Addis Ababa University

College of Business and Economics

School of Commerce

The Effect of Project External Environmental Factors on Project Success in the Banking Industry: The Case of T24 R-20 Core Banking System Re-Implementation in Nib Bank

A Project work Submitted to the School of Graduate Studies at Addis Ababa University College of Business and Economics in Partial Fulfilment of the Requirements for the Degree of Master of Arts in Project Management

Research Advisor – Dereje.Abi (Ph.D.)

By: Liza Tesfay Reda

June 2023

Addis Ababa, Ethiopia

STATEMENT OF DECLARATION

I Liza Tesfaye, declare that this work entitled "**External Environmental Factors Influencing Project Success: The Case of T24 r20 core banking system re-implementation project at Nib International Bank** " is the outcome of my effort and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the research advisor. This study has not been submitted for any degree in this university or any other university. It is offered for the partial fulfillment of the degree of MA in Project Management.

Liza Tesfaye

Signature _____

Date _____

STATEMENT OF CERTIFICATION

This is to certify that, this project work "**External Environmental Factors Influencing Project Success: The Case of T24 R20 core banking system re-implementation project at Nib International Bank**:", undertaken by LIZA TESFAY REDA in partial fulfillment of the requirements for Master of Arts in Project Management at Addis Ababa University School of Commerce, is an original work and not submitted earlier for any Degree either at this university or any other university.

_____ Dereje. Abi (Ph.D.) Research Project Advisor

ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE PROJECT MANAGEMENT (MAPM) PROGRAM

External Environmental Factors Influencing Project Success: The Case of T24 R20 Core Banking System Re-Implementation Project at Nib International Bank

BY: LIZA TESFAY REDA

Approval of Examiners:

Dereje Abi (Ph.D.)

Advisor Signature _____Date _____

Internal Examiner Signature _____ Date _____

External Examiner Signature _____ Date _____

ACKNOWLEDGMENTS

First and foremost, all praises go to the almighty God, who endowed me with the endurance and courage of going through all ups and downs to reach the stage where I am now. It is my pleasure to thank my advisor, Dr. Dereje Abi for his guidance and encouragement in preparing and finishing this research paper. Without his at most, this paper cannot come to the stage as it is. Most genuine gratitude goes to my family, and friends, who have helped me in many ways to accomplish this program from the beginning. Thank you very much all of you.

I would like also to express my sincere gratitude to grateful for the project Members who participated in the NIB T24 R20 reimplementation project and filled out the questionnaire on short notice, which has valuable input for the research paper. I am indebted to Bethlehem Dessie and other staff who extended their open and warm assistance by providing constructive ideas, and material and facilitating convenient situations.

Thank you

Liza Tesfaye

Table of Contents

LIST OF TABLES

List of acronym

ANOVA	Analysis of Variance
PESTL	Political Environmental Social Technological and legal
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project Management Office PSC Project Success Criteria
SPSS	Statistical Package for Social Sciences
CBS	Core Banking Solutions
ATM	Automatic Teller Machine
IT	Information Technology
ICT	Information Communication Technology
USI	United System Integrators
NIB	Nib International Bank
NPS	National Payment System

ABSTRACT

The concept of a Core Banking system specifically and an IT project generally may be impaired without good knowledge and successful management of the impact of external environmental factors influencing the performance of a project. As a result, this study aims at identifying the effect of external environmental factors on project success. The instrument used for the data collection was a structured questionnaire. This data was collected from 67 individuals who participated in the t24 core banking system re-implementation project. The analysis method is regression analysis. Twenty-two facets were identified as an indicator of the factors influencing the project's success and they were categorized under clusters; political, economic, social, technological, and legal factors. The result of the regression analysis revealed that the clusters of the economic, technological, social factors and have significant and positive effects on project success. While the cluster of legal and political factors has no significant effect on the project's success. In line with the findings of this study, recommendations like planning and risk mitigation mechanism as well as suggestions for further study are forwarded.

Keywords = project success, environmental factors

CHAPTER ONE

1. INTRODUCTION

This section discusses the research background, setting, problem statement, research objectives, and research inquiries, importance of the research, limitations, terminology definitions, and organizational structure of the study.

1.1. BACKGROUND OF THE STUDY

Technology has revolutionized the banking industry, making a significant impact on its operations. Today, financial institutions, particularly banks, cannot afford to rely on outdated systems. Growth and perhaps even survival hinge on embracing agile, cost-effective core banking solutions that offer a unique service experience. Traditional manual banking systems made it challenging to cater to diverse customer needs promptly and to reconcile financial statements for various institutional clients. Fortunately, the advent of core banking IT systems has dramatically streamlined once cumbersome banking functions, making the process much more efficient and engaging. (Bernard, 2013).

The Core Banking System has revolutionized the banking industry, with its exceptional abilities to streamline banking operations. Customers can perform routine banking transactions, all from the convenience of their own device without the hassle of having to physically visit a bank. This not only saves considerable time but also provides customers around the clock access to online banking, mobile banking, and ATM services. (Dandapani, 2008).

Driven by a dynamic business environment and intense rivalry, the majority of financial institutions embrace cutting-edge core banking technology to facilitate a seamless strategic transformation without interfering with their ongoing operations. (Mwangi, 2013)

Currently, all Banks operating in our country have already implemented Core Banking Systems (CBS) as part of the requirement of the National Bank of Ethiopia and modernizing banking operations. Some of the Banks have also implemented additional technology-driven and customers' oriented channelled-based banking products and services to their customers. To this effect, it is evident that the current mode of Operandi of the banking business in Ethiopia is slowly but surely complementing traditional banking services with pervasive digital banking services as well as a

vibrant and aggressive marketing strategy to bring about service excellence and customer experience.

1.2. Background of the organization

On the 26th of May 1999, Nib International Bank (NIB) was established under license no. LBB/007/99 under the Commercial Code of Ethiopia and the Proclamation for Licensing and Supervision of Banking Business Proclamation no. 84/1994 with the paid-up Capital of Birr 27.6 million and authorized capital of Birr 150 million by 717 Shareholders. The Bank started its operation on 28 October 1999 holding 27 employees. The Bank entered the banking industry in Ethiopia as the 6th licenced private commercial Bank.

The Bank offers multiple banking options such as Conventional Banking, Interest-Free Banking, Mobile and Internet Banking, and NIB ATM cards to provide its customers with convenience. Furthermore, to enhance its services, the Bank has strategically partnered with MasterCard, VISA, and Union Pay to provide international payment services. The Bank's Automated Teller Machines (ATMs) and Point of Sale (POS) are readily available throughout the Country.

1.3. Research Environment / Context

1.3.1. Overview of T24 R19 Re-implementation Project of Nib International Bank

In terms of using state-of-the-art technology in the banking industry and the Bank’s vision to dynamic CBS, NIB had executed its IT Strategy and successfully implemented the former T24 Core Banking System (CBS) since August 2013.

The IT strategic objective of the Bank which is incorporated in its third SP (Strategic Planning) document, which is under implementation, clearly defined IT as among the major critical success factors and is expected to play a leading role in modernizing the banking services, enhance customers’ convenience, increase market share, and maximize stakeholder’s equity by deploying a state-of-the-art banking technology.

As part of executing IT strategic objectives, the Bank as a pioneer in the banking industry has planned to T24 R20 TAFJ re-implementation the Core banking System from release 10 to its latest release, R20, to implement enhanced modules, to incorporate enhanced features of the system and resolve long outstanding business pain points exhibited in the existing release.

The overall scope of the T20 R19 TAFJ re-implementation project is changing the existing CBS to T24™ release to R20 TAFJ; all the new functionalities of the licensed modules of the Bank will be re-implemented and data migration activities will be performed.

