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**Determinants of Electronic Card Payment Technologies ‘Adoption:
Empirical Evidence from Selected Commercial Banks in Ethiopia**

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Masters of Arts Degree in Marketing Management**

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Addis Ababa

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Statement of Certification

This is to certify that Getachew Hailu has carried out his proposal research work on the topic entitled “*Determinants of Electronic Card Payment Technologies’ Adoption: Empirical Evidence From Selected Commercial Banks In Ethiopia*” is his original work and is suitable for submission for the award of Masters Degree in Marketing Management.

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June, 2023

Statement of Declaration

I, **Getachew Hailu** declare that this proposal research entitled “*Determinants of Electronic Card Payment Technologies’ Adoption: Empirical Evidence From Selected Commercial Banks In Ethiopia*” is the result of my own effort and study. I also declare that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the Research Advisor.

This study has not been submitted for award of any Degree or Diploma Program in this or any other Institution.

Declared By Getachew Hailu

Signature_____

Date_____

Acknowledgment

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Abbreviations and Acronyms

ATM	Automatic Teller Machine
CBE	Commercial Bank of Ethiopia
E-banking	Electronic Banking
ECPT	Electronic Card Payment Technology
EFTPOS	Electronic Fund Transfer at Point of Sale
E-Payment	Electronic Payment
PIN	Personal Identification Number
POS-Terminal	Point-of –Sale Terminal
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model
DIF	Diffusion of Innovations Theory
TTF	Theory of Task-technology fit
TRA	Theory of Reasonable Action
TPB	Theory of Plan Behavior

Abstract

Purpose: The purpose of this study is to examine the factors affecting ECPT adoption in Ethiopian banking industry particularly in the selected commercial Banks

Design, methodology, and approach: Using respondents from the population of bank card holders and non-holder clients of the four chosen commercial banks in Addis Ababa, this study examines factors influencing ECPT adoption. This study uses sampling techniques to create a homogeneous sample from the population. As a result, 400 respondents from these clients are chosen as the study's target respondent's .In this study, a quantitative methodology with a deductive approach was selected. The primary data gathered through questionnaire was processed using SPSS version 20.00 for Windows. The relationship among perceived usefulness, perceived ease of use, social influence, marketing communication, compatibility to intention ECPT adoption of bank card users is examined in this research.

Findings: To evaluate the hypotheses, multiple regression analysis was used. The study's key conclusions are that social influence, perceived ease of use, and marketing communication all have a positive effect on the adoption of ECPT contrarily; Perceive risk has significantly a negative effect. The perceived value and compatibility have insignificant impact.

Keywords: perceived usefulness, perceived ease of use, perceived risk, Social Influence, Marketing communication and Compatibility ECPT adoption Examining the factors influencing ECPT adoption in the Ethiopian banking sector, specifically in the chosen commercial banks

CHAPTER ONE

INTRODUCTION

This chapter consists of the background of the study, brief history of electronic card payment technology adoption system in Ethiopia banking Industry, back ground, statement of the problem, research questions, conceptual frame work, and the main objectives of the study in general and specific, research hypothesis, significance of the study, and limitations and delimitations of the study.

1.1 Background of the study

Today due the fast growing of the technology and the dynamic environment the banks should have highly related to the technology. Business organization especially the bank industry of the 21st century operates in astiff competitive and complex environment (Agbolade,2011)

The Federal Reserve Bank used the telegraph to transport currency for the first time in the United States of America in 1918, which marks the beginning of the history of electronic payments. However, the Automated Clearing House (ACH), which was introduced in 1972, was the first time that technology in the United Stateswas widely used. Since then, electronic currency has grown in popularity. This provided an alternate method of payment to U.S. commercial banks and the nation's central treasury (International Journal of Advanced Computer Science and Application, 2017).

According to Mishira and Kiranmai (2009), the use of ATMs served as the basis for the appraisal of e-banking, and Filand was the first nation to lead the globe in this field. Due to competitive pressure, banks were compelled to transition from their branch network strategy to the creation of integrated service channels (Vishal, 1997). By generating high value for the banks and the consumers, technological innovation plays a significant part in the banking business sector and enables the customer to conduct financial transactions without physically visiting a brick and mortar banking system. By removing the requirement to find a branch, customers who need the service can have access to their goods and services at any time and from anywhere (Turban 2008).

Globally, ECP adoption have been adopted and are ongoing its process by banks.They provide substantial advantages of the banks and their clients. When banks share their ATMs, depositors of other banks can access their accounts through a bank's ATM, potentially multiplying these advantages (McAndrews, 2003). The majority of ATM and POS deployments are now made by banks. There are two possible explanations for this: either they want to maximized their market share, though given the widespread use of ATMs, this is unlikely to be the main way that ATMs boost their income for most banks; or, above a certain level of operations, the cost of a single transaction made at an ATM may be less expensive than a transaction made from a teller because ATMs can process more transactions in a given amount of time than teller counters can (Laderman, 2009).

Currently, Posand/ATM can be used by card holders to perform electronic fund transfers and/or cash withdrawals. This is known as electronic card payment technology in Ethiopian banking. Since it is in its early stages, a lot of work and resources are needed before customers will readily adopt it. The Ethiopian financial sector is brand-new to modern e-banking techniques including Automated Teller Machines (ATM), Mobile banking,Internet banking, POS, and others. Surveying the factors that influence customer adoption of electronic banking services is therefore essential to aid banks in increasing customer adoption of electronic banking. Therefore, the primary goal of this study is to examine factors that influence customers of the chosen banks' use of electronic banking.

The NBE plays a significant role in the nation's electronic payment system, which includes the retail electronic charge structure. The NBE is the regulatory and enforcement authority in charge of keeping an eye on all payment processors (Information Network Security Agency, 2014).The development of the nation's digital banking system has been greatly aided by Ethio telecom Ethiopian Electricity and the Information Network Security Agency.

1.2 Back Ground of Banking Industry Sector on Ethiopia

Following an agreement between the Emperor Minilik II and Mr. Ma Gillivray, a representative of the British-owned the Egyptian National Bank in 1905, the first bank, dubbed the Bank of Abyssinia, was established on February 16, 1906. The Abyssiniya Bank was entirely run by the Egyptian National Bank.

Prior to this proclamation, the bank used to conduct dual activities, i.e., commercial banking and central banking. The National Bank of Ethiopia was created in 1963 by proclamation of 206 of 1963 and started operating in January 1964.

The new Ethiopia policy introduced in November 1991 which allows to introduce private banking. Currently, there are 30 banking operating in the country as to introduce private banks of June 2022(NBE website).

Among the banks I have selected Four banks considering public and private sector, full-fledge Interest banking service and conventional with one window IFB, the time of establishment start its operation Hence I have consider for study some banks , these are Commercial Bank of Ethiopia, Wegagen Bank sc, Zemezem bank, and Zemen Bank

Commercial Bank of Ethiopia has serving Ethiopia since 1942 and has more than 1,700 branches across the country and has more than 36,737 permanent employees and 26,645 contract. The bank has over 31.4 million customer base which the highest customer base in Ethiopia. In parallel the bank continues investing heavily in digital banking channels and user which makes to increase its mobile card user by 2.6 million and mobile banking user by 3.4 million and more than 4.5 began using CBE birr (Annual report 2020/21 CBE,)

Wegagen Bank Sc Established in 1997 and has more the 400 branches across the country and it has more than 4,824 employees . The deposit account stood nearest to 2.3Million. The digital banking users of the bank indicated that number of card issued 544,157 wallet account 331,414 mobile banking more than 1.4 million and internet subscribed 11,762 . The number of ATMs and POS outlets of the bank 298 and 429 respectively (June 30,2022report wegagen bank)

Zamzam Bank is the primary committed Islamic bank got permit by NBE on September 28, 2020 and the permanent employees reached 396 and the branches increased to 40 of which 23 branches are in Addis Ababa . The opened account deposit has reached 77,231. The card holder and mobile banking users reached to 1,139 and 2,086 respectively The bank is in process to deployed its own ATMs and PoS(Annual report June 30 ,2022 Zamzam bank)

ZemenBank is found since the first day of October it has reached 80 branches across the country, the total number of permanent employees are 1,325 as of June ,2022 . The ATMs and

POS reaches 100 and 319 respectively with 97,957 card holder, internet/mobile subscriber reached 28,273 (Annual report June 30 ,2022Zemen bank)

1.3 The Statement of the problem

Most countries like Ethiopia the advance technology is introduced lately comparing the developed countries; the introduction of one of the advance technology card payments has significant benefit for the customers as well as for the service deliverer.

Due to the lengthy waits and repeated trips to the bank, banking through physical branches may also result in time loss. (Adoeti , 2013) Customers who used cash transaction thus makes them to have high cost of cash transaction, such carry in forged currency, high cost insurance coverage due to high physical available in bank though comparing the physical amount outside the banks is low, which makes the banks have negative effects on the lending capacity due less in deposit, Wasting of time finding branches located and waiting queue. In Ethiopia, currently Cash and branch banking is still the most used medium of exchange (Worku, 2010).

Though the card payment transaction has a lot of benefits but it has also some limitation such as , since it is dependent on the electricity and network ,failure the electric and network has malfunction on the card payment process , thus which makes customer dissatisfaction . Lack of customer awareness, most of the time they believe that electronics card payment is only for withdrawal unaware its used for deposit, transferred and balance inquiry e.t.c.

The influence of a user's perspective and acceptance of a new information system on that system's effective adoption is discussed by Davis (1989). Only the degree of user acceptability can verify a system's usefulness and quality. A system that satisfies users' demands increases user satisfaction and is a sign of a successful system. Studying the factors that influence people's decisions to utilize or not use information is crucial for designers and developers to offer more effective and efficient systems.

The relative advantages (perceived benefits) that banks perceive from adopting digital banking systems and the relative disadvantages (perceived risks) that prevent banking industries from adopting new technological innovations are other factors that can influence the adoption of E-Banking in Ethiopia. One of the barriers to the adoption of electronic banking is a fear of security (Sohail and Shanmugham, 2003). The availability of funds to cover the costs

associated with using E-banking tools, as well as qualified human resources with technical and administrative expertise, is a fundamental organizational issue. The most significant factors influencing electronic activities are those related to cost, infrastructure, sociocultural, time, information, law, and economics. To put the system into practice and the environmental aspect. As the mentioned on the above the gaps that make the adoption for ECPA this research would like to examine the challenges of the resistance of accepting technology due to lack awareness and the benefit of the advance technology for both customers and the banks.

1.4 Research Questions

As a result the study seeks to investigate the practice of electronic card payment service and the intention of customers to use Electronic card payment services through focusing on the following

1. How does perceived ease of use affect adoption of electronic card payment technology?
2. To what extent does perceived risk affect adoption of electronic card payment technology?
3. What is the effect of marketing communications on adoption of electronic card payment technology?
4. To what extent does compatibility affect adoption of electronic card payment technology?
5. How does perceived usefulness affect adoption of electronic card payment technology?
6. How does perceived social influence adoption of electronic card payment technology?

1.5 Objective of the Research

1.5.1 General Objective of the Research

The general objectives of the study are to examine the determinants of customers' Decision to adopt Electronic Card Payment Technologies.

1.5.2 Specific Objectives of the Research

1. To examine the effect of perceived ease of use on adoption of electronic card payment technology
2. To determine the effect of perceived risk on adoption of electronic card payment technology.

3. To analyze the effect of marketing communications on adoption of electronic card payment technology.
4. To identify the effect of compatibility on adoption of electronic card payment technology.
5. To examine the effect of perceived usefulness on adoption of electronic card payment technology.
6. To examine the effect of social influence on adoption of electronic card payment technology

1.6 Scope of the study

Currently the bank industry of Ethiopia increasing in number comparing the previous decade which have reached to 30 banks , but the service and the products are almost the same through all bank it might slightly difference on some banks on their target customer such as Zemen bank Sc set a minimum amount as low as 5000 for opening account and like Zenzem Bank S.C targeted on a customer who is part of the society that is alienated from the financial system due to their religious beliefs or other factor gives full-fledged non interest banking . One can quickly see that the features of the services offered by the banks that have begun offering electronic card payments by visiting their websites. The closely linked bank products that banks offer result in nearly identical ECP services (Worku2010).

Indeed, to make the study meaningful the important information gathered by distributes questionnaires from the bank electronic card holder customers who are the member of the selected the four banks and addressed. All the customer from Addis Ababa city only. Thus, this study targeted card holder customers of the banks to collect the necessary data and does not cover the rest bank customers.

1.7Significant of the study

This research will have a significant role on the changing the adoption of ECPT adoption by developing the research, since there is a limited research on the ECPT adoption so far in the banking of the country. The finding from the study will help the bank industry as well as the academicians in add up to their knowledge with respect of to this study, hence providing a

great and deep understanding of which ECPT adoption level that affects the customer as well as the banks.

Moreover, the banks which are selected will have to understand what their level of on ECPT adoption of their customers

1.8 Limitation of the study

This study is constrained by its small sample size, which does not accurately reflect the attitudes of the entire community, and its restricted geographic scope, which is the city of Addis Ababa alone. Due to this restriction, it is challenging to generalize the study's findings and apply them to the full population. Additionally, the study's conclusions may not be as conclusive as intended because the measurement of ECPT adoption toward ATMs and/or POS, the existing variables, and the respondent's response may not be valid and reliable. The study was limited by the managers' and employees' refusal to provide the necessary information, the absence of recent literature in some specific areas of the banking situation in Ethiopia, as well as the failure of some respondents to provide honest and prompt responses to the questionnaire.

1.9 Organization of the study

There are five chapters in the study. The backdrop of the study, the problem statement, the research questions, the objectives, and the hypothesis, the definition of important terminology, the scope, the limitations, and the format of the report are all covered in the first chapter. The literature that was used to support the study is discussed in the second chapter. In this chapter, theoretical concepts and empirical research from various works on the adoption of ECPT were covered. The Third chapter described the methodology such as research design, research strategy, sampling design the source of data, the data collection tool and the method of data analysis used. The fourth chapter the empirical results and discussions were presented and the final, the fifth chapter discussed on the summaries of major finding, the conclusions and the possible recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This part covers electronic card banking technologies and provides the conceptual framework, empirical review, overview of e-payments, and theoretical underpinnings of the study.

2.2 Theoretical Framework of the Study

2.2.1 Overview of Digital Banking and ECPTs

The conflict between accelerating technical change and innate limitations to consumer adoption of novel goods and services largely determines the pace of development of payment systems. En 1995, Hoenig.Lai, 2016 Many hypotheses have been developed to explain how customers absorb new technology and whether they plan to embrace it.

Diffusion of Innovations Theory (DIT) The goal was to lay the groundwork for future studies on the acceptance and adoption of innovations. Rogers compiled information from more than 508 diffusion studies and came up with the "diffusion of innovation" theory to explain how people and organizations absorb new ideas. The theory explained and defined "the method through which an innovation spreads over time through certain channels among the members of a social system" (Rogers, 1995).

