An Assessment of the Challenges and Opportunities of Implementing an Automatic Teller Machine (ATM) Project in the case of Awash Bank

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Declaration

I hereby declare that the study which is being presented in this thesis entitled "**An Assessment of the Challenges and Opportunities of Implementing an Automatic Teller Machine (ATM) Project in the case of Awash Bank**" is original work of my own. It had not been presented for a partial fulfillment for any educational qualification at this university or any other and in any projects by any means, and all the resources materials used for this thesis had been accordingly acknowledged.

Shikur Alemu _____ _____

Name (Candidate) Signature Date

This is to certify that the above declaration made by the candidate is correct to the best of my knowledge.

Fesseha Afework (Asst. Prof.) _____ _____

Advisor Signature Date

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

MASTER OF ARTS IN PROJECT MANAGEMENT

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Abstract

The main objective of this study was to assess the challenges and opportunities of implementing electronic banking project specifically in ATM (Automatic Teller Machine) at Awash Bank concerning the challenges which were factors for the success of implementation of the project and the opportunities that influence/encourage the bank to implement electronic banking payment system by adopting ATM payment system. To achieve the research objective, the study used the total population of Awash Bank staffs which works in three different offices which are directly related to the ATM project. The descriptive research design employed in which primary and secondary data utilized where the primary information collected through questionnaires and semi-structured interview guides. The data analyzed and interpreted using quantitative and qualitative descriptive methods. The study since the variable's concentrations is highly technology-related, and it uses technology related conceptual frameworks based on the Standish Group International framework. The study concluded that the project success factors were found that they were the critical success factor and the identified existing opportunities contributed for the success of implementing the ATM project and enforced/encouraged the bank to adopt ATM payment system. Implementation project faced miner challenges during the implementation but the bank potential, top management commitment, skilled manpower was another opportunity for the success of ATM project implementation. Moreover, the study recommended that the bank should give serious attention to project success factors to maximize project performance for future implementation and bank should clearly aware the business objective to all project team members and all users should involve and participated in all stages of other project implementation.

Keywords: electronic banking, ATM, challenges, opportunities, implementation, Awash Bank.

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Acronyms and Abbreviations

ATM - Automated Teller Machine

E-Banking - Electronic banking

E-MONEY - Electronic Money

E-PAYMENT - Electronic Payment

Ethio Telecom - Ethiopian Telecommunication

ICT - Information Communication Technology

IT - Information Technology

NBE - National Bank of Ethiopia

POS - Point of Sale

PMO - Project Management Office

PSS - Premiere Switch Solutions s.c.

SPSS - Statistical Package for Social Sciences

CHAPTER ONE

Introduction

1.1. Background of the Study

Information technology is highly affecting human activities and their ways of life. Advancement in IT is changing every sector's working practice. Banking is one of the sectors which are rapidly evolving through IT. Due to the rapid development of IT industry, people today have hugely recognized the importance of implementation of IT projects. IT project management often encounter many issues, such as rapid technological upgrade, fast changes in the environment and frequent movement of people. Banks are in a dynamic state using information technology to meet business goals, to improve financial performance and stay on top of the competition. Banks are facing challenges in the current environment. Customer needs and expectations are changing rapidly and satisfaction levels decrease by operational issues. Digital channel adoption is growing globally. Bank management teams have to do more as competition continues to escalate among traditional banks as well as ambitious new entrants (Ernst and Young, 2014).

Automated teller machine was first introduced in Ethiopia in 2001, with the Commercial Bank of Ethiopia being the pioneers of this service to the banking sector (Gardachew, 2010). ATM stands for; Automated Teller Machine. It is also referred to as a cash machine, a cash dispenser and 'the hole in the wall' among other names. The ATM is a self-service banking terminal that dispenses cash. Most ATM's also let users carry out other banking transactions (e.g. check balance). As per Awash Bank website, the bank provides a fully-fledged payment card services as a principal plus member of visa international and master card, the world leader card association. The bank is engaged in both card issuing and transaction acquiring business. Awash Bank is now issuing debit cards that could be used to effect payment at merchant outlets and to withdraw cash from ATM machines installed at different location in the country. The most commonly used electronic cards include ATM cards, POS (Point of Sale), mobile banking and internet banking services. In general, there are many challenges for developing e-payment system in Awash Bank. ATM is a software package used for integration of organization's legacy systems like finance, human resource, MIS (Management of Information System), etc. The ATM system automates these activities with integrated application. It also facilitates the flow of information between all business functions inside the boundaries of the organization.

Awash bank implemented core banking system to improve its services and promote efficiency. Similarly, the bank in cooperation with Nib Bank, United Bank, Birhan Bank, Cooperative Bank of Oromiya has established a share company known as "premiere switch solutions s.c." (PSS) and for the joint operation and management of automatic teller machines (ATM) and point of sale (POS) terminals, National bank of Ethiopia implement central E-payment switch or national switch to enable clearing of cheques and using the ATM of any bank and use Pos (point of sale). Currently PSS integrated with EthSwitch, a centralized switch system which integrate all real-time and online payment systems in Ethiopia. All banks in Ethiopia share resources to expand services convenience to customers, EthSwitch is owner and operator of the National E-payment Switch established in 2011 by all banks with 80.5 million Br following the recommended by National Bank of Ethiopia (NBE) in order to centralize banks' payment the aim was to bring interoperability among banks in the country, Ethiopia, as a result clients of any Ethiopian retail banks (Switched member banks) created chances to access services via all the ATMs in the country for cash withdrawal, make payment via Pos in any terminal and utilize cheque balancing. Awash Bank is one of the members, due to this the bank benefited from interoperability as well as providing a new level of convenience to Ethiopian citizens, merchants, and organization (allafrica.com/stories/201503241687.html). Recognizing superior value of rendering advanced technological service to customers, this study aims to understand the main factors that affect the proper implementation of ATM implementation process of the bank. Although there are a lot of variables which contribute to the success of the ATM project implementation. This study focused on the activities which have direct influence on the outcome of expected deliverables, particularly on deployment and implementation of the ATM project in Awash Bank. Accordingly, the study carried out to identify and pointing out the factors that affect the success of the ATM project and to identify the existing opportunities which have great influence for the success of implementation the project. Therefore, the study tried to assess the challenges and opportunities of implementing Automatic Teller Machine in Awash Bank.

1.2. Background of the organization

Awash Bank was established by 486 founding shareholders with a paid-up capital of Birr 24.2 million and started banking operations on Feb. 13, 1995. As of end of June 2018 the number of shareholders and its paid-up capital increased to over 3,700 and Birr 2.9 billion, respectively. Likewise, as of end June 2018, our total assets reached Birr 55.3 billion with

over 366 branches found across the country, Awash Bank continues to be leading private commercial Bank in Ethiopia. It has succeeded over 24 years in a rapidly evolving market and economy. It is the first private bank in Ethiopia to exceed a billion-profit mark in the history of Ethiopian private banks in the financial year 2018. Annual Report, 2017/18. The bank has its vision "To be the First Choice World Class Bank".

The bank introduces ATM and successful launch card payment system in the financial year 2012/13 through Premier Switch Solutions S.C., a company jointly established by Awash Bank, Nib International Bank S.C and United Bank S.C. In addition to the existing 60 ATM machines jointly operated by the three banks, Awash Bank was in the process of acquired 100 ATM machines and 400 POS terminals on its own to increase its outreach both in and outside Addis Ababa to improve its service delivery. The bank has also become the principal member of Master Card, thereby enabling MasterCard holders to transact through ATM and POS terminals of Awash Bank for their cash and payment needs. This facility was expected to increase the foreign exchange earnings of the bank (Annual report 2012/13). As per the corporate profile on 2018, Awash Bank has around 265 ATM and 486 POS machines for all its branches and hotels where there is telecommunications network and supplying Points of Sale (POS) machines to five-star hotels and supermarkets, with this ground there are a lot of customers those who are using ATM cards. The bank put those machines though out the country. Since the bank performance has increased in different direction especially technology-based services it strives to deliver value to its customers in the most convenient way possible with the object of enabling them to conduct banking transaction anytime and anywhere. To this end, Awash bank has offered different touchpoints. The major non-traditional service delivery channels include, among others, ATMs, POS terminals, mobile banking and internet banking. The Banks ATM is available 24 hours a day, seven days a week and 365 days a year providing service to available services on bank. ATM services are Cash Withdrawal, Balance Inquiry, Mini-statement, Fund transfer between accounts attached to a single card and PIN (Personal Identification Number) change and Unlock. ATM enables the clients of a bank to have access to their account without going to the bank. This achieved by only the development of application using online concepts. The implementation needs ATM machine hardware to operate or similar simulated conditions can also be used to successfully use the developed product.

1.3. Statement of the Problem

According to Awash annual report 2012/13 Core Banking System implementations of the project has lagged behind the original schedule due to change of management and owners at MISYS International Banking System, a company contracted with Awash Bank to implement the project. It is necessary to investigate, find, and understand factors that influence implementation of a project and effect to meet the desired deliverables by assessing its opportunities and possible challenges. Hence, it was imperative to work on such an issue and identify major factors for the project implementation success. On the way, this helps as reference for other similar projects. Since implementation of ATM project used as a payment system is about seven years ago, there has not been any due diligence work in this area, insufficient attention has been given to measure success and reliability of the project up to now. And the bank didn't assess the challenges and opportunities of implemented ATM project, due to this the bank are not experiencing from the challenge faces in the process of implementation. The assessment initiated as a result of personal exposure and personal observation of different IT projects in Awash Bank. Currently the bank implementing different projects like upgrading Core Banking system, Performance Management System, Financial Registration and Information System, Contact Center and others without any assessment of the completed projects such as Core Banking, E-payment like Internet Banking, Mobile Banking, ATM, USSD and others, only considering delivering of a project is the success of the project and most of the studies focused on adoption of E-banking system but they not on assessment of challenges and opportunities of implementing ATM project. This concern necessitates this study which for providing information on possible challenges and opportunities for implementation of ATM project to overcome for current project implementation to consider factors of the success and to get experience from the project.

1.4. Research Questions

The research conducted on the assessment of the challenges and opportunities of implementing ATM project. In order to understand and analyze the above problems and developed these research questions -

1) What are the factors that affect the ATM project implementation in Awash Bank?
2) What are the challenges for the success of the ATM project implementation?
3) What are the major existing opportunities in the implementation of ATM project?

1.5. Objective of the Study

1.5.1. General Objectives

The General Objective of this study is to assess the challenges and opportunities of implementing the ATM project in Awash Bank concerning the challenges which were the factors of the success of the implementation and the opportunities that influence or encourage the bank to adopt electronic banking payment system (ATM) by adopting new technology.

