cheques	Debit from Customer
Clearing House		Clearing	Settlement		

Source: CBM

Figure (3.1) shows the daily time schedule of cheque clearing before using CTS. At that time, the presenting bank's staff brings the cheques from other banks to the CBM clearing house between 11:00 am to 12:00 pm. The other bank's cheque after 11:00 pm can be cleared as the next day transactions. Every bank in Myanmar goes to the CBM for clearing transactions. CBM starts the cheque and po clearing process from 12:00 pm to 1:30 pm. The settlement process is between the banks from 1:30 pm to 2:00 pm. From 2:00 pm to 5 pm, the clearing staff of each bank bring back their issuing cheques to their bank. The staff of issuing bank verifies the amount and status of the account and the status of the cheque. If the amount is sufficient for the debit transaction, the issuing bank staff debit the amount from the account. For these sufficient amount cheques, the presenting bank can credit the customer accounts after the next clearing process. These cheques take the clearing house with sufficient amount status. For the insufficient amount, the issuing bank staff must contact the customer again and take the cheque to the clearing house with the insufficient amount status and return to the clearing process.

Figure (3.2) Daily Time Schedule of Cheque Clearing Using CBM-Net CTS

Financial Institution	Time					
	9:00 to 12:00	13:00	15:00	15:00-15:30	15:30 - 18:00	18:00
Presenting Bank	Cheque registration →	Clearing Cutoff	Verification Cutoff		1. Confirm Rejected information 2. Credit to customer 3. Continue Cheque registration for next day	CTS Service End
Issuing Bank	→ Cheque verification & Freeze from customer account		Verification Cutoff		1. Debit from customer 2. Cheque verification & Freeze from customer account for next day transaction	
CBM clearing using CBM-NET CTS			Clearing & Settlement			

Source: CBM(2021)

Figure (3.2) shows the daily time schedule of cheque clearing Using CBM-Net CTS. Starting from mid-2021, every member bank of CBM has started using the cheque truncation system. With cheque truncation system, the presenting banks start the cheque registration process between 9 am to 12 pm. The cheque registration process can be done only until 12 pm because the clearing cutoff time is 1 pm. After registration of the cheque, the presenting bank uploads the file of the registered cheque to the CBM-Net CTS. CBM-Net CTS segregates the clearing cheque with the issuing bank and sends the upload file to the respective issuing bank. The issuing bank performs the cheque verification process and freezes the clearing amount for each account. The verification cut off time is 3:00 pm. The time between 3:00 pm to 3:30 pm, CBM will perform the clearing and settlement process among the clearing banks.

After the clearing and settlement with CBM, the presenting bank gets the rejected information about the rejected cheques. The presenting bank credits the customers for the success cheques. After that, the presenting bank can continue the cheque registration for the next day. The issuing bank can also start the verification process for the next day transactions and freeze the customer's account. CBM stops the CTS service at 6:00 pm in Myanmar.

Benefit of Using Cheque Truncation System

Both account holders and bank gets the benefits from using cheque truncation system. When you use CTS cheques, the money credit to your account more quickly after clearing and after a shorter clearing cycle. The cheque can get cleared on the same day or within 24 hours. There is no concern about a cheque being lost in transit because there is no actual physical movement of the cheque. The use of cheque's image eliminates the requirement to move and handle physical cheques at several locations.

The primary benefit is that CTS-compliant cheques are more secure than traditional cheques and are therefore less likely to be used in fraud. Saving time and money by not having to transfer the physical cheques is quite advantageous. Operational effectiveness for both banks and clients reduction of operational risk and paper clearing risks. To reiterate, there is limited opportunity for fraud in the CTS system, which is excellent for banks.

Additionally, eliminating the need to transport real cheques is quite advantageous for banks in terms of saving money and time for bank. A number of standards have been set for paper quality, watermarks, MICR code on cheques across the nation. This leads to the uniformity of cheques among the bank in Myanmar.

3.3 Profile of KBZ Bank

Myanmar's largest private bank is KBZ Bank. CBM issued a license on 7th June 1994. The people of Taunggyi were initially the target customer for the bank's services. With more than 15,000 employees now, the bank has grown into one of Myanmar's largest private commercial banks under its present management structure, which was established in November 1999. It has been active in the financial industry for 28 years, offering both retail and corporate banking in Myanmar. U Khin Maung, U San Lin, U Maung Maung Myaing, U Ohn Maung, U Tin Shwe and Daw Hla Hnin Khine are the founders of the bank and the current shareholders are U Aung Ko Win, Daw Nan Than Htwe, Daw Nang Lang Kham, Daw Nang Kham Noun, and Daw Nang Mo Hom.

There are four management level committees: the Management Credit Committee, the Assets and Liability Committee (ALCO), the Fraud Committee, and the Social Purpose and Impact Partnership Committee (SPIPC), which are working together to manage the bank. The KBZ Bank's vision is to be the best-managed bank in the world. New leadership paradigms and the deployment of new technology are what

are driving the transformation. Being the biggest bank in the country, KBZ Bank is supporting the Myanmar of today as laying the foundation for the Myanmar of the future.

The goal of KBZ Bank is to raise the standard of living for communities and enterprises in Myanmar by facilitating greater access to financial goods and services. The purpose of KBZ Bank is to ensure complete financial inclusion in Myanmar. The governing values of KBZ Bank, which pervade the whole organization, include being courteous to people and acting morally. We are motivated by our three core values: Thet Ti, Metta and Virya, which represent the guiding principles of KBZ Bank: love, compassion, perseverance, and courage. Across the nation, there are more than 400 branches offering bank services.

3.4 Product and Services of KBZ Bank

The following products and services are provided by KBZ Bank.

Account

New Cash Accounts: For customers to effortlessly manage their accounts and to withdraw cash up to the deposited amounts without restrictions, KBZ Bank has introduced a new, "New Cash Account." Cash Account Savings, which pays 7% interest, Cash Account Call, which pays 6% interest, and Cash Account Current are the three new Cash Accounts that can be opened. Deposits can be made as cash credits at any KBZ Bank location in the country to open a cash account (savings, call, and current).

Current Account: The current account (local) is appropriate for local merchants, small business owners, and foreigners. A chequebook will be given to each account holder. All KBZ branches accept this cheque book for simple transfers and withdrawals. Cheques may only be signed by those identified as account holders. Invoice collection and account clearing services between banks. All KBZ branches allow customers to transfer or withdraw money. There is no restriction on how many withdrawals or deposits the customers can make while the bank is open.

Saving deposit account: With the KBZ Savings Deposit Account, eligible people can watch their money increase. After the customer's account has been opened successfully, the customer receives a passbook. 6% p.a. interest every year. Each quarter, interest can be taken out. The interest is credited to the account if it is not withdrawn during a given quarter. Any KBZ branch allows withdrawals from the account. When the bank is open, the customer may deposit any number of times. Take unlimited withdrawals once each

week. Anyone with an account can quickly transfer money from any KBZ branch to them.

Fixed deposit account: Citizens who are interested in long-term investments should open a fixed deposit account, which is best suited for them if they are over 18. The length of the deposit term determines if higher interest rates are charged.

Children's saving account: Parents who are saving for their children's education should use a children's savings account. Setting up this account is the ideal method to encourage the young person to save and lay the groundwork for a bright future.

Call deposit account: Anyone over the age of 18 who is a small business owner, trader, merchant, or individual can open a call deposit account and take advantage of the daily interest. Based on your daily balance, interest is credited to this account every day.

Foreign currency account: Current Account is appropriate for local and international businesses, INGO and NGO staff, those travelling abroad for medical treatment or study, sailors, and foreigners.

Cards

Debit Card: The customer can avoid the trouble of constantly carrying cash by making payments online, at convenience stores, malls, and restaurants with a Debit Card. Make cash withdrawals from any of the many ATMs operated by KBZ or those of other banks. ATM withdrawals are available every day of the year.