Theory of Task-technology fit (TTF)it places emphasis on personal impact. The term "individual impact" refers to increased effectiveness, efficiency, and/or quality. A good match between the task and the technology increases both the likelihood of usage and the performance impact since the technology more closely satisfies user demands and preferences for the task. (Goodhue and Thompson, 1995).

Reasonable action theory (TRA)The theories of reasoned action and planned behavior, as well as its more recent incarnation, the reasoned action approach, have been among the most influential methods for identifying and comprehending intentional behavior since the creation of the theory by Martin Fishbein and IcekAjzen in the late 1970s. Theoretical frameworks have been widely applied to explain a wide range of behaviors, circumstances, and populations. The basic attitude theory and the social cognitive tradition both examine how people's ideas about

their propensity to engage in a particular conduct in the future. The theory of reasoned action was the name of the initial version of the theory. The fundamental idea of the theory is that action is most directly driven by intention, a motivational construct. Intentionally clarify

Theory of Planned Behavior (TPB) One of the most widely accepted theories is the (Ajzen, 1991), which discusses a factor that impacts a person's behavioral intention and attitudes about that activity. Defined "attitude" as a

person's assessment of a thing, "belief" as a connection between a thing and an attribute, and "behavior" as an outcome or a goal. A set of ideas about the thing being behaved upon underpin attitudes, which are emotive in nature. Theory of Planned Behavior Decomposed, (Taylor and Todd, 1995)

Technology Acceptance Model (TAM) – A framework for comprehending user behavior when using a variety of end-user computing technologies and user groups is the Taylor and Todd Theory of Technology Acceptance Model (TAM). The primary TAM model includes and put to the test two specific beliefs: perceived usefulness (PU) and perceived ease of use (PEU). Perceived Usefulness is defined as the subjective expectation of a potential user that using a specific system (like a single platform e-payment system) will improve their performance, and perceived Ease of Use is the degree to which most users expect the target system to be user-friendly. A person's belief in a system may be affected by additional factors, often known as external variables in TAM (Davis, Bagozzi, and Warshaw, 1989).

Version 1.0 of the **Technology Acceptance Model (TAM)** (Venkatesh and Davis, 1996) The four factors that determine users' behavioral intention are **performance expectancy, effort expectancy, social influence, and facilitating conditions**, according to the Technology Acceptance Model 2 (TAM2) (Venkatesh and Davis, 2003), which was created from the earlier models and ideas. Perceived usefulness, extrinsic motivation, job-fit, relative advantage, and outcome expectations are the five constructs that make up the **UTAUT** model's performance expectancy, while perceived ease of use and perceived complexity are the two concepts that make up effort expectancy (Venkatesh, Morris Davis, and Davis, 2003).

According to Jaber (2007) claims that the 1970s saw a boom in the computerization of financial institutions, which is when E-banking first began. Customers could see the existence of digital banking, nevertheless, ever since the Automated Teller Machine (ATM) was

introduced in 1980. According to Hasan (2011), A type of banking known as "digital banking" involves the transfer of funds between financial institutions by electronic signals as opposed to the exchange of cash, cheques, or other negotiable instruments. Electronic banking, according to (Elizabeth 2000), bank providing its customers with information or services via a computer network or the Internet, enabling the customers to access their accounts and conduct transactions or make purchases. Electronic banking is defined by Jaber (2007), Electronic Banking is defined as "electronic fund transfers, which simply mean the use of electronic means to transfer funds directly from one account to another" (source). According to geeksonfinance.com, the term "e-banking," or "electronic banking," refers to any types of banking transactions completed online without visiting a physical bank.

According to Shorr and Swatman (1998), Payments made through automated clearing houses, commercial card systems, and electronic transfers are all included in EPS. The EPS also includes all payments made using electronic signals that are directly linked to debit or credit accounts. According to a different viewpoint, EPS is defined as including both cash and electronic money transfers (Hwnphrey and Hancock, 1997). All transactions involving cash and non-cash that are enabled and carried out through electronic methods are included in another definition of ECPT.

Digital banking can also refer to a number of platforms, including internet banking (also known as "online banking"), TV-based banking, mobile banking, and PC (personal computer) banking (also known as "offline banking"), where customers access these services using an intelligent electronic device, such as a PC, personal digital assistant (PDA), automated teller machine (ATM), point of sale (POS), kiosk, or touch-tone telephone (Alagheband 2006, p.11). The sorts of e-banking systems below were discussed.

1. **Automated Teller Machines (ATMs)** - An ATM is a type of electronic terminal that allows users to access financial services practically at any time. An ATM card and personal identification number (PIN) are required for cash withdrawals, deposits, and account transfers.

2. **Point-of-Sale Transfer Terminals (POS)** - This system enables customers to make retail purchases using a check card, which is a different term for a debit card. Although this card has a noticeable distinction, it resembles a credit card. The debit card holder's account promptly transfers the amount of the purchase to the retailer's account.

3. Internet/extranet banking: This electronic home banking system, which uses web technology, enables bank customers to transact business with the institution using personal computers.

4. Mobile banking-Through the use of short text messages (SMS), mobile banking gives users access to some banking services like account enquiry and money transfers.

2.2.1.1 Electronic Card Payment Technologies and the Types, Services and Benefits

2.2.1.1.1 Types of Electronic cards

According to Investopedia (2015a), an electronic card is a plastic payment card that gives cardholders access to their bank account at a financial institution electronically through ATMs and POS machine. Debit cards, credit cards, and prepaid cards are the three main types of payment cards.

2.2.1.1.1.1 Debit card

A debit card, also known as a check card or bank card, is a plastic payment card that gives cardholders electronic access to their bank account(s) and allows them to take money out of those accounts to make purchases. The balance in the cardholder's account is used to pay for purchases. The transaction won't be finished if there is not enough money available. Debit cards are issued by payment processors like Visa and MasterCard. In contrast to credit cards, they do not permit cardholders to go over their credit limit. (Investopedia,2014; BusinessDictionary.com, 2015).

A debit card can be used at ATMs and resembles a standard ATM card in appearance. The main distinction is that debit cards feature the Visa and Mastercard logos, which are used by EFT service providers. This means that you can use a debit card anywhere that accepts Visa or Mastercard debit cards, such as department stores, eateries, or other Point-of-Sale locations. Additionally, only automatic teller machines may use ATM cards. (Wells Fargo Bank, 2015). As a method of making a purchase at a Point-of-Sale (POS) terminal, debit cards are also becoming more and more common.

The POS terminal is connected to an Electronic funds transfer (EFT) network, which authorizes the transaction. A user PIN is often required for authentication. The issuing bank debits the user's bank account once the funds are confirmed to be accessible online (O'Mahoney, Michael, & Tewari, 2001). The Commercial Banks no longer issues the earlier ATM cards and has changed the name of its debit card to Reliable Visa Card, which features the Visa logo.

2.2.1.1.1.2 Credit card

With the exception of the ability to borrow money, usually at the place of transaction, using a credit card is similar to using a debit card (Investopedia, 2015a). Credit cards like American Express, Master, Visa, Diners Club, and Cart Blanche have been accepted by Ethiopian banks since 2006. Also utilized are Euro cards. (NBE, 2023)

2.2.1.1.1.3 Prepaid cards

On the other hand, prepaid cards, usually referred to as stored-value cards, are cards that have money "loaded" into them before usage. Numerous prepaid cards permit limitless reloading. During a transaction, the value of the card is reduced by the purchase's amount. Prepaid cards are offered in both single- and multi-purpose varieties (MasterCard Worldwide, 2015). In partnership with Shoa Supermarket, various banks, including the Commercial Bank of Ethiopia and Wegagen Bank SA, introduced the "Sitota" gift card in April 2015. On significant occasions like weddings, birthdays, graduations, and other celebrations, the card can be given gift for friends, family members, and others (Commercial Bank of Ethiopia, 2015c) (wegagen Bank sc 2017a).

2.2.1.2 Different Types of Channels for Delivering Card Banking Services

2.2.1.2.1 Automatic Teller Machine (ATM)

Electronic terminals called automated teller machines (ATMs) allow customers to conduct banking transactions at practically any time. Cash withdrawals, deposits, and account transfers require an ATM card and a personal identification number (PIN) (Jaber, 2007). To put it simply, an ATM is an electronic outlet that enables consumers to do basic financial transactions without being at branch agent or teller. 2016 (Investopedia). With the exception of a few Abyssinia Bank ATMs, which can be moved around as needed and some of which can

convert foreign cash for local currency (birr), all ATMs operated by Ethiopian banks offer essentially the same services. For instance, by visiting the websites of the foreign banks CBE, Wegagen, Abyssinia, Berehan, and NIB, Their ATMs' can be seen functionality is centered on the following services: Cash withdrawal, Cash deposit, Foreign currency exchange, Fund Transfer (Account to Account Transfer), Balance inquiry, Mini statement for prior transactions, and Other Services like PIN change and unlock. Convenience is an ATM's primary benefit; if someone needs cash, they can locate an ATM immediately without waiting in a large queue at the bank. Budgeting can be made easier by using the ATM to withdraw cash rather than using a debit card because it helps you keep track of your expenditure and eliminates the need for several receipts.(Gail, 2014).(Linda ,2008), have shown that banking companies have always been extremely concerned about crimes committed against ATMs and customers. She also made note of the fact that many institutions have increased the number of security cameras, electronic locks, and other physical restrictions to make the ATM a secure location for conducting financial operations. Linda emphasized that thieves may assault people when they are using an ATM or even the ATM itself in order to gain access to the money in the safe.

2.2.1.2.2 EFTPOS (POS)

Through a system known as digital banking at the point of sale, also known as Electronic Fund Transfer at Point-of Sale (EFTPOS) or simply called POS terminal, customers can pay for goods by electronically transferring funds from their bank accounts to the accounts of the business or the person from whom they purchased them (Macmillan Publishers Limited, 2015). Cambridge Dictionary Online (2015) In addition, The definition of EFTPOS is "a system of paying for goods or services in shops using a bank card or a credit card, so that the money is paid directly from the buyer's bank account to the shop's bank account" (as stated in the definition above). Techopedia further defines EFTPOS as "an electronic payment system involving electronic fund transfers based on the use of payment cards, such as debit or credit cards, at payment terminals located at points of sale" (2015: EFTPOS).According to Investopedia (2015b), a point-of-sale terminal can be compared to an electronic transaction terminal. Usually, this consists of a computer, a cash register, and other sales-related gear or

software. Additionally, they transmit updates and postings of sales data to consumer accounts. According to Techopedia (2015), a POS terminal frequently performs the following tasks:

- Reads the information off a debit card or customer's credit
- Checks whether the funds in a customer's bank account are have balance;
- Transfers the funds from the holder account buyer to the seller's account;
- Recording the transaction and prints out the receipt.

2.2.1.3 Digital Banking in the Ethiopian Banking Context

According to the NBE report, towards the end of the first quarter of 2022–2023, Ethiopia had 30 banks, of which 28 were private and 2 were state-owned. These banks increased the total number of bank branches to 9,507 during the review quarter by opening 563 new branches. The population to bank branch ratio thus reached at 11,062.0. Addis Ababa was home to 32.6 percent of all bank branches. Private banks opened about 97 percent of the new bank branches. Private banks held a 77.3 percent share of all bank branches, compared to 22.7 percent of state-owned banks (NBE report 2021/22).

In the meantime, the banking system's total capital reached Birr 210.1 billion, of which private banks accounted for 57.6 percent and state-owned banks 42.4 percent (Commercial Bank of Ethiopia and Development Bank of Ethiopia) (NBE report 2021/22).

Card Banking (using ATMs and POS terminals), Mobile Banking, and Internet Banking are the three types of E-Banking services now offered by Ethiopian banks.

1. Mobile Banking: According to Commercial Bank of Ethiopia (2022a), this service enables users to access their bank accounts through mobile devices.
2. "The use of the internet as a remote delivery channel for banking services through a secure website operated by the bank" is the definition of internet banking. in CBE's E-Payment procedure (2022a). A financial institution permits its customers to make financial transactions online through the use of a set of technological tools known as "e-banking." .
3. ATM The use of a secure website managed by the bank as a remote delivery channel for banking services over the internet is referred to as internet banking. Using a set of technology tools referred to as "e-banking," Customers of a financial institution are permitted to carry out financial transactions online and

4. POS terminal, the funds are transferred instantly from the debit card holder's account to the retailer's account for the purchase. (Malak, 2007).

2.2 Empirical Review

On the adoption of the ECPTs, certain related investigations are being undertaken by various research institutions in various parts of the world. These studies presented various empirical findings in various circumstances.

Risk is a significant determinant of Internet banking adoption, according to Philip Gerrard et al. (2006) in their study in Singapore. The security in Internet Banking was viewed negatively by all respondents who did not use its services. The respondents thought that utilizing the internet carried a number of security dangers. They were concerned about privacy because they thought all of their financial data information might be compromised. In their survey, risk was one of the two concerns that were stated the most. "Concern regarding risk was mentioned by all respondents. Security issues were noted as a major barrier to internet banking adoption in an empirical study on the subject by Sathye (1999) of Australian customers. According to an Australian investigation on Internet banking, security

To have better understand the factors impacting the use of electronic payment cards in urban micropayments, Dehbini et al. (2015) performed research. They regarded network externalities, ease of use, usefulness, compulsion, norms, and satisfaction as independent factors. One-sample t-tests were used to evaluate research hypotheses. The Kruskal-Walli test was used to examine the impact of educational attainment, age, and employment status factors with the primary variables. The study's findings showed that each of these six characteristics has a big impact on how often people use their electronic payment cards for small purchases in cities. These factors are ranked in order of importance as follows: utility, simplicity, satisfaction, compulsion, network externality, and norms.

Dahunsi and Omotayo (2015) did study on the variables influencing the uptake of point-of-sale systems Terminals used by Nigerian business organizations. As dimensions, age and size were used as organization characteristics, as well as subjective norms, image, perceived usefulness, and perceived ease of use. The data is analyzed using correlation and regression analysis. The findings show that the adoption of POS machines by enterprises is significantly influenced by

subjective norms and perceived ease of use. However, there is no real connection between the adoption of POS and an organization's traits, image, or perceived usefulness.

According to Alagheband (2006) conducted research on the utilization of electronic banking services in the context of Iranian customers. The study took into account both individual characteristics (demographic, social interaction and communication behavior, attitude, and personality) as well as new technology characteristics (relative advantage/usefulness, compatibility, complexity/ease of use, observability, transferability, perceived risk, and cost). To determine the effect of each independent variable on the dependent variable (Decision to adopt), the study used a bi-variate analysis (using an independent sample t-test). Logistic regression is a further tool used in multivariate analysis to evaluate the total impact of the independent factors on the dependent variable. The findings showed that attitudes on gender, cost, risk, and relative advantages of the services, as well as their compatibility and ability to be tested, had an impact on the adoption of electronic banking services and social character.