1.5.2. Specific Objectives

1) To assess the factors that affect the ATM project implementation in Awash Bank.
2) To assess the identified challenges and opportunities in implementation of ATM project.
3) To investigate the views of different project participants in the identified factors.

1.6. Definition of Terms

- A cashless society: - an economic state whereby financial transactions are not conducted with money in the form of physical banknotes or coins, but rather through the transfer of digital information (usually an electronic representation of money) between the transacting parties. *https://en.wikipedia.org/wiki/Cashless_society*
- ATM stands for Automated Teller Machine. It is an electronic computerized telecommunications device that allows financial institutions, also referred to as a cash machine and a cash dispenser. *https://en.wikipedia.org/wiki/Automated_teller_machine*
- Core banking systems are applications responsible for processing and posting transactions in the domain of payments, current and saving accounts, loans and securities. They perform current and deposit accounting, maintaining loan accounts, holding securities positions and clearing payments. Core banking systems normally support modern payment facilities such as Electronic Funds Transfers (EFT), Automated Teller Machines (ATM), Electronic Funds Transfer at Point of Sales (EFTPOS) and e-banking and form the interface with inter-bank clearing and settlement systems outside the bank for instance a local RTGS, an Automated Clearing House (ACH) or a Central Switch for card transactions. (Jan W, 2009)
- Critical path method (CPM): The critical path method is a step-by-step project management technique for process planning that identifies critical and noncritical tasks, preventing timeframe problems and process bottlenecks. (PMBOK, 2013)
- EthSwitch: - a centralized switch system which integrate all real-time and online payment systems in Ethiopia through ATM and POS. (EthSwitch, 2017)

- MISys - MISys Manufacturing software integrates with the most widely used accounting programs to form best-of-breed solutions for small to medium-sized manufacturers. *https://misysinc.com/*
- PMBOK stands for Project Management Body of Knowledge and it is the entire collection of processes, best practices, terminologies, and guidelines that are accepted as standards within the project management industry. (PMBOK, 2013)
- Point of Sale Terminal (POS): - is the time and place where a retail transaction is completed. At the point of sale, the merchant calculates the amount owed by the customer, indicates that amount, may prepare an invoice for the customer (which may be a cash register printout), and indicates the options for the customer to make payment. *https://en.wikipedia.org/wiki/Point_of_sale*
- Stakeholders: "A stakeholder is an individual, group, or organization who may affect, be affected by or perceive itself to be affected by a decision, activity, or outcome of a project." (PMBOK, 2013)
- USSD (Unstructured Supplementary Service Data) is a Global System for Mobile (GSM) communication technology that is used to send text between a mobile phone and an application program in the network. Applications may include prepaid roaming or mobile chatting

1.7. Significance of the Study

The main significance of this study is knowledge and experience sharing about the ATM project implementation at Awash Bank. There are a number of excellent researches have been conducted about ATM services throughout in the world. But I didn't observe about the assessment of ATM implementation, so it is an important to assess its challenges and opportunities to utilize projects properly and to learn from it for other similar projects undergoing in Awash bank. The study tries to show the significance of an assessment of the challenges and opportunities of implementing the Automatic Teller Machine in Awash bank as follow;

- The study intends to make contribution through the findings which is useful source of information for Awash Bank to review the current implementing projects which need improvements and enhancements.
- The conclusions and recommendations of the study will provide necessary suggestions that help the bank to give attention on the project success factors which affects the project implementation
- It reminds the bank technology-based project implementation have enforced by different existing opportunities.

1.8. Scope of the Study

This research work centered on the implementation of a computerized automated teller machine (ATM) project in Awash Bank. The scope of this study limited at Awash Bank which is found in Addis Ababa head quarter of Awash Bank. Due to the limitation of time and budget constraints, the study didn't cover other e-payments which is expected to be benefited from the ATM project. The scope of this research conducted using a single-case study to assessing the challenges and opportunities of ATM project implementation at Awash Bank. Even though the results of the study can be used to other commercial banks and other similar projects, the focus area of the assessment is at Project Management Office, IT Service Management Office and Digital Channel Office which are directly related to the ATM project

1.9. Limitation

The study relied much on the responses of the questionnaire and interview fill and answer by the existing employees of Project Management Office, IT Service Management Office and Digital Channel Office. Hence, the extent of credibility of these responses may a bit questionable as the existing employees may feel not comfortable to deliver the real facts by suspecting confidentiality to some extent. Even if there are around 18 private and 3 state-owned banks in Ethiopia, the research covers only one private bank, which is Awash bank in Addis Ababa.

1.10. Organization of the study

The project work organized into five chapters including the introduction part of the study. The first chapter deals with the background of the study, statement of the problem, research questions, objectives of the study, and the significance of the study. The second chapter also, literature review, deals with the literatures on the concept of banking, major determinants for success factor of the project implementation and the existing opportunities which contributes the ATM project implementation. The third chapter contains the methodology of the study and the sources of qualitative and quantitative data of the study. The fourth chapter present analysis of the data and presentation of the output. In the fifth chapter the study concludes the findings of the study and recommends based on the conclusion made.

CHAPTER TWO

Literature Review

2.1. Theoretical Literature Review

Nowadays, banks are increasingly adopting information technology-based solutions, for providing better services to their customers at a minimal cost**.** One way of transforming the traditional banking system is integrating the system with technology, which enable many banks to introduce different payment systems. ATM and other card payment systems are considerably the fruits of technology in the history of modern banking. With this highlight, the study tries to review various literatures related to an assessment of the challenges and opportunity of ATM project implementation.

2.1.1. Overview of Electronic Payments

The development of inexpensive computers and the spread of the internet now make it cheap to pay bills electronically. In the past, you had to pay your bills by mailing a check, but now banks provide a web site in which you just log on, make a few clicks, and thereby transmit your payment electronically. Not only do you save the cost of the stamp, but paying bills becomes (almost) a pleasure, requiring little effort. Electronic payment systems provided by banks now even spare you the step of logging on to pay the bill. Instead, recurring bills can be automatically deducted from your bank account. Electronic payments technology can not only substitute for checks, but can substitute for cash, as well, in the form of electronic money (or e -money), money that exists only in electronic form. The first form of e-money was the debit card. Debit cards, which look like credit cards, enable consumers to purchase goods and services by electronically transferring funds directly from their bank accounts to a merchant's account. Debit cards are used in many of the same places that accept credit cards and are now often becoming faster to use than cash. At most supermarkets, for example, you can swipe your debit card through the card reader at the checkout station, press a button, and the amount of your purchases is deducted from your bank account. Most banks and companies such as Visa and MasterCard issue debit cards, and your ATM card typically can function as a debit card. (Mishkin, 2004)

As we look into the future and try to discern what will happen to money, we should remember that 150 years ago there was virtually no paper currency in circulation. The first credit card was issued in the early 1950s; the first ATM was installed around 1970. Not until the mid-1990s could we

shop via the internet. Forecasting most of these developments, as well as any other trend in technology, is nearly impossible. After all, who could have predicted even 20 years ago that today we would be able to check our bank balances, buy and sell stocks, and pay our utility bills 24 hours a day, seven days a week from the comfort of our homes? (Cecchetti & Schoenholt, 2015)

2.1.2. Definition of ATM

An automated teller machine (ATM) is a computerized telecommunications device that provides the customers with access to financial transactions in a public space without the need for a human clerk or bank teller. Banking services of the 21st century have more or less become a necessity, utilized by all sections of a society. These services provided are aimed at ensuring the comfort, convenience and security of the customer. ATMs have become an essential and major part of banking. Tuli et al. (2012), described that the ATM is a modern technology, which accepts deposits, issues withdrawals, transfers money between accounts and collect bills.

2.1.3. Importance of ATMs

Introduction and development of ATMs has given facility to the bank's customers for banking beyond the banking hours. According to Okiro & Ndungu (2013) ATMs were introduced first to function as cash dispensing machines. However, due to advancements in technology, ATMs are able to provide a wide range of services, such as making deposits, funds transfer between two or accounts and bill payments. Banks tend to utilize this electronic banking device, as all others for competitive advantage. According to the study, an ATM transaction is an average of about 6,400 per month compared to 4,300 for human tellers. According to Abor (2014), it saves customers time in service delivery as alternative to queuing in bank halls. In addition, ATMs continue to serve customers whiles human tellers in the banking hall have stopped work, thereby increasing productivity for the banks.

2.1.4. The Benefits of ATMs

According to Brain (2000), the benefits that can be derived from ATM usage are so numerous, some are outlined below:

- Flexible account access allows clients to access their accounts at their convenience.
- MFI personnel are not required to be present for transactions and have more time to serve clients.
- Increased hours of operation fit client schedules.
- More clients can be reached beyond the branch network, such as in smaller population centers.
- More low-cost funds are available because ATMs make it easier for clients to deposit savings

2.1.5. Challenges of ATMs

Despite the fact that ATM provides a great deal convenience to the customers, it also comes with various challenges which range from economic, security and legal challenges. According to Emmanuel (2011) stated that technological changes normally outpace legal and regulatory reforms but we face the situation where old rules are being used to govern new things. The fact that, the ATM allows a person to access money wherever he or she is in the world connotes the application of international banking law as well as security related matters.

2.1.6. What is project success

Success is an interesting word and a word that is so general and wide in nature that it is difficult to define and obtain mutual agreement when asked from different individual. Judgev and Muller (2005) in their article mentioned that in order to define what success means in the project context is like gaining consensus from a group of people on the definition of "good art." According to Baccarini (1999), project success requires a combination of project management success and project product success. Project management success is related to the efficiency of the project management process in terms of cost, time and quality. On the other hand, project product success is related to the effectiveness of the end product. Project success = project management success + project product success.

Figure 2.1 Illustrates this constrained relationship, sometimes called the "iron triangle". Source: PMBOK, 2004 page37

2.1.7. Project success criteria

In an effort by Kerzner (1998) in his book, In Search of Excellence in Project Management, he identified 5 criteria that can be used to measure project success. The criteria are completed in time, within budget, completed at the desired level of quality, accepted by the customer and resulted in customers allowing the contractor to use them as a reference (Kerzner, 1998: p. 25).