The United System Integrators PLC (USI) and the Bank's staff will have prime responsibility for the management of the overall project.

1.4. Statement of the Problem

Banks will be able to further boost operational effectiveness and enhance compliance and risk management capabilities by implementing the Core Banking System upgrade. Additionally, it will give the banks a cutting-edge banking platform to put them in a better position to offer customers improved digital banking services. (Burnham T A, Frels J, And Vijay M, 2003)

Financial service providers around the world are dedicated to modernizing their core banking systems in order to improve their competitiveness, enhance operational efficiency, and ensure regulatory compliance. Nevertheless, most institutions find these efforts to be exceedingly challenging. Current core banking systems were originally established in the 1970s and 1980s and have since undergone numerous updates and add-ons, resulting in a vast and intricate network that can be difficult to fully comprehend. (Adamson et al, 2003)

As a result of the implementation of the NBE's National Payment System (NPS) in 2011, an electronic inter-bank money transaction platform that integrates all transactions, the National Bank of Ethiopia (NBE) instructed all Ethiopian banks to deploy CORE banking solutions to establish a nationwide electronic payment system in Ethiopia.

In order to improve its operational system and increase effectiveness Nib Bank has upgraded their core banking system to "T24 Version 2020", developed by Temenos Transact, a banking solutions firm based in Switzerland. This replaces an older version of the system previously sourced from the same provider. As part of a major overhaul of their operations - including the implementation of new digital banking systems and a data center - Nib has invested approximately 350 million Br in the entire project. Fortune (Oct, 2023).

Despite all the effect of PESTL on project success in the banking sector is not yet studied, in addition, the facts that NIB re-implemented and upgraded the T24 core banking technology with delay and extra cost, as per the researcher's knowledge, there has been no prior research done on

there was no such study on the effect of PESTL on project success in the banking sector as well as the external factors impacting the T24 core banking system re-implementation project in NIB. This study, therefore, seeks to investigate the external environmental factors influencing the project by considering the factors in the available literature.

1.5. Research Objective

1.5.1. General Objective

The study has an objective of examining the influence of project external environmental factors on the project's success.

1.5.2. Specific objective

The study will be conducted to meet the following specific objectives:

- To test the effect of Political factors on project success.
- To test the effect of Economic factors on project success.
- To test the effect of Social factors on project success.
- To test the effect of Technological factors on project success.
- To test the effect of Legal factors on project success

1.6. Research Question

Given the research objectives outlined above, the study aims to address the following fundamental inquiries.

- Do Political factors affect project success?
- Do Economic factors affect project success?
- Do Social factors affect project success?
- Do Technological factors affect project success?
- Do Legal factors affect project success?

1.7. Scope of the study

Data for this study was collected from the banking industry, specifically from Nib International Bank. Because the core banking system is similar in different banks, the data collected from Nib Bank is assumed to represent other banks. Therefore, the finding is delimited to the external factors

impacting the project success in the banking industry and doesn't include other projects in other industries.

Additionally, it took into consideration of PESTL elements from external environmental factors and the project's success from the subject matter because these criteria are frequently utilized for environmental scanning, other external factors are not part of this study.

Besides, the study measures from project members prospective at one point in time rather than over a period as in longitudinal studies and used quantitative approach rather than using mixed approach.

1.8. Limitations of the study

The generalizability of this study is limited to the Banking industry since the data was collected from that industry. It would be sounder if other industries were included in the study. The study is also limited to PESTL and does not include other factors.

1.9. Research Gap

Though many studies were undertaken on the impact of external environmental factors on project success (Khalid, & Rahman 2019, Dalirazar& Sabzi 2023, Saudi 2021) in other industries, to my knowledge, there was no such study in the banking sector. As a result, the effect of PESTL on project success in the banking sector is not yet studied. Therefore, this study fills this gap revealing the effect of the independent variables on the dependant variable.

1.10. Significance of the Study

This research have significances like determining the external variables influencing project success can assist in addressing challenges. The results of this study and the success framework that will be created will help NIB manage its projects successfully. Furthermore, it is believed that giving an overview of how an IT project was progressing, particularly about T24 R20 re-implementation will have a significant impact on the Bank's performance and end-user acceptance.

On the other hand, the study's findings can serve as a foundation for future research projects such as impact analyses of project success and strategies for preventing project failures resulting from external factors. The finding of this study expands the body of knowledge in the literature so which makes the topic more comprehensive.

1.11. Organization of the Study

This study is entitled as: "External environmental factors influencing project success in **T24 R19 Re-implementation Project of Nib International Bank**" is organized in the following manner:

The first chapter explains the background of the study, the background of the organization, the statement of the problem, objectives of the study, research questions, and significance of the study, the scope of the study, the limitation and the organization of the study.

The second chapter focuses on a review of related literature. A theoretical and empirical review and evidence of the literature respectively of external factors influencing the project success of an ICT project will be assessed.

Chapter three describes design of the research specifically, target population, data source and type, the measuring instrument used, the data gathering procedure and the statistical analysis techniques, in general this chapter reports the results of the empirical analysis.

The fourth chapter precedes by analyzing the descriptive statistics. To facilitate ease in conducting the empirical analysis, the descriptive analysis & correlation coefficient analysis is the first presented, followed by the regression analysis.

Chapter Five summarizes the finding, concludes, and recommends based on the finding. Lastly; this chapter is concluded by suggestions for future research.

Chapter Two

2. Review of Related Literature

2.1. The core banking system

Currently in most businesses currently technology innovation is the most significant factor influencing competitive performance. The globalization of markets is one reason why innovation is becoming more and more important. Firms are under pressure to constantly develop new technologies to provide products and services that are differentiated due to foreign competition. (Melissa, 2005)

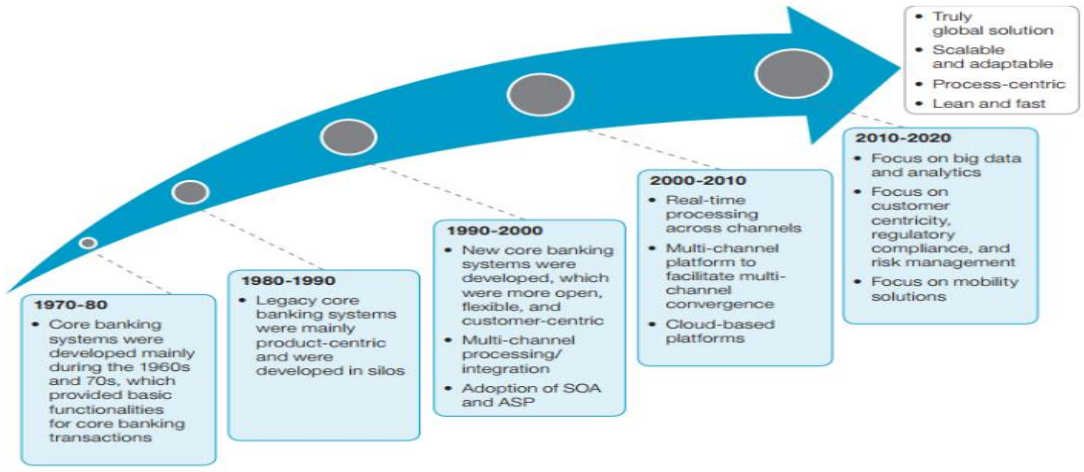
The platform where communication technology and information technology are combined to meet the basic needs of banking, such as handling deposits and loans, is known as the core banking system or (Centralized Online Real-time Electronic Banking) and also it can process deposits, loans, and credit, and has interfaces with general ledger systems and reporting tools. (Chairlone and Ghosh, 2009).