In the setting of Zhengzhou, Zheng (2010) carried out an empirical investigation of the variables influencing the adoption of internet banking in China. The study took into account demographic characteristics, web design/feature, marketing exposure, internet skills, internet prestige and dependability as dimensions. The outcome showed that the acceptance of the IB was significantly impacted by the notion of security, Internet experience, reliability, and prestige. By Safeena(2011), research on consumer adoption of mobile commerce was undertaken. Perceived characteristics like, perceived ease of use, consumer awareness, perceived usefulness, subjective norm and perceived risk have all been taken into consideration in the research. Principal Component Analysis, Varimax, and Kaiser Normalization were used. According to the study's findings, key factors influencing the adoption of mobile banking include perceived utility, perceived ease of use, subjective standards, client information, and perceived threat. Al-Jabri and Sohail (2012) studied the uptake of mobile banking use of the diffusion of innovation theory. The parameters taken into account by the study included complexity, compatibility perceived risk and relative advantage. of reliability ,Multiple regression analysis Cronbach's coefficient and exploratory factor analysis were all used in the study. It has been discovered that adoption is positively impacted by relative advantage, compatibility, observability, Trialability and

complexity, per the study, have no discernible impact on adoption, while perceived risk has a detrimental effect.

According to Clemes(2012) carried out research on the variables influencing customers' decisions to utilized Internet banking. It is hypothesized that factors such as convenience, a user-friendly website, Internet access and familiarity, word-of-mouth, marketing communications, perceived dangers, cost, self-image, and demographic traits influence people's decisions to utilize internet banking. The influence of the independent factors on customers' decisions to use Internet banking is examined using multivariate analysis (Binary Logistic Regression). The results show that factors such as a user-friendly website, marketing messages, perceived dangers, cost, and Internet access/Internet familiarity affect customers' decisions to use Internet banking. The findings also show that consumers are more likely to use Internet banking when they are younger and have higher incomes. The study "Factors Affecting Internet Banking Adoption Among Young Adults: Evidence from Malaysia" was done by Eze et al. (2011) Perceived ease of use, perceived usefulness, relative benefit, self-efficacy, perceived credibility, and trialability were used as dimensions. According to the study's Multiple Regression Analysis, perceived utility, relative benefit, self-efficacy, trialability perceived and credibility are factors that tried to influence customers to utilize Internet banking.

Mulima (2012) conducted study on the Mombasa County branch of Kenya Commercial Bank to understand the factors influencing Internet banking adoption in Kenya. The study took into account factors such as demographics (Age, Education Level, Income, and Occupation), social influences (Parents, Friends, and Colleagues), and consumer perception and attitude (Relative Advantage, Compatibility, Complexity, Perceived Cost, and Perceived Risk). It makes use of the independent Sample T-test and the Chi-square test. To ascertain whether there is a relationship between customer demographics and their use of internet banking, chi-square analysis was used. Demographic factors affect how often people utilize online banking such as age, education, income, and occupation. Internet banking adoption has been found to be influenced by psychological factors such as perceived relative advantage, perceived complexity, perceived compatibility, perceived danger, and perceived cost. The adoption of online banking in Kenya was not shown to be significantly influenced by social factors.

Cudjoe et al. (2015) performed study on the factors that influence the adoption of mobile banking in the banking sector in Ghana. A number of factors were used in the study, including awareness, perceived usefulness, perceived usability, compatibility, social influence, perceived self-efficacy, perceived credibility and perceived financial cost. Analyses of the data were qualitative. According to the report, perceived financial cost and perceived credibility were the main obstacles to users using Access' mobile banking services. Consumer intention to embrace and use mobile banking services is more strongly influenced by perceived credibility and perceived financial cost than by perceived usefulness and perceived simplicity of use. In the case of the National Bank of Kenya in Bungoma County, Kevin Ogonji Harris Muluka (2015) investigated the impact of digital banking on customer satisfaction. According to the report, digital channels were primarily utilized to use mobile money. Further, the speed and dependability of digital banking were deemed satisfactory. The bank customer's ability to experience quick transactions may be limited if they do not use the internet to complete their transactions. In their study on the factors influencing the adoption of mobile banking in Kenya, Wangari and Willy (2014) took into account perceived risk, perceived convenience, trust, and relative advantage as independent variables. Frequencies and percentages were used in the descriptive statistics used to examine the data, while correlation analysis was used in the inferential statistics used to draw conclusions. Adoption of the M-Banking service was found to be negatively impacted by the way customers' perceived risk. On the other side, it was discovered that perceived convenience had a favorable impact on M-banking uptake. Regarding trust, it was discovered that the uptake of M-Banking services was favorably impacted by their dependability. The M-banking service was also discovered to have several advantages over conventional banking services.

Researchers Safeena et al. (2012) studied how Indian consumers adopted mobile banking technology. Considered as dimensions are perceived usefulness, perceived usability, awareness, and perceived risk. A varimax rotation was used using principal component factor analysis. The results of this study show that consumer adoption of mobile banking is primarily influenced by perceptions of perceived utility, perceived usability, consumer awareness, and perceived risk. Aliyu et al. conducted an exploratory study on the adoption of electronic banking in 2012. price/cost variables, perceived ease of use, customer accessibility, and customer.

2.3 Knowledge Gap

Theoretical and empirical study literature suggests that the expansion of the banking business has been significantly influenced by technological advancement in recent years. One of the most well-liked non-cash instruments in the United States in the twenty-first century, ECPTs have seen tremendous growth in appeal globally.

Ayana (2012), Worku (2010), Tadesse (2005), Shaikh (2014), and Sinha et al (2014) are just a few of the studies that have used descriptive research to evaluate the opportunities and difficulties related to e-banking in Ethiopia. In Bahir Dar city, Takele and Sira (2013) conducted a study to examine the variables that affect customers' intentions to use digital banking service channels. Sira and Takele (2013). A research paper with Auta (2010), In Nigeria, research into the problems preventing bank customers from using e-banking found that lack of infrastructures like power and telecommunication amenities, accessibility issues, lack of knowledge about the service, and concerns about consumer safety are among the main things holding back consumer adoption of e-banking. Similar to this, Anwana (2010) found that the main barriers to e-banking adoption were poor security, a lack of user knowledge, outdated and inadequate telecommunications infrastructure, inadequate public power supplies, a lack of trust, poor economic conditions among the populace, and a lack of confidence in the technology. This study suggests that e-banking services and products are not reliable and secure, and are thus not trusted in terms of safety and technological comprehension. Consumers choose physical banking over digital banking because they believe it is more complicated and because their banks do not provide training or education on how to utilize certain of the e-banking products and services.

Security, data privacy, and the expense of technology investments are the key deterrents to the adoption of electronic banking. The literature also shows that a variety of factors, including perceived benefits and other aspects of the services themselves and how to be accepted and used by the customers influence the adoption of E-banking. These elements differ amongst nations, indicating how each has developed economically and technologically. In this study, six variables are identified as influencing customers' decisions to adopt ECPT: perceived usefulness, perceived ease of use, social influences marketing communication, perceived risk, and compatibility.

2.3 Conceptual frame work

As it requires customers to embrace ECPTs, the conceptualization of digital banking has proven challenging, leading studies to mix several theoretical approaches (Patsiotis et al., 2012; Alalwan et al., 2016). Different aspects of the theories impact ECPT's adoption frameworks. Figure 2.1 illustrates how customer experience (the dependent variable) affects the adoption of ECPT while digital banking (the independent variable) has six dimensions factors (perceived usefulness, perceived ease of use, perceived risk, social influences, marketing communication and compatibility). This research developed a conceptual framework after carefully examining numerous ideas and models. Its goal was to help accomplish the intended outcome.

2.3.1 The Hypothesis

Hypothesis of the study the researcher starts by developing the following hypotheses for the study:

H1: perceived ease of use has a significant impact and positive on customers' Decision and intention to adopt ECPT.

H2 perceived usefulness ECPTs has a significant impact and positive on Decision and intention to adopt ECPT. H3 perceived risk of use has a negative effect on customers' Decision and intention to adopt ECPT.

H4 perceived Social Influence of use has significant impact and positive on customers' Decision and intention to adopt ECPT.

H5 perceived MIC through different media and techniques has significant impact and positive on customers' Decision and intention to adopt ECPT.

H6 perceived compatibility has a significant impact and positive on customers' Decision and intention to adopt ECPT.

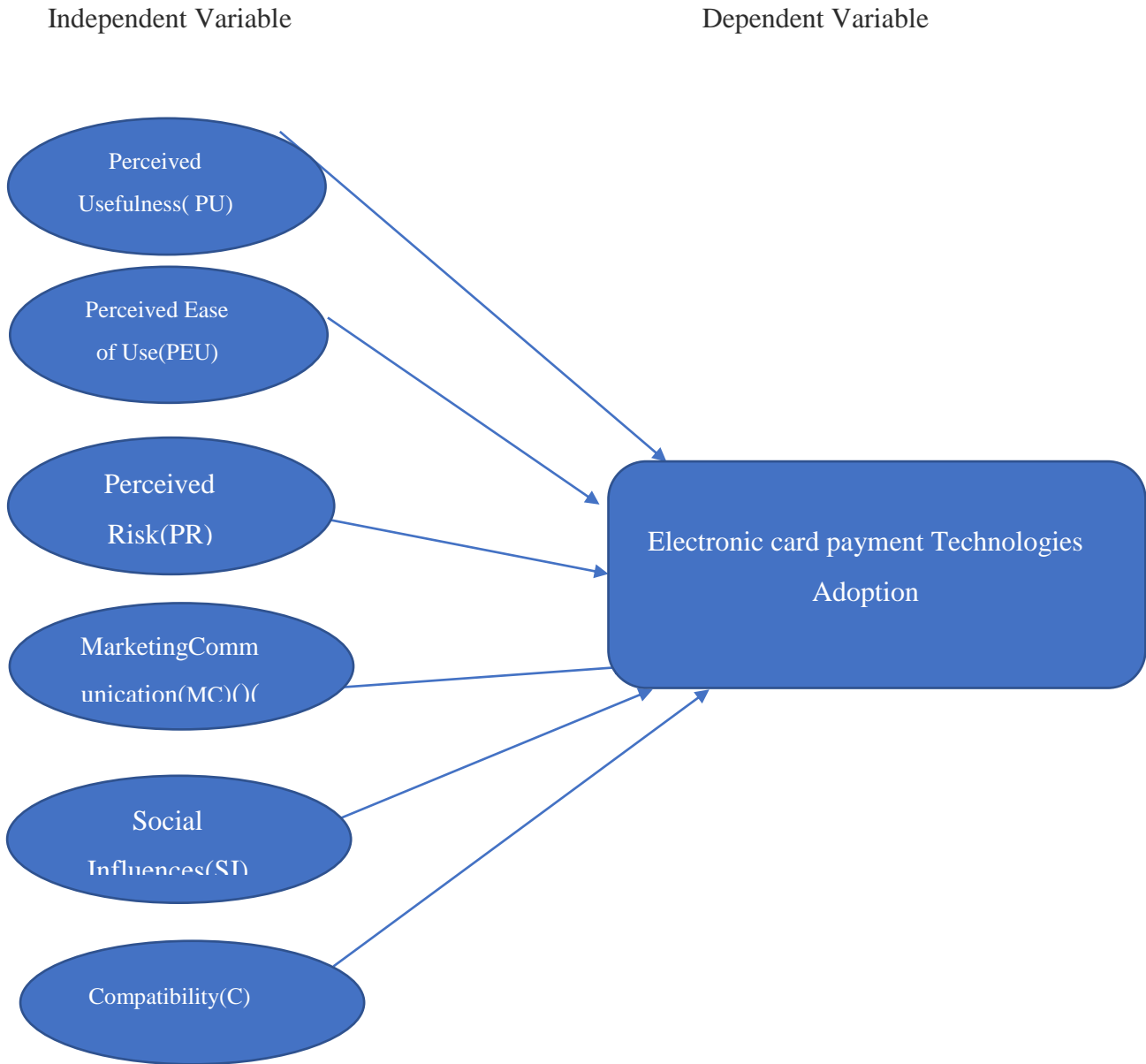


Figure 2.1 proposed conceptual framework

2.3.1.1 Perceived Usefulness One of the most effective models for predicting a person's intention to adopt new technology is the Technology Acceptance Model (TAM; Davis, 1989). How much a user values a piece of software or a piece of hardware for relationship performance is determined by how much they believe using a particular system will increase their work performance.(Davis ,1989) A number of researchers, including Amin (2010), Ayana (2012), Dehbini et al (2015), Domeher et al 2014, Narteh (2012), Safeena et al (2012), Takele

and Wahab (2012), have found that perceived usefulness has a favorable and significant effect on customers' intention and decision to adopt E-Banking technologies. When a potential adopter believes that using a certain system will improve his or her performance, this is referred to as perceived usefulness, according to Davis et al. (1989). Site design and other usability aspects were excellent predictors of satisfaction. The usability of the system, which results in ease of use, is related to the website design. To boost usability, e-payment systems should make users feel impersonal about user navigational simplicity and friendliness. (Agarwal and Venkatesh, 2002)

H1: Perceived usefulness has effect on ECPT adoption Decision by customers of selected banks in Addis Ababa

2.3.1.2 Perceived Ease of Use It is up to the individual to choose how much effort they are willing to put into various projects, with independence from hardship or major effort being described as freedom (Rander and Rothschild, 1975). Ainscough (1996) asserts that a strong link is a crucial factor in encouraging consumers to engage in customer interaction throughout the transmission of e-payments. According to research by Jun and Cai (2001), consumers may experience or feel unclear about whether or not the transaction is completed as a result of a delay in service delivery or a sluggish response time during an electronic connection. Many academics used the concept of "perceived ease of use" in their work to try and understand how customers' decisions to use E-banking technologies were influenced by it. Researchers Adeoti (2011), Amin (2010), Ayana (2012), Dehbini et al (2015), Eze et al (2011), Featherman and Pavlou (2003), Mulima (2012), Narteh (2012), Nasri and Zarai (2014), Omotayo and Dahunsi (2015), Safeena et al (2012), Tiamarumilanzi (2013), discovered that perceived ease of use has a positive and significant impact. Complexity is a term that has similarities to perceived ease of use. From the standpoint of the client, "ease of use" is one of the three crucial features for the acceptance of new services, according to Rogers (1995, pp. 230–231) and Cooper (1997). It was recommended by Katz and Aspden (1997), Walis (1997), and Mols (2000) that the Internet must be simple to use. According to The Wallis Report (1997), technical innovation "must be easy to use" to guarantee consumer take-up or acceptance. In her study of electronic banking in the UK and Ireland, Daniel (1999) notes that "ease of use" is one of the elements that contribute to customer acceptability.