2.1.8. Opportunities of Implementing ATM

1. ICT Infrastructure Development

The Ethiopian government has given a considerable attention to ICT as expressed in its ICT Policy. Moreover, the State owned EthioTelecom has invested huge fund to implement state-of-the-art

telecommunication infrastructure that provides national information link. This has an essential role in laying the foundation for e-payment. According to the Ministry of Communication and Information Technology (MCIT), "the Ethiopian Government has made the development of information and communications technology (ICT) one of its strategic priorities. One of the guiding principles of the Ethiopian government ICT policy is the government shall actively collaborate with the private sector, civil society organizations and communities to promote and encourage the use of ICT towards transforming Ethiopia to a knowledge and information age. The policy also promotes the necessary coordination to establish cooperative practices and spirit amongst various stakeholders for a cost-effective development of ICT. The national operator, EthioTelecom provides fixed, mobile, Internet and value-added services. In addition, it provides dialup Internet, CDMA 2000 wireless Internet, ADSL and wireless Internet using AIRONET, VSAT, and EVDO." (MCIT official website, http://www.mcit.gov.et/)

2. Business growth of the bank

The continuous increased accessibility of the bank could possibly be perceived as a good opportunity for ATM machine implementation. The number of branches increased to 115 at the end of June 2012/13 from 86 in June 2011/12, which indicated about 133.7% increase. The gross income of the Bank reached an all-time high figure of Birr 1.4 billion, up by 28% or Birr 310 million as compared to previous same period, owing to increases in all components of income. Total expense of the Bank rose to Birr 837 million from Birr 580 million in 2011/12, mainly as a result of the opening of 29 new branches in the review period and growth in the amount of interest-bearing deposits. The Bank was able to register an all-time high profit before tax of Birr 583 million and a net profit of Birr 438 million which is 11 percent higher than last year same period.

3 Policy Direction of the NBE

According to Banking Supervision Directorate (BSD) of the National Bank of Ethiopia (NBE) Policy direction has been set as to what is expected of each bank in terms of using technology facilities. The Directorate said, "Technology is a key ingredient for ensuring financial service access, efficiency, and effectiveness to the public. From this perspective, we expect investment on IT to grow, capacity of financial service providers to be enhanced, financial literacy and capability including how to use technology driven financial products and services to take shape, regulatory capacity and framework in area of technology to be strengthened, technology risk management to be further strengthened, and above all more synergy to be created through collaboration with all

stakeholders. (Birritu No.123, 2017)

4. Increased acceptance of ATM payment system by consumers

As indicated on the annual report of Commercial Bank of Ethiopia 2012/13 the bank introduces Automated Teller Machine (ATM) to Ethiopia. In addition, 300 ATMs and 231 point of sale (POS) machines were deployed across major towns and business locations. Annual report Wegagen Bank at the end of the 2012/13 fiscal year, the total number of ATMs and POS terminals reached 56 and 141, respectively. Annual report Dashen Bank at the end of the 2012/13 fiscal year, the total number of ATMs were 105 and POS terminals were 780. The number of deployed ATM machines has been increasing from year to year. Moreover, the number of transaction and the amount or volume of transaction made by ATM machines are also increasing from time to time.

According to Mesfin B. (2017) indicate that the opportunities of implementing POS terminal in the CBE listed in his research are ICT Infrastructure Development, Business growth of the bank, Policy Direction of the NBE and Increased acceptance of POS payment system by consumers. This indicate that POS (payment of sales Terminal) and ATM are electronic payment system and have similar existing implementation opportunities.

2.2 Empirical Reviews

ATM service improves customer service and ensures greater efficiency in the Banking sector. As different studies showed there are different challenges and opportunities on the service. According to Puopiel, (2014) opportunities of the service for the customers include predominant time saving, easy access to cash and convenient in the use of the products. Notwithstanding the benefits associated with ATM service, there are challenges associated with the system. The paramount among them is the network failure. In the course of a transaction, the network could easily break down resulting in an incomplete transaction. Adoption of the products has influencing factors. Predominant factors are customer satisfaction and competition from other banks. Increasing competition among banks to increase or retain their customer base is driving the banks to continue to adopt the product.

Ebiringa (2010) and Maiyaki & Mokhtar (2010) identified the advantages of interbank ATM service to the banks and customers. According to these studies advantages interbank ATM service include investment opportunities, reduction in costs (i.e. cost savings), effective service delivery, branding of interbank network, satisfaction of customers and competitiveness. According to Cabas

(2011) interbank ATM facility resulted in speed of transactions and saved time for customers.

2.2.1. National E-payment system in Ethiopia

According to EthSwitch S.C (2017) the development of Ethiopian banking system has largely been affected by the dominance of cash. In Ethiopia, cash is "king" since the bulk of personal consumption is done through the medium of cash. For big companies in particular, this has resulted in the problems of cost and delay, arising from the counting, bundling, transporting and depositing of large volumes of cash, as well as the risk and inconvenience of dealing with counterfeiting and the treatment of notes.

According to report of EthSwitch S.C (2017) though, there is no official statistics on the banking services of the country, it is estimated that out of a total population of 100 million, less than 10 percent are getting banking services. Cash remains as the main method of payment especially among individuals. Although the number of bank account holders is increasing since the liberalization of banking industry in the country, the account holders are mainly high-income earners in urban areas. This may be due to the concentration of bank branches at the major cities and towns. The payment system is manually handled using papers that moves from banks to National Bank of Ethiopia. To improve payment system of the country, the National Bank of Ethiopia (NBE) is working on the modernization of the National Payment System project that encompasses the following components:

1. RTGS (Real Time Gross Settlement);
2. ACH (Automatic Clearance House);
3. Central/ National Switch; and
4. Central Security Deposit (CSD).

From the experience of other countries banking services, electronic payment systems are found to benefit commercial banks by extending bank customer base; reducing operating costs; enhancing customer service and improving banks' competitive advantage. For example, some proactive banks have considered cards as the strategic products to broaden their customer base, cut down paper-work, invoices and casher's service, and build competitive advantage over other banks without card products (National Bank of Ethiopia, 2009).

There are 19 banks that are currently shareholders in EthSwitch S.C that include National Bank of Ethiopia, development bank of Ethiopia and all commercial banks in Ethiopia. Development Bank is in technical process of connecting to EthSwitch. There are 17 Commercial banks in Ethiopia

that include; Abay Bank, Addis International Bank, Awash International Bank, Bank of Abyssinia, Berhan International Bank, Bunna International Bank, Commercial Bank of Ethiopia, Cooperative Bank of Oromia, Dashen Bank, Debub Global Bank, Enat Bank, Lion International Bank, Nib International Bank, Oromia International Bank, United Bank, Wegagen Bank and Zemen Bank. The following figure represents Banks connected through ethioPay:

Figure 2.2 EthioPay Interbank Network *Source: EthSwitch S.C, 2017*

2.2.2. Challenges of IT project Implementation

Implementation of information technology (IT) services and systems in organizations generally pose a lot of challenges if it is not properly addressed, lead to heavy investment without the corresponding organizational efficiency gains. The tendency unfortunately has been, more often than not, to approach such integration from the technology level, leading to escalating costs without corresponding efficiency gains.

2.2.3. Project Success

Project success has been defined in many ways to include a large variety of criteria. Many different approaches of measuring project success can be used. One of the most traditional ones is the iron triangle (Time, scope, budget) approach. However, these criteria have received many critics for being inadequate in determining project success that is stakeholders view is not included. However, in the simplest terms, project success can be thought of as incorporating four basic things. A project is generally considered to be successfully implemented if it: comes in on schedule (time criterion); comes in on-budget (monetary criterion); achieves basically all the goals set for it (effectiveness criterion) and is accepted and used by the stakeholders for whom the project is intended (client satisfaction).

Whatever various scholars and researchers have come up with multiple factors affecting project success, no two researches have produced the same project success factors and even where the same researcher conducted the exact same study in different time periods, they have consistently come up with different project success factors. So, project success factors are different depending on project size, project type and the situation in which the project is implemented. This goes to show the complexity of the subject and it will thus be hard for the researcher to claim that the conclusions drawn by this study shall be exhaustive.

2.2.4. Project Success Factors

Success factors can be perceived as main variables that contribute to projects' success (Dvir, 1998), as levers that can be operated by project managers to increase chances of obtaining the desired outcomes (Westerveld, 2003). A combination of factors determines the success or failure of a project and influencing these factors at the right time makes success more probable (Savolainen, 2012). Developing or identification of success factors has dominated the field of project management from 1980s to 2000. Many researchers have tried to a certain extent to identify success factor for project management.

2.2.5. IT Project Success Factors

IT Project Management combines traditional Project Management with Software Engineering Management Information Systems to reach higher levels of success on IT projects. Gichoya (2005) outlines factors for success as those occurrences whose presence or absence determines the success of an IT project. They can be drivers or enablers (Moran 1998). Their absence can cause failure and their presence can cause success. Drivers are the factors that encourage or reinforce the successful implementation of IT projects. Some of these drivers are vision and strategy, external pressure and donor support, rising consumer expectations, technological change, modernization and globalization. Enablers are the active elements present in society, which help overcome the potential barriers. Some of these include effective project coordination, change management and good practice. More recently, the Standish Group International (2010) again in their annual report listed the updated project success factors, the student researcher selects these factors because they are much more applicable for this study. The factors (In order of importance) are as follows: Executive Support, User Involvement, Experienced Project Manager, Clear Business Objects, Minimized Scope, Standard Software Infrastructure, Firm Basic Requirements, Formal Methodology, Reliable Estimates.

1. Executive Support

Since this is the single most important for the project success, its absence is the main reason why project fail. Changes in executive leadership, changing political scenes, changing business priorities can easily result in loss of that support. Because of this fragility, the project manager must be held to the standard and practices that preserve rather than alienate the executive sponsor. Those standards and practice will be a part of communications management program that makes up project methodology. Executive management must have a stake in outcome of a project. A well-devised project plan, along with project team commitment, will go a long way in gaining executive management buy-in. And if the executives become the leading spokesperson of a project, it is a sure sign of management buy-in. The executives should be visionary, setting the agenda, arranging funding, articulate objectives, and also be the champions and minesweeper, securing the necessary resource and taking total ownership of a project.

2. User Involvement

Lack of user involvement traditionally has been the number one reason for project failure. Conversely, the number one contributor to project success has been user involvement. Even when delivered on time and on budget, a project can fail if it does not meet user needs or expectations. However, at 2010 chaos report it has moved to the number two position. It is not that user involvement is less important, but it is just that IT professionals have centered in on this and, in effect, solved this major problem. The best way to assure user help and support when it is needed is to keep the user meaningfully involved throughout its life cycle.

3. Experienced project manager

Business and technical knowledge, judgement, negotiation, organization, and good written and oral communication skills are desirable traits for a project manager. The ability to communicate with all the stakeholders and the technical team is necessary. Additionally, planning, tracking activities, tasks, and changes or re-planning to arrive at a goal are other skills a project manager should maintain. A project manager should decide what features and functions are part of the project, orchestrate all resources, focus on the goal and minimize diversions, and establish accountability, responsibility, and authenticity. A project manager should not be the executive sponsor, user or functional representative, and should not overpromise or be a control freak.