MPU E-Commerce: Holders of KBZ MPUs who have registered for e-commerce are able to make purchases on merchant websites. Visit the nearby KBZ location to register for e-commerce.

Prepaid Card: Both Visa and MasterCard are accepted on the prepaid KBZ card. Travelers visiting other countries, students moving overseas for further study, and anyone who wants to make online payments can all use KBZ Prepaid Cards. Everywhere in the world, including online stores and ATMs, accepts this prepaid card. Logging into your KBZ online account allows you to quickly view your card transactions and balance. You can only apply for a quick prepaid card at a few branches.

Teens Card: For teenagers under 18, especially students, our Teens Card is ideal. With this card, young clients can pay at restaurants, mini-marts, shopping malls, and internet retailers without having to carry around cash all the time.

International Card Acceptance: In December 2012, KBZ Bank began its international card acquiring operation. Now VISA, MasterCard, Union Pay International, and JCB cards are accepted at all KBZ ATMs and Point of Sale terminals.

Credit Card: A well-known payment card company is UnionPay International (UPI). With a merchant acceptance network spanning over 178 countries, the UnionPay card is steadily rising in importance as one of the most significant credit cards in Asia. Customers with the KBZ VISA Credit Card have immediate access to funds for both cash advances at any ATM sporting the VISA logo and POS or online transactions. There are currently more than 200 nations that accept VISAs.

Loans

Shopper Installment Loan: With the new Shopper Installment Loan from KBZ Bank, the customer can buy sizable items with an upfront payment. The customer can repay the loan in installments with the aid of an adaptable monthly payment schedule that satisfies the circumstances.

Overdraft: In order to encourage development, boost economic growth, and raise working capital inside the nation, KBZ provides loans and overdrafts to inhabitants of Myanmar.

Home Loan: The greatest variety of tenors, down payments, and KBZ Home Loans are offered to accommodate various customer preferences, requirements, and qualifications. We recognize that each home buyer's situation is particular, and your own KBZ Home Loan Consultant helps you navigate the mortgage application process. The customer can repay the loan over a realistic length of time thanks to the 25-year tenures offered by KBZ Home Loans.

SME Loans: KBZ Bank's SME Banking offers comprehensive financial services and overall solutions to assist Myanmar's SME company entrepreneurs and to stimulate the economy in a timely and orderly manner.

Technology-based innovative services

Self-service banking portal: Customers can create their accounts and seek further services related to their accounts online through the self-service banking portal. Without visiting the branches, opening an account is simple when using the self-service banking portal.

ATM Banking: The customer can always find a KBZ branch or ATM nearby. The customer can withdraw money, transfer the money, make a cashless withdrawal, and get a bank statement.

Personal Mobile Banking: A smartphone app called personal mobile banking enables you to manage your finances at any time and from any location. Through personal

mobile banking, customers can transfer money, manage their cards, top up, pay bills, purchase entertainment gift cards, and much more.

Business Internet Banking: Customers can manage real-time financial transactions using KBZ Business Internet Banking, sometimes referred to as iBanking, utilizing internet-connected PCs, laptops, smartphones, and other devices. It is a useful tool for all sizes of businesses, including small, medium-sized, and huge worldwide corporations. Business iBanking provides a simple and practical method for companies to manage their money while still in the comfort of their offices. It is accessible round-the-clock and gives more secure access for makers and checkers, respectively.

KBZPay: The mobile wallet service KBZPay is run by KBZ Bank, one of Myanmar's most recognized banks. It is now available for download across the country and is the simpler, safer, and more useful method to transfer money. With KBZPay, it takes just a few touches on the phone to pay, transfer, cash in, or cash out.

Transfer local banks with CBM-Net Transfers: All local banks are linked through CBM-Net transfer, which enables 24/7 transfers of Myanmar kyat between banks. Through CBM-Net transfer, transfers can be done, including payroll transfers and withdrawals for paying taxes or utility bills.

Cheque Drop Box Facility

KBZ Bank provide Cheque drop box service at some of the branches. These cheque drop boxes will be collected daily before noon by the branches. Customers can make smoother payments without having to go to the bank because of the clearing service, which is provided daily.

3.5 Cheque Truncation System of KBZ Bank

System Quality of cheque truncation system

The integration of new information systems with the core banking system is necessary. Because transactions flow between the CTS and the core banking system, flexibility in connection with both systems is crucial. The system has to be adaptable so that it can meet the new requirements. Whenever requirements alter, the CTS can have flexibility to change. The user has more flexibility with CTS for daily tasks.

Information system security is critical for both individuals and organizations. The CTS system regulates each transaction using the makers and checkers concept. Every transaction cannot be completed solely by the maker. User administration is included in the CTS system, each user is assigned to their respective role. The CTS

system has protection against unauthorized access, segregation of duties, auditing and logging, and strict access control. The historical data is correctly and securely stored by CTS.

A computerized information system may help you keep track of employee productivity, improve organizational transparency, and save costs without sacrificing the efficiency of your company's operations. After scanning the cheque with a cheque scanner, the data on the cheques is automatically entered into the CTS system. The CTS system can automatically classify cheque and payment order types by using the MICR code on the cheque. When the error occurs, the system clearly shows the error message to tell the user how to fix the error.

Response time is the length of time it takes to react to a query, including the time needed for the computer to process it and transmit back the solution to the user. A common measurement for evaluating the effectiveness of an information system is response time. Inquiries concerning accounts and cheques are promptly answered by CTS. When you enter data, the CTS system reacts and replies immediately. CTS can produce the output file for CBM-Net CTS uploading rapidly.

Information Quality of cheque truncation system

Understandability means users can evaluate the relevance of the information according to its clarity in CTS. Understandability is one of the most important attributes of information quality. The data we are receiving from the CTS system is clear. Clear information helps the user read, understand, and use the information that the CTS system provides.

Any organization needs accurate data since it may help with more productivity, better decision-making, lower costs, better marketing, and greater compliance. The information system used by the company should provide accurate data. Information is essential in the banking environment, accurate and reliable data are essential for the user. The user can make better decisions if the data is accurate and reliable. This is how the bank makes the right moves and beats its competition. The CTS system provides accurate information.

CTS provides precise information for the user's intended tasks. The CTS system provides the status of the accounts, cheques and amounts when the user makes an inquiry about the information. The signature of the customer account checking is really important for payment transactions. The maker and checker check the account balance, cheque status, and signature to make the decision for the payment transaction.

Bank use the information system to describe the accuracy, completeness and comprehensiveness of information on customer clearing transactions documented in CTS system. The data provided by CTS is adequate. CTS provides information that is relevant to the targeted job. CTS outputs are provided in an efficient report format. With its information content, CTS satisfies user requests.

A key component of information quality is timeliness since incomplete or out-of-date information can affect how individuals make judgments. Hence, it costs companies time, money, and damage to their reputation. The user is promptly given the appropriate information by the CTS system. The information in the CTS system is current and updated regularly. The quality of the job is improved by the CTS system time information.

Perceived ease of use of cheque truncation system

Easiness to use is critical for every information system. All users may easily do their tasks with CTS. A user-friendly CTS system is simple to understand for beginners. Also, it is simple to use. CTS system provides easy access to learning resources, computers, and other technology. CTS system can save historical information about clearing transactions that users can easily trace their transactions. Inward and outward clearing transactions are saved in the CTS system, and users can easily reconcile the transactions after the daily cutoff time. Easily reconcile the transactions of the bank and CBM. The CTS system is simple to learn from the beginner to the skilled levels. CTS system is user-friendly and easy to remember the step-by-step processing task.