The concepts of complexity and perceived ease of use were combined to create the construct known as "Effort expectancy" by Venkatesh et al. in 2003. Effort expectation, in the words of Ajzen (1991), is "the degree of ease associated." Tan & S.H. Teo (2000), Al-Smadi (2012), and Takele (2013),) are among the researchers who found that customers' decisions to adopt E-Banking technology are influenced by their perceptions of behavioral control. It is hypothesized that: Based on the previous discussion of perceived usability and related concepts (complexity effort expectation, and perceived behavioral control), as well as the results of prior researchers:

H2: Perceived Ease of Use has effect by customers of the selected banks in Addis Ababa on which ECPT adoption Decision

2.3.1.3 Perceived of risk: Bauer created the concept of perceived risk in 1960. He emphasized that the buying habits of customers will probably result in unpredictable and possibly unpleasant effects. 2015 (Zhang et al.), As a result, the uncertainty of the outcome, which was the initial idea of perceived risk, is included in consumers' purchase decisions (Zhang et al., 2015; Eugene & Tinashe, 2017). Perceived risk study is one of the few consumer behavior research domains that can be called to have a research tradition, according to Lumpkin & Dunn (1990). However, perceptions of risk do not fully account for consumer purchasing intentions. It has been demonstrated that perceived risk plays a significant role in the choice to buy (Lumpkin & Dunn, 1990; Eugene & Tinashe, 2017). According to Parumasur and Roberts-Lambard (2012), perceived risk is the degree of risk a consumer perceives in a purchase decision and/or the potential repercussions of a bad choice. According to Thakur and Srivastava (2015), perceived risk is a concept that gauges a person's views about their hesitancy in the face of potential risks or unfavorable outcomes. In the context of consumer behavior, perceived risk has been described as a combination of uncertainty about the gravity of the potential outcome and the anticipation of losses related to purchases, which serves as a deterrent to making purchases (Thakur & Srivastava, 2015; Eugene & Tinashe, 2017). When a consumer is thinking about making a specific purchasing decision, perceived risk relates to the kind and degree of risk that consumer perceives (Khan & Chavan, 2015). The most prevalent way to define perceived risk is as the consumers' subjective loss likelihood, which indicates that every action a consumer takes has an impact.

Financial risk: It is described as the subjective of expectation for monetary loss due to transaction failure. According to Kuisma et al. (2007),

Performance riskThis has to do with losses brought on by broken internet banking systems. Customers frequently worry that a system server crash or an Internet disruption would happen during an online transaction because these occurrences could lead to unforeseen losses. (Lee, 2009; Kuisma et al., 2007).

Social risk: refers to the potential for backlash from the social networks of the customers. Littler & Melanthiou (2006) underlined that the social standing of the consumer using e-banking services may be impacted by the opinions of family, peers, etc. towards those services (Aldas-Manzano et al, 2008).

Physical risk:refers to the danger that purchasing things poses to the security of the buyer or the customers (Jacoby & Kaplan, 1972). It is the arbitrary anticipation of safety being lost as a result of transaction error.

Psychological Risks:The potential for the service to negatively impact the user's self-perception (Jacoby & Kaplan, 1972). When preparing to complete an e-banking transaction, customers frequently experience anxiety or worry.

Privacy risk:This refers to the potential for personal information about customers to be shared, either internally or externally to the organization, to direct marketers (in particular) (Aldas-Manzano et al., 2008). Customers worry that the bank may share their profiles with other companies or people in the banking business and use that information to try to sell them more products, according to research by Gerrard and Cunningham from 2003.

Time-loss risk:The risk of time loss is the assumption that using e-banking services will result in time loss. More specifically, the time risk in the context of e-banking may be related to the time spent processing incorrect transactions and downloading data (Jayawardhena & Foley, 2000; Aldas-Manzano et al, 2008). In places with outdated technology, a weak network could be to blame for the time loss.

Therefore, considering the previous discussion on perceived risk and its components, and the findings of prior researchers, it is hypothesized that:

H3: Perceived Risk has effect on ECPT adoption Decision by customers of the selected banks in Addis Ababa

2.3.1.4 Social Influence Innovation/diffusion of new technology, according to Rogers (1995), includes four key components: an innovation, communication channels, time, and societal structure. A social system, in Rogers' words, is "a group of interrelated units that work together to solve issues in order to attain a common goal. A social system can be thought of as consisting of either individuals, unofficial groups, organizations, or subsystems. (Rogers, 1995). According to Venkatesh (2015), social influence is the extent to which a person believes that his or her usage of new technology is valued by others or that he or she complies with their expectations. People interact socially and are influenced by the importance that friends or family members place on mobile banking. It might change people's inclinations toward mobile banking. Numerous studies have supported the beneficial effects of social influence on people's intentions to utilize mobile banking. Social influences include "the extent to which an individual perceives that important others believe he or she uses the new system," according to Venkatesh (2003, p. 452). And Researchers who discovered that social effects have an impact on customers' intentions and decisions to embrace digital banking technologies include

Therefore, considering the previous discussion on perceived risk and its components, and the findings of prior researchers, it is hypothesized that

H4: Social Influences have effect on ECPT adoption Decision by customers of the selected in Addis Ababa

2.3.1.5 Marketing Communication Influence _ In order to inform, persuade, and remind customers about the things they sell, businesses use marketing communications (Kotler & Keller, 2013, p. 498). In service marketing and, by extension, the banking industry, excellent customer communication is crucial. The actions they are taking and the plans they have for the future must be disclosed to both current and potential customers by banks (Manisha, 2012).describing their services and products

The adoption of e-banking technology by customers is positively and significantly influenced by marketing communications, particularly advertising and personal selling, according to

research by Chinakidzwa (2014), Clemes et al (2012), Du (2011), Elliott and Fu (2008), and Lichtenstein and Williamson (2006).

Because of their distinctive qualities, most banks prefer to employ the personal selling strategy to improve sales and utilization of financial services. (nce, 2000). Two ways can cause it. First, it happens in a branch office setting when the consumer and banker meet face to face. The second thing that happens is that bank representatives visit customers' homes or offices to inform them of the bank's services and to fortify their relationship with the bank (Manisha, 2012). Elliott and Fu (2008) used empirical research to demonstrate that human selling has a favorable and significant influence on consumers' decisions to accept technical products in the context of e-banking. Ineffective radio and/or television advertising, as well as other forms of ineffective marketing communication

It is therefore expected that: Taking into account the past discussion of marketing communications' impact on customers' purchasing decisions, with appropriate emphasis on advertising and personal selling, as well as the findings of prior researchers

H5: Effective Marketing Communication has effect on ECPT adoption Decision by customers of theselected branch in Addis Ababa

Compatibility According to Tat et al. (2007), compatibility measures how much a person perceives using an innovation as being consistent with their user values, socio-cultural beliefs, and past and present experiences. When an invention is compatible with people's work responsibilities and value systems, it is more likely to be adopted, according to Tornatzky and Klein's meta-analysis of innovation adoption from 1982. According to the Straits Times (14 September 1997), electronic banking has been seen as a delivery method that fits the profile of the modern banking client, who is probably computer literate and familiar with the Internet. Tan and Teo's (2000) study revealed that an innovation's perceived compatibility had a favorable impact .In other words, clients will only use e-banking technologies that, in their opinion, align with their personal and professional beliefs. Therefore, when an invention is (1) compatible with the user's job responsibilities, values, and processes, it is more likely to be adopted. The study makes the assumption that Ghanaian clients will accept electronic banking if they believe it to be consistent with their values.

Thorough conceptual formulation that separates the substance of compatibility into four unique and separable components was offered by Karahanna, Agarwal, and Angst (2006).

(1) Compatibility with present working methods, which assesses how well a technology "fits" with a user's current working method;

(2) Compatibility with preferred work style, which demonstrates the possibility of the technology being compatible with a preferred work style;

(3) Compatibility with prior experience, which shows how well the desired technology fits with different consumers' prior technological experiences and

(4) Compatibility with values, which captures the alignment of the user's values with the target technology.

Considering the previous discussion of Compatibility and the findings of prior researchers, hypothesized by:

H6: Compatibility has effect on ECPT adoption Decision by customers of the selected in Addis Ababa

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a method for methodically addressing the research issue and is also regarded as a branch of science that studies how research is conducted scientifically (Kotari, 2004). This chapter describes the data collection methods, the study's demographic, sample size, and sampling technique. Additionally, it covers the research strategy, the sources and categories of data that will be gathered, and data analysis techniques.

3.2 Research Approach

In order to analyze research problems, both qualitative and quantitative research methods are applied. The generation of quantitative data that may be rigorously analyzed quantitatively in a formal and stringent way is a key component of the quantitative research strategy (Kothari, 2004). In order to analyze and deduce the causal links between ECPTs and customer experience in the chosen commercial banks of Ethiopia, this study used a quantitative research approach.

3.3 Research Design

The conceptual framework for study is known as the research design, and it serves data collection, measurement, and analysis (Kotari, 2004). There are three types of study designs: explanatory, descriptive, and exploratory. This study aims to descriptive research design the adoption status of ECPTs while also attempting to assess how ECPT adoption affects customer experience in the context of a few chosen commercial banks in Ethiopia.

3.4 Data Collection Method and Sources

Data will be gathered for this project from both primary and secondary sources. Using a random sample, the ECPT collected the primary data from corporate and retail consumers who used internet banking, ATMs, and mobile banking. Journals like the Journal of Internet Research and the Journal of Internet Banking and Commerce will be the primary sources of secondary data. To examine the information gathered from respondents, six independent and

one dependent variables with thirty two constructs would be used. Only selected commercial banks customer from the standpoint of Ethiopia are used in this study.

3.5 Population, sample size and sampling procedure

3.5.1 Target Population

According to A Hair et al. (2010), the term "target population" refers to a specific group of individuals or an object for whom observations can be made in order to get the necessary data and information. Clients are the total number of customers that the researcher identifies in their investigation (Mugenda 2008). In order to conduct this study, the researcher used a simple random sampling lottery to choose four branches from each of the chosen banks in Addis Ababa. Customers of these branches serve as the study's target population.

Table 3.1 Target Population of selected branch

Selected Banks	Name of Brach in Addis Ababa	Number of Account at June 30, 2022	Sample size
Commercial Bank of Ethiopia	Ayer Tenna Adebabay	26,346	25
	Kidiste Mariam	49,246	25
	Rapi	53,046	25
	Urael	55,040	25
WegagenBanks,c	Goffa	30,544	25
	Meskel	33,895	25
	Bole	15,543	25
	Merkato	14,564	25
Zamzam Bank	Alif	7,208	25
	lebu	1840	25
	Haji Turrie	7,526	25
	Arefa	3429	25
Zemen Bank	BesratGebriel	758	25
	kality	1243	25
	Adey Ababa Stadium	1201	25
	Goffa	1305	25
Total		302,968	400

3.5.2 Sampling Technique

The practicality and sensibility of gathering data from the complete population to address the researcher's aims and answer the study question(s) depend on the sampling technique chosen (Suandres et al., 2000). Three groups of the ECPT adoption of the chosen bank branches are considered to be the population's interests. Probability sampling and non-probability sampling are the two fundamental sampling methods. A probability sample is referred to as a sample in which there is random selection and each member of the population has an equal chance of being chosen. As an alternative, a nonprobability sample is utilized when sample units are selected based on personal preference (non-random selection) and not every member of the population has an equal chance of being chosen (Adams et al., 2007; Kothari, 2004). Simple Random, Systematic, Stratified, Cluster, and Multistage Sampling Methods are Examples of Probability Sampling (Adams et al., 2007). Non-probability and judgment sampling a sort of purposive sampling, was chosen as the sample technique.

3.5.3 Sample size

Calculations based on estimation are used to determine how many samples from the population should be used in an inquiry. It needs to be located before data is gathered. A bad sample size could prevent relevant results from being obtained and put participants at needless risk. For ethical and practical reasons as well as to produce reliable results, it is crucial to determine the ideal sample size or the minimal sample size necessary (Macfarlane, 2003; Sandhya, Alpana, & Deshraj, 2015). Cochran (1963, as referenced in Polonia, 2013) created the equation to produce a representative sample for proportions in huge populations.

For example, Krejcie and Morgan (1970) used a formula to determine sample size. According to Krejcie and Morgan (1970), the sample size should be 384 for populations bigger than 1,000,000 at a 95% confidence level. The Slovin's Formula can also be used to calculate the necessary sample size. Slovin's method is applicable when the confidence coefficient is 95% and the population percentage is anticipated to be close to 0.5, according to Tejada and Punzalan (2012). The equation is provided by: where e = Margin of Error, N = Population Size, and n = Required Sample Size

Many academics advise determining the sample size with a 95% confidence level and a 5% margin of error, and they also suggest that the sample size for a population between 2.5 million

and 10 million should be 384. The minimal sample sizes for quantitative consumer surveys, according to Crouch and Housden (2003, p. 166), should range from 300 to 500 respondents. In light of these arguments, the researcher has determined that the sample size for this study should be 400. In light of this, 440 samples, including 10% contingency, are proportionately dispersed among the chosen branches.

1. Four banks in Addis Ababa city which are selected and target population;
2. the Total sample size is determined based on the total number of accounts under the branches;
3. Four branches (for a total of 16 branches) are chosen from each of the selected commercial banks from the list of all branches listed, using a basic random sampling lottery approach. Sample was selected during customers come to the selected branches for services.
4. The formula used for calculation sampling in the given population targeted is as below

$$n = \frac{N}{1+Ne^2}$$

Where n = sample size, N = Population size and

e = Margin of error

3.5.4 Reliability and validity

While designing a study, analyzing the results, and assessing the study's quality, any qualitative researcher should be worried about reliability and validity (Patton, 2001). Stenbacka (2001, p. 551) claims that dependability is a quality assessment concept used in quantitative research with the "purpose of explaining," whereas quality concepts are employed in qualitative studies with the "purpose of generating understanding." A statistical measure known as Cronbach's alpha is used to evaluate a questionnaire's internal consistency.