4. Clear Business Objectives

Project management methodology must have a formal process for establishing clear business objectives. If you do not know where you are going, how will you know what to do and how will

you know when you get there? Projects that start out without having this information are in trouble unless the methodology has a way of compensating for that lack of information. Traditionally project management approaches do not have a way of compensating; the newer adaptive and iterative approaches do. Since changes is almost certain, the project management methodology must have a way of maintain the objectives as they change and a way of adapting the project plan to those changes. Everyone associated with a project must share the same vision. The vision must be clear, concise, and comprehensible. The goal of the project must be known and enthusiastically supported by all. And goals must have measurable success factors. The project business objectives must map to the corporate vision. This ensures that those associated with a project know and understand the objectives, where they fit in, and how the project goals contribute to the corporate vision.

5. Minimized Scope

The trade-off here is that longer projects will incur more changes and risk and less so for shorter projects. Change in scope brings about a change in the project plan and the increased risk that work completed earlier may no longer be of value. That means wasted dollars and wasted time. A large project can be decomposed into several interdependent smaller projects. Each smaller project should be justified based on the specific deliverables and business outcomes that will be produced. The extent to which the project management methodology considers this approach and includes process for decomposition is a measure of its quality and maturity. Major milestones in a project from the boundaries from one phase to the next. Adding some smaller milestones and monitoring their attainment is one of the keys to project success. The five key elements to effectively using project milestones are planning, top-down design, time boxing, tools, and management by objectives/accountability.

6. Standard Software Infrastructure

This factor speaks to the stability of the infrastructure over which your project work will be done. If that infrastructure is in flux, your project plan is at risk for radical change. That risk opens the possibility of missed deadlines, use of the wrong human resource, team members with the wrong skills, inability to meet the client's requirements, and a host of related impacts. It is vital to use a language that is understood by all parties involved in a project. Infrastructure is defined as the underlying foundation, and that includes ensuring a standard business infrastructure throughout the enterprise environment. A standard technology infrastructure can facilitate the placement of new kinds of technology to support business initiatives. Selecting a robust and scalable

infrastructure will enable business to profit and expand by harnessing the capabilities and promise of truly global electronic commerce.

7. Firm Basic Requirements

Much of the discussion surrounding clear business objectives applies here. By way of analogy, you cannot start out on a journey unless you have some idea of where you intended to go. The better you can define that journey the more effective will be your initial choices of direction. The better you understand the client's basic requirements, the better your plan will be for delivering an effective solution to meet all of their requirements.

Requirements management is the ongoing process of identifying, documenting, communication, tracking, and managing project requirements as well as changes to those requirements. The earlier an error is detected, the less costly it is to fix. A concise definition of the project vision should be written in business terms. Buy-in from the user and executives are paramount to project viability. Continuous reevaluation must occur. Identify all key stakeholders and include them in the requirements definition. Identify the documents all risks and formulate a plan to minimize them. Develop a clear statement of the business case. Define the project metrics, measurements and milestones.

8. Formal Methodology

Project management methodologies that can be repeated are valuable to the organization. Repeatability creates standards, best practices, skill developments, and a host of other benefits to the organization. Project management methodologies that are adaptable rather than rigid is valuable to the organization as well. The extent to which a project management methodology is standardize, documented, accepted and practiced, integrated in to the business equation, and improved upon is a measure of its quality and maturity. The project management office (PMO) is a part of the infrastructure that will help an organization align business and technical goals and increases the odds of project execution in organizations. It is the dedicated section of the organization that focuses on various aspects of project management and methodology. PMOs help to gain better control over processes and project outcomes, being consistency to their implementations, standardize operations, control resource allocation, and handles customer interfacing, PMO staff members have project management experience and excellent communication skills.

9. Reliable estimate

Historical estimate versus actual costs and durations are best tools for producing new estimates of cost and time. The availability and maintenance of this historical information is a sign of the maturity of the project management process. Reliable estimates can only come from honest and frank assessments. It is important to create realistic written specifications, prioritized needs, and work toward smaller milestones at frequent intervals. Managing change is another requirement in setting realistic expectations. A misalignment between expectations and deliverables often occurs if change is not managed.

2.2.6. Types of delay

Theodore (2009) mentioned that there are four basic ways to categorize type of delays:

- Critical or noncritical
- Excusable or non-excusable
- Compensable or non-compensable
- Concurrent or non-concurrent

In the process of determining the effect of a delay on the project, the analyst must determine whether the delay is critical or noncritical. The analyst must also assess if delays are concurrent. All delays that are identified in the analysis will be either excusable or non-excusable. Delay in implementation of projects and cost increase are common phenomena in projects worldwide. However, these are especially severe in developing countries. Delayed implementation gives a project a difficult star. Unduly long time taken for project implementation results in time-overrun which is invariably followed by cost overrun. Cost-overrun has the ill effect of affecting the financial viability of the project. The problem of cost-overrun will get more compounded if the finance necessary to meet the increased cost cannot be arranged in time.

2.2.7. Challenges and Opportunities of Implementing E-banking

Ayana, (2014) study was about Factors Affecting Adoption of Electronic Banking System in Ethiopian Banking Industry. The aim of this paper is to identify factors that affect adoption of E-banking in the Ethiopian banking industry. The study was conducted based on the data gathered from four banks in Ethiopia; three private banks (Dashen bank, Zemen bank and Wegagen bank) and one state owned bank (commercial bank of Ethiopia). In his finding of the study it was indicated that, the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: security risk, lack of trust, lack of legal and regulatory frame work, Lack of IT infrastructure and absence of competition between local and foreign banks.

Zulu B, (2006) in the study E- payment a challenge for Africa identified the challenges in Africa

as inadequate telecommunication infrastructure, which include: connectivity failure in telephone lines; low Internet bandwidth; high Internet cost, unavailability of dedicated data service networks; and close financial networks as well as frequent power interruption. Similarly, he identified lack of proper legal and regulatory framework and low level of credit access as the other challenges.

Gardachew, (2010) conducted research on the Opportunities and Challenges of E-banking in Ethiopia. His study focused on analyzing the status of electronic banking in Ethiopia and finding of the study he identifies some challenges of using E-banking system, such as, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks.

2.2.8. Benefits of Implementing ATM project

ATMs handle as many traditional teller operations as possible. Traditional ATMs implement most basic daily banking functions, such as deposit, withdrawals and balance checking. These functions are designed based on the performance limitations of computing and networking, which have changed rapidly over the course of the last few years. These limited functions may not be satisfactory by modern standards. The next-generation ATM should support the following features if possible:

- Money transfer: transfer money from one bank account to another person's bank account.
- Bill Payment: automatically pay bills. Although a valid feature is provided in internet banking right now, ideally ATMs would still provide these functions for users without internet access.

Other Electronic Finance Tools: Good examples could be electronic bank notes or electronic bank travel cheques. Next-Generation ATM (Anon., 2007)

2.3 Conceptual Framework

The study since the variable's concentrations are highly technology related and it uses technology related conceptual frameworks to assess the challenges and opportunities of ATM implementation. After an in-depth review of theoretical and empirical literatures which provided different potential success criteria and success measures for project management that conducted through questionnaires and interview. Due to its comprehensive, detailed descriptions and because much of the other research were based upon it, the study has reached up on a conclusion that the nine most significant success factors in determining project success identified by Standish Group International (2010) have been chosen for this study. Based on these identified variables, a

questionnaire developed and distributed to the project stakeholders so as to identify the most important factors which influence for the success of ATM project and come up with possible solutions/recommendations which are useful for other projects undertaken by Awash Bank.

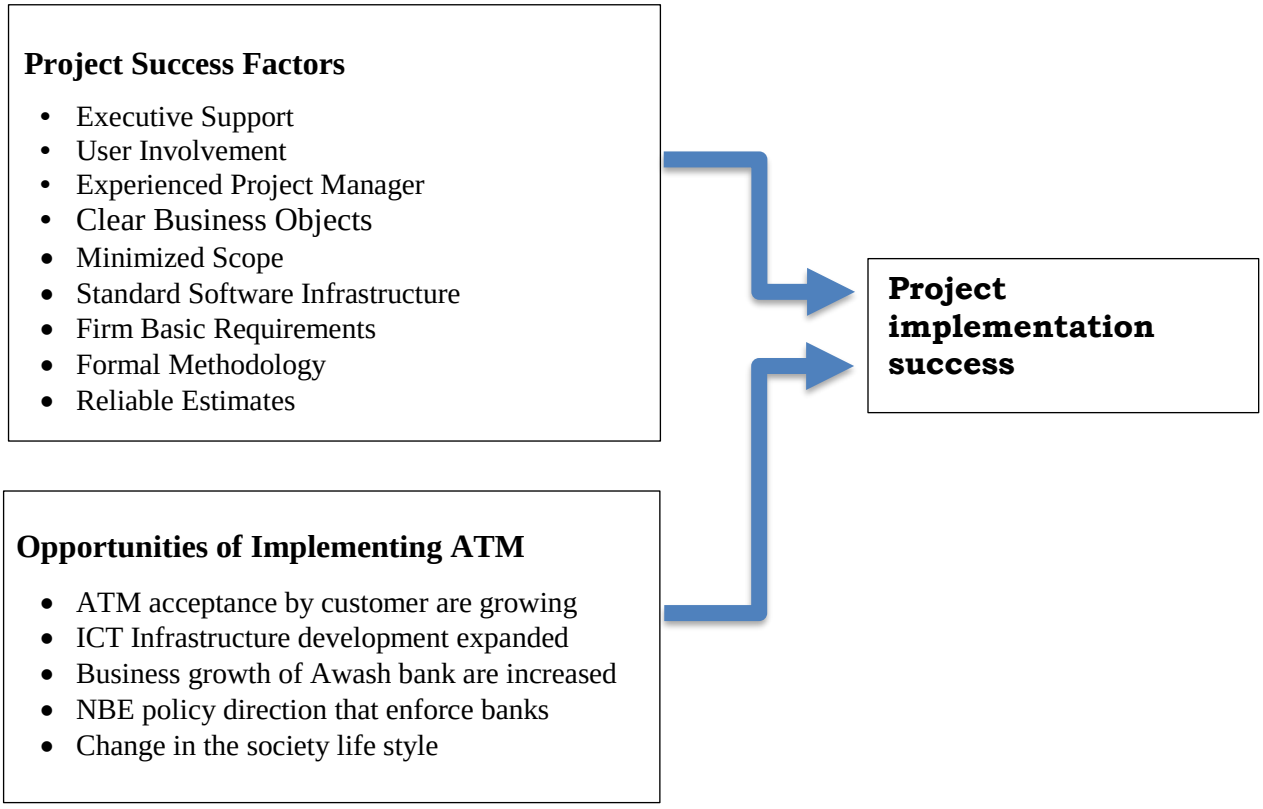

Figure 2.3: Conceptual Framework adopted from Standish Group International (2010)

CHAPTER THREE

Research Methodology

3.1. Research Design and Approach

Research design represents the major methodology driving the study, being distinctive and specific research approaches, which are best suited to answer the research question (Catherine, 2007). The purpose of the research design, as stated by Sekaran & Roger (2009) is to achieve greater control of the study in examining the research problem. The study used descriptive type of design to answer the objective of the research. Descriptive research design used to describe an event or phenomena as it exists at present and is appropriate when the study concerned in specific predictions, narrative of facts and characteristics concerning individuals or situations (Kothari, 2004). Since the purpose of this study is to obtain reliable and relevant information from various groups on the existing opportunities and challenges of the issue under study. Descriptive method helps to have general understanding of the problem by studying the status, nature of the prevailing conditions and trends through relevant and precise information. Research methodology is a way to systematically solve the research problem. It may understand as a science of studying how research is done scientifically. In it, I study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. (Kothari, 2004)

Zikmund (2003) presents two approaches, inductive and deductive methods. Inductive approach is initialized by specific observations in a data material from which generalizations are made without conducting literature reviews. Thus, it is creating new theory from observation, pattern identification and hypothesis. A deductive approach is the opposite, initiating by reviewing and gather theory from where collection and conclusions are based upon. Accordingly, the study employed deductive research strategy for this study.