3.6 Process of Cheque Truncation System in KBZ Bank

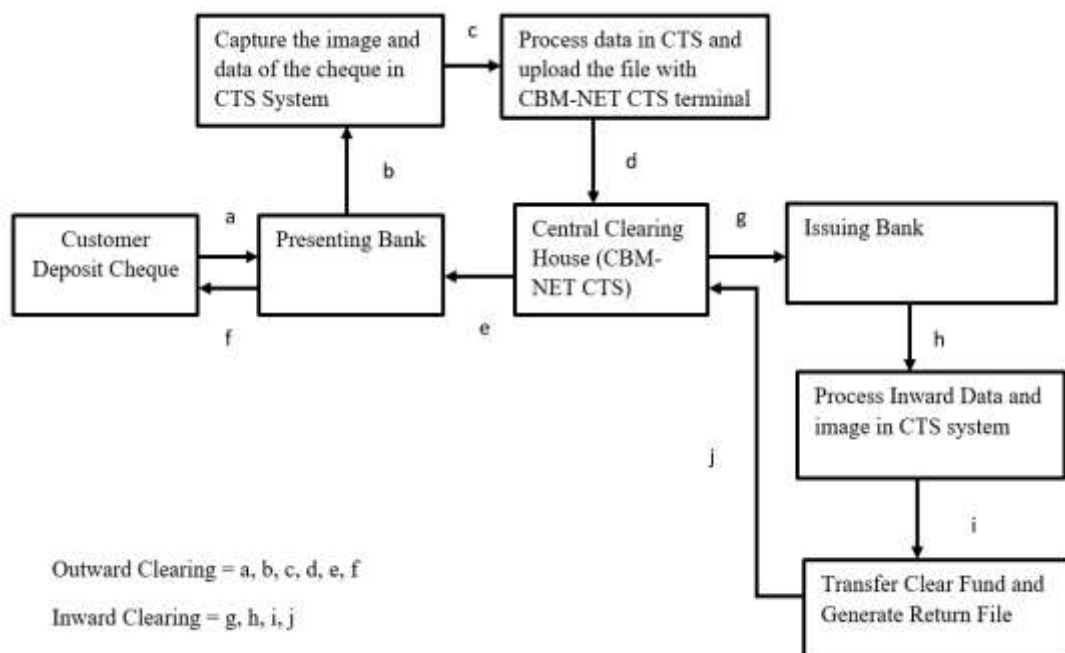
Paper based payment instruments such as cheques and payment orders (POs) approved by the CBM to use CTS in KBZ payment. The payment instruments must be in the local currency (Kyat). To facilitate processing by CTS, cheque and po must be MICR-encoded. Payment information and cheque images are captured using image readers (scanners). If any of the following circumstances arise, an admissible negotiable instrument will not be eligible to be cleared in the CBM-Net CTS:

1. Post-dated cheque and PO
2. Discoloration, counterfeit, soiled, or distortion cheque/PO
3. Expired cheque/PO
4. Rejected cheque and PO without satisfying rejection reasons

The Dictionary of Banking & Finance (2005) describes a streamlined banking system in which actual cheques are stored by the presenting bank instead of being transmitted to the issuing bank, which then notifies the paying bank of the receipt of the cheques by truncating them using digital information. To increase the acceptability of checks in transaction settlement, a technology called "cheque truncation" uses visual images delivered electronically to authenticate cheques rather than physically examining and exchanging them at the clearing house (Ademigbuji, 2012). This study described the first objective of the research shown in Figure (3.3).

Figure (3.3) shows the process of cheque truncation system in KBZ Bank. There are two types of cheque clearing: outward clearing and inward clearing. In the outward clearing process, the customer gives the other bank's cheque to the KBZ bank to credit the KBZ bank's account. The staff captures image and MICR data and the endorsed UIC (unique identification code) of the cheques by using a cheque scanner. All cheques submitted for clearing must have the Magnetic Ink Character Recognition (MICR) code line data and the presenting bank's proper capture. The presenting bank presents the images of the front and back of the cheque and MICR code line data of the cheque to the issuing bank electronically by transmitting through CBM-Net CTS.

Figure (3.3) Process of Cheque Truncation System in KBZ Bank



The system automatically enters the Presenting Bank, Presenting Branch, Issuing Bank, Issuing Branch, Debit Account No, Credit Account No and Amount. The entry user reenters the account and amount. The checker double-checks the information entry with the entry staff. The checker generates an outward clearing file and uploads the file to the CBM-Net CTS. The Presenting Bank always ensures that the total number of cheque images and the total amount supplied over CBM-Net CTS are equal to the total number of cheques and the total amount held by the Presenting Bank.

The clearing house receives this truncated image of the cheques and categorizes it according to the MICR codes. These electronic cheque images are then sent to the respective issuing banks for clearance. All member banks may receive the processed results from the CTS as reports, including the net position (amount for settlement), once per banking day. Payment data and cheque pictures registered by presenting banks to the CTS are moved to relevant issuing banks and cleared. When the KBZ bank gets the outward retrun file from CBM-Net CTS, the system automatically credits to the account and return the success status in the file.

Inward clearing occurs when KBZ Bank receives the issuing cheque from the CBM and its customers use the cheques at other banks in Myanmar. In the inward clearing process, the cheque issuing bank downloads the inward clearing file from CBM-Net CTS and imports the file. The staff verify whether the debit account has a sufficient amount or not, the cheque date, amount, and figures on the cheque, customer mandate, and customer signatures to approve or reject the cheque. A detailed and accurate signature from the customer is required to confirm any significant revisions to the cheque.

Cheques with incomplete or initial-only signatures that indicate modifications will not be honored by the bank. Ink must be used to write cheques, and the writing must be legible. The bank will not honor cheques whose signatures do not match the samples provided to the bank and whose withdrawal amounts do not match in both language and numbers. Six (6) months prior to the date of withdrawal, the bank will not honor cheques. Post-dated cheques will not be honored by the bank. The issuing bank staff carefully checked the cheques status with the cheque truncation system in KBZ Bank.

Once the image and MICR code line data of the cheque have been received and are in good order, the issuing bank is just required to pay for the cheque. The date, payee name, amount in words or figures, and signature on the scanned copy of the

cheque and the PO must be accurate and verified by the issuing bank. For the approved cheque, the system automatically debits the amount from the debit account and generate the return file. Once these things are in order, the issuing bank releases the funds to the clearing house, which in turn releases them to the presenting bank. Otherwise, it returns the unpaid cheque with an electronic image and advice. In the return clearing process, the return file includes details of all cheques that have been marked for return for either sufficient funds or insufficient funds. The insufficient funds cheque includes the return reasons. When the presenting bank downloads the CBM-Net CTS return file, the system automatically credits the customer's account with sufficient funds. The cheque clearance gets completed with these above procedures within a short span of time.

CHAPTER IV

ANALYSIS OF USER SATISFACTION AND USER PERFORMANCE OF CHEQUE TRUNCATION SYSTEM

This chapter presents the analysis about user satisfaction and user performance of cheque truncation system in KBZ Bank. This study includes the demographic profiles of the users who are using the cheque truncation system in the KBZ Bank. This study analyzes the collected information about the user satisfaction and user performance of cheque truncation system at KBZ Bank.

4.1 Research Design

The purpose of this study was to examine user satisfaction and user performance of the cheque truncation system at KBZ Bank. This study employs the quantitative research methodology. Both primary and secondary data were collected for this study, however only primary data was actually used. This study uses secondary data that was obtained from books, websites, journals, and other research. A series of structured survey questionnaires are used to gather primary sources for primary data. Multiple choice options are provided for the questionnaire. The respondents are the employees of KBZ Bank who are working on or supporting the Cheque Truncation System. This study uses quantitative research and survey methods for data collection via Google Forms and email.