Banking used to be entirely manual. An account was maintained in a branch, and the person can only visit and conduct business there. There are several drawbacks to manual banking operations, including the banker's refusal to let them enter another branch of the same institution and sending you to your base or home branch with No internet banking, No ATM, and NO mobile banking. (Chairlone and Ghosh, 2009)

In the 1970s core banking system was originated providing the core banking transactions with basic features. After that, package-based solutions were developed in the 1980s, with product orientation, but with less ability processing large quantities of data.

In the 1990s, the first customer-oriented platforms that were accessible, versatile, and scalable emerged via the commencement of digital systems. In recent decades CBS technologies has been seen improving versatility in terms of customer services delivery but to achieve real-time delivery and allow multi-channel integration (MarijaKreća and DušanBarać, 2015).

The following figure shows the historical growth of CBS



Currently, operating a contemporary and effective core banking system is crucial to continuing operation as regulatory expectations increase in severity and those institutions face highly competitive and challenging environment. (Chairlone and Ghosh, 2009)

Furthermore, Banks are also showing a greater need for and desire to update outdated systems as the frequency of core system modifications by commercial organizations grows. Unfortunately, due to the time and money required to carry out such a project, many institutions have opted not to implement those kinds of projects or, if they do, proceeded so cautiously. (Abbate, 1999).

Misys Equation, Misys Midas, Flexcube, Equinox, Temenos T24, SAP banking services, Bankways, CSB, Digibank, CoreSoft, SAB/SCB, Systematics, Hogan, Insite Banking system, and

Signature are a few examples of the banking industry's leading core banking systems. (Mysis, 2013).

One of the strategic moves which enable banks to effectively compete is the enactment of a new core system. (Deloitte, Kenya, 2015).

It is essential to restructure the existing core system as part of the strategic implementation of the core banking system to handle the core functions more effectively. (Boot, 2009). The benefits of substituting the current system with a modem core banking system include increased productivity, improved information access, and the capacity to introduce new applications without being concerned about system breakdowns. A shift away from reliance on hardware platforms and operating systems is one of the advantages of packaged remedies, among others (Boot, 2009). Once implemented, a core banking solution should be robust, easily accessible, and future-proof, protecting the company's interest for at least a decade. The key elements that enable the core banking transformation to be successful must be considered by banks (Adamson et al., 2003).

2.2. Leading factors to upgrade the existing Core Banking System

The term "core banking transformation" refers to the replacement, upgrading, or outsourcing of a bank's core banking systems, which are an integrated set of linked software applications for processing and posting transactions as well as monitoring the settlement accounting processes.

(Ramakrishnan,2008) Identify the main drivers behind banks switching to a new core banking system. The first and most significant one is that banks are unable to manage business expansion due to old systems. In a merger and acquisition scenario, this has evolved into a matter of strategic importance. The efficiency of the overall solution design is compromised by a inconsistent set of application components and loss of competitive age, are the second explanation. Commercial banks are modernising theirs CBS to strengthen their share in the industry. Finally, concerns with governance, risk and compliance are pressuring banks to change the core system on a regular basis.

(Dawson et al. 2008) claim that both internal and external pressures have led to the replacement of CBS . Several market dynamics and external pressures are contributing for the replacement of CBS. Increased regulatory requirements has significantly increased in recent years for financial institutions. Banks must confirm that their systems are effectively integrated in order to help assure

the reliability of their reporting. The second external element is increased competition banks are pressured in launching new features, goods and services swiftly. Due to the customised coding and difficult integration required for each product current IT systems restrict product development and time to market. The third one is increasing in demand of the client who wants to access their accounts and make purchases across applications, channels and geographical locations. A bank's ability to provide users standardized overview of their financial information may be hindered by the difficulty of combining supplementary solutions with today's highly specialized CBS.

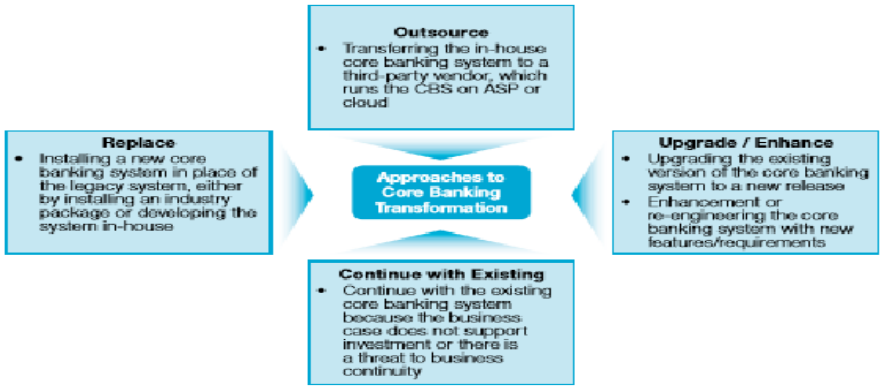
The need for greater system flexibility is one of the internal forces prompting banks to upgrade their core systems. A platform that is adaptable and simple to extend is necessary for growth into emerging markets and product categories. Another internal factor for banks is the use of complex and outdated systems and procedures. Many banks nevertheless employ technology that was created in the 1970s and 1980s.

Redundant tasks and inefficiencies such as excessive processing, re-keying of information, and slow system response times are faced by Front and back office staffs. Another driving element is the requirement for increased system consistency: outdated technologies have difficulty keeping up with the complex needs of today, including increased data volumes and the expansion of product categories are thus unable to adequately address them. The final internal cause mentioned by Dawson is the decline of antique technological capabilities. (2008) Dawson et al

The Bank of Abyssinia, the Commercial Bank of Ethiopia (CBE), the Cooperative Bank of Oromia, and the Development Bank of Ethiopia (DBE) all upgraded to Temenos' T24 system when it came to core banking in our country where Oracle and Temenos' core systems predominate. In addition to the emergence of new banks, industry entrants are beginning to acquire systems. Hijra Bank, which launched its operations in September of this year, purchased its technology from Path Solutions, a company that offers interest-free solutions. Additionally, Siinqee Bank signed a contract two weeks ago to buy an Oracle core system. (2023 Addis Fortune)

2.3. **Core banking system transformation approach**

It is possible to replace the core banking system internally or by using a vendor. The CBS is upgraded by switching to CBS to a third-party vendor and executing the system over their cloud constitutes outsourcing (Rishi, 2014).



Source: Capgemini analysis, 2013

2.4. Project success factor

Lim and Mohamed (1999) identified success factors as any situations, fact, or impacts that contribute to the success of a project. Baccarini (1999) also added Product success deals with the impacts of the project's last or final product.

The success of a project and the factors that affect this success are considered in various ways by different scholars. According to Mohamed (1999), good schedules and a correctly utilized budget will not matter if the final expectations and goals are not met. Kerzner (1987) the success of the project can be measured by managing excellence consistently. The project success factors in the area of project management were identified by Schultz, et al (1987).

Belassi and Tukel (1996) developed on the other hand, constructed a framework for vital undertaking success variables and categorized them into four, related to team members, managers, organization, projects and external environment. Those external environment are included in the PESTL namely political, social, technological, social and legal factors.

With regard to ICT projects different authors an elite have defined ICT projects success in different ways. Hastie (2006), the success of an IT project can be measured by how well the organization's undertakes the process for deploying new IT systems projects function to the point where the newly adopted system is made readily accessible to the beneficiary. Which includes project-related operations to confirm that the project will be delivered as per the scheduled time, within budget, with all the needed characteristics and features and functionalities, and necessary quality standards.

Davis (2014) assesses the literature on project management success from the 1970s to the present, categorizing the development of success criteria into decades. This study found that approaches to success factors changed through time, moving from an emphasis on a project's operational level in the 1970s to a stakeholder-focused approach in the 2000s (Davis, 2014).