3.2. Target population and Sampling techniques

3.2.1. Target population

All individuals of interest to the researcher are called population (Alan and Nadeen, 2005). The study considered relevant employees involved in ATM implementation process as target population. In that respect, targeted population for this study are Awash Bank staffs who works on three offices which are all Project Management office employee, all IT Service Management office employees and all Digital Channel office employees. The three departments have 72 employees of

which 15 are Project Management office employees, 15 are Digital Channel office employees and 42 are IT Service Management staffs and I selected as a target population because the three offices are directly involved with the ATM implementation process.

3.2.2. Sampling method

Sampling is a procedure that uses a small number of units of a given population as a basis for drawing conclusions about the whole populations (Alan & Nadeen, 2005). To answer the studies questions and to meet the objectives of the study, this study adopted a non-probability sampling called purposive sampling technique. Purposive sampling is a non-probability sampling method and it occurs when "elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money" Black, K. (2010). Purposive or judgmental sampling enables us to use our judgment to select cases that best enable us to answer the research question(s) and to meet our objectives. Accordingly, the study decides to select the following three sampling units for the study.

- Project Management office employees - work on Business solution team
- Digital Channel office employees - work on ATM transaction and dispute handling team
- IT Service Management office employees – work on ATM technical team

Semi structured interviews and questionnaires used as primary data collection methods to answer the research questions and to meet the objectives of the study. According to Walliman (2005), purposive sampling is a useful sampling method which allows the study to get information from a sample of the population that one thinks knows most about the subject matter. Awash Bank was implemented multiple projects parallel with ATM project due to this all Project Management office employees were not engaged in the implementation of ATM, the same thing all IT Service Management office employees were not engaged in the implementation of ATM project, because of their job was support bank business operation like network and hardware maintenance, for this reason and for my close interaction with those small and known employees I select non-probability Purposive Sampling technique, it helps to get answer from employees who has direct relationship with the study and to achieve its objectives, but all Digital Channel office employees were selected.

3.2.3. Sample size

According to Saunders et al, (2009), for all non-probability sampling techniques, other than for quota samples the issue of sample size is ambiguous and, unlike probability sampling, there are no rules. Rather the logical relationship between your sample selection technique and the purpose and focus of your research is important), generalizations being made to theory rather than about a population. Consequently, your sample size is dependent on your research question(s) and objectives. Sample size is the actual respondents representing the total target population. In the study 40 respondents are selected for the questionnaire in three different offices. Out of 15 Project Management Office employees 5 were involved in Core Banking System, out of 42 IT Service Management office employees 17 were Hardware & Network Maintenance employees therefore, 10 Project Management Office employees, 15 IT Service Management office employees and all 15 Digital Channel Office employees are selected as sample size due to the bank job duty structure.

3.3. Method of data collection

3.3.1. Source of Data

The study uses both primary and secondary data. Primary data gathered directly from the respondents through adopted questionnaire from Mesfin B, (2017) and interview guide questions developed by the study. Secondary data collected from the bank internal documents, published and unpublished studies, books and websites. There are two general research approaches qualitative and quantitative. The quantifiable data gathered from the closed ended questions of the questionnaire which designed to keep the respondents in scope. That leads for the study to use a mixed research approach. Internal secondary source includes annual reports, newsletters etc., while external source include the bank annual reports magazines and commercial magazines, Relevant studies, articles published in renowned research journals, websites, books and periodic reports of Awash Bank taken for the theoretical aspect of this study.

3.3.2. Data Collection Instruments

Primary data collection questionnaire only incorporated close ended questions. To deeply asses the challenges and opportunities further, the study interviewed with key informants guided by related interview questions. The closed ended questionnaires designed for simplicity and to get definite answers. The interview used to get appropriate data through open discussion for information which was difficult to manage using questionnaire. For selecting participants, I used Purposive sampling method. That helps the study to provide the best information.

3.3.3. Data Collection Procedure

Since the study is fulltime employee of the bank, access to primary and relevant secondary data was not a challenge. Adopted questionnaire distributed and collected personally from mentioned respondents. The interview questions designed for managers and team leader who were highly participate in the implementation process of ATM.

3.4. Methods of data Analysis and Presentation

Descriptive statistical analysis used throughout the analysis process. The analysis part combined all groups of respondents to obtain significant results. The data collected via questionnaires and analyzed using Statistical Package for Social Sciences (SPSS) and Microsoft Excel and it cleaned, categorized and coded in a way suitable for electronically and manually analyzing. Moreover, the interview data and review of documents interpreted qualitatively. In order to meet the study's objectives all valid responses and assessed using a variety of statistical techniques. Demographic characteristics of the respondents analyzed and interpreted based on the data collected by using frequencies, percentages and tabular descriptions. The study presented in the form of tables, graphs and charts as desired to make all the data readable and understandable by all concerned parties.

3.5. Research Type

Catherine (2007) refers to two types of research: pure and applied research. Pure research is that which has no obvious practical implications beyond contributing to a particular area of intellectual enquiry. Applied research on the other hand, is problem focused and directed towards solving some particular intellectual question that has practical implications for a client outside the academic world. Therefore, the type of this study is applied research.

3.6. Reliability and Validity

The two major criteria which applied to evaluate the quality of the instrument are validity and reliability.

3.6.1. Reliability

The current study used multiple items in all constructs. So, the internal consistency has been checked. The foundation for internal consistency was that the individual items or indicators of the scale all was measuring the same construct and thus be highly inter-correlated. Internal consistency reliability of all questions assessed by the Cronbach's alpha coefficients of measurement items for each construct. The alpha coefficient for the items is 0.86 it is generally considered acceptable, suggesting that the items have relatively high internal consistency.

3.6.2. Validity

Validity of the questionnaire was done through consultations with the advisor. This was to establish any built-in errors in the measurement of the questionnaire. Pilot test was done to check the tendency of the instrument obtains the same result if the measurement was repeated by using the same subject under the same conditions. The respondents used for pretesting were not part of the main study. In this study all variables inspected by the study and research experts to make sure that research items were adequate and a thorough representation of the construct under investigation. To enhance the research instrument, for testing the questionnaire for clarity and for providing a coherent research questionnaire, a detailed literature review also performed.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

Data collected using different techniques were analyzed in this section by using the triangulation approach. A total of 40 questionnaires were distributed to Awash Bank three different offices, which are Project Management office, IT Service Management office, and Digital Channel office. 10 respondents from the Project Management Office, 15 respondents from IT Service Management Office and 15 respondents from Digital Channel Office. Out of the total 40 questionnaires, 36 (i.e.10 (100%) from employees Project Management Office, 14 (93%) from employees of IT Service Management office and 12 (80%) from employees of Digital Channel Office) useable valid questionnaires with no missing were obtained with 90% response rate. In addition to the survey questionnaire, the study interviewed with key informant managers and team leader at the mentioned offices and, reviews some available bank documents regarding ATM project implementation.

4.2 Demographic Information of the Respondents

Demographic profiles of the respondents who participated in the study were analyzed using descriptive analysis with the help of SPSS. The result of the survey is shown in Table 4.1 as follows: -

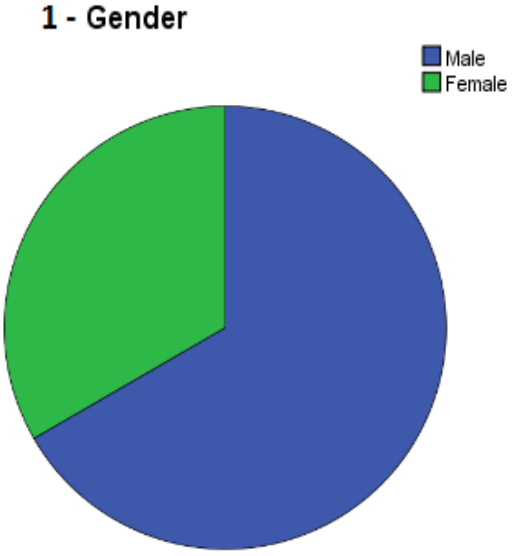

Fig. 4.1: Gender Distribution
(Source: Survey result, 2019)

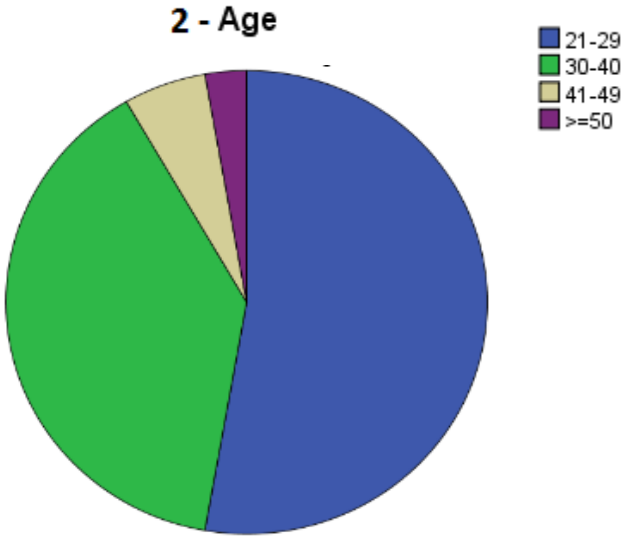

Fig. 4.2: Age Distribution
(Source: Survey result, 2019

Table 4.1 Frequency Analysis of Respondents' Demographic profile

Variable	Category	Frequency	Percent (%)
3. Educational status	Diploma	0	0
	1st Degree	30	83.33
	2nd Degree and above	6	16.67
	other		
	Total	36	100%
4. Years of experience in the Bank	Less than 1 year	4	11.11
	1-5-year	21	58.33
	6-10-years	7	19.44
	More than 10 Years	4	11.11
	Total	36	100%
5. Position of work	Project Management Officer	3	8.33
	IT service Management Officer	14	38.89
	Digital Channel officer	12	33.33
	Others associated with: - project manager, programmer analyst	7	19.44
	Total	36	100%
6. ATM related activities	Less than 1 year	13	36.11
	1 - 3 year	16	44.44
	4 – 7 years	7	19.44
	Total	36	100%

(Source: Survey result, 2019)

1- The demographic information of respondents who took part in the study, shown in Table 4.1 reveals that 67 (%) were male while 33 (%) were female. This indicate that most of the respondents are male.