The population represents all the users of Cheque Truncation System in KBZ Bank. KBZ has installed cheque scanners in five locations in Yangon, one in Mandalay, and one in Naypyitaw. The CBM Net Clearing HO team is at Kyun Taw Lan Branch in Yangon. The target population must be the employees who are working with the Cheque Truncation system in KBZ Bank which includes the front office, the CBM Net Clearing HO team and a technical support team. There are 70 people, including clearing staff, HO staff, and technology support staff, who are the users of the Cheque Truncation System. This study collected 50 users as a sample size by applying a simple random sampling method. The weighing data of sampling is 70% of the population.

The primary data for this study was gathered in February 2023. The collection of data is based on the employees who are working with CTS at KBZ Bank. The questionnaire was divided into three sections. Hence, five Likert-scale categories are used to create these surveys. Part A contains profiles of employees; Part B covers the scope of

CTS in the banking sector and whether the banks have adopted it. Part C includes the user satisfaction and user performance of KBZ Bank's use of CTS.

The research models TAM and Information Success Model are used for studying the user satisfaction and performance of the Cheque Truncation System in KBZ Bank. Descriptive statistics (mean, standard deviations, and median) are employed to analyze the collected data. Regression analysis is used to study the factor influencing on the user satisfaction and analyze user performance as an individual impact of using CTS in KBZ Bank.

Despite the fact that CBM Nets provides many banking services to KBZ Bank, this study focuses on the cheque and payment order clearing processes using the Cheque Truncation system. The target population must be the employees who are using the Cheque Truncation system in KBZ Bank, which includes the front office, the product owner of the Cheque Truncation system, and the technical support team.

4.2 Demographic Profile of Respondents

Gender, age group, education, and banking experience of respondents are surveyed characteristics in the demographic session. Gender classification is the first step in the demographic profile analysis.

Table (4.1) Demographic Information of Respondents

Description		Number of Respondents	Percentage (%)
Gender	Male	14	28
	Female	36	72
Age (Years)	21 - 30 years	19	38.0
	31 - 40 years	24	48.0
	41 - 50 years	6	12.0
	Above 50 years	1	2.0
Education	Bachelor Degree	4	8.0
	Post Graduated Degree	41	82.0
	Master Degree	5	10.0
	Ph.D	0	0

Description		Number of Respondents	Percentage (%)
Experience (Years)	1 - 5 years	5	10.0
	6 - 10 years	27	54.0
	11 - 15 years	13	26.0
	16 - 20 years	3	6.0
	above 20 years	2	4.0

Source: Survey Data (2023)

Table (4.1) shows that there are 14 men and 36 women in the sample, suggesting that the majority of respondents, comprising 72% of the total, are female employees, with a response rate of 28% for male respondents. The female responses are therefore more dominating than the male ones.

According to the age distribution of respondents, those between the ages of 21 and 30 account for 38%, those between the ages of 31 and 40 account for 48%, those between the ages of 41 and 50 account for 12%, and those over 50 account for only 2%. This indicates clearly that most of the users are in the middle-aged group.

Based on the survey, the education level of respondents is divided into 4 categories: bachelor's degree, postgraduate degree, master's degree and Ph.D degree. It was discovered that 82% of respondents have a postgraduate degree, 8% have a bachelor's degree, and 10% have a master's degree. In order to improve organizational performance, the organization seeks to employ highly skilled individuals with technical abilities, as indicated by the overwhelming proportion at the postgraduate degree level.

According to the respondents' banking experience, 54% of respondents have between six and ten years, 26% have between eleven and fifteen years, 10% have between one and five years, 6% have between sixteen and twenty years, and only 4% have more than twenty years. Most of the user have banking experience more than 5 years.

4.3 Reliability Test for Study Variables

Cronbach's alpha is a statistic that expresses internal consistency, or the degree to which a collection of items is related to one another. It is used as a scale dependability measurement. The statistical analysis's reliability must be verified. Many pieces of evidence must be gathered for a survey, and the test findings must be subjected to a

certain analysis. The "reliability" of a test is the term used to describe it. Five-Likert Question's alpha can be interpreted generally as follows:

Table (4.2) Rules of Thumb for Alpha Result

Alpha Coefficient Range	Internal Consistency
0.05 to Less than 0.60	Poor
0.60 to less than 0.70	Questionable
0.70 to less than 0.80	Acceptable
0.80 to less than 0.90	Good
0.90 and above	Excellent
Below 0.5	Unacceptable

Source: Hair Jr., Babin, Money, & Samouel (2003)

Cronbach's Alpha has a value that is between 0 and 1. A high alpha number may indicate duplicate questions, whereas a low alpha value may indicate insufficient exam questions. It is necessary to evaluate the validity of the surveys that discussed user satisfaction and user performance. As a result, the Cronbach's Alpha test was measured in this study as follow.

Table (4.3) Reliability Test of the Constructed Variables

Variable	No. of Items	Cronbach's Alpha
System Quality	12	0.818
Information Quality	10	0.840
Ease of Use	6	0.714
User Satisfaction	5	0.700
User Performance	5	0.702

Source: Survey Data (2023)

All independent and dependent variables have Cronbach's Alpha values better than 0.7. As a result, it is accepted that the data for these variables is reliable. The majority of social science study circumstances regard a reliability coefficient of 0.70 or above to be "acceptable" (Cohen R, Swerdlik M, 2010). According to Table (4.3), system quality is composed of 12 items, information quality of 10 items, ease of use of 6 items, user satisfaction of 5 items, and user performance of 5 items. Cronbach's alpha values for each variable are greater than 0.70, and the item composition is said to be, indicating that all construct measures are acceptable.

4.4 Descriptive Analysis on the Factors Influencing User Satisfaction and User Performance of Cheque Truncation System

The factor that affect the user satisfaction of cheque truncation system in KBZ Bank are measured using an interval scale in this section. Three effectiveness factors are used in analyzing the user satisfaction of cheque truncation system in KBZ Bank. They are system quality, information quality, and ease of use. All variables are measured via a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The 50 sampled respondents who are working with or supporting the cheque truncation system in KBZ Bank were asked to rate the statements that influence the user satisfaction of the cheque truncation system in KBZ Bank. The result of the data coming from the conceptual framework is analyzed with the following average mean score level (Rogers ,1983).

Table (4.4) Average Mean Score Level

Average Mean Score	Level
1.00-1.80	Very Low
1.81-2.60	Low
2.61-3.40	Moderate
3.41-4.20	High
4.21-5.00	Very High

Source: Rogers (1983)

System Quality

The first analysis of the factor influencing on the user satisfaction of cheque truncation system is the system quality. The attributes of the system quality is the system flexibility, securability, accessibility and response time of the system. Each attributes contains three questions. The result of the descriptive analysis of user perception on system quality of cheque truncation system in Table (4.5).

Table (4.5) User Perception on System Quality

No.	Statement	Mean	Std. Dev
System Flexibility			
1	CTS can be integrated with core banking systems.	4.22	0.79
2	CTS allow user more flexibility in the daily activities.	3.94	0.586
3	CTS can flexibly adjust to new work requirements.	3.88	0.659
		4.01	
Securability			
4	CTS applies the concept of maker and checker to improve system security.	4	0.756
5	CTS keeps the historical data securely and accurately.	3.94	0.682
6	Only users who have permission can access CTS.	4.16	0.766
		4.03	
Accessibility			
7	CTS automatically input the scanned data of the cheque.	3.8	0.833
8	CTS automatically classify the cheque and Payment Order type.	4.22	0.737
9	CTS provides error messages that clearly tell user how to fix the problem.	3.74	0.777
		3.91	
Response Time			
10	CTS system reacts and responds quickly when you entered data.	4.14	0.833
11	CTS provides quick responses to the enquiry about accounts and cheques.	3.74	0.853
12	CTS can quickly produce the output file to upload CBM-Net CTS.	4.04	0.755
		3.97	
Total Average		3.98	

Source: Survey Data (2023)

Table (4.5) shows how satisfied users are with the security quality of the cheque truncation system. Analyzing each of the attributes with average mean score, the respondents highly agreed that users satisfy each transaction is controlled with the

concept of maker and checker and user authority control in securability with a mean score of 4.03. With a mean score of 4.00, respondents also high agreed that System Flexibility because CTS can be integrated with core banking systems that make easy for implementation and make new requirements. Furthermore, respondents also highly agreed that response time attribute gets an average mean score of 3.973 because CTS quickly responds to entered data. Lastly, respondents also highly agreed that accessibility attribute gets an average mean score of 3.91.