Many studies that approached the topic of project success, several lists of success factors exist. Zarina & Yusof (2014) suggested that success factors can be grouped under five main categories. These include human-related factors, project-related factors, project procedures, project management actions, and the external environment. Variables within each group can influence a variable in others, and vice versa (Zarina & Yusof, 2014).

Measurement criteria for Project success

The sets of requirements or benchmarks that can be used to measure success are known as criteria. Or, the circumstances in which decisions can be made. The evaluation of Critical Success Factors is done concerning standards that are established as success criteria. Cooke-Davies (2002) and De Witt (1988) Suggested Project success criteria are used to determine if a project is successful or unsuccessful.

Chan et al.'s (2004) conclusion state that a successful framework should be able to determine the relationship between key success elements. According to Westerveld's (2003) analysis of some earlier research, creating a thorough framework that connects success factors and success criteria is essential for projects to succeed. Combining these factors leads to project success as well as ongoing progress.

The external environmental success elements (independent variables), which are parallel to each success criterion, are used to measure the identified success criteria (dependent variable). Measurement can be done by gathering data and utilizing statistical techniques and instruments to examine it. The following success criteria (dependent variables) will be put to the test: completing the project on schedule, completing the project on budget, completing the project at the desired quality, and end-user acceptance.

2.5. Project Environmental Factors

2.5.1. Internal to the organization

Organizational culture, structure, and governance. Examples include vision, mission, values, beliefs, cultural norms, leadership style, hierarchy and authority relationships, organizational style, ethics, and code of conduct.

• Geographic distribution of facilities and resources. Examples include factory locations, virtual teams, shared systems, and cloud computing.

• Infrastructure. Examples include existing facilities, equipment, organizational telecommunications channels, information technology hardware, availability, and capacity.

• Information technology software. Examples include scheduling software tools, configuration management systems, web interfaces to other online automated systems, and work authorization systems. (PMBOK,6th)

• Resource availability. Examples include contracting and purchasing constraints, approved providers and subcontractors, and collaboration agreements.

• Employee capability. Examples include existing human resources expertise, skills, competencies, and specialized knowledge.

2.5.2. External to the organization

• Marketplace conditions. Examples include competitors, market share brand recognition, and trademarks.

• Social and cultural influences and issues. Examples include political climate, codes of conduct, ethics, and perceptions.

• Legal restrictions. Examples include country or local laws and regulations related to security, data protection, business conduct, employment, and procurement.

• Commercial databases. Examples include benchmarking results, standardized cost-estimating data, industry risk study information, and risk databases.

• Academic research. Examples include industry studies, publications, and benchmarking results.

• Government or industry standards. Examples include regulatory agency regulations and standards related to products, production, environment, quality, and workmanship.

• Financial considerations. Examples include currency exchange rates, interest rates, inflation rates, tariffs

• Physical environmental elements. Examples include working conditions, weather, and constraints (PMBOK, 6th)

2.6. External factors affecting ICT operations

2.6.1. Legal environment

Legal and regulatory the first hurdle which include restrictions on clouding data across borders globally. Additionally, labor laws for banking services differ across geographies. Additionally to hide customer data and Labor laws for banking services are among the rules in some nations and different geographies.

In T24 reimplementation project Change in NBE directives, policy, procedure, compliance, and legal issues during project implantation may lead to unplanned or additional activities and change in request.

2.6.2. Political Environment

This factor is related with government policy and impacts of political decisions on project success. Coercive powers by the government may also to initiate or stop projects on all external grounds. Hence, the bank may face risks beyond its control like political unrest or war during the reimplementation of the T24 project.

2.6.3. Social environment

External environmental hazards such as fire, storms, floods, and earthquakes; vandalism, sabotage, and terrorism; labor strikes; and civil unrest pandemic can have a major effect, external Stakeholder involvement like Partner/vendor Failure to deliver the core banking solution within its scope, budget and time. Besides, USI turnover. In addition, Lack of commitment and responsiveness of stakeholders. Moreover, new directions or ideas are due to new changes in stakeholders. The

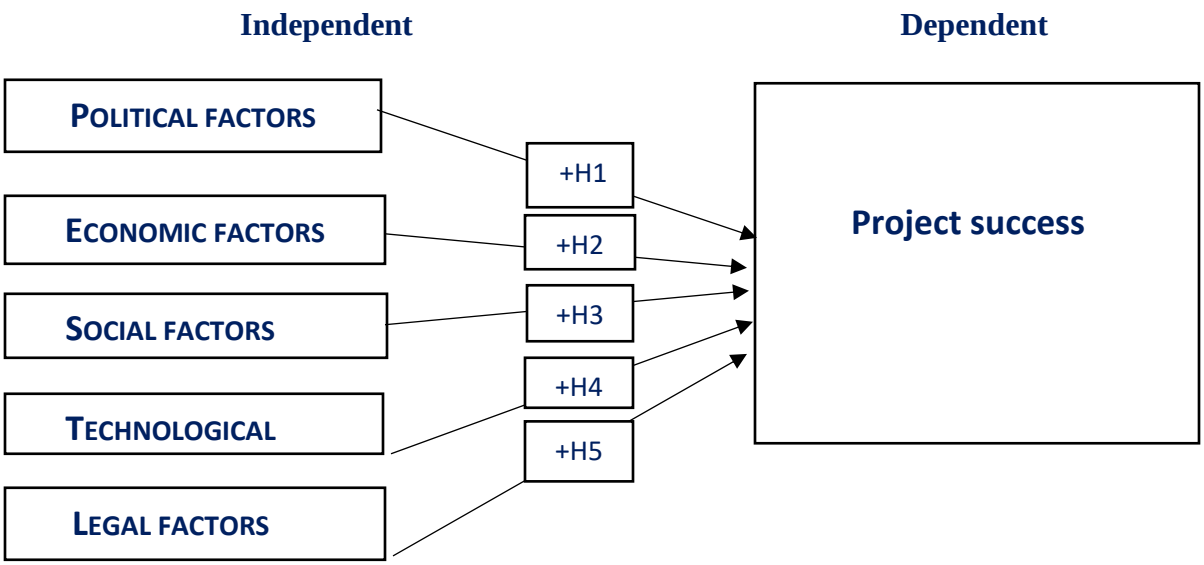
stakeholder newly entered in the project before the project is fully completed may have different perspective regarding the project direction from what was originally outlined.

2.6.4. Economic Environment

Available resources to finalize the project and the level of macro and micro economic activity, were one of the primary goals of the economic elements. Which included varying degrees of competitiveness in economic aspects in all the parties involved in the project.

To confirm that the project is financially viable throughout the project in an stable economic environment is a challenging task (Odeh and Battaineh, 2002). Project wise the project may procure resources above planned cost due to foreign currency exchange rate fluctuation, inflation, and a limited number of suppliers as a result the project takes much longer than the scheduled time as well as estimated cost causing cost overrun and affecting the re-implementation.

2.7. Conceptual Framework



Source: developed by the researcher

2.7. Hypothesis of the study

Based on the discussions in the preceding sections, the following hypothesis is forwarded;

- Hypothesis 1 (H1): Effect of **P**olitical factors on project success is significant and positive
- Hypothesis 2 (H2): Effect of **E**conomic factors on project success is significant and positive

- Hypothesis 3 (H3): Effect of **S**ocial factors on project success is significant and positive
- Hypothesis 4 (H4): Effect of **T**echnological factors on project success is significant and positive
- Hypothesis 5 (H5): Effect of **L**egal factors on project success is significant and positive

CHAPTER 3

3. RESEARCH METHODOLOGY

This chapter explains the research methodology and design that was used to carry out this research followed by a discussion of techniques for data collection and analysis.