2- Moreover, the demographic information on the respondents' age reveals that 36 respondents representing 53 (%) have their age fall within 21-29 years of age; 39 (%) respondents have their age fall within the age group of 30-40 years; 6 (%) respondents have their age fall within the age group of 41-49 years. A total of 3 (%) respondents have their age fall within the age group of greater than 50 years. The relevance of the age range here helps whether youngsters or old age groups are included within the sample size.

3- Concerning academic status of respondents, most respondents are academically qualified, 6 respondents (16.67%) are 2nd Degree and above holder, 30 respondents (83.33%) are 1st degree holder and there was no diploma holder in the survey.

4- Years of experience, the results indicate that the majority (i.e. 11.11% of the employees of the bank have more than 10 years of working experience. This is followed by (19.44%) respondents who have their years of working experience between 6 - 10 years; 21 respondents representing (58.33%) have 1-5 years of working experience and 4 respondents (11.11%) have less than 1 year of working experience. This means that majority of respondents have good work experience.
5- On the other hand, the job positions of the employees of the bank who participated the survey, (8.33%) are Project Management Officer; (38.89%) are IT service Management Officer. (33.33%) are Digital Channel officers. (20%) respondents are other related officers associated with the project manager, programmer analyst. This means that all respondents job positions have a direct relationship to the study
6- And ATM related activities 7 respondents (19.44%) are participated about 4-7 years, 16 respondents (44.44%) have participated for 1-3 years and 13 respondents (36.11%) participated in less than one year. This means that most of the respondents are working on ATM related activities.

4.3 Factors contributed to the success of ATM implementation project at Awash Bank

This part of the study consists of results and discussion of factors that contribute to the success of the ATM implementation project at Awash Bank. The questions consist of nine different factors. The ranking of factors is done based on the level of importance of factors that affect the success of the ATM project.

4.3.1. Top Management Support

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the top management support of the ATM project implementation using descriptive statistics are shown below: -

Table 4.2 Top Management Support

No	Questions	Strongly agree f* (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
1.1	Top management team was supportive and readily available for decision making to the project managers and teams	(28%)	(36%)	(25%)	(6%)	(6%)	(100%)
1.2	Top management keeps a close eye on the project and is quick to intervene supporting the project manager when things start going wrong.	(28 %)	(42 %)	(22 %)	(3 %)	(6 %)	(100%)
1.3	Top management has consistently provided all the tools and resources required to successfully deliver the Project	(17 %)	(50 %)	(22 %)	(8 %)	(3 %)	(100%)

(Source: Survey result, 2019) *f = frequency

1. Result obtained from the survey of respondents of Awash Bank's staff regarding top management team was supportive and readily available for decision making to the project managers and teams responded affirmatively by (28%) and (36%) respondents strongly agree and agree respectively.
2. Regarding top management keeps a close eye on the project and is quick to intervene supporting the project manager when things start going wrong responded affirmatively (28%) and (42 %) respondents strongly agree and agree respectively.
3. Regarding top management has consistently provided all the tools and resources required to successfully deliver the project responded affirmatively (17 %) and (50 %) respondents strongly agree and agree respectively.

From these responses, most of the top management was supportive in the implementation of ATM project, since their support was the most important for the project success, their absence was the main reason why project fail but the result shows that there was no challenge from the top management side to delay the project implementation.

4.3.2. Experienced project manager

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the experience of the project manager in the ATM project implementation using descriptive statistics are shown below: -

Table 4.3 Experienced project manager

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
2.1	The Project Manager was adequately trained and committed to successfully deliver ATM project.	(16.67%)	(55.56%)	(19.44%)	(5.56%)	(2.78%)	(100%)
2.2	The project manager validated for consistency with change of user requirements against the initially signed off requirements/objectives	(19.44%)	(44.44%)	(33.33%)	(2.78%)	(0%)	36 (100%)
2.3	The project manager had ability to make effective leadership and decision making	(22.22%)	(50.00%)	(16.67%)	(8.33%)	(2.78%)	(100%)
2.4	The project manager had good communication, motivation and team building skill	(19.44%)	(58.33%)	(13.89%)	(5.56%)	(2.78%)	(100%)

(Source: Survey result, 2019)

1. Result obtained from the survey of respondents of Awash Bank's staff regarding the Project Manager was adequately trained and committed to successfully deliver ATM project (17%) and (56%) respondents strongly agree and agree respectively.
2. Regarding the project manager validated for consistency with change of user requirements against the initially signed off requirements/ objectives (19 %) and (44 %) respondents strongly agree and agree respectively.
3. Regarding the project manager had ability to make effective leadership and decision making (22 %) and (50 %) respondents strongly agree and agree respectively.
4. Regarding the project manager had good communication, motivation, and team-building skills (19 %) and (58%) respondents strongly agree and agree respectively.

From these responses, the project manager was experienced person for the ATM project implementation and he was adequately trained and committed, had ability to make effective leadership, decision making, good communication, motivation, and team-building skills

4.3.3. User Involvement

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the user Involvement in the ATM project implementation using descriptive statistics are shown below: -

Table 4.4 User Involvement

No	Questions	Strongly Agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
3.1	ATM project end users were involved at all stages of the project.	(8 %)	(42%)	(28%)	(17%)	(6%)	(100%)
3.2	User Requirements are documented and signed off by the Senior User (Department that will utilize the end product)	(17 %)	(58 %)	(17 %)	(8 %)	(0 %)	(100%)
3.3	Acceptance testing was confirmed by End user	(28%)	(39 %)	(28%)	(3 %)	(3 %)	(100%)

(Source: Survey result, 2019)

1. Result obtained from the survey of respondents of Awash Bank's staff regarding ATM project end users were involved at all stages of the project (8%) and (42%) respondents strongly agree and agree respectively.
2. Regarding user requirements are documented and signed off by the Senior User (Department that will utilize the end product) (17%) and (58%) respondents strongly agree and agree respectively.
3. Regarding the acceptance testing was confirmed by End user (28 %) and (39 %) respondents strongly agree and agree respectively.

The number one contributor to project success specially IT project is user involvement. From these responses, most of the respondents are confirmed that there was user involvement even if 17% of respondents disagree on users were not involved in all stages of the project.

4.3.4. Clear Business Objectives

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the clear business objectives in the ATM project implementation using descriptive statistics are shown below: -

Table 4.5 Clear Business Objectives

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
4.1	The project had clear goals but only at the senior level	(19 %)	(39%)	(39%)	(3%)	(0%)	(100%)
4.2	The goals are set in accordance with the requirements of the customer	(22 %)	(53 %)	(17 %)	(8 %)	(0 %)	(100%)
4.3	Project Executive Sponsors are clear on Business Objectives	(17 %)	(50 %)	(33%)	(0 %)	(0 %)	(100%)

(Source: Survey result, 2019)

1. Results obtained from the survey of respondents of Awash Bank's staff regarding the project had clear goals but only at the senior level (19%) and (39%) respondents strongly agree and agree respectively.
2. Regarding the goals are set in accordance with the requirements of the customer (22 %) and (53 %) respondents strongly agree and agree respectively.
3. Regarding the Project Executive Sponsors are clear on Business Objectives (17 %) and (50%) respondents strongly agree and agree respectively.

From these responses observe that there was a clear business objective in the implementation of the ATM project only at the senior level. This can consider as one of the challenges in the implementation of the project. everyone participated in the project hadn't a clear goal.

4.3.5. Project Scope

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the Project Scope in the ATM project implementation using descriptive statistics are shown below: -

Table 4.6 Project Scope

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
5.1	The ATM project was implemented phase by phase approach	(19 %)	(47%)	(28%)	(6%)	(0%)	(100%)
5.2	When project scope was changed accordingly there was re-planning and documentation	(11 %)	(44 %)	(39 %)	(3 %)	(3 %)	(100%)
5.3	What major activities need to be done and to what end result expected are clearly defined.	(14 %)	(53 %)	(17%)	(14 %)	(0 %)	(100%)

(Source: Survey result, 2019)

1. Result obtained from the survey of respondents of Awash Bank's staff regarding The ATM project was implemented phase by phase approach (19%) and (47%) respondents strongly agree and agree respectively.
2. Regarding when project scope was changed accordingly there was re-planning and documentation (11 %) and (44 %) respondents strongly agree and agree respectively.
3. Regarding what major activities need to be done and to what result expected are clearly defined (14 %) and (53 %) respondents strongly agree and agree respectively.

From these responses, that there was a clear project scope and when project scope changes accordingly changed in the implementation of the ATM project.

4.3.6. Firm Basic Requirements

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the Firm Basic Requirements in the ATM project implementation using descriptive statistics are shown below: -

Table 4.7 Firm Basic Requirements

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
6.1	All key stakeholders were identified and included in the requirement definition	(19 %)	(42%)	(25%)	(14%)	(0%)	(100%)
6.2	Project Risks are identified and documented	(17 %)	(39 %)	(28 %)	(14 %)	(3 %)	(100%)

(Source: Survey result, 2019)

1. Result obtained from the survey of respondents of Awash Bank's staff regarding All key stakeholders are identified and included in the requirement definition (19%) and (42%) respondents strongly agree and agree respectively.
2. Regarding Project Risks are identified and documented Project Risks are identified and documented (17 %) and (39 %) respondents strongly agree and agree respectively.

From these responses that all key stakeholders and project risks were identified and formulate a plan to minimize them.

4.3.7. Standard Infrastructure

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the Standard Infrastructure in the ATM project implementation using descriptive statistics are shown below: -

Table 4.8 Standard Infrastructure

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
7.1	The ATM project works over the stable infrastructure	(19 %)	(44%)	(25%)	(11%)	(0%)	(100%)
7.2	Stable Internet and Data connection were available to run ATM project	(19 %)	(42%)	(11%)	(25%)	(3 %)	(100%)

(Source: Survey result, 2019)

1. Result obtained from the survey of respondents of Awash Bank's staff regarding The ATM

project works over the stable infrastructure (19%) and (42%) respondents strongly agree and agree respectively.