According to the each question overall mean score of users' preferences, respondents also highly agreed that CTS can be integrated with core banking systems, and every transaction at CTS goes smoothly to the core banking system and users highly agree is that CTS can automatically classify the type of cheque and payment order, saving the user time with an average mean score of 4.22. Users highly agree that CTS can only access users who have the appropriate permissions, which is one of the most satisfying aspects of the system quality in 4.16. The cheque truncation system's average system quality overall mean score is 3.985. Further, with an average mean score that indicates that users have a high level of perception of the system quality at cheque truncation system because of user management inclusion, flexibility of integration, and automatic classification of cheque and payment order types.

Information Quality

The quality of the information is the second analysis of the factor influencing user satisfaction with the cheque truncation system. The system's understandability, comprehensiveness, and timeliness are attributes of information quality. Table 4.6 shows the result of information quality of the cheque truncation system in KBZ Bank.

Table (4.6) User Perception on Information Quality

No.	Statement	Mean	Std. Dev
Understandability			
1	Information by CTS is clear.	3.5	0.886
2	Information by CTS is accurate.	3.66	0.798
3	CTS provides the precise information for intended tasks of the user.	3.7	0.931
		3.62	
Comprehensiveness			
4	CTS provides sufficient information.	4.1	0.707
5	Information by CTS are relevant to the intended task.	3.24	0.981
6	Outputs of CTS are presented in a useful format	4	0.756
7	User demands are met by the information content offered by CTS.	3.6	0.857
		3.73	
Timeliness			
8	CTS system provides user with the necessary information in a timely manner.	3.76	0.797
9	The information contained in CTS system is timely and regularly updated.	4.18	0.748
10	Information from CTS system time improves the quality of work.	3.66	0.798
		3.87	
Total Average		3.74	

Source: Survey Data (2023)

This study analyzes the information quality of the cheque truncation system in KBZ Bank shown in Table (4.6). The attributes of information quality are understandability, comprehensiveness, and timeliness. Firstly, User high agreed that timeline attributes with information quality with 3.87 mean score because CTS provides user with necessary information with timely manner and provide updated information timely. Secondly, User highly agree the comprehensiveness attribute of information quality with average mean value 3.73 because CTS provides enough information and the output of CTS presents in useful format. Thirdly, Users highly agree that

understandability attribute of the information quality with mean score 3.62 because user get the precise information for intended tasks from CTS.

The information quality of the cheque truncation system is used to construct ten statements. After analyzing each statement of information quality with the mean value, user highly agreed that the information provided by the CTS system is timely and regularly updated that with a 4.18 mean score. User also highly agree that CTS provides the information sufficiently, resulting in a 4.1 mean score. The third high mean value, 4.0 gets the output format of CTS, which is a really useful format. The overall mean value of information quality is 3.74, it can be concluded that users have a high level of perception of information quality of cheque truncation system in KBZ Bank because CTS can provide complete, accurate and sufficient information with timely manner and the precise information of CTS meets the intended tasks of the user.

Perceived Ease of Use

The third analysis of the factors influencing user satisfaction is the ease of use. Five statements were created to ask the respondents Table 4.7 summarizes the findings of the study, which identified ease of use as one of the factors influencing user satisfaction with the KBZ Bank's cheque truncation system.

Table (4.7) User Perception on Ease of Use

No.	Statement	Mean	Std. Dev
1	CTS is user friendly.	4.18	0.596
2	The user can easily get the information from CTS.	3.94	0.935
3	CTS provide easy to reconcile the transactions.	3.96	0.781
4	User can trace the transaction easily using CTS.	3.88	0.689
5	It is easy for user to remember how to perform tasks using CTS.	3.66	0.772
6	It would be easy for users to become skillful at using CTS.	3.38	0.667
Total Average		3.83	

Source: Survey Data (2023)

Table (4.7) shows that users of the cheque truncation system in KBZ Bank highly agree with the user-friendliness of the cheque truncation system with a 4.18 mean score. Secondly, user highly agree that the mean score of 3.96 is for ease of

reconciling transactions among the user, bank, and CBM. For the ease of use factors, the lowest mean point is 3.38 because users feel it is not easy to become the skillful person at the Cheque truncation system. The easiness of use gets 3.83, it can be concluded that users have high perception of ease of use of cheque truncation system because CTS is user friendly and easy for reconciliation process.

Table 4.8 shows the overall mean of factors influencing user satisfaction. According to the three factors of the cheque truncation system, the system quality gets highest 3.98 because CTS is easy for system integration, provides automatic clarification of cheque and payment orders, and only authorized users can access the system.

Table 4.8 Summary of Overall Mean Value

No.	Description	Overall Mean Value
1	System Quality	3.98
2	Information Quality	3.74
3	Ease of Use	3.83

Source: Survey Data (2023)

User Satisfaction of Cheque Truncation System

This section describes the respondent’s perception of user satisfaction of the cheque truncation system in KBZ Bank.

Table (4.9) User Satisfaction of Cheque Truncation System in KBZ Bank

No.	Statement	Mean	Std. Dev
1	CTS is useful for user.	4.18	0.523
2	CTS system automation has met my expectations.	3.8	0.833
3	I am very pleased with using CTS at my work.	3.94	0.586
4	I am satisfied with the learning to become experts of CTS.	3.74	0.777
5	I am satisfied with using CTS for meeting my requirement.	3.88	0.746
Total Average		3.90	

Source: Survey Data (2023)

According to Table 4.9, the highest value of 4.18 for user satisfaction indicates that respondents highly agree that CTS is really useful for the user. The second highest mean value of 3.94 indicates that the users feel convenient while using CTS at work. The lowest mean value of 3.74 for the user satisfaction factor indicates that learning CTS to become an expert is difficult. Because the CTS system has only been in use at KBZ Bank for two years, the user finds it a bit difficult to learn to become an expert in the CTS system. User satisfaction gets 3.90, indicating that users have a high- level of perception of user satisfaction. It can be concluded that the users are satisfied with CTS and are willing to work with the system.

User Performance

Table 4.10 describes the level of user performance of the cheque truncation system in KBZ Bank. This study used five levels to measure the user's performance.

Table (4.10) User Performance of Cheque Truncation System in KBZ Bank

No.	Statement	Mean	Std. Dev
1	CTS helps users to eliminate repetitive manual tasks that increase user performance.	4.44	0.577
2	CTS reduces manual errors by users that increase user performance.	4.18	0.523
3	CTS can keep history recording and it is easy to trace the transaction that efficient my job.	3.94	0.586
4	CTS helps users to improve work continuously.	4.22	0.616
5	CTS supports user's tasks and has been faster, more accurate, reliable, efficient and effective.	4.34	0.626
Total Average		4.22	

Source: Survey Data (2023)

The total mean value of user performance is 4.22, which represents the user performance of the KBZ Bank's check truncation system shown in Table (4.9). The highest mean of 4.44 describes the user's ability to eliminate repetitive manual tasks. Secondly, the mean value of 4.34 indicates that CTS assists the user's task to be completed faster, more accurately, more reliably, efficiently, and effectively, and the smallest values of the mean, 3.94 indicate that the CTS system can easily trace the

transactions with the history record that users rarely use when a conflict or mismatch occurs. In conclusion, users have a very high-level perception of the user's performance and that using the CTS increased the user's performance.

4.5 Analysis of Factors Influencing User Satisfaction of Cheque Truncation System in KBZ Bank

This study consists of correlation coefficient analysis and multiple regression analysis for factors influencing user satisfaction of cheque truncation in KBZ Bank.