3.1.1. Research Design

This research used both descriptive and explanatory designs to describe the situation related to PESTL and project success at NIB. The researcher will use a descriptive study approach because it is trivial to derive inferences from a descriptive analysis and because the research aims to determine how external environmental variables affect the T24 CBS as it is being re-implemented.

3.1.2. Research Approach

In terms of the methodology, the researcher employed a quantitative research strategy, and information from the project participants was gathered through a survey questionnaire.

3.1.2. Target Population

The research was conducted by a census survey Census survey method is a type of quantitative research method, in which all the members of the population are enumerated. Hence, the total population of the study was 67 employees who were charged with core banking system project development and implementation in the project office out of which all 67 employees were used for this study. According to Mugenda and Mugenda (1998), the whole population should be studied, if the target population is small.

3.1.3. Data Sources and Collection Methods

In order to fulfill the objectives of the study the researcher used primary data. To gather data on the status of the core banking re-implementation external influencing factors, a structured questionnaire was designed. Hence, which is obtained from, project team members based on their role.

3.1.4. Data collection methods and Tools

In this section Closed-ended questionnaires were used to gather the above mentioned primary data from the respondents. These questionnaires were filled by business and technical team leaders/members, team coordinators and project managers have different sections aimed at the collection of demographic information of the respondents' data related to the dependent and independent variables.

3.1.5. Method Data Presentation & Analysis

This study presented its data using multiple regression model in table's charts, graphs, and descriptive statements. In analyzing the data quantitative tools like means, standard deviation, person correlation, and multiple regression are used moreover, SPSS version 20 is used to generate an output of the data. The equation is written as

$Y=\beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \beta3X4+ \beta3X5+e$

Y= Project success

X1= Economic factor

X2= Technological factor

X3= Social factor

X4= Political factor

X5= Legal factor

e=error term demonstrates the deviation at the actual observations from their estimation values.

3.2. Reliability

The tool SPSS version 20 was used to calculate Cronbach's alpha and determine how reliable the data collection instrument (questionnaire) was over the data collected.

According to (Gleam and Rosemary, 2003). The rules, <0.5- Unacceptable, >0.5-Poor, >0.6-Quesstionable, >0.7-Acceptable, >0.8-Good and >0.9-Excellent (The finding for all variables reflected that overall Cronbach's Alpha value is above 0.8. therefore the measurement items have internal consistency or reliability.

Table 3. 1 Reliability

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Political	.835	.842	5
Economic	.856	.856	3
Social	.879	.879	5
Legal	.806	.810	4
Technology	.810	.812	5
Project Success	.954	.959	14

Chapter 4

4. Data Presentation, Analysis and Discussion

The primary purpose of this study is to examine the effect of PESTL or external environmental factors on project success between in the T24-R20 re-implementation project. In this chapter, the data gathered was analyzed, interpreted, presented, and discussed. The chapter commences presenting the demographic information of respondents, or team leaders, technical team members, business team members, and others. Descriptive and inferential statistics are subsequently presented.

In terms of questionnaire, 67 questionnaires for the project members who contributed to the T24 CBS re-implementation project were distributed and all of them were successfully collected. This rather impressive response rate allows the researcher to confidently proceed with the analysis. As a result, the responses provided by these said respondents will be focused upon in this study.

4.1. Demographic Information of Respondent

Table 4. 2 Age of the respondents

		Frequency	Valid Percent
Valid	20-30	17	25.4

	31-40	41	61.2
	41-50	9	13.4
	Total	67	100.0

Own survey: 2023

As presented in Table 4.1. Most of the respondents (n= 41 or 61.2%) fall within the range of 31-40, followed by ages 20-30, which constitute about 17 (25.4%). This majority group of professional and energetic personnel that are categorized to the mature age range can help the project achieve its goals.

4.1.2. Gender composition of respondents

Table 4. 3 genders of the respondents

		Frequency	Valid Percent
Valid	Female	9	13.4
	Male	58	86.6
	Total	67	100.0

Own survey: 2023

Table 4.2 depicts the respondents' gender distribution. Male respondents comprised 86.6% (n= 58) compared to only 13.4% (n=9) female respondents. This indicates a significant disproportion between male and female project members in the project.

Table 4. 4 Educational Background

		Frequency	Valid Percent
Valid	Bachelor	37	55.2
	MA/MSC	30	44.8
	Total	67	100.0

Own survey: 2023

It is apparent from the data in the table that the respondents from the project possess varied educational qualifications ranging from bachelor's to master's degrees. The majority of respondents, accounting for 55.2% (37), hold a first degree while 44.8% (33) hold a MA and above degree.

Which demonstrates that majority of the project members are professionally competent and filled out the questionnaires with a complete understanding of the project.

Table 4. 5: Role in the T24 R20 CBS re-implementation

		Frequency	Valid Percent
Valid	Business team member	23	34.3
	Other	3	4.5
	Team leader	10	14.9
	Technical team member	31	46.3
	Total	67	100.0

Own survey: 2023

Table 4.4 illustrates the respondents' roles in the T24 CBS project re-implementation project. As shown in in the above table, most of the respondents, 46.3% (31), were business team members while the remaining 34.3% (23) consisted of team coordinators, team leaders, and technical team members in the project.

Table 4. 6 Years of experience in IT projects

		Frequency	Valid Percent
Valid	2-3 years	31	46.3
	3-4 years	11	16.4
	4-5 years	3	4.5
	Greater than 5 years	5	7.5
	Less than 2 years	17	25.4
	Total	67	100.0

Own survey: 2023

In terms of IT experience, the majority of the respondents (46.3%) possess 2-3 years of experience, while 16.4% (11) of them have an experience on IT projects for 3-4 years. Additionally, 4.5% (48) of the project members possess a 4-5 years, while 7.5% (5) of them have more than 5 years of experience.

4.2. Descriptive Statistics

Table 4. 7 political factors

	Mean	Std. Deviation	N
Too much bureaucracy from the government in executing the project	3.88	1.023	67
The hostile political environment in Ethiopia (war, instability) while the project was re-implemented	3.76	.939	67
Embezzlement and bribery were common	3.88	.844	67
Changes in gov't policies were impacting the project	3.45	1.091	67
Political interference was an issue in T24 R20 re-implementing Project	3.54	.876	67
Overall score	**3.71**	**.736**	**67**

Own survey: 2023

The result in Table 4.7 depicted that the mean score of political factors is 3.71. The result shows that Embezzlement and bribery in governance (3.88) have the highest mean score followed by too much bureaucracy from the government (3.88).implying that the political environment is not favorable to projects.

Table 4. 8: Economic factors

	Mean	Std. Deviation	N
High currency fluctuation/ exchange rate was impacting the T24 R20 re-implementation project	3.45	1.063	67
Inflation was a problem in the T24 R20 re-implementation project	3.58	1.117	67
There was a hostile economic Environment making T24 R20 re-implementation challenging	3.61	1.014	67
Overall score	**3.54**	**.938**	**67**

Own survey: 2023

Regarding economic factors, the mean score is 3.54, which is greater than the average of the five-point scale implying that the national economic environment is highly hostile and unstable to projects.

Table 4. 9: Technological factors

	Mean	Std. Deviation	N
Material equipment specification un-clarity and unavailability were a challenge	4.00	.853	67
Information technology necessary for the T24 R20 project implementation was not available locally	3.66	.914	67
The unavailability of experts was a problem in the T24 R20 re-implementation project	3.97	.887	67
It was difficult to set technologies that help to reduce time & cost in T24 R20 re-implementation	3.61	1.029	67
The technology in the market does not help us to enhance the quality of our output	3.93	.926	67
Overall score	**3.72**	**1.070**	**67**

Own survey: 2023

The technological variables such as material and equipment specifications un-clarity, the unavailability of experts, the lack of necessary IT technologies, the absence of technology in the market, and the difficulty in integrating technologies that reduce time and cost were identified as problems in the T24 R20 re-implementation, with overall mean scores of 3.72.