Internal consistency of items on a scale with alpha values of ">.9, Excellent, >.8 Good, >.7, Acceptable, >.6 Questionable, >.5 Poor, and .5 Unacceptable" is measured by how close the Cronbach's alpha coefficient is to 1.0. (Joseph & Rosemary R., 2003)

Table 3.2 Reliability Statistics

Cronbach's Alpha	N of Items
.849	32

3.6 Methods of Data Analysis

Data analysis considering the values of unknown population factors and testing hypotheses in order to derive conclusions, notably in survey or experimental designs. Descriptive analysis and inferential analysis (statistical analysis) are two types of analysis. According to Kothari (2004), descriptive analysis mostly focuses on studying and describing a single variable. Inferential analysis is used to examine the relationship between two or more variables and assess how well the independent factors may explain the dependent variable (Alebachew, 2015). Contrary to descriptive analysis, inferential statistics allow for conclusions to be drawn based on more than just the raw data (Trochim, 2000). The information will be acquired from a representative sample of 20 branches of four commercial banks in Ethiopia that were randomly chosen. Quantitative data will be processed using SPSS version 2.0, the Statistical Package for the Societal Sciences. Descriptive statistics and inferential statistics are two of the most often employed quantitative data analysis techniques in this study. Inferential statistics, as opposed to descriptive analysis, enable conclusions to be derived based on more than just the raw data (Trochim, 2000). The information was acquired from a representative sample of 16 branches of four commercial banks in Ethiopia that were randomly chosen. Quantitative data will be processed using SPSS version 20, the Statistical Package for the Societal Sciences. Descriptive statistics and inferential statistics are the two most often employed quantitative data analysis techniques in this study.

CHAPTER FOUR

DATA PRESENTATION, ANALYSES AND DISCUSSION OF THE RESULTS

4.1 Introduction

The chapter includes the research study's findings and analysis, with a focus on providing an explanation of the data that was gathered. 400 questionnaires were provided to respondents, 376 (94%) of whom correctly filled them out and returned them. The experimenters were four commercial banks, each of which had four branches.

This chapter starts with presenting reliability test following by respondents statically under demography, descriptive analysis, Pearson correlation, multiple linear retraction both inferences and expressive on the data examination and techniques are offered.

4.1.1 Reliability Test

The are total of 400 questionnaires distributed, for which 376 or 94% were collected with no missing data and the remain 24 were unreturned, and it is acceptable for the study

Hair et al. (2006) stated that Cronbach's Alpha Reliability is an evaluation of the research's dependability that enables researchers to provide reliable outcomes. The range of values for Cronbach's Alpha measurement is between 0 and 1. Therefore, Cronbach's Alpha has stronger internal consistency within scale items if the coefficient is close to 1.

Cronbach's Alpha is utilized in this study to assess the items' internal consistency. The following guidelines are provided by George and Mallery (2003) (as referenced by Gleam and Rosemary, 2003): >0.9-Excellent, >0.8-Good, >0.7-Acceptable, >0.6-Quessable, >0.5-Poor, and 0.5-Unacceptable. The results are displayed in Table (4.1) below.

Table 4.0

Reliability Statistics

Cronbach's Alpha	N of Items
.849	32

Source: *Survey Result (2023)*

Table 4.1 Internal Reliability Test

Variable	Cronbach's Alpha	No. of items
Perceive of Usefulness	.811	6
perceived Ease of Use	.801	4
perceived of Risk	.937	6
Social of Influence	.844	4
Marketing of Communication	.808	5
Compatibility	.830	4
Adoption	.800	3

Source: *Survey Result (2023)*

The Cronbach's alpha calculated for each item that made up each construct employed in this investigation was displayed in Table 4.1. The elements that made up the seven variable constructions' alpha values, which ranged between 0.800 and 0.937, showed that they possessed an acceptable level of internal consistency dependability.

According to the results above, all variables are regarded as variables because their alpha values exceed 0.70. Perceived risk, the independent variable, has the greatest alpha value of 0.937 with 6 items, making it the most dependable variable. With 4 elements, social influence has the second-highest alpha value at 0.844. Compatibility and perceived utility came in second and

third, with alpha values of 0.830 and 0.811 for a total of 4 and 6 items, respectively. Additionally, Marketing Communication has an alpha score of 0.808 and an additional alpha value for perceived ease of use. The item number 801 also has a variable adoption with an alpha value of 0.800 and 3 items.

By evaluating the test's reliability, it is possible to draw the conclusion that it is accurate, with the variables meeting the criteria for reliability set forth by Cronbach's Alpha.

4.2 Descriptive Analysis

Descriptive analysis is produce detail information regarding the respondents age, sex, level of education, occupation and their monthly income of the given sample of the survey it has significant value on general information of the respondents main features of the data are described in table 4.2 below forms to insured the understanding of the samples.

Table 4.2 Respondents demographic profile

Questions	Response Alternatives	Count	Percent
Sex of the Respondents	Male	228	60.6%
	Female	148	39.4%
Age of the Respondents	Between 18 – 29	104	27.7%
	Between 30 – 39	89	23.7%
	Between 40 – 50	73	19.4%
	Between 51 – 64	70	18.6%
	Above 65	40	10.6%
Education level of the Respondents	No Formal education	20	5.3%
	Primary school completed	57	15.2%
	Secondary School completed	71	18.9%
	College Diploma	45	12.0%
	First degree	102	27.1%
	Masters degree and above	81	21.5%
Occupation of the Respondents	No job (Job seeker)	65	17.3%
	Government employed	64	17.0%
	Private sector employed	143	38.0%
	Self-employed	78	20.7%
	Others	26	7%
Monthly Income of the Respondents	Below 1,000	25	6.6%
	1,000- 2,999	48	12.8%
	3,000-4,999	26	6.9%
	5,000-9,999	50	13.3%
	10,000-19,999	68	18.1%
	More than 20, 000	159	42.3%

Source: *Survey Result (2023)*

Table 4.1 indicated that 60.6% of respondents were males who have the maximum portion of participants in this study. The respondents' age range from 18-29 the highest with 27.7% following by age range 30-39 with 23.7% of valid responses. Nearly 95% of the respondents were at tertiary level of Education specifically 27.1% is first degree holder which is the highest respondents. Respondents who are private sector employed have 38% which is highest following by self-employed respondents nearly 21%. Monthly income of the respondents indicates above 20,000 monthly income have highest with 42.3% following by monthly

income range from 10,000 to 19,999 respondents with 18.1% This implies that 60% of digital-banking customer respondents have monthly revenue above 10,000 Ethiopian birr.

Table 4.3 Chi-Square Test between Sex , Income, Education level , Age and Adoption

Comparison		Value	df	Asymp. Sig. (2sided)
Sex and ECPTs' adoption	Chi Square	31.780 ^a	7	.000
	Likelihood Ratio	33.849	7	.000
	No. of Valid Cases	376		.
Age and ECPTs' adoption	Chi Square	321.465 ^a	28	.000
	Likelihood Ratio	324.664	28	.000
	Linear by-Linear Association	91.413	1	.000
	No. of Valid Cases	376		
Education level and ECPTs' adoption Decision	Chi-Square	649.253 ^a	35	.000
	Likelihood Ratio	596.851	35	.000
	Linear-by-Linear Association	203.545	1	.000
	No. of Valid Cases	376		
Occupation and ECPTs' adoption	Chi-Square	341.875	28	.000
	Likelihood Ratio	367.276	28	.000
	Linear-by-Linear Association			.000
	No. of Valid Cases	376		
Monthly Income and ECPTs' adoption	Chi-Square	377.479	35	.000
	Likelihood Ratio	392.858	35	.000
	Linear-by-Linear Association	7.536	1	.000
	No of Valid Cases	376		

Source: Survey Result (2023)

According to Table 4.3, the significant value (.000) for the variables sex, age, education level, occupation, and monthly income is less than 0.05 at a 95% confidence level. In light of this, it can be said that all are significantly related to ECPT adoption.

4.2.1 ECPT Usage Behavior

Out of all the respondents 16.8% has never have electronic card, the card holders who use occasionally has 42.6% which is the highest following by 21.8% who are use almost every time , on using of ATM and POs the 45.4% of the respondents are using on both ATM and POS machine but the 37.8 % using only ATM machine.

Table 4.4 User electronic card Vs nonuser and their behavior

Questions	Response options	Count	Column %
Do you have electronic card (ATM card) and or \pos?	Yes	313	83.2%
	No	63	16.8%
How frequently do you use Electronic card for your banking needs?	Never	63	16.8%
	Almost never	71	18.8%
	Occasionally	160	42.6%
	Almost every time	82	21.8%
Have you ever use electroniccard on ATM machine &/or Pos machine	Never	63	16.8%
	Both ATM and POs	171	45.4%
	Only ATM or only PoS	142	37.8%

Source: *Survey Result (2023)*

4.2 Independent and dependent variable descriptive analysis

The 32 qualities' mean scores and standard deviations are described in the seven tables that follow, one for each category. According to the following measuring scale, range, or ranges, the interpretation was formed. Mean values Scale: Strongly Disagree: 1.80, Disagree: 1.81 to 2.60, Neutral: 2.61 to 3.40, Agree: 3.41 to 4.20, and Strongly Agree: > 4.21.

Table 4.5 Descriptive statistics Variable

	N	Minimum	Maximum	Mean	Std. Deviation
PU	376	2.00	4.33	3.6015	.56801
PEOU	376	1.75	4.00	2.9315	.59256
PR	376	2.33	3.83	3.1299	.37085
SI	376	2.75	3.75	3.5047	.32271
MC	376	2.80	4.80	4.0165	.66408
CP	376	2.00	3.50	2.8338	.36555
A	376	2.33	5.00	3.9495	.87099
Valid N (listwise)	376				

Source: *Survey Result (2023)*

- ✓ The transform compute variable mean result of perceived usefulness is 4.33 and deviation 0.56 standard which is indicated that customers agreed that ECPTs are useful.
- ✓ The transform compute variable mean result of items under perceived ease of use is 2.93 and standard deviation .59 which indicate that, on average, customers neutral or perceive that ECPTs are neither easy to use nor difficult.
- ✓ The transform compute variable mean result of items under perceived risk is 3.12 and standard deviation 0.37 which indicate that, on average, customers are neutral with regards to the argument that ECPTs expose to various risks.
- ✓ The transform compute variable mean result of items under Social influence is 3.50 with standard deviation 0.32 which indicate that, on average, customers are agree with respect to social influence and ECPTs adoption.
- ✓ The average customer agreed or perceived that the marketing communication efforts of the chosen commercial banks have an impact on their adoption decision, according to the transform compute variable mean score of items under Marketing Communication Influences, which is 4.01 with standard deviation 0.66.

- ✓ The transform compute variable mean of items under compatibility is 2.83 with standard deviation 0.36 which indicate that, on average, customers neutral or perceive that ECPTs are compatible with them and their situation.
- ✓ The transform compute variable mean of items under ECPTs adoption is 3.9 with standard deviation 0.87 which indicate that, on average, customers are agree perceive that ECPTs are adoption of the selected commercial bank customer.

4.3 Inferential Statistics /Analysis/ of the Customer Adoption Level on E-banking

Some tests were directed in order to ensure the appropriateness of data to assumptions regression analysis as follows before applying regression analysis,

4.3.1 Pearson Correlation Coefficient Analysis

A correlation measures how strongly two variables are related to one another. Because they are comparatively simple to use and offer a wealth of information in a single value, correlation coefficients are commonly employed to explain data (Mooi&Sarstedt, 2011). This is to make sure that there is a strong linear link between all of the study's variables. Multiple regression analysis was preceded by preliminary analysis to make sure the regression model was free of any significant flaws. The general guideline for correlation coefficient is given below.

Table 4.6 Rules of thumb about Correlation Coefficient size

Coefficient range	Strength of Association
(0.91 - 1.00) / -1.00 ~ -0.91	Very High
(0.71 - 0.90) / -0.90 ~ -0.71	High
(0.41 - 0.70) / -0.70 ~ -0.41	Average
(0.21 - 0.40) / -0.40 ~ -0.21	Small but define relationship
(0.01 - 0.20) / -0.20 ~ -0.01	Slight , almost negligible

Source: Hair.et.al (2006).

Table 4.7 Indicates of Pearson Correlations

		PU	PEOU	PR	SI	MC	CP	A
PU	Pearson Correlation	1	.868**	-.468**	.643**	.749**	.872**	.817**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	376	376	376	376	376	376	376
PEOU	Pearson Correlation	.868**	1	-.563**	.693**	.825**	.885**	.903**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	376	376	376	376	376	376	376
PR	Pearson Correlation	-.468**	-.563**	1	-.374**	-.286**	-.568**	-.481**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	376	376	376	376	376	376	376
SI	Pearson Correlation	.643**	.693**	-.374**	1	.596**	.651**	.834**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	376	376	376	376	376	376	376
MC	Pearson Correlation	.749**	.825**	-.286**	.596**	1	.739**	.841**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	376	376	376	376	376	376	376
CP	Pearson Correlation	.872**	.885**	-.568**	.651**	.739**	1	.827**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	376	376	376	376	376	376	376
A	Pearson Correlation	.817**	.903**	-.481**	.834**	.841**	.827**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	376	376	376	376	376	376	376

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

Source: *Survey Result (2023)*

4.3.1.1 Perceive usefulness and ECPT adoption

The link between the two relevant variables is moderate ($r=.817^{**}$), with a significant value of 0.000. According to the aforementioned Pearson correlation, the perceived efficacy of ECPTs has a big impact on how widely they are adopted. This indicates that adoption of ECPTs is positively and significantly correlated with simplicity of use.

4.3.1.2 Perceived ease of use and ECPT adoption

The Table 4.7 showed there is a considerable relationship between Perceived Ease of Use and ECPT adoption. The result of $r=.903^{**}$ and 0.000 significant value shows that the two variables association are very good correlated positively.

4.3.1.3 Perceived risk and ECPT adoption

According to Table 4.7, the Pearson correlation between the dependent and independent variables is $r =-.481^{**}$ and significant at 0.000, indicating a negative and substantial association between the adoption of electronic cards and perceived risk.

4.3.1.4 Social Influence and Adoption

As can be shown in Table 4.7, there is a strong correlation ($r=.834^{**}$) between social influence and the adoption of electronic card transactions. This suggests that the two variables interact favorably.

4.3.1.5 Marketing communication and ECPT adoption

The outcome of the correlation between the adoption of electronic card transactions as the dependent variable and the marketing communication element as the independent variable is. This indicates that the two variables are also positively correlated, with a significant value of 841^{**} and 0.000.

4.3.1.6 Compatibility and ECPT Adoption

There is a strong correlation between social impact and the acceptability of electronic card transactions, as illustrated in Table 4.3. Furthermore, they are connected because $r=.827^{**}$ and 0.000 are significant values. This suggests that the two variables interact favorably.

4.4 Regression Analysis

To analyze the six independent variables and the dependent variables in reasoning and consequence relationship, multiple regression analysis was utilized in this study. To produce accurate results, the underlying premises of multiple regression analysis must be verified (Mooi & Sarstedt, 2014). The suppositions Linear it. The linearity assumption in logistic regression makes the assumption that any continuous predictors and the outcome variable have a linear relationship (Field, 2009). Additionally, according to Mooi & Sarstedt (2014) and

Wooldridge (2016), the expected mean error is zero, the error term's variance is homoscedastic (constant), the errors are unrelated (no autocorrelation), and the error term should have a normal distribution. Error cannot be tested since expected zero is assumed (Mooi&Sarstedt, 2014). A statistical technique can be used to test the other.