4.5.1 Correlation Coefficient of Factors Influencing on User Satisfaction

Each component has a unique set of items, which are all scored on a Likert scale of 1 to 5. This study demonstrates the relationship between the components of the cheque truncation system and user satisfaction in Table (4.11).

Table (4.11) Correlation Analysis of User Satisfaction

No.	Factors of Cheque Truncation System	Users' Performance	Level of Significant (2-tailed)
1	System Quality	0.788**	0.000
2	Information Quality	0.746**	0.000
3	Ease of Use	0.682**	0.000

Source: SPSS Results (2023)

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

Between 0.10 and 0.29 is regarded as a weak correlation coefficient, between 0.30 and 0.49 as a medium correlation coefficient, and between 0.50 and 1.00 as a strong correlation coefficient. In the Pearson Correlation test, the significance threshold is 0.01 and the level of confidence is 99%. In order to test the relationships, the factors of cheque truncation system, such as system quality, information quality and ease of use, are independent variables, and the user satisfaction is the dependent variable. Table 4.11 shows that the statistical significance level of the correlation is 0.000 and less than the alpha of 0.01. Moreover, the analyzed data shows that all of the independent variables have a strong positive relationship with the dependent variable, user satisfaction.

4.5.2 Regression Analysis of Factors of Cheque Truncation System Influencing on User Satisfaction

To analyze the influencing factors of user satisfaction, the data was analyzed through regression analysis. Multiple regression analyses described the influence of system quality, information quality, and ease of use dimensions on user satisfaction. The result of the regression analysis is shown in Table 4.12. R-squared values range from 0 to 1, depending on: A value of 0 means that the predictor variables have no effect on the response variable at all. A value of 1 means that the predictor factors fully explain the response variable.

Table (4.12) Regression Analysis of User Satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	VIF
	B	Std. Error	Beta			
(Constant)	.252	.367		.685	.497	
System Quality	.462***	.149	.432	3.099	.003	3.024
Information Quality	.202	.122	.230	1.657	.104	2.993
Ease of Use	.276***	.102	.282	2.709	.009	1.678
N	50					
R2	0.704					
Adjusted R2	0.685					
F value	36.466**(0.000)					

Dependent Variable: User Satisfaction

Source: SPSS Result (2023)

Notes

*** = Significant at 1% Level, ** = Significant at 5 % Level, * = Significant at 10 % Level

As a result of Table (4.12), the adjusted R square value is 0.685, indicating that these factors explain 68% of the variation in user satisfaction, with the remaining 32% due to other factors. The clear result of beta 0.462 is that the system quality of cheque truncation system does have the greatest influence on user satisfaction at KBZ Bank.

The values of the coefficients in Table (4.12) reveal the dimensions that have the most and least influence on user satisfaction through the P values that exist for each

of them. The analysis reveals that system quality and ease of use have a significant influence on user satisfaction, as the value of P is less than 0.01 for system quality and ease of use. Thus, it is concluded that the two dimensions, namely, system quality and ease of use contribute highly to user satisfaction.

From the findings of Table (4.12), there was no collinearity among the independent variables, as evidenced by the variance inflation factor (VIF) values of 3.024 for system quality and 1.678 for ease of use. If the VIF value is less than 10, it is accepted across all independent variables.

Analyzing the independent variables, system quality and ease of use are significant at a 1% level with a p-value less than 0.01. Thus, these two variables have a positive influence and are dominant in determining user satisfaction.

The indicator of ease of use of the cheque truncation system has a positive sign and a significant relationship with user satisfaction because the standardized coefficient (Beta) is 0.276 and the significant value is 0.009, which is less than 0.01 (99% confidence interval). The correlation indicates that the increase in ease of use resulted in a rise in user satisfaction at KBZ Bank. When the variation explained by other factors is adjusted, a one-unit increase in ease of use result in a significant 27% raise in user satisfaction.

The indicator of system quality for the cheque truncation system has a positive sign and a significant relationship with user satisfaction because of the standardized coefficient (Beta) is 0.462 and the significant value is 0.003, which is less than 0.01 (significant at the 1% level). The positive relationship indicates that, when the variance explained by other factors is accounted for, an increase in the system quality of the cheque truncation system leads to a 46% increase in user satisfaction.

In conclusion, the results show that system quality and easiness of use of the cheque truncation system have significant value and are also the main determinant of user satisfaction. Based on the positive relationship, the increase in system quality and ease of use leads to an increase in user satisfaction with KBZ Bank. The cheque truncation system's system quality have the greatest impact on user satisfaction due to its high R-value of 0.462. The survey result shows ease of use and system quality of the cheque truncation system have medium effect on the user satisfaction at KBZ Bank.

4.6 Analysis of the Effect of User Satisfaction with the Cheque Truncation System on User Performance in KBZ Bank

A linear regression analysis is performed to examine the impact of user happiness on user performance in KBZ Bank, and the findings are presented in Table (4.13).

Table (4.13) Regression Analysis of User Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	1.925	.346		5.557	.000
User Satisfaction	.588	.088	.694	6.686	.000
N	50				
R2	0.482				
Adjusted R2	0.471				
F value	44.701**(0.000)				

Dependent Variable: User Performance

Source: SPSS Result (2023)

Table (4.13) explains the relationship between user satisfaction and user performance by having a positive and significant influence on user performance. The accuracy percentage of the result is 47%, and the value adjusted R square value of 0.471 may explain that. The remaining 53% can be attributed to the impact of other factors.

The p-value of user satisfaction was 0.00 and is considered to be significant at a 1 % level and 99% confidence level. The result indicated that the user satisfaction of cheque truncation system have a positive influence on the user performance. The indicator of user satisfaction of cheque truncation system has a positive sign and a significant relationship with user performance according to a standardized coefficient (Beta) of 0.588 and significant value is 0.00 which is less than 1% (significant at 1% level). This positive relationship indicates that the variance explained by other factors is accounted for, an increase in user satisfaction of cheque truncation system leads to 47% increase in user performance. This result shows user satisfaction of cheque truncation system have a moderate positive effect on the user performance at KBZ Bank.

CHAPTER V

CONCLUSION

This study examined the user satisfaction and user performance of cheque truncation system in KBZ Bank. The findings from Chapter 4 are summarized in this chapter. It includes findings, discussions, suggestions, recommendations, and needs for further study.

5.1 Findings and Discussions

In the analysis of the demographic profiles of respondents, the survey explains that there are a greater number of female respondents than male respondents. From the findings of the analysis of the respondents' age level, a greater number of respondents fall into the age range of 31 to 40 years. The majority of respondents have a post-graduate degree level of education. In the analysis of banking experiences in this study, the range of experiences was mostly between 6 and 10 years and between 10 and 15 years at the KBZ bank.

According to the descriptive survey results from the first dimension of the system quality of the cheque truncation system, the first time a new system creation (CTS) can be seamlessly integrated with the core banking system, it receives the highest mean score in the system quality of the cheque truncation system. The CTS system can automatically classify the types of checks and payment orders. The automation process saves the user time and prevents manual errors. User management of the cheque truncation system controls the users, and only permitted users can access the system. That is the benefit of using systems instead of manual processes.

Another system quality is quick response; when the user uses the cheque truncation system, the system provides rapid responses and does the processing to satisfy the user, and it can also produce the output file quickly for uploading to the CBM-Net CTS. The user feels that using CTS gives them more flexibility in their work. Keeping a transaction history allows them to easily trace their transactions and prevent fraud. Every day, users must reconcile clearing transactions. If there is a mismatch in the amount and account, CTS allows the user to trace their transactions and easily fix the problem in real time. Users are pleased with the cheque truncation system's ability to accurately and securely store history data. The mean value of system quality for the cheque truncation system indicates that the staff has a high level of perception of the system's quality because it can provide user management security, make the transaction

in time, and automatically classify cheque and payment orders. Users are more satisfied using the cheque truncation system in the clearing process than manual clearing.