Table 4. 10: social factors

	Mean	Std. Deviation	N
There was a poor relationship among the project's participants (vendor & internal staff communication)	3.25	1.210	67
As a society, we have a low tendency for teamwork	2.91	1.055	67
Health and Safety measures were not in place during the project	2.85	1.118	67
A hostile social Environment was exhibited	2.84	1.053	67
There are too many unofficial social holidays making the project implementation difficult	2.52	1.248	67
Overall score	**3.833**	**.7585**	**67**

Own survey: 2023

As it's shown in the table above, the overall score for social factors whereas, poor relationships among the project's participants (vendor & internal staff communication), a low tendency for teamwork as a society, Health and Safety measures, Hostile Social Environment, and too many unofficial social holidays have an overall mean score of 3.833. These results imply that these social factors in the project environment are negatively impeding the T24 CBS re-implementation project execution.

Table 4. 11: Legal factors

	Mean	Std. Deviation	N
Complying with laws and regulations in the T24 R20 re-implementation project was challenging	3.69	1.076	67
Improper verification was a challenge in the contract document for the project	3.81	.875	67
Contract breach by the project party was an issue in the T24 R20 re-implementation project	3.70	.985	67
There was a Lack of enforcing a legal judgment in the re-implementation process	3.42	1.017	67
Overall score	**3.653**	**.7881**	**67**

Own survey: 2023

The presented table demonstrates legal factors such as improper verification, Contract breach by the project party and lack of enforcing a legal judgment received an overall mean score of 3.653. Which shows legal factors also have been a problem in projects.

Table 4. 12 Project Success

	Mean	Std. Deviation	N
The project was completed at the scheduled time	3.41	1.189	66
The project was completed according to the budget allocated	4.03	.877	66
The outcomes of the project are used by its intended end users	4.05	.793	66
The outcomes of the project are likely to be sustained	4.17	.834	66

The outcomes of the project have directly benefited the intended end users, either through increased efficiency or effectiveness	4.41	.764	66
Given the problem for which it was developed, the project seems to do the best job of solving that problem	4.39	.820	66
I was satisfied with the process by which the project was implemented.	3.73	1.075	66
Project team members were satisfied with the process by which the project was implemented.	3.41	1.189	66
The project had no or minimal start-up problems because it was readily accepted by its end users	4.11	.806	66
The project has directly led to improved performance for the end users/target beneficiaries	4.06	.762	66
The project has made a visible positive impact on the targeted beneficiaries	4.15	.827	66
Project specifications were met by the time of Go-live	4.41	.764	66
The target beneficiaries were satisfied with the outcomes of the project	4.39	.820	66
Our management committee was satisfied with the outcomes of the project implementation.	4.38	.837	66
Overall score	**4.06**	**.705**	**66**

The project success variables as shown above such as outcomes of the project that have directly benefited the intended end users either through increased efficiency or effectiveness, the project seems to do the best job of solving that problem, The target beneficiaries were satisfied with the outcomes of the project and other factors of project success has projects at the case organization are successful with a good mean score of 4.06 on the five-point Likert scale.

4.3. Inferential Statics

To determine the effect on the dependent variable by the independent variables (political factor, economic factor, social, legal, and technological factors), inferential statistics regression analysis was utilized. Furthermore, to determine the correlation between the dependent and independent variables the Pearson correlation is used.

Table 4. 13: Correlation Coefficient Matrix

		Political	Economic	Legal	Technology	Social	Project Success
Political	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	67					
Economic	Pearson Correlation	.556**	1				
	Sig. (2-tailed)	.000					
	N	67	67				
Legal	Pearson Correlation	.745**	.629**	1			
	Sig. (2-tailed)	.000	.000				
	N	67	67	67			
Technology	Pearson Correlation	.573**	.423**	.533**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	67	67	67	67		
Social	Pearson Correlation	.664**	.475**	.661**	.325**	1	
	Sig. (2-tailed)	.000	.000	.000	.007		
	N	67	67	67	67	67	
Project Success	Pearson Correlation	.518**	.565**	.567**	.757**	.493**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	67	67	67	67	67	67

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

Therefore, project success is significantly associated with all the factors under this study. Moreover, project success has a positive correlation with all the variables.

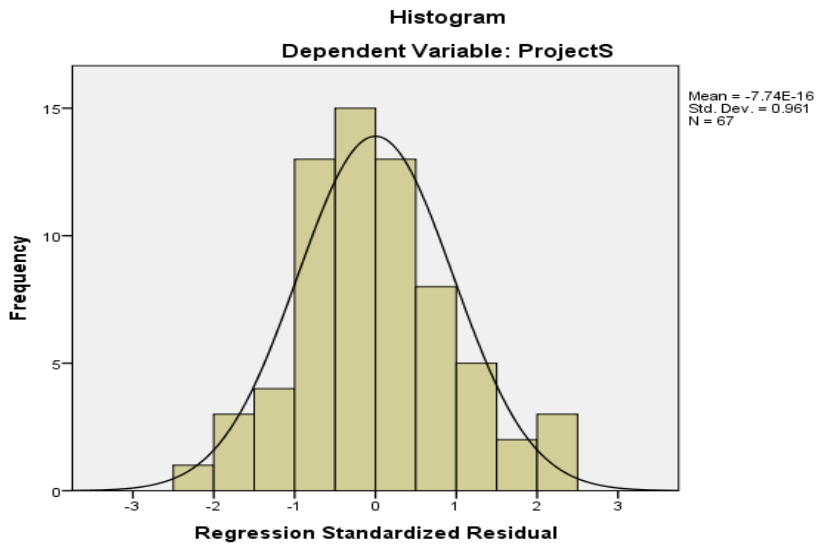
4.3.1. Regression analysis

To run the regression analysis two assumption tests normality and multicollinearity were conducted. Results are displayed in the next sections.

4.3.1.1. Normality

All assumption tests that were necessary for carrying out the analysis were made before commencing the regression analysis. The normality of the data is one of the tests because the

independent variables used in the analysis have a normal distribution. Pallant (2005) asserts that if the residuals are normally distributed, the scores should be roughly normally distributed with the majority of scores happening in the middle and tapering out towards the extreme to form a bell-shaped distribution. For this reason, this study used a histogram to evaluate the normality of the data.



The histogram is bell-shaped & implies that the majority of scores lie around the center of the distribution (so the largest bars on the histogram are all around the central value. This indicates that the residuals are normally distributed.

4.3.1.1. Multicollinearity

Table 4. 14: Multicollinearity

Model	Collinearity Statistics	
	Tolerance	VIF
Political	.342	2.924
Economic	.580	1.724
Legal	.333	3.003
Technology	.622	1.607
Social	.481	2.077

VIF>10 and Tolerance > 0.10 then multicollinearity is a problem

The concept of "multicollinearity" describes the correlations between the independent variables and other factors. It exists when there is a high degree of correlation among the independent variables (Pallant, 2007). Tolerance and VIF values above 0.2 and below 10 respectively. Looking at Table

4.14, none of the VIF values were greater than 10, and tolerance values were less than 0.2. Therefore, this model was not found to have a multicollinearity problem.

4.3.2. Model summary

Table 4. 15: model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.831a	.690	.664	.40842

a. Predictors: (Constant), Social, Technology, Economic, Political, Legal

According to the Model Summary, external environmental factors explain 69.0% of the variability in project success, while the remaining 31.0% is affected by other factors not included in this study. Therefore, the model is good enough in explaining the dependent variable.