2. Regarding Stable Internet and Data connection were available to run ATM project (17 %) and (39 %) respondents strongly agree and agree respectively.

From these responses that ATM project worked over stable infrastructure and stable internet and data connection in the implementation process. It facilitates the placement of e-payment technology to support business initiatives.

4.3.8. Reliable Cost Estimates

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the Reliable Cost Estimates in the ATM project implementation using descriptive statistics are shown below: -

Table 4.9 Reliable Cost Estimates

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
8.1	The project planning team has applied a realistic cost estimate	(19 %)	(44%)	(33%)	(11%)	(0%)	(100%)
8.2	Changes in specifications and designs are adequately taken into account	(19 %)	(50%)	(28%)	(3 %)	(3 %)	(100%)

(Source: Survey result, 2019)

1. Result obtained from the survey of respondents of Awash Bank's staff regarding the project planning team has applied a realistic cost estimates (19%) and (44%) respondents strongly agree and agree respectively.
2. Regarding changes in specifications and designs are adequately taken into account (19%) and (50 %) respondents strongly agree and agree respectively.

From these responses that there was a reliable cost estimation and changes were taken into account in the implementation of the ATM project.

4.3.9. Formal Methodology

Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the Formal Methodology in the ATM project implementation using descriptive statistics are shown below: -

Table 4.10 Formal Methodology

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
9.1	The appropriate tools and techniques have applied for ATM project	(25 %)	(39 %)	(17%)	(19%)	(0 %)	(100%)
9.2	The project followed traditional Project Management methodology which is Initiation/ planning/ execution/ monitoring & evaluation/ closing	(17%)	(39 %)	(36 %)	(3 %)	(6%)	(100%)
9.3	The project applied the modern project methodology which are PMBOK (project management body of knowledge) and CPM (critical path method)	(6%)	(36 %)	(42%)	(14 %)	(3 %)	(100%)

(Source: Survey result, 2019)

1. Result obtained from the survey of respondents of Awash Bank's staff regarding the appropriate tools and techniques has applied for ATM project (25%) and (39%) respondents strongly agree and agree respectively.
2. Regarding the project followed traditional Project Management methodology which is Initiation/planning /execution/monitoring & evaluation/closing (17 %) and (39 %) respondents strongly agree and agree respectively.
3. Regarding the project applied the modern project methodology which are PMBOK (project management body of knowledge) and CPM (critical path method) the respondents only (6 %) and (36 %) respondents strongly agree and agree respectively.

From these responses that the bank used traditional project management methodology rather than modern project management in the implementation of the ATM project.

Table 4.11 Summary of project success factors

Variables	1-SA	2-A	3-N	4-D	5-SD	Total %	(1+2) >50%
1. Top Management Support	24.07	42.59	23.15	5.56	4.63	100	**66.67**
2. Experienced project manager	19.44	52.08	20.83	5.56	2.08	100	**71.53**
3. User Involvement	17.59	46.30	24.07	9.26	2.78	100	**63.89**
4. Clear Business Objectives	19.44	47.22	29.63	3.70	0.00	100	**66.67**
5. Project Scope	14.81	48.15	28.70	7.41	0.93	100	**62.96**
6. Firm Basic Requirements	18.06	40.28	26.39	13.89	1.39	100	**58.33**
7. Standard Infrastructure	19.44	43.06	18.06	18.06	1.39	100	**62.50**
8. Reliable Cost Estimates	19.44	47.22	30.56	2.78	0.00	100	**66.67**
9. Formal Methodology	15.74	37.96	31.48	12.04	2.78	100	**53.70**
Total	**18.67**	**44.98**	**25.87**	**8.69**	**1.77**	**100**	**63.66**

(Source: Survey result, 2019)

4.4 The Existing Opportunities of Implementing ATM project at Awash Bank

In spite of the aforementioned challenges in implementing ATM project in Awash Bank, this project has made attempt to review existing opportunities in the bank and/or the country to adopt the ATM payment system. The ranking of opportunities is done based on the level of importance of opportunities of implementing ATM project. Result obtained from survey respondents of employees of Awash Bank regarding their perception towards the existing opportunities of implementing ATM project using descriptive statistics are shown below: -

Table 4.12 The Existing Opportunities of Implementing ATM project

No	Questions	Strongly agree f (%)	Agree f (%)	Neutral f (%)	Disagree f (%)	Strongly disagree f (%)	Total f (%)
1.1	ATM acceptance by customer were growing	(56%)	(42 %)	(0%)	(3 %)	(0%)	(100%)
1.2	ICT Infrastructure development	(36 %)	(47 %)	(8 %)	(8 %)	(0%)	(100%)
1.3	Business growth of Awash bank	(56%)	(31 %)	(14 %)	(0%)	(0%)	(100%)
1.4	NBE policy direction that enforce banks to adopt technological innovation	(36 %)	(42 %)	(19 %)	(3 %)	(0%)	(100%)
1.5	Change in the society life style (The ongoing digital & technology revolution)	(44 %)	(47 %)	(6 %)	(0%)	(3 %)	(100%)

(Source: Survey result, 2019)

1. **ATM acceptance by customer are growing**

Result obtained from the survey of respondents of Awash Bank's staff indicate that ATM acceptance by customer were growing this is one of the existing opportunities for implementing ATM project. This is because (56%) and (42%) respondents strongly agree and agree respectively. Moreover, (97%) of survey respondents of employees of the bank reacted positively that acceptance of ATM by customers growing being one of the existing opportunities for adopting ATM payment system. This result indicates Awash Bank customers were attracted by other banks ATM payment service and they enforced the bank to implement ATM payment service and influence the bank to be successful to satisfy their needs. Increasing competition among banks increased or retained their customer base is driving the banks to continue to adopt the ATM payment service.

2. ICT Infrastructure development

Another factor considered to be one of the opportunities for ATM project implementation is a considerable attention given to ICT infrastructure development. In this regard (36 %) and (47%) respondents strongly agree and agree respectively. This indicates ICT infrastructure development in Ethiopia has grate essential role in laying the foundation for ATM payment system. This was among one of the opportunities for ATM payment system adoption.

3. Business growth of Awash bank

According to the respondents on business growth of Awash bank can also be considered as another opportunity for implementing ATM project. Result presented in Table 4.4 show that majority (56%) and (31 %) respondents strongly agree and agree respectively.

In addition to the result obtained from the questionnaire, the data from bank annual report 2012/13 shown in the following table indicate that there is a significant increase in total deposits of the Bank. Financial year 2012/13 witnessed significant increase in all types of deposits. In terms of composition of deposits, saving deposits accounted for the major portion (64.9 percent), followed by demand deposits (25.1 percent), time deposits (5.7 percent) and margins held on letters of credit (4.3 percent).

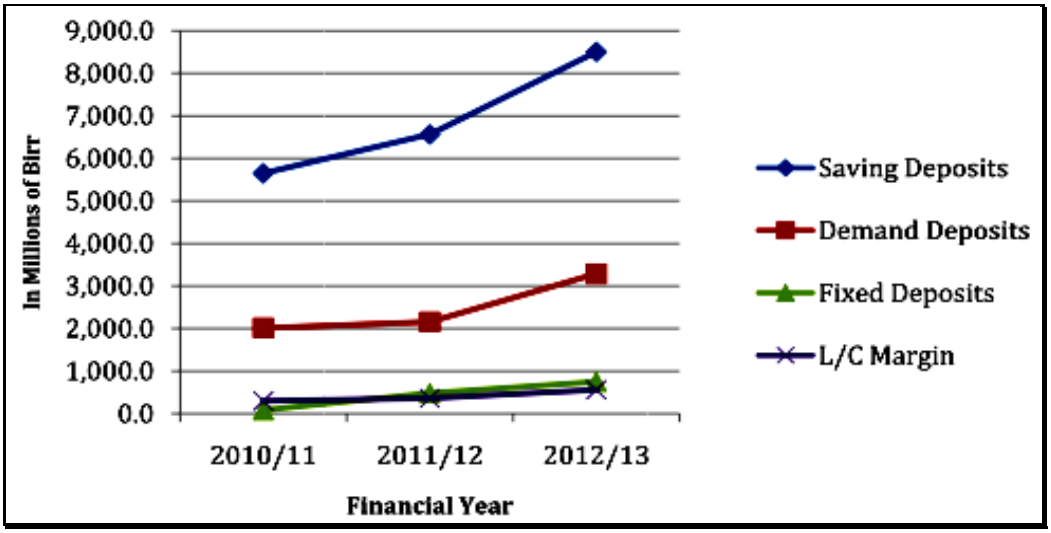

Figure 4.3 Growth of Deposits (Source: Bank annual report 2012/13)

As clearly depicted in the above figures, the total number of deposits of the Bank were increased by 62.90% and 37.01% from the previous two consequent years.

Nonetheless, the data reflects growing deposit. This is because between 2010 and 2013, it was found that the business growth pulls the bank to implement e-payment system so, this was one of the opportunities to implement ATM project in the bank.

4. NBE policy direction that enforce banks to adopt technological innovation

Likewise, NBE policy direction that enforce banks to adopt technological innovation can also be considered as another opportunity for implementing ATM project. Result presented in Table 4.4 show that majority (36%) and (42 %) respondents strongly agree and agree respectively.

5. Change in the society life style

According to the respondents on change in the society life style (The ongoing digital and technology revolution) can also be considered as another opportunity for implementing ATM project. Result presented in Table 4.4 show that majority (44 %) and (47 %) respondents strongly agree and agree respectively.

Table 4.13 Summary of project opportunities

No	Variables	1-SA	2-A	3-N	4-D	5-SD	Total %	(1+2) >50%
1	ATM acceptance by customer are growing	55.56	41.67	0.00	2.78	0.00	100.00	**97.22**
2	ICT Infrastructure development expanded	36.11	47.22	8.33	8.33	0.00	100.00	**83.33**
3	Business growth of Awash bank are increased	55.56	30.56	13.89	0.00	0.00	100.00	**86.11**
4	NBE policy direction that enforce banks to adopt technological innovation are increasing	36.11	41.67	19.44	2.78	0.00	100.00	**77.78**
5	Change in the society life style (The ongoing digital and technology revolution)	44.44	47.22	5.56	0.00	2.78	100.00	**91.67**
		45.56	**41.67**	**9.44**	**2.78**	**0.56**	100.00	**87.22**

(Source: Survey result, 2019)

4.5 An assessment interview question

Interviews conducted with IT project manager, IT Service manager and project team leader of Awash Bank, they revealed that: the bank were implemented ATM project before seven years. The bank was used standard procedures, evaluate in each phase accomplishment and every document were properly managed even though there were a challenge like technology advancement in ATM, change in customer demand and team members left from the bank in the implementation time. The interview sessions also confirmed the existence of all the opportunities as mentioned above for the implementation of the ATM project. Moreover, the potentiality of the bank and top management's commitment to support e-payment projects, the energetic, skilled manpower of the bank were also another opportunity acknowledged by the interviewees.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study intended to assess the challenges and opportunities of implementing the Automatic Teller Machine projects in Awash Bank, through adopting a mixed research approach. Accordingly, this chapter aims to present the conclusions drawn from the results of the analysis of the data collected through different techniques and then make recommendations in the areas for further study.