Regarding the information quality analysis, information quality is the quality of the system that presents the data to the user after making transactions in the system. Timeliness is the most important aspect of the information quality of the cheque truncation system. The reconciliation process needs accurate, secure, and updated information in a timely manner. Users feel that comprehensiveness gets the second highest mean value. The information provided by the CTS is sufficient, and the output file of the CTS is useful. Information provided by the CTS met the requirements of the user and was relevant to the user's task. The understandability of information quality gets an average mean value. It can be found that the overall mean value of information quality factors indicates that the staff perceives that they have a high level of perception with respect to presenting information to the user with sufficient, accurate, and updated information in time.

After analyzing the ease of use of the cheque truncation system, CTS is user friendly and easy to reconcile. Providing ease in the reconciliation process allows the user to finish their task easily. Faster reconciliation saves time and keeps users satisfied with their work. The average mean score gets the user feel they can get the information from the system easily and trace the transaction easily. The lowest mean score gets the easiness to become skillful at using CTS. The overall mean value for easiness to use factors indicates that the staff perceives that they have a high level of perception with the application of CTS is user friendly and really easy in the reconciliation process.

Regarding to the second objective, analyzing the factors influencing on user satisfaction, the cheque truncation system using multiple regression analysis performed to observe the relationship between the independent variables (system quality, information quality, and ease of use) and user satisfaction. According to the results of the multiple regression analysis, two variables (ease of use and system quality) have a significant and positive effect on user satisfaction, and system quality is strongly related to user satisfaction.

To examine the third objective, the linear regression model deployed to test which aspect of user satisfaction with the cheque truncation system is most related to user performance. In summary, the result shows that user satisfaction has a significant and positive effect on user performance, and is strongly related to user performance.

5.2 Suggestions and Recommendations

This study suggests that KBZ Bank should mainly focus on using information systems to improve banking services and attract more customers. In order to compete with other banks for customers, the organization should prioritize the adoption and use of information systems. A good information system can reduce processing time and waiting time and increase user satisfaction. After making this study, two variables (system quality and ease of use) influenced the user satisfaction of the cheque truncation system. When using the KBZ Bank cheque truncation system, system quality and ease of use have a significant impact on user satisfaction.

According to the study on ease of use, users who felt it was simple to learn how to use CTS received the lowest mean score. KBZ Bank should deliver the training for the cheque truncation system with related user levels (maker, authorizer, and viewer). Training for using information systems can improve the user's skills, and the user finds it simple to learn how to use CTS. The user can practice the transactions using the CTS during the training and improve their confidence and experience. KBZ Bank provides online training and in person training to its employees to improve their processes.

In an information quality study, the information with the lowest mean value obtained by CTS was relevant to the intended tasks and was clear. Providing clear information is important for making transactions and decisions. If the information is clear, the system should be provided with simple and clear information to meet its tasks. KBZ Bank also has its own reporting team to create the customized reports. If the system-provided reports are not clear or understandable when purchasing international banking software, the internal reporting team creates a new report based on the user's requirements.

After investigating the system quality of the cheque truncation system, the lowest mean value got quick responses to account and cheque inquiries, and the error messages provided by the CTS were clear. The main reason for using the information system is to quickly get the required information. The error message provided by CTS should be clear, and a clear message allows the user to easily fix the problem and reduce the processing time. To improve the system quality, the developer of the CTS system should provide and fix the clear error message.

KBZ Bank used numerous information systems to improve customer service, including the core banking system and the cheque truncation system. Using the information systems, which are not easy to use, the process takes more time and cannot

provide better customer service. It is suggested that banks continuously upgrade their information technology in order to provide their services with the minimum amount of delay, alleviate some inconveniences, and meet the needs of their customers. The management of the bank needs to consider ease of use and system quality before purchasing the information system. After purchasing and using the information system, the management should monitor the user satisfaction of the information system and the improvement of user performance.

5.3 Needs for Further Study

Due to time constraints, the data were only collected from individuals who use the cheque truncation system in KBZ Bank. Whenever possible, measurements should be taken from multiple sources, including all CBM-Net CTS member banks, to evaluate the user satisfaction and user performance of the cheque truncation system. Secondly, this study focused on user performance as the individual impact of information systems. For future studies, it will be more effective to analyze not only the individual impact but also the organizational impact of the cheque truncation system of all the member of CBM-Net CTS.

REFERENCES

- Ahituv, N. (1980). *A Systematic Approach toward Assessing the Value of an Information System*. Management Information Systems Research Center, University of Minnesota.
- Akingbade, D. Y. (2011). Technology Change and Employee Performance in Selected Manufacturing Industry in Lagos State OF Nigera. *Australian Journal of Business and Management Research*.
- al, P. e. (2008). *Measuring information systems success: Models, dimensions, measures, and interrelationships*.
- Alsoof, Y. A. (2008). *User Attitude towards Electronic Cheque Clearing System Among Jordanian Commercial Banks*.
- B Blumberg, D. C. (2014). *Business Research Methods*.
- Bailey, J. a. (1983). *Development of a Tool for Measuring and Analyzing Computer User Satisfaction*.
- chepkemoi, A. (2018). *The Influence of the Cheque Truncation System (CTS) on the Financial Performance of the Kenyan Commercial Banks*.
- Chepkemoi, A. (2018). *The Influence of the Cheque Truncation System (CTS) on the Financial Performance of the Kenyan Commercial Banks*.
- Clacher, I. (2006). Challenges Facing Banking in Emerging Markets. A Case Study on the Tanzanian National Payments Systems. *Journal of Financial Regulation and Compliance*, 14: 112-118.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *13*(3), 319-340.
- Davis, V. V. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Managment Science* .
- Foley Curley, K. (1884). *Are there any real benefits from office automation?* .
- Hancock, D. a. (1997). Payment Transactions, Instruments and Systems: A Survey, *Journal of Banking and Finance*. *Journal of Banking and Finance*.

- Hsiu-Fen-Lin, G.-G.-1. (2007). Determinants of success for online communities: an empirical study.
- Iskandar Muda, A. R. (2014). Factors Influencing Employees' Performance: A Study on the Islamic Banks in. *International Journal of Business and Social Science*, 5(2).
- Ives, M. H. (1982). *Chargeback Systems and User Involvement in Information Systems - An Empirical Investigation*. Management Information Systems Research Center, University of Minnesota.
- Jresat, N. (2007). *Economic Impact Of Applying Electronic Cheque Clearing Solution A Case Study*. State Of Qatar: University Of Jordan, Amman, Jordan.
- Keller, K. a. (2016). *Marketing Management (14th edition)*.
- Khalil, T. (2000). *Management of Technology: The Key to Competitiveness and Wealth Creation McGraw Hill*. New York: McGraw Hill.
- Madasu, V. K. (2005). Automatic Segmentation and Recognition of Bank Cheque Fields. . *Proceedings of the Digital Imaging Computing: Techniques and Applications, IEEE Computer Society*.
- Manal M. N. Sharabati, A. S. (2015). Computer Theory and Engineering. *International Journal*.
- Manal M. N. Sharabati, A. S. (2015). End User Satisfaction and Individual Performance Assessments in e-Procurement Systems. *IJCTE*, 7(6), 503-509.
- Manal M. N. Sharabati, A. S. (2015). *End User Satisfaction and Individual Performance Assessments in e-Procurement Systems* (Vol. 7).
- Maw, K. T. (2012). Development of Payment and Settlement System.
- Morrar. (2014). *Innovation in services: A literature review. Technology Innovation Management Review*.
- Nadler, D. &. (1990). *Beyond the Charismatic Leader: Leadership and Organizational Change*. California .
- Nielsen, J. (2000). *Designing web usability: The practice of simplicity*.