4.3.3. ANOVA

The F ratio is used to assess the overall fitness of the regression model. The result from ANOVA indicates that the dependent variable was predictable by independent variables or not

Table 4. 16: ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.629	5	4.526	27.132	.000[b]
	Residual	10.175	61	.167		
	Total	32.804	66			

a. Dependent Variable: Project Success

b. Predictors: (Constant), Social, Technology, Economic, Political, Legal

The dependent variable-generated ANOVA showed that dependent and independent variables have a meaningful association. The aforementioned table showed a highly significant association between the project success criterion and the success variables at (F=27.132, P=0.000). This indicates that external circumstances have a considerable impact on the project's success criteria.

As a result, the finding suggests that political, economic, legal, technological, social, and cultural factors all had a bearing on project success (the dependent variable). To put it another way, the five variables were thought to suit the regression model.

4.3.4. Regression Coefficients

The beta coefficient was used to examine the expected change in the dependent variable related to the change in one standard deviation of the independent variables.

Table 4. 17: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.429	.288		4.956	.000
Political	-.196	.117	-.205	-1.681	.098
Economic	.187	.070	.249	2.659	.010
Legal	.023	.111	.025	.204	.839
Technology	.439	.060	.666	7.368	.000
Social	.258	.096	.277	2.700	.009

a. Dependent Variable: Project Success

The P-value of technological factors, social factors, and economic factors were less than 0.05 as shown in Table 4.18. This indicates that these independent variables significantly affect project success. Additionally, the value of the standardized coefficients beta indicates how each independent variable influences the dependent variable. Table 4.16 shows that the technological factor (= 0.666) is an important factor for project success, followed by a social factor (= 0.277), economic factor (= 0.249), and legal factor (= 0.025).

The regression equation is re-written: as:

Y= 1.429-0.205X1 +0.249X2+0.277X3 +0.666X4+0.025X3+e

Therefore, the regression equation employed in this research was written as project success= 1.429 - .205(political factor) + .249 (economic factor) + .277 (social factor) + .666 (technological factor) + .025 (legal factor) + error term.

e represents the deviation at the actual observations from their estimation values, since most observations are close to the line but do not fall exactly on the line. In this study social and cultural factor and economic and financial factors are close to the line as compared to the remaining two factors.

4.3.9. Summary of hypothesis

Table 4. 18: summary of the hypothesis

Hypothesis	Result	Decision
The effect of political factors on project success is significant and positive	Not significant p=0.098	Hypothesis not Accepted
The effect of Economic factors on project success is significant and positive	Significant p= 0.010 Positive β=0.249	Hypothesis Accepted
The effect of Social factors on project success is significant and positive	Significant p= 0.009 Positive β=0.277	Hypothesis Accepted
The effect of Technological factors on project success is significant and	Significant p= 0.000 Positive β=0.666	Hypothesis Accepted
The effect of Legal factors on project success is significant and positive	Not significant p=0.839	Hypothesis not Accepted

Discussion

The Effect of Political Factors on project success

As it is depicted in Table 4.16, the effect of political factors is found to be not significant implying that political factors do not influence project success. Therefore the hypothesis that was proposed significant and positive effect of political factors on project success is not supported. This study contradicts a previous study (Hilina Yifru, 2019) which revealed a significant and positive effect of political factors on project success. Therefore further study is suggested to clarify this contradiction.

The Effect of Economic Factors on project success

The effect of an economic factor on project success is found to be significant (P=0.010) and positive (β=0.249) implying that favourable economic condition makes projects successful. Therefore the hypothesis which proposed that 'the effect of economic factors on project success is significant & positive' is supported. This finding is in line with the findings of previous studies.

The Effect of Social Factors on project success

The effect of a social factor on project success is found to be significant (P=0.009) and positive (β=0.277) implying that favourable social condition makes projects successful .therefore the hypothesis which proposed that ' the effect of social factors on project success is significant & positive' is supported .thus, this finding is in line with the findings of previous studies.

The Effect of Technological Factors on project success

The effect of a technological factor on project success is found to be significant (P=0.000) and positive (β=0.666) implying that favorable technological condition makes projects successful .therefore the hypothesis (H4) which proposed that ' the effect of technological factors on project success is significant & positive' is supported. Thus, the finding is in line with the findings of previous studies.

The Effect of Legal Factors on project success

As it is depicted in Table 4.16, the effect of legal factors is found to be not significant implying these factors do not influence project success. Therefore the hypothesis that was proposed significant and positive effect of political factors on project success is not supported. Therefore further study is suggested to clarify this contradiction.

Overall, this study concluded that economic, social, and technological aspects significantly and positively impacted the project's success. As a result, these factors should be taken into account while conducting an IT project.

Chapter five

5. SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1. Summary

In the context of Nib Bank's s.c. T24 R20 re-implementation project, this study tried to investigate the impact of political, economic, social, technological, and legal aspects (PESTL) on the project's success. The key conclusions are described here based on the previous discussion.

From the demographic characteristics of the respondents, the majority of respondents (86.6%) are men and 13.4% are women, Bachelor degree holders and Ma/MSC holders in the project make up nearly equal percentages of (55%) and (44%) respectively. Additionally, the majority of participants are members of the technical team (46.3%), followed by the business team (34.3%), and team leaders (14.9%). Most participants have expertise with IT projects from 2-3 years ago (46%) as well as less than 2 years (25.4%) and 3-4 years (16%).

The results indicate that respondents agreed on the influence of economic factors like inflation rate, foreign exchange rate, and hostile economic environment on project success at mean levels of 3.58,3.45 & 3.61 respectively with an overall score of 3.54. The variables were political factor such that Too much bureaucracy from the government, the hostile political environment in Ethiopia, Embezzlement and bribery, Changes in gov't policies & Political interference was not an issue in the T24 R20 re-implementing Project and does not have a has impact on project success at mean agreement level of 3.88, 3.76, 3.88, 3.45 & 3.54 respectively with an overall score of 3.71.

Based on our findings, the success of the project is contingent upon various factors including the relationships between the vendor and internal staff, the teamwork tendencies of the social environment, the implementation of Health and Safety measures, and the number of unofficial holidays. Our results show a mean agreement level of 3.25, 2.91, 2.85, 2.84, and 2.52, respectively with an overall score of 3.833.

Additionally, the success of the project is influenced by technological factors such as the availability of materials and equipment, the presence of necessary Information technology for the T-24 project implementation, expert availability, difficulty in implementing technologies to reduce time and cost, and the impact of technology on the quality of output also play a crucial role in the success or failure of the project by influencing the project success at mean agreement level of 4.00, 3.66, 3.97, 3.61 & 3.93 respectively with an overall score of 3.72.

Our results indicate that independent variables including political, technological, economic, social, and legal factors are correlated with project success criteria (PSC) at levels of 0.518, 0.757, 0.565, 0.493, and 0.567 respectively. The level of significance is 0.098, 0.000, 0.010, 0.009, 0.839, and collectively the independent variables have R2=0.690

Lastly, our hypothesis supports a positive relationship between economic, social, and technological factors on project success. However, it does not support the positive relationship between political and legal factors and project success.

5.2. Conclusion

Managing and coordinating a complex system, such as a core banking system, for a bank is a challenging task, due to the need for effective and clear communication in guiding all stakeholders involved in a project. Banks are known for their possession of important and confidential information, which makes the development of core banking systems a sensitive yet substantial undertaking, relying on various determinants, including project complexity, development duration, available budget, and quality desirability.

While the study's findings have concluded that many factors affect project success, such as environmental, institutional, and physical factors, this study selected five common macro-environmental factors collectively known as PESTL to examine further.

According to the study the following conclusions were made:

- This study developed conclusions based on descriptive and regression analysis. In the descriptive analysis, most of the variables in the factors (political, economic, social, technological, and legal) have a mean score of above average implying that these factors are unfavorably higher at Nib International Bank.
- The regression analysis revealed that economic, technological, and social factors affect project success positively whereas political and legal factors have no significant effect on project success.