5.2 Summary of the major findings

Pursuing the aims of the study, a mixed research approach employed and the research design had the following major features: Self-administered questionnaires distributed to 40 employees of the bank, semi-structured interviewees with key informants who exposed to ATM-related activities. Although Awash Bank has implemented the ATM project since the year 2012, the rate at which the technology being diffused seems to be slow. In spite of the various benefits that electronic payment systems bring to the nation, banks, and individuals, it also has its challenges and opportunities. The factors as discussed in the study shows that nine subgroups as a challenge of ATM project implementation and the five existing opportunity initiates the to adopt ATM payment system.

The results of the study showed that perception of the majority sampled employees towards top management supportive, experienced project manager, user involvement, clear business objectives, project scope, bank basic requirements, standard infrastructure and reliable cost estimation variables become positive that can be taken as not a challenge for the implementation process, respondents agree that positively contributed for the success of the project. Also, the study identified the bank followed traditional project management methodology rather than modern project management. User involvements in all stage were minimum and the business objective was not clear every participant of the project. And also, technology advancement in ATM, changes in customer demands, and team members left the bank in the implementation time considered as the challenges of the ATM project implementation. But, potentiality of the bank and top management's commitment to support e-payment projects, the energetic, skilled workers of the bank were also another opportunity acknowledged by the interviewees.

On the other hand, from the response illustrated that some existing opportunities in implementing ATM project in Awash Bank are ATM acceptance by the customer are growing and change in the social lifestyle i.e. the ongoing digital and technology revolution. Furthermore, ICT infrastructure development expanded, business growth of Awash Bank increased, NBE policy direction that enforce banks to adopt technological innovation is also among the existing opportunities recognized by this study. And also, the potentiality of the bank and top management's commitment to supporting e-payment projects, the energetic, skilled manpower of the bank is also another opportunity for the implementation of the ATM project.

5.3 Conclusions

The project success factors presence or absence determines the success of the ATM project. They can be drivers or enablers. Their absence can cause failure, and their presence can cause success in the implementation process. Therefore, based on the above summary of the major findings, it can conclude that: -

- The study concluded that project success factors such as Top management supportive, experienced project manager, user involvement, clear business objectives, project scope, bank basic requirements, standard infrastructure and reliable cost estimation are found the critical success factors of the ATM project implementation. That means all the variables tested are factors that strongly influenced the success of the project.
- The study identified and concluded that the bank was following traditional project management methodology rather than modern project management methodology this implies that IT Project Management combines with the Traditional Project Management this helped the bank to reach higher levels of success in the ATM projects implementation.
- The user involvement in all stages of the project was minimum, technology advancement in ATM, change in customer demands and team members left the bank in the implementation time these are considered as the challenges of the ATM project implementation process.
- The business objective was not clearly defined to all project team members in the ATM project implementation.
- ATM acceptance by the customer, change in the social lifestyle, ICT infrastructure development expanded, increased the business growth of the bank and NBE policy direction that enforces banks to adopt technological innovation increased were also the existing opportunities that the bank enforces or attract to adopt ATM payment system.

- Even if the project had miner challenges as described from the summery of findings the project was successfully implemented and completed as per the schedule.
- The growing of ATM acceptance by customer push the bank to implement ATM payment service then now allowed to access ATM services throughout the country in all banks ATM through ethioPay system.

5.4 Recommendations

The project success factors are different depending on project size, project type and the situation in which the project is implemented. As per the findings from the analysis of the collected data, the following recommendations forwarded to promote and develop the ATM payment system in the Awash Bank.

- The project success factors are very much important for the success of any IT related project. Therefore, the bank should give serious attention to maximize project performance for future project implementation.
- The bank should aware of the business objective clearly to all project team members and the users should involve in all stages of the project implementation.
- The bank should consider technology advancement change, customer demands change, and team members may resign in the middle of the project implementation before or in the middle of any future project implementations.
- The combination of IT Project Management with Traditional Project Management helps to reach higher levels of success on ATM projects.
- A project manager should not be the executive sponsor, user or functional representative, and should not overpromise or be a control freak.

5.5 Directions for Future Research

This study was limited to project success at the operational level (implementation aspects) only. Therefore, further studies recommended studying the ATM project success at tactical perspectives i.e. project effectiveness, overall impacts, and relevance of the project to test whether the project contributes to the development of the e-payment system and the adoption of new technology.

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Appendix-I Questionnaire

Addis Ababa University
School of Commerce
Questionnaire

Dear Sir/Madam;

This research questionnaire aims at collecting information regarding an assessment of the challenges and opportunities of implementing an Automatic Teller Machine (ATM) in the case of Awash Bank. I am a graduate student at Addis Ababa University School of Commerce and currently I am conducting a research for the completion of my Master of Arts in Project Management.

Being one of the people that is employed by Awash Bank, information from your experience about the challenges and opportunities of ATM implementation is very important in making this study a success. I kindly request you to spend few minutes responding freely to the questions based on your knowledge. The information gathered will be used only for study purpose and not for other purpose. You don't have to write your name.

Your assistance is appreciated!

Shikur Alemu
Shikur2014@gmail.com

Section I: Demographic profile

Please respond to the following questions by choosing the letter you agree with:

1. Sex

   A. Male B. Female

2. Age

   A. 21-29 B. 30-40 C. 41-49 D. 50 and above

3. Educational status

   A. Diploma B. 1st Degree C. 2nd Degree & above D. Other _____

4. How long have you been working in the Awash Bank?

   A. Less than a year B. 1-5-year C. 6-10-year D. More than 10 Years

5. What is your position in the Awash Bank?

   A. Project Management Officer C. Digital Channel officer
   B. IT service Management Officer D. Others associated with: - project manager, programmer analyst

6. For how long have you been doing ATM implementation related activities?

   A. Less than 1-year B. 1 - 3 years C. 4 - 7 years

Section II: PROJECT SUCCESS FACTORS

The following set of statements relate to your feelings about the assessment of ATM project implementation. Read and show to what extent you agree with them by marking (√) sign.

NB. 1-SA = Strongly Agree 2-A = Agree 3-N = Neutral
4-D = Disagree 5-SD = Strongly Disagree

1. Top Management Support

No	Description	1-SA	2-A	3-N	4-D	5-SD
1.1	Top management team was supportive and readily available for decision making to the project managers and teams					
1.2	Top management keeps a close eye on the project and is quick to intervene supporting the project manager when things start going wrong.					
1.3	Top management has consistently provided all the tools and resources required to successfully deliver of ATM project					

2. Experienced project manager

No	Description	1-SA	2-A	3-N	4-D	5-SD
2.1	The Project Manager was adequately trained and committed to successfully deliver ATM project.					
2.2	The project manager validated for consistency with change of user requirements against the initially signed off requirements/ objectives					
2.3	The project manager had ability to make effective leadership and decision making					
2.4	The project manager had good communication, motivation and team building skill					

3. User Involvement

No	Description	1-SA	2-A	3-N	4-D	5-SD
3.1	ATM project end users were involved at all stages of the project.					
3.2	User Requirements are documented and signed off by the Senior User (Department that will utilize the end product)					
3.3	Acceptance testing was confirmed by End user					

4. Clear Business Objectives

No	Description	1-SA	2-A	3-N	4-D	5-SD
4.1	The project had clear goals but only at the senior level					
4.2	The goals are set in accordance with the requirements of the customer					
4.3	Project Executive Sponsors are clear on Business Objectives					

5. Project Scope

No	Description	1-SA	2-A	3-N	4-D	5-SD
5.1	The ATM project was implemented phase by phase approach					
5.2	When project scope was changed accordingly there was re-planning and documentation					
5.3	What major activities need to be done and to what end result expected are clearly defined.					

6. Firm Basic Requirements

No	Description	1-SA	2-A	3-N	4-D	5-SD
6.1	All key stakeholders are identified and included in the requirement definition					
6.2	Project Risks are identified and documented					

7. Standard Infrastructure

No	Description	1-SA	2-A	3-N	4-D	5-SD
7.1	The ATM project works over the stable infrastructure					
7.2	Stable Internet and Data connection were available to run ATM project					

8. Reliable Cost Estimates

No	Description	1-SA	2-A	3-N	4-D	5-SD
8.1	The project planning team has applied a realistic cost estimate					
8.2	Changes in specifications and designs are adequately taken into account					

9. Formal Methodology

No	Description	1-SA	2-A	3-N	4-D	5-SD
9.1	The appropriate tools and techniques has applied for ATM project					
9.2	The project followed traditional Project Management methodology which is Initiation/planning /execution/ monitoring & evaluation/closing					
9.3	The project applied the modern project methodology which are PMBOK (project management body of knowledge) and CPM (critical path method)					

10. If any other factor different from the above nine factors are please specify below

_____

_____

_____

Section III: Opportunities of Implementing ATM

The following are the existing opportunities in the bank/ country that initiates the adoption of ATM

No	Description	1-SA	2-A	3-N	4-D	5-SD
3.1	ATM acceptance by customer were growing					
3.2	ICT Infrastructure development expanded					
3.3	Business growth of Awash bank are increased					
3.4	NBE policy direction that enforce banks to adopt technological innovation are increasing					
3.5	Change in the social lifestyle (The ongoing digital and technology revolution)					

Please provide any additional comments and/or clarifications on specific systems' features that may not be properly captured in this questionnaire. _____

_____

N.B

PMBOK stands for Project Management Body of Knowledge and it is the entire collection of processes, best practices, terminologies, and guidelines that are accepted as standards within the project management industry.

Critical path method (CPM): The critical path method is a step-by-step project management technique for process planning that identifies critical and noncritical tasks, preventing timeframe problems and process bottlenecks.

Thank You!

You're so helpful!

Appendix-II Guiding interview questions

1. How do you evaluate the planning, scheduling and controlling process of the ATM project?
2. How do you see risk management of this project?
3. How was the project management process taking place?
4. How do you evaluate stakeholder management?
5. Do you think all documentation of this project properly managed?
6. How do you evaluate cost and scheduled?
7. What are the major opportunities in the implementation of the ATM project?
8. How do you monitor/evaluate your successes and obstacles for further decision making?
9. Is there any policy direction or legal frameworks at central bank to enforce banking industries to implement electronic payments such as ATM?