- Norman, B. &. (2011). *The history of interbank settlement arrangements: exploring central banks' role in the payment system*,. England: Bank of England.
- Papameletiou, D. (1999). *Study on Electronic Payment Systems for the Committee on Economic and Monetary Affairs and Industrial Policy of the European Parliament*. Seville: Institute for Prospective Technological Studies.
- Rajiv Sabherwal, A. J. (2006). *Information System Success: Individual and Organizational Determinants*.
- Rammutloa, M. (2017). , *Application of the Delone and Mclean's Model To*.
- Rammutloa, M. (2017). *Application of the DeLone and McLean's model to assess the effectiveness of an intranet in an open distance learning library*.
- Romi, I. (2013). Testing DeLone and McLean's Model in Financial Institutions. *American Academic & Scholarly Research Journal*, 5(3), 121-9.
- Sharda, R. B. (1988). *Decision Support System Effectiveness: A Review sand An Experimental Test*.
- Shibly, H. H. (2006). *Customer Satisfaction and Empowerment as the Prerequisite for Web-Based Electronic Commerce Systems Success*.
- Sirkka L. Jarvenpaa, G. W. (1985). Methodological Issues in Experimental IS Research: Experiences and Recommendations. *MIS Quarterly*.
- Šmýkala, M. (2018). *Evaluate Recommender System with DeLone and McLean's*. Masaryk University.
- Sreedevi, V. (2013). E-Banking and Cheque Truncation System (CTS). *Indian Journal Of Applied Research* , 3(2), 184-186.
- Sun, J. S. (2017). *The Banking Sector in Myanmar: An Assessment of Recent Progress*. MILKEN INSTITUTE.
- Swanson, E. B. (1974). Management Information Systems: Appreciation and Involvement. *Management Science*.
- Tor Guimaraes, M. I. (2007). Client/Server System Success: Exploring the Human Side. *Decison Science*.

Torkzadeh, W. J. (1988). The Measurement of End-User Computing Satisfaction.

Tsarenko Yelena, T. D. (2012). The Role of Personality Characteristics and Service Failure Severity in Consumer Forgiveness and Service Outcomes. *Journal of Marketing Management*, 28, 1217–1239.

V. Weerakkody, Z. I. (2016). system quality is a significant determinant of user satisfaction.

APPENDIX A
SURVEY QUESTIONNAIRE
USER SATISFACTION AND USER PERFORMANCE OF CHEQUE
TRUNCATION SYSTEM IN KBZ BANK

Introduction

This questionnaire seeks to collect data on the user satisfaction and user performance of cheque truncation system in KBZ Bank. The data obtained will be used purely for academic purposes. Confidentiality is guaranteed. Kindly answer appropriately the questions provided below, by placing a tick in the given space. Do not indicate your name anywhere in the questionnaire. Your contribution must be appreciated and thank you in advance.

Part A: Respondent Profile

Gender Male Female

Age

21-30 years
31-40 years
41-50 years
51-60 years

User's Education Level

Bachelor Degree
Post Graduated Degree
Master Degree
PhD Degree

Banking Experience

1-5 years
6-10 years
11-15 years
16-20 years
above 20 years

Part B: About Cheque Truncation System

The scale that was used in this item was an interval scale. In particular, the respondents were asked to rate on a 5-point Likert scale their perceptions and opinions with respect to the statements, 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

	1	2	3	4	5
System Quality					
FLEXIBILITY					
CTS can be integrated with core banking systems.					
CTS allow user more flexibility in the daily activities.					
CTS can flexibly adjust to new work requirements.					
Securability					
CTS applies the concept of maker and checker to improve system security.					
CTS keeps the historical data securely and accurately.					
Only users who have permission can access CTS.					
Accessibility					
CTS automatically input the scanned data of the cheque.					
CTS automatically classify the cheque and Payment Order type.					
CTS provides error messages that clearly tell user how to fix the problem.					
Response time					
CTS system reacts and responds quickly when you entered data.					
CTS provides quick responses to the enquiry about accounts and cheques.					
CTS can quickly produce the output file to upload CBM-Net CTS.					

	1	2	3	4	5
Information Quality					
Understandability					
Information by CTS is clear.					
Information by CTS is accurate.					
CTS provides the precise information for intended tasks of the user.					
Comprehensiveness					
CTS provides sufficient information.					
Information by CTS are relevant to the intended task.					
Outputs of CTS are presented in a useful format					
User demands are met by the information content offered by CTS.					
Timeliness					
CTS system provides user with the necessary information in a timely manner.					
The information contained in CTS system is timely and regularly updated.					
Information from CTS system time improves the quality of work.					

	1	2	3	4	5
Easiness of use					
CTS is user friendly.					
The user can easily get the information from CTS.					
CTS provide easy to reconcile the transactions.					
User can trace the transaction easily using CTS.					
It is easy for user to remember how to perform tasks using CTS.					
It would be easy for users to become skillful at using CTS.					

Part C: User Satisfaction and User Performance

	1	2	3	4	5
User Satisfaction:					
CTS is useful for user.					
CTS system automation has met my expectations.					
I am very pleased with using CTS at my work.					
I am satisfied with the learning to become experts of CTS.					
I am satisfied with using CTS for meeting my requirement.					

	1	2	3	4	5
Individual Performance					
CTS helps users to eliminate repetitive manual tasks that increase user performance.					
CTS reduces manual errors by users that increase user performance.					
CTS can keep history recording and it is easy to trace the transaction that efficient my job.					
CTS helps users to improve work continuously.					
CTS supports user's tasks and has been faster, more accurate, reliable, efficient and effective.					

I sincerely appreciate the time you spared to complete this questionnaire. **Thank you!**

APPENDIX B

SPSS OUTPUT

Correlations

		User Satisfaction	Service Quality	Information Quality	Ease of Use
Pearson Correlation	User Satisfaction	1.000	.788	.746	.682
	Service Quality	.788	1.000	.803	.606
	Information Quality	.746	.803	1.000	.601
	Ease of Use	.682	.606	.601	1.000
Sig. (1-tailed)	User Satisfaction	.	.000	.000	.000
	Service Quality	.000	.	.000	.000
	Information Quality	.000	.000	.	.000
	Ease of Use	.000	.000	.000	.
N	User Satisfaction	50	50	50	50
	Service Quality	50	50	50	50
	Information Quality	50	50	50	50
	Ease of Use	50	50	50	50

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Ease of Use, Information Quality, Service Quality ^b	.	Enter

a. Dependent Variable: User Satisfaction

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.839 ^a	.704	.685	.26187	1.933

a. Predictors: (Constant), Ease of Use, Information Quality, Service Quality

b. Dependent Variable: User Satisfaction

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.502	3	2.501	36.466	.000 ^b
	Residual	3.155	46	.069		
	Total	10.657	49			

a. Dependent Variable: User Satisfaction

b. Predictors: (Constant), Ease of Use, Information Quality, Service Quality

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.252	0.367		0.685	0.497		
	Service Quality	0.462	0.149	0.432	3.099	0.003	0.331	3.024
	Information Quality	0.202	0.122	0.23	1.657	0.104	0.334	2.993
	Ease of Use	0.276	0.102	0.282	2.709	0.009	0.596	1.678

a. Dependent Variable: User Satisfaction

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	User Satisfaction ^b	.	Enter

a. Dependent Variable: User Performance

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.694 ^a	.482	.471	.28729	1.766

a. Predictors: (Constant), User Satisfaction

b. Dependent Variable: User Performance

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.689	1	3.689	44.701	.000 ^b
	Residual	3.962	48	.083		
	Total	7.651	49			

a. Dependent Variable: User Performance

b. Predictors: (Constant), User Satisfaction

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.925	0.346		5.557	0
	User Satisfaction	0.588	0.088	0.694	6.686	0

a. Dependent Variable: User Performance