5.3. Implications and Recommendations

Based on the finding of the study, the following recommendations are forwarded:

- Most variables in the factors (political, economic, social, technological, and legal) have higher mean scores unfavorably. For this project managers at nib international bank are supposed to work their best to make these environment factors favorable to their projects. Though these factors are external to the bank and out of this control managers need to design projects in line with the existing environmental factors by doing the followings.
    - Considering the Economic influential factors like inflation , foreign currency rate rising , price change and planning the budget and cost Accordingly to prevent the cost overrun in the project
    - Foreseeing technological changes and legal / regulations in order to consider these factors as risks and plan risk mitigation mechanisms and intervene if this factors influence the project.
- In the regression analysis, economic social, and technological factors have significant and positive effects on project success therefore, project managers need to emphasize these factors to have successful projects. The better they manage these factors, the better the project performance will be.

Suggestions for further research

Among the five external environmental factors two of them namely political, and legal factors found to have no significant effect on project success. The result contradicts with results of previous studies which depicted significant and positive effects. Therefore, to clear out this contradiction, further study on the effect of political and legal factors on project success is suggested.

Reference

Dandapani, K. (2008). Growth of e-financial services: Introduction to the special issue. *Managerial Finance*, *34*(6),

Lim, C.S. and Mohamed, M.Z., (1999). Criteria of project success: an exploratory examination. International Journal of Project Management, 17(4), pp.243-8.

Morgan, G.Leech, N., Gloeckner, G., and Barrett, K.(2004). SPSS for Introduction Statics (2nd ed.). New Jersey: Lawrence Erlbaum Associates, Inc.

PM BOK. (2000). A Guide to Project Management Body of Knowledge, Pennsylvania: Project Management Institute Inc.

PM BOK. (2004). A Guide to Project Management Body of Knowledge, Pennsylvania: Project Management Institute Inc.

PM BOK. (2005). A Guide to Project Management Body of Knowledge, Pennsylvania: Project Management Institute Inc.

PM BOK. (2008). A Guide to Project Management Body of Knowledge, Pennsylvania: Project Management Institute Inc.

PM BOK. (2013). A Guide to Project Management Body of Knowledge, Pennsylvania: Project Management Institute Inc

Khan, K. A., Turner, R., &Maqsood, T. (2013). Factors that influence the success of public sector projects in Pakistan. Proceedings of IRNOP 2013

Cooke-Davies, T., (2002), The “real” success factor in projects, international journal of project management, vol.20, pp.185-190.

De Wit, A., (1988). Measurement of project Success. Journal of Project Management, 6(3), pp.164-70

NBE, 2011

Baccarini, D., 1999. The Logical Framework Method for defining Project Success. Project Management Journal, 30(4), pp.25-32.

Westerveld, E., 2003. The project excellence model: linking success criteria and critical success factors. International Journal of Project Management, 21, pp.411-18.

Belassi, W. and Tukel, O.I., 1996. A new framework for determining critical success/failure factors in projects. International Journal of Project Management, 14(3), pp.141-51.

Adamson, I., Chan, K. M., & Handford, D. (2003). Relationship marketing: customer commitment and trust as a strategy for the smaller Hong Kong corporate banking sector. International journal of bank marketing, 21(6/7), 347-358.

Mugenda, O.M & Mugenda A.G. (2003). Research Methods: Quantitative & Qualitative Approaches. Nairobi Acts Pres

Abbate, A. (1999).for small banks, the future lies in technology and tight focus. American Banker 21 (6),8

Schilling, M. A. (1998). Technological lockout: An integrative model of the economic and strategic factors driving technology success and failure. Academy of management review, 23(2), 267-284.

Chairlone, S. G., Ghosh, S., Bongini, P., & Ferri, G. (2009). Emerging banking systems. Emerging Banking Systems.

Capgemini, (2014). Core banking transformation; measuring the value. [Online] Available at: http://www.capgemini.com/banking

Temenos, (2017). Core banking upgrade assessment. [Online] Available at: www.temenos.com

Kerzner, H.(1987).In search of excellence in project management. Journal of systems management, 38(2),30-39

Shultz, L. Slevin, P.,&Pinto, k.(1987) Strategy and tactics in a process model of project implementation. Interfaces,17(4),5-36

Alias, Z., Zawawi, E. M. A., Yusof, K., & Aris, N. M. (2014). Determining critical success factors of project management practice: A conceptual framework. Procedia-Social and Behavioral Sciences, 153, 61-69.

Odeh, A. M., & Battaineh, H. T. (2002). Causes of construction delay: traditional contracts. International journal of project management, 20(1), 67-73.

Hastie, S., & Engineer, C. K. (2006). What Makes Information Systems Projects Successful? Software Education Associates Ltd.

Ramakrishnan, K. S. (2008). Core banking transformation: A roadmap to a successful core banking product implementation. Project Management Institute.

Minami, C., & Dawson, J. (2008). The CRM process in retail and service sector firms in Japan: Loyalty development and financial return. Journal of Retailing and Consumer Services, 15(5), 375-385.

Shridhar, R., & Sharma, A. (2020). Internet technology and Indian banking sector. Asian Journal of Management, 11(1), 120-124.

Khalid, L. S., & Rahman, I. A. (2019). Measuring the effect of the external factors on Iraqi construction projects performance using the PESTLE technique. Journal of Xi'an University of Architecture & Technology, 12(6), 671-680.

Questionnaire: 1

Masters of Art (MA) Program in Project Management Questionnaire to be distributed to

---

Nib International Bank

Dear Respondents:

My name is Liza Tesfay I am a Master's degree student in Addis Ababa University School of Commerce. I would like to express my sincere appreciation for your generous time, honest and prompt responses.

This questionnaire is designed to solicit information purely for academic purposes. It is the major requirement to complete the research on the topic: "The effect of External Environmental Factors on the Project Success of Nib T24 R-20 re-implementation project" in pursuance of a Master of Arts in Project Management.

This questionnaire will take approximately 10-15 minutes and considered your invaluable support in responding to this questionnaire genuinely is of paramount importance to the success of this study. You are not required to write your name and all information you provide will be handled in a strictly confidential manner.

The questions in this instrument are organized into three sections:

PART I: General Information

PART II: Questionnaire to external factors affecting project success

PART III: project Success Criteria Related issues

PART I: General Information

1) Age

a) 20.-30 years □

b) 31 -40 years □

c) 41-50 years □

d) Above 51years □

2) Gender

a) Male □

b) Female □

3) Level of Education

a) Diploma □

b) Bachelor □

c) University Degree Postgraduate (MA/MSC) and above □

4) Which of the following best describes your role in the T24 Core Banking System re-Implementation project at the bank?

A) □ Team coordinator **e)** □ Technical Team member

c) □ Team Leader **f)** □ Business Team member

d) □ Other……..

5) For how many years have you worked on IT projects?

a) Less than 2years □ d) 4 – 5years □

b) 2 – 3 years □ e) Greater than 5 years □

c) 3 – 4 years □

PART II: Questionnaire to External factors affecting project success

Instruction

For each of the following factors, please indicate your level of agreement, as they apply to the core banking NIB T24 R-20 re-implementation project by ticking the appropriate boxes.

Variable	Strongly disagree	disagree	neutral	Agree	Strongly agree
1. Political					
1.1. Too much bureaucracy from the government in executing the project					
1.2. The hostile political environment in Ethiopia (war, instability) while the project was re-implemented					
1.3. Embezzlement and bribery were common					
1.4. Changes in gov't policies were impacting the project					
1.5. Political interference was an issue in T24 re-implementing Project					
2. Economic					
2.1. High currency fluctuation/