4.4.1 Multicollinearity Test

The Variance Inflation Factor (VIF) is used by the researcher to test for multicollinearity among the independent variables. If VIF is more than 10, multicollinearity exists. Variance Inflation Factors (VIFs) above 10 or Tolerances below 0.1 are viewed as a cause for concern (Freund and Littell 2000; Landau and Everitt 2004). Knowing whether there is a correlation between independent variables and regression is helpful. In this investigation, tolerances are more than 0.1 and variance inflation factors (VIFs) are less than 10.

Table 4.8 Variance Inflation Factor

Model	Collinearity Statistics		
	Tolerance	VIF	
1	PU	.191	5.243
	PEOU	.113	8.839
	PR	.550	1.817
	SI	.509	1.964
	MC	.268	3.730
	CP	.162	6.182

Source: *Survey Result (2023)*a. Dependent Variable: A

4.4.2 Linearity

By looking at scatter plots with a straight line, it is possible to figure out whether the relationship between the independent factors and the dependent variable is linear (Jason W. Osborne & Elaine W. 2002).If the correlations are linear in form, multiple regressions can estimate the link between the dependent and independent variables. The objective of the

normality test is to determine whether the multicollinearity assumption has been violated in the regression model of the underlying determinants of ECPT adoption.

The scatter plot in Figure 4.1 demonstrates that the residuals follow a largely random pattern since the residuals do not follow any nonlinear trend. This result demonstrates homoscedasticity, which states that each predictor's value should be constant, in the multivariate independent variable collection. Any pair of observations' error terms should also be un-correlated.

The normality test is used to determine whether the distribution of data for a single metric variable is normally distributed. Both of frequency distributions and typical P-P plots regression in figures 4.3 and 4.2 below demonstrate that the data is roughly normally distributed.

The serial correlation test, also known as the Durbin Watson test, is used in residuals to gauge autocorrelation resulting from regression analysis. Test statistics are considered normal with values between 1.5 and 2.5, according to Field (2009). The Durbin Watson statistic value in this study is 2.129; as a result, it is regarded as relatively typical.

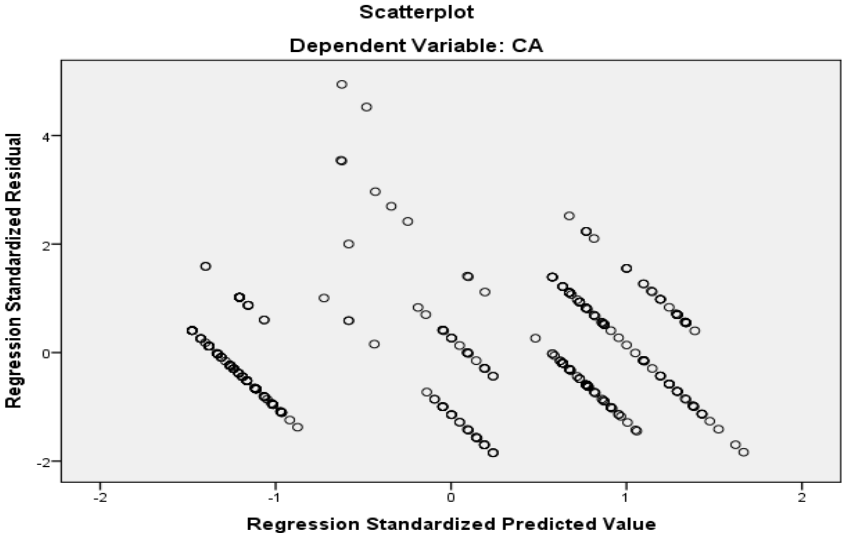


Figure 4.1 Source: Survey Result (2023)

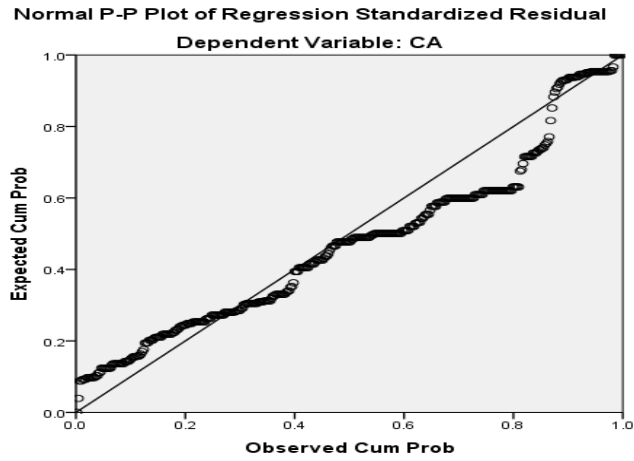


Figure 4.2 Source: *Survey Result (2023)*

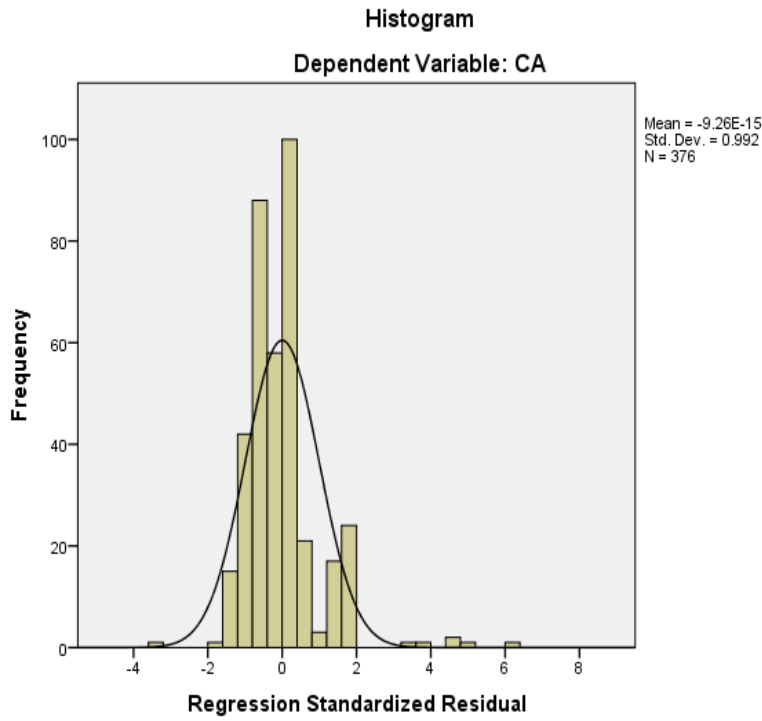


Figure 4.3 Source: *Survey Result (2023)*

4.4.3 Normality test

If the distribution of the data is regular or close to normal, the regression model is respectable. Regression on a typical P-P plot graph with normalized residuals indicates that the line is close to the diagonal and moves in that direction.

Additionally, skewness and kurtosis are used to assess the examination's normalcy. The typical range of skewness that is considered acceptable is between -1.96 and +1.96 and 3kurtosis. As a result, the skewness of all variables ranges from -1.96 to 1.96. Additionally, the kurtosis is likewise not too far off the norm, proving that the data are regularly distributed.

Table 10.9 Normality test Statistics

	PU	PEOU	PR	SI	MC	CP	A
N	Valid	376	376	376	376	376	376
	Missing	0	0	0	0	0	0
Skewness	-.954	-.502	-.866	-1.381	-.428	-.786	-.603
Std. Error of Skewness	.126	.126	.126	.126	.126	.126	.126
Kurtosis	.077	-1.342	.029	.757	-1.176	-.291	-1.077
Std. Error of Kurtosis	.251	.251	.251	.251	.251	.251	.251

Source: *Survey Result (2023)*

4.4.4 Regression analysis of determinant variables and ECPT adoption

The outcomes of the multiple regression analysis employing the six constructs are shown in Tables 4.10, 4.11, and 4.12: The adoption of the ECPT is determined by perceptions of utility, usability, risk, social influence, market communication, and compatibility as independent variables. The summary of data from the regression model (see table 4.10) showed how much the determinant factors of ECPT adoption affected the change in the measure of ECRT adoption. Based on this, the model's coefficient of determination (R²) indicated that 0.899% of the deviation in the measurement (acceptance of e-banking) function can be explained by perceptions of usefulness, usability, risk, social influence, market communication, and compatibility. In contrast, R square of 0.899 indicates .This was done to determine the best linear combination of the constructs for predicting ECPT adoption

Table 4.10 Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.961 ^a	.924	.923	.24237	.924	745.654	6	369	.000

a. Predictors: (Constant), CP, PR, SI, MC, PU, PEOU

b. Dependent Variable: A

Source: *Survey Result (2023)*

4.4.5 F-test for ECPT Adoption

This level of significance is demonstrated by the ANOVA table; all predictive variables are connected to the underlying causes of ECPT adoption, and their relationships are as compared to an alpha value of 0.05. The significance of whether it is acceptable or not is shown in (Table 4.11). However, the results in the table showed that the significance level was 0.000, which is less than 0.05, which is acceptable and demonstrates a significant influence of the independent variable on ECPT adoption. According to this table, the value of F is equivalent to 745.654. Consider the number 0.000. Due to the sig 0.05

Table 4.11 ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	262.808	6	43.801	745.654	.000 ^b
	Residual	21.676	369	.059		
	Total	284.484	375			

a. Dependent Variable: CA

b. Predictors: (Constant), CCP, CPR, CSI, CMC, CPU, CPEOU

As can be seen from the ANOVA table above, the model is significant since the significance value of F statistics has a value of 745.654 and a p-value (.000), which is less than p0.01. This proved that there is a statistically significant association between the independent variables and the dependent variable under investigation.

As previously mentioned, multiple regression analysis is used to investigate whether the six independent factors of perceived risk, perceived usefulness, perceived ease of use, perceived social influence, perceived market communication, and compatibility significantly contribute to the adoption of electronic cards by the customers of the chosen commercial banks. The six independent variables in the regression model are all statistically significant (p-value 0.05, F=745.654). The findings demonstrated that the independent variable and dependent variable have a significant connection (p 0.05). This indicates that customers' decisions to embrace the ECPT are influenced by their perceptions of its perceived usefulness, simplicity of use, risk, social impact, market communication, and compatibility. As a result, the study demonstrates that the variables that affect ECPT adoption by bank customers are substantial.

Table 4.12 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error				Beta	Zero-order	Partial	Part	Tolerance
(Constant)	-2.624	.250		-10.489	.000					
PU	.041	.050	.027	.811	.418	.817	.042	.012	.191	5.243
PEOU	.477	.063	.324	7.596	.000	.903	.368	.109	.113	8.839
PR	-.104	.045	-.044	-2.278	.023	-.481	-.118	-.033	.550	1.817
SI	1.040	.054	.385	19.138	.000	.834	.706	.275	.509	1.964
MC	.385	.036	.293	10.567	.000	.841	.482	.152	.268	3.730
CP	.057	.085	.024	.672	.502	.827	.035	.010	.162	6.182

The standardized Beta Coefficients, which represent each variable's contributions to the model, are shown in Table 4.11. It is clearer from Table 4.11 which of the six independent variables is most crucial for explaining the variation in ECPT adoption. The effect of the independent factors on the dependent variable was demonstrated by the t and p (Significant) values (Freedman, 2005; Krushkal et al., 1978; Leech, 2005; Lindley, 1987).

It was evident from Table 4.11 that the construct Marketing Communication had the greatest influence on ECPT Adoption, whereas the construct Perceive Risk had the least influence (-

0.044). Therefore, social influence, which has a high beta value of 0.385, leads in significantly explaining the intention to adopt ECPT, followed by perceived ease of use (.324), market communication (.293), perceived usefulness (.027), compatibility (.023), and perceived danger (-0.044). The result for social impact was supported by the big t value and matching low p value. The Beta coefficient for P was the highest (both unstandardized and standardized).

Based on the regression equation and the statistical results are shown below:

$$Y = -0.754 + 0.324(\text{PEOU}) + 0.027(\text{PU}) - 0.044(\text{PR}) + 0.385(\text{SI}) + 0.293(\text{MC}) + 0.023(\text{CP})$$

Where Y = ECPT Adoption

The result shows, in order to increased 1 unit of intention of ECPT adoption, there will be decrease of 0.044 (PR) and an increase of 0.324 (PEOU), 0.385 (SI), 0.293 (MC), and 0.023 (CP). In addition to that, Social influence considered as main predictor that has the strongest influence on intention to adopt ECPT where the standardized beta is equal to 0.385, perceive ease of use 0.324, market communication 0.293, perceive usefulness .027, Compatibility.024 and Perceive risk -0.044.

Table 4.13 Hypothesis result

H1: There is positive and significant relationship between Perceive Usefulness and ECRT adoption .	($\beta=0.027$,Sig0.418)	Not supported
H2: There is significant and positive relationship between Perceived Ease of Use and ECRT adoption	($\beta=0.324$,sig 0.000)	Supported
H3: There is negative and significant relationship between Perceived Risk and ECRT adoption .	($\beta=-0.044$,Sg0.023)	supported
H4: There is Positive and significant relationship between Social Influence and ECRT adoption .	($\beta=0.385$,sig0.000)	Supported
H5: There is a positive and significant relationship between Market Communication and ECRT adoption .	($\beta=0.293$,sig. 0.000)	Supported
H6: There is a positive and significant relationship between Compatibility and ECRT adoption .	($\beta=0.023$,sig0.502)	Not Supported

Perceive easy of use ($\beta = 0.324, p < 0.05$) was strongly significant the model and was backed up by this research. The ease of use of a technology impacts how well it diffuses in a social system since more individuals are likely to utilize it if it is simple to use (Rogers, 1995). The study's findings revealed that interbank electronic card payment technology was quite user-friendly and more likely to be implemented globally. The beta coefficient ($=0.324$) and P value of 0.000 at the 5% level of significance support this. This suggests that an increase in a unit's perception of ease of use would result in a 0.324 rise in ECPT adoption.

Perceive risk ($\beta = -0.044, p < 0.05$) based the selected commercial banks in Addis Ababa result referred that has a negative impact on the adoption of electronic card payment technology. This could be because the ATM or the PoS either unable to transact. The incorrectly deducted money may not be reimbursed to clients until they apply to their bank, and there is a lengthy dispute management process. or deducts customer accounts without dispersing the cash. and customers has issue with security around the ATM area, thinking they might expose for hackers and theft, the result conclude that still customers have fear in doing electronic card payment technology, This is supported by a beta coefficient ($\beta = -0.044$) and P value of 0.000 at 5% significance level. This implies that decrease in perceive risk by a unit would increase the adoption of ECPT by 0.044.

Social Influence ($\beta = 0.385, p < 0.05$) the highest result among all variable with a positive impact on the adoption electronic card payment technology based the selected commercial banks in Addis Ababa this could be due to the friend, family and relatives recommend based on their experience benefited and customers influenced due to seriously concerned their personal and privacy and to be look advanced and modern among their social. This is supported by a beta coefficient ($\beta = 0.385$) and P value of 0.000 at 5% significance level. This implies that an increase in perceive risk by a unit would increase the adoption of ECPT by 0.385

Market Communication ($\beta = 0.293, p < 0.05$) has a positive impact on the ECPT adoption this could be the continuous advertising through different channels such as radio, Television, magazine etc. and promotions at different events and information from the staffs of the bank at branch while the customer visiting the branch to get different services. The study has consider market communication next perceive ease of use and social influence positive impact based the selected commercial banks in Addis Ababa. This is supported by a beta coefficient

($\beta=0.293$) and P value of 0.000 at 5% significance level. This implies that an increase in perceive risk by a unit would increase the adoption of ECPT by 0.293

4.5 Discussion of findings

The finding showed that out of six the conducted factors four such perceive ease of use , Social influence ,market communication positively and ,perceive risk negatively are significantly influence to electronic card payment technology adoption how every the other two factors are insignificant in this study . all the factors base discussed are in selected banks in Addis Ababa city as follows.

Perceive usefulness in this study result showed it has insignificant relationship the adoption of electronics card payment technology the respondent have insignificant on how the technology has save time, flexibility on twenty four hours availability make transaction and to control their account have role on the adoption . There are also studies which support this research. Research on the variables influencing the adoption of POS by Business Organizations in Nigeria was done by Omotayo and Dahunsi (2015). As dimensions, age and size were used as organization characteristics, as well as subjective norms, image, perceived usefulness, and perceived ease of use. The data is analyzed using correlation and regression analysis. The findings show that the adoption of POS machines by enterprises is significantly influenced by subjective norms and perceived ease of use. However, there is no real connection between the adoption of POS and an organization's traits, image, or perceived usefulness. However, there are a numbers study contrary to this study which supported perceives usefulness has positively significant on adoption of technology particularly electronic card technology.

Perceive ease of use has significantly support to adoption of ECPT , respondents have express the friendly use of the technology for not too complexity of how to operate influence for adoption , a lot of study such as Omotayo and Dahunsi (2015) performed study on factors impacting adoption of Point of Sale Terminals by Business Organizations in Nigeria supported, Omotayo and Dahunsi (2015) conducted research on factors also conducted significant result on adoption of technology in banking

Perceive risk in this study has negatively significant influence in ECPT adoption this implies that respondents have fear of technology assuming they might expose to hackers, network failure and the respondent think that they might not get back for money that deducted from their account but not received on hand. Other study support such as Philip Risk is a significant element in the adoption of internet banking, according to a study by Gerrard et al. (2006) conducted in Singapore. The security in Internet Banking was viewed negatively by all respondents who did not use its services. The respondents thought that utilizing the internet carried a number of security dangers. They were concerned about privacy because they thought all of their financial information might be compromised. In their survey, risk was one of the two concerns that was stated the most. "Concern about risk was mentioned by all respondents. According to their findings, respondents have a detrimental impact on the adoption of technology in the banking industry.

Social Influence in this study it has positively significant with the highest result, this respondents are highly influenced by the social where they are belong to , people around them such friends ,relatives, colleagues etc. have a great role on adoption of technology , There also study which support social influence has positive role on adoption of technology researchers have confirmed the positive impacts of social influence on individual intention to use M-Banking Venkatesh (2003, p. 452),

Given the respondents, marketing communication has a beneficial effect on the uptake of electronic card payment technology. The banks have advertised their Card Banking services (ATM machines and/or POS terminals) through local media outlets including television, radio, newspapers, and magazines, and the bank staff has enough knowledge to decide to use the technology. Numerous studies, including those by Lichtenstein and Williamson (2006), Clemes et al (2012), Du (2011), Elliott and Fu (2008), and Chinakidzwa (2014), have found that marketing communications, particularly advertising and personal selling, have a positive and significant impact on consumers' decisions to adopt e-banking technologies. Compatibility in this study its result indicates insignificant for ECPT adoption. Respondents are not influenced to adopt based on their life style and the service which they get on counter in branch believes that either similar or more comfortable than visiting ATM or Pos however there are studies which contrary to this study support compatibility significant on technology this is therefore it has to study further.

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATION

Introduction

Based on the goal of the research stated in Chapter One, this chapter summarizes findings, concludes, and advances pertinent recommendations. Additionally, this chapter also identifies the study's shortcomings and potential future research areas.

5.1 Summary of Findings

This study was carried out to investigate the impact of client adoption on electronic card payment technology. In order to do this, data were collected from 400 samples across 16 branches of four chosen commercial banks in Addis Ababa: Commercial Bank of Ethiopia, Wegagen Bank SA, Zamzam Bank, and Zemen Bank. In chapter four, Cronbach's alpha was used to test the instrument's reliability and validity, and the results were satisfactory. Multiple regression analysis has been used to test the research hypotheses, and the results are described. Moreover, descriptive analysis is used to look at the respondents' demographic profile. The use of electronic card payment technology is significantly influenced by sex, age, occupation, degree of education, and monthly income.

The independent variables such as perceived ease of use, social influence, and market communication have positive and statistically significant effects, whereas perceived risk is negative and statistically significant, while the independent variables perceived usefulness and compatibility have no statistically significant impact on the prediction of the criterion variable, ECPT adoption. As a consequence, the proposed hypothesis is rejected for the variables perceived usefulness and compatibility and accepted for the variables perceived ease of use, social influence, and market communication.

The correlation between variables were examined and it was confirmed that there is positive relationship between ECPT adoption and the six independent variables (Perceived usefulness, Perceived Ease of Use, Social Influence, Market communication and compatibility) and the ECPT adoption which is dependent variable with $r = 0.817$, $r = 0.903$, $r = -0.481$, $r = 0.834$, $r =$

0.841, $r = 0.827$ respectively. The results indicate that relationship between the independent variables and dependent variable is strong relationship.

5.2 Conclusion

An empirical analysis of the deployment of electronic card payment technology in Addis Ababa was reported in this research. Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Perceived Risk (PR), Social Influence (SI), Market Communication (MC), and Compatibility (C) were analyzed by the model to determine whether accepting ECPT should continue. The most important predictor is determined to be social influence. The least compatible use of technology for electronic card payments was found to be comfortable and welcoming, on the other hand.

The study stated that although the ECPT adoption has positive feedback on its customer perceive ease of use social influence and market communication However the perceived risk is challenge on developing of adoption due to this fact it had decreased by 0.044 of adoption for one unit of perceive risk. The other independent variables such as perceive usefulness and compatibility hadn't significant on the adoption.

The object of this study is to examine and determine the effect perceive usefulness, perceive ease of use; perceive risk, social influence, market communication and compatibility for adoption of electronic card payment technology. The research to identify the gap has use the models such as the theory of diffusion on innovation (IDT) and Technology acceptance model (TAM) for accepting new technology the respondent has positively supported for perceive ease of use and according the theory of reasoned (TRA) the social influence has determine significantly positive affect on the adoption of ECPT , the result of compatibility has significantly supported consider the respondent their life style and working environment to adopt technology stated the theory of planned behavior (TPB).

Certainly the bank industry in Ethiopia has progress but from the respondents have low scored from perceive usefulness the technology development should improve on the electricity and telecommunication infrastructure to give service twenty four hour , the banks should upgrade their internal digital banking department and introduce their customer usefulness and how they can make their life style and working environment

The correlation analysis showed that there is a positively and significantly association between all the independent variables except the perceived risk which negatively and significantly correlated ECPT adoption. . Furthermore, the findings of regression analysis and result of the hypothesis testing show to the perceive ease of use, perceive risk, social influence and market communication, have greatly effect on ECPT adoption. So, it can be concluded that the mentioned independent variables have highly influence ECPT adoption.

Based on the hypotheses result the out of the six independent variable four are supported , result social influence has highest result according the respondent result following by perceive ease of use , market communication and perceive risk, conversely the usefulness and compatibility haven't supported this is therefore the banks should improve in all variable particularly on both compatibility and perceive usefulness .

5.3 Recommendation

The study's findings and the aforementioned conclusions led to the following suggestions being made.

The chosen commercial banks (Commercial Bank of Ethiopia, Wegem Bank, ScZamzam Bank, and Zemen Bank) should adopt a customer-centric business culture through the use of digital technology and strategically follow their digital banking on electronic card payment technology service, monitor their customers' needs and wants, and respond to their feedback.

Banks should have advanced their digital banking services particularly on the ATM and PoS and develop awareness to customer on how to usefulness and to make their life easy by compatible to technology.

Banks should have developed risk minimized mechanisms so that user would avoid their fear while using the technology when the ATM unable dispenses cash after deducted from their account.

The reduction of waiting times and payment delays, the speeding up of the dispute resolution procedure, absolute loss guarantees, accessible customer services, and customer education. The sounding of the ATM machine should be safe in terms of security.

5.4 Limitation of the study

There are hardly many restrictions. The samples were first taken from Addis Ababa, where literacy levels are comparatively higher, hence geographic bias is the main restriction. Even though Addis Ababa has a denser population than most other cities in Ethiopia, the study's findings might not fully capture consumers' intentions about the use of electronic card payments. As a result, the findings cannot be generalized, and research from other parts of the nation may produce a different conclusion due to regional demographic and economic variations.

Second, this study restricts e-payment adoption from the viewpoint of TOE theory and technological acceptance model. The results of this study, which were gathered at a single point in time, show that consumer intentions are particularly unstable and dynamic areas of research, such as the desire to use electronic card payment technology, which has been studied for many years but has not yet achieved predictive accuracy. The predictive metric is the subject of less well-documented studies. Based on the outcomes of these investigations, the pattern of desire to embrace e-payment may thus be incorrect.

5.5 Recommendation for Future Research Prospects

Addis Ababa's target population limits the study's scope to geography and demographics, necessitating another country-specific study. The methodology for gathering data used questionnaire linker scales, which, while easy to use and versatile on a global scale, has some drawbacks because they force respondents to answer questions when they have other options.

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Appendix

Appendix A: Survey Questionnaire (Amharic)

አዲስ አበባ ዩኒቨርሲቲ ንግድ ስራ ትምህርት ቤት የድህረ-ምረቃ ፕሮግራም

የገበያ ስራ አመራር ትምህርት ትክክል

በባንክ ደምበኞች የሚሞላ መጠይቅ

ውድ የጥናቱ ተሳታፊ፤ የዚህ ጥናት ተሳታፊ በመሆን ይህንን መጠይቅ ለመሙላት ፍቃደኛ ስለሆኑ ክልብ አመሰግናለሁ። እኔ በአዲስ አበባ ዩኒቨርሲቲ ንግድ ስራ ትምህርት ቤት በገበያ ስራ አመራር (Marketing Management) የድህረ-ምረቃ ፕሮግራም ተማሪ ስሆን ይህ ጥናት በገበያ ስራ አመራር የድህረ-ምረቃ ትምህርትን ለማጠናቀቅ በከፊል ማሟያነት የሚውል ነው።

የዚህ ጥናት አላማ ደምበኞች የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን እንዲጠቀሙ ወይም እንዳይጠቀሙ የሚያደርጓቸውን ምክንያቶች ለማጥናት ነው።

የዚህ መጠይቅ አላማም ቀደም ሲል ለተገለጸው ጥናት ግብአትነት የሚውል መረጃ ለመሰብሰብ ነው። የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎት ማለት የኤሌክትሮኒክ ካርድ (ኤቲ ኤም ካርድ) ያላቸው ደምበኞች በኤቲኤም እና ፖስ ማሽኖች (POS Terminals) አማካኝነት ሒሳባቸውን እንዲያንቀሳቅሱ የሚያስችላቸው የአገልግሎት አይነት ነው። በዚህ አጋጣሚ የእርስዎ ትክክለኛ ምላሽ ለዚህ ጥናት ስኬት ወሳኝ መሆኑን እየገለጽኩኝ፤ የሚሰጡት ምላሽ በሚስጥር የሚጠበቅ መሆኑን እና ለጥናቱ ግብአትነት ብቻ የሚውል መሆኑን ላረጋግጥልዎ አወዳለሁ።

አጠቃላይ መመሪያ:

1. እባክዎ ለጥያቄዎቹ በመልስነት ከቀረቡት አማራጮች ውስጥ የ“X” ምልክት በማድረግ ምላሽዎን ይሰጡ
2. ይህ መጠይቅ ሁለት ክፍሎች ያሉት ስለሆነ በሁለቱም ክፍሎች የሚገኙትን ጥያቄዎች መመለስ ያርብዎታል
3. በዚህ መጠይቅ ላይ ስምዎትን መፍፍ አስፈላጊ አይደለም

ለማንኛውም ጥያቄ ወይም አስተያየት በስልክ ቁጥሮች 0913-357806 ወይም 0947-728591 መደወል ይችላሉ

ስለ ትብብርዎ በቅድሚያ አመሰግናለሁ!

ክፍል 1: የምላሽ ሰጪዎች የግል መረጃ እና የኤሌክትሮኒክ ካርድ ባንኪንግ አጠቃቀም ባህሪ

1. ፆታ

ወንድ

ሴት

2. እድሜ

ከ 18 – 29

ከ 30 – 39

ከ 40 – 50

ከ 51 – 64

ከ 65 በላይ

3. የትምህርት ደረጃ

መደበኛ ትምህርት የለኝም

አንደኛ ደረጃ ትምህርት ጨርሻለሁ

ሁለተኛ ደረጃ ትምህርት ጨርሻለሁ

ዲፕሎማ

የመጀመሪያ ዲግሪ

ማስተርስ እና ከዛ በላይ

4. የስራ አይነት

ስራ የሌለው (ስራ ፈላጊ)

በመንግስት መስሪያ ቤቶች ተቀጥሮ የሚሰራ

በግል ድርጅቶች ተቀጥሮ የሚሰራ

የግል (የራሱ) ስራ ያለው

ሌላ

5. ወርሀዊ ገቢ (ቡብር)

ከ 1,000 ብር በታች

ከ 1,000- 2,999 ብር

ከ 3,000-4,999 ብር

ከ 5,000-9,999 ብር

ከ 10,000 -19,999 ብር በላይ

ከ 20,000 ብር በላይ

6. ኤሌክትሮኒክ ካርድ (የኤቲ ኤም ካርድ) አልዎት?

አለኝ

የለኝም

7. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎት ምን ያህል ይጠቀማሉ?

1.ፈፅሞ ተጠቅሜ አላውቅም

2.በጣም አልፎ አልፎ እጠቀማለሁ

3.አልፎ አልፎ እጠቀማለሁ

4.ብዙ ጊዜ እጠቀማለሁ

8. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን በባንኩ የኤቲ ኤም ወይም ፖስ ማሽኖች አማካኝነት ተጠቅመው ያውቃሉ?

- ሁሉንም የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን ጭራሽ ተጠቅሜ አላውቅም
- የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን በኤቲኤም ማሽኖች እንዲሁም በፖስ ማሽኖች (POS Terminals) ላይ እጠቀማለሁ ወይም ተጠቅሜ አውቃለሁ
- የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎትን የምጠቀመው በኤቲኤም (ATM) ማሽኖች ላይ ብቻ ነው ወይም በፖስ (Pos) ማሽኖች ብቻ ነው

ክፍል 2: ደምበኞች የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን እንዲጠቀሙ ወይም እንዳይጠቀሙ በሚያደርጓቸው ጉዳይዎች ዙሪያ የተዘጋጁ ጥያቄዎች

አባዘዎ ቀጥሎ ከቀረቡት አረፍተ ነገሮች ጋር ያልዎትን የስምምነት ወይም ያለመስማማት መጠን ከእያንዳንዱ አረፍተ ነገር ፊት ባሉት ሳጥኖች የ “X” ምልክት በማድረግ ይግለጹ

(1= በጣም አልሰማማም፣ 2= አልሰማማም፣ 3= አስተያየት የለኝም፣ 4= እስማማለሁ፣ 5= በጣም እስማማለሁ)

አረፍተ ነገር	መለኪያ				
	1	2	3	4	5
PU					
1. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች በቀን ውስጥ ለ 24 ሰአት እና ባለሁለት ሳት ሆኔ ለመጠቀም ምቹ ናቸው					
2. የባንክ አገልግሎት ለማግኘት ወደ ቅርንጫፎች በአካል ከመሄድ ይልቅ የኤሌክትሮኒክ ካርድ ባንኪንግ አማካኝነት የባንክ አገልግሎቶችን ማግኘት የተሻለ ነው					
3. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ጊዜን ይቆጥባሉ					
4. የኤሌክትሮኒክ ካርድ ባንኪንግ፣ የባንክ አገልግሎቶችን በቀላሉ ለማግኘት አያስችልም <input type="checkbox"/>					
5. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች የሒሳብ (Account) እንቅስቃሴን በፈጠነኛ ሁኔታ ለመከታተል ያስችላሉ					
6. በአጠቃላይ የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ጠቃሚ ናቸው					
PEOU					
1. የኤቲ ኤም ወይም ፖስ ማሽኖችን አጠቃቀም ለመማር ወይም ለማወቅ ቀላል ነው					
2. የካርድ ባንኪንግ አገልግሎቶች ለመጠቀም ከፍተኛ የአዕምሮ ብቃት ይጠይቃል <input type="checkbox"/>					
3. በኤቲ ኤም ወይም ፖስ ማሽኖች ላይ ያሉት የአጠቃቀም መመሪያዎች የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ቀላል እና ግልጽ እንዲሆኑ አድርገዋል					

4. በአጠቃላይ የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ለመጠቀም ቀላል ናቸው					
PR					
1. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች በአግባቡ ስለሚሰሩ በባንክ ሒሳብ ላይ ችግር ሊፈጥሩ ይችላሉ ብዬ አልሰጋም <input type="checkbox"/>					
2. የኤሌት ኤም ወይም ፖስ ማሽኖች በአግባቡ ላይሰሩ ስለሚችሉ በጥሬ ገንዘብ መገባደግን እመርጣለሁ					
3. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን ደህንነት ለመጠበቅ የዘረጋው ስርአት (Security System) ጠንካራ ስላልሆነ የባንክ ሒሳቦችን ለዘራፊዎች (Hackers) ሊያጋልጥ ይችላል ብዬ አሰጋለሁ					
4. የኤሌክትሮኒክ ካርድ ባንኪንግ ሲስተም የባንክ ሒሳብን ለመረጃ ጠላፊዎች ሊያጋልጥ ይችላል					
5. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን ከተጠቀምኩኝ ጊዜዬን አባክናለሁ ብዬ አሰጋለሁ ምክንያቱም የባንኩ የኤሌትኤም እና ፖስ ማሽኖች በኔት ወርክ እና በተለያዩ ምክንያቶች ላይሰሩ ይችላሉ ብዬ አሰጋለሁ					
6. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን በምጠቀምበት ወቅት ሲስተሙ ሒሳብ ላይ ስህተት ቢፈጥር እና ገንዘብ ቢቀንስ ባንኩ ገንዘብ ላይመልስልኝ ይችላል ብዬ አሰጋለሁ					
SI					
1. ከቴክኖሎጂ ጋር የተያያዙ እቃዎችን በምገዛበት ወቅት ከራሴ አመለካከት በላይ የቤተሰቦቼን እና የጓደኞቼን አስተያየት አልቀበልም ወይም አላምንም <input type="checkbox"/>					
2. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን መጠቀሜ በቤተሰቦቼ በጓደኞቼ እና ሌሎች በቅርብ ባሉ ሰዎች ዘንድ እንደ ዘመናዊ ሰው እንድታይ ያደርገኛል ብዬ አሰባለሁ					

ክፍል 2:

ደምበኞች የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን እንዲጠቀሙ ወይም እንዳይጠቀሙ በሚያደርጓቸው ጉዳይዎች ዙሪያ የተዘጋጁ ጥያቄዎች

አባዛዎ ቀጥሎ ከቀረቡት አረፍተ ነገሮች ጋር ያልዎትን የስምምነት ወይም ያለመስማማት መጠን ከእያንዳንዱ አረፍተ ነገር ፊት ባሉት ሳጥኖች የ “X” ምልክት በማድረግ ይግለጹ

(1= በጣም አልሰማማም፣ 2= አልሰማማም፣ 3= አስተያየት የለኝም፣ 4= እሰማማለሁ፣ 5= በጣም እሰማማለሁ)

አረፍተኛ ነገር	መለኪያ				
	1	2	3	4	5
3.ቤተሰቦቼ እና ጓደኞቼ የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን መጠቀም እንዳለብኝ ያምናሉ ወይም ያስባሉ					
4.የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን በኤቲ ኤም ወይም ፖስ ማሸኖች አማካኝነት የምጠቀመው የቅርቤ የምለው ሰው ስለ ጥቅሙ ከነገረኝ ወይም እንደጠቀም ከመክረኝ ብቻ ነው					
MC					
1.የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶችን ወይም ኤቲ ኤም እና ፖስ ማሸኖቹን በተመለከተ በቴሌቪዥን፣ በሬዲዮ፣ በጋዜጣ፣ በመፅሔት እና በሌሎች የማስታወቂያ ዘዴዎች የሚያስተላልፋቸው ማስታወቂያዎች ስለ አገልግሎቱ በቂ ግንዛቤ ሰጥተውኛል					
2.በምገልገልባቸው የኢትዮጵያ ንግድ ባንክ ቅርንጫፎች ውስጥ ያሉ የባንኩ ሠራተኞች ስለ ባንኩ የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች፣ ስለ ኤቲ ኤም ወይም ስለ ፖስ ማሸኖች መረጃ በመስጠት በቂ ግንዛቤ እንዳገኝ ረድተውኛል					
3.ስለ የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶቹ፣ ስለ ኤቲ ኤም እና ስለ ፖስ ማሸኖቹ አጠቃቀም በቂ መረጃ ሰጥቶኛል ብዬ አስባለሁ					
4.የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶቹን በተመለከተ በቴሌቪዥን፣ በሬዲዮ፣ በጋዜጣ፣ በመፅሔት እና በመሳሰሉት የሚያስተላልፋቸው ማስታወቂያዎች ሰዎች አገልግሎቱን ለመጠቀም ወይም ላለመጠቀም በሚወስኑት ውሳኔ ላይ ትልቅ ተፅዕኖ አላቸው					
5.ቅርንጫፍ ሠራተኞች ስለ ኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ጥቅም ግንዛቤ መፍጠራቸው እና ማግባባታቸው ሰዎች አገልግሎቱን					

ለመጠቀም ወይም ላለመጠቀም በሚወሰኑት ውሳኔ ላይ ትልቅ ተፅዕኖ አለው					
CP					
1. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ከአጠቃላይ የስራዬ ባህሪ ጋር የሚጣጣሙ ናቸው					
2. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ከእኔ የአኗኗር ዘይቤ (lifestyle) ጋር የሚጣጣሙ አይደሉም <input type="checkbox"/>					
3. የኤሌክትሮኒክ ካርድ ባንኪንግ በቅርንጫፎች አማካኝነት የሚሰጠውን መደበኛ የባንክ አገልግሎት መስጠት ይችላል					
4. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች አሁን ካለሁበት አጠቃላይ ሁኔታ ገር የሚጣጣሙ ናቸው					
የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች መቀበል					
1. በቅርቡ የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ለመጠቀም ሃሳብ አለኝ					
2. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች በመጠቀም የባንክ ግልጋሎቶች በፍጥነት እንድጠቀም ያግዘኛል					
3. የኤሌክትሮኒክ ካርድ ባንኪንግ አገልግሎቶች ሌሎች እንዲጠቀሙ እጅጉን እመክራለሁ					

መጠይቁ ተጠናቋል! በድጋሚ ስለጊዜዎ እና ትብብርዎ በጣም አመሰግናለሁ !!!

Appendix B: Survey Questionnaire (English)

Addis Ababa University School of Commerce Post Graduate Program Department of Marketing Management

Questionnaire to be completed by the customers
of The selected Commercial Bank s

Dear respondent,

Thank you for your willingness and cooperation to complete questionnaire.

I am a student at Addis Ababa University School of Commerce. This research undertaking is for the partial fulfillment of the Requirements for the Degree of Master of Arts in Marketing. The purpose of this study is to analyze the factors that affect electronic card payment technologies' adoption Decision. The aim of this questionnaire is to gather data for the said research. Electronic Card Payment technologies enables electronic card (ATM Card) holders to access their account through Automatic Teller Machine (ATM) and Point of Sale Terminal (POS terminal).

At this juncture I would like to remind you that your genuine response is vital to the success of this research and your response will be kept with utmost confidentiality.

General Instructions:

1. Please put circle or "X" mark on the item of your choice 2. This questionnaire has two parts, please complete both 3. No need to write your name

For any inquiry you can reach the researcher via cell phone number

0913357806

Thank you for your cooperation!

Section I: Profile of the Respondent and Electronic Card Banking Usage Behavior

1. Gender

Male

Female

2. Age

Between 18 – 29

Between 30 – 39

Between 40 – 50

Between 51 – 64

Above 65

3. Educational level

No Formal education

Primary school completed

Secondary School completed

College Diploma

First degree

Masters degree and above

4. Occupation

No job (Job seeker)

Government employed

Private sector employed

Self-employed

Other

5. Monthly Income (in birr)

Below 1,000

1,000- 2,999

3,000-4,999

5,000-9,999

10,000-19,999

More than 20, 000

6. Do you have electronic card (ATM card)?

Yes

No

7. How frequently do you use ATM card for your banking needs?

Never Occasionally

Almost never Almost every time

8. Have you ever used electronic card on ATM machines and/or POS terminals?

- I have never used Card Banking Service on either ATM machine or POS terminal I have used Card Banking services on both ATM machines and POS terminals
- I have used Card Banking services Only on ATM machines or Only on Pos

Section II: Questions regarding the determinants for ECPT adoption Decision

Please Put 'X' mark in front of each statement based on your level of agreement

(1= Strongly disagree, 2= Disagree, 3= No Opinion, 4= Agree, 5= Strongly agree)

Items	Scale				
	1	2	3	4	5
Perceived Usefulness (PU)					
1. Electronic Card Banking services give flexibility to conduct banking transactions 24 hours a day.					
2. Electronic Card Banking services are more convenient than going to branches physically to get banking services					
3. Electronic Card Banking Services save time.					
4. Electronic Card Banking Services makes banking difficult. <input type="checkbox"/>					
5. Through mini-statement and balance enquiry Electronic Card Banking services helps to follow-up the status of bank account faster.					
6. Overall, Electronic Card banking services are useful					
Perceived Ease of Use (PEOU)					
1. Learning to operate or use the ATM machine and/ or POS terminal is easy.					
2. Card banking services require a lot of mental effort in order to operate or use. <input type="checkbox"/>					
3. The Electronic card banking system is user-friendly and the Instructions in the Card banking system are clear and understandable.					
4. Overall, the card banking services are easy to use.					

Perceived Risk (PR)					
1. The Card Banking system performs well and creates no problems with my Bank account. <input type="checkbox"/>					
2. I prefer to transact through cash because I am afraid that the ATMs or POS terminals of the bank might not work properly.					
3. The security systems built into the Electronic Card Banking System of the bank are not strong enough to protect customers' accounts.					
4. Electronic Card Banking system might expose to hackers and the information about bank account might be compromised.					
5. I fear that I might lose a considerable amount of time in case I used Electronic card banking systems because there might be a network failure or the ATMs or POS machines might not function properly.					
6. When transaction errors that affect my account balance occur while using Electronic Card Banking System, I worry that I may not get compensated by the Bank.					
Social Influence (SI)					
1. When purchasing new technology products, I do not trust family and friends than my own judgment. <input type="checkbox"/>					
2 I think using Electronic Card banking services would make me seen as modern person by those who are close to me (like family, relatives and friends).					
3. My family and friends think that I should use Card Banking Services.					
4. I would only consider using Card Banking Services if someone important to me recommended it to me					

Section II: Questions regarding the determinants for ECPT adoption Decision

Please Put 'X' mark in front of each statement based on your level of agreement

(1= Strongly disagree, 2= Disagree, 3= No Opinion, 4= Agree, 5= Strongly agree)

Items	Scale				
	1	2	3	4	5
Marketing Communication Influences (MC)					
1. The advertisement of the Banks in local media such as Television, Radio, newspaper and magazines about its Card Banking services (ATM machines and/or POS terminals) has given me enough information about the service.					
2. The staffs of the banks has approached me to aware me about the card banking services (about visa/ATM card, ATM machines and POS Terminals).					
3. I think the bank has provided me enough information about the services under card banking services.					
4. I think my or other's Decision to use or not to use Card Banking services of the is influenced By the your bank Staffs Personal Selling activities.					
5. I think my or other's Decision to use or not to use Card Banking services of the Bank is influenced By its advertisement about card banking services over Television, Radio, newspaper and magazines.					
Compatibility (CP)					
1. Card banking Services are compatible with all aspects of my work					
2. Card banking Services are not compatible with my lifestyle <input type="checkbox"/>					
3. Card banking Services can provide similar services as services provided by branches (by going physically)					
4. Card banking Services is compatible with my current overall situation. A					
Adoption					
1. There is a great possibility of using e-banking in my near future.					
2. Using the electronic banking system enables me to accomplish banking activities more quickly.					
3. I will strongly recommend others to use the electronic banking scheme					

The Questionnaire is Completed

Thank you for your Cooperation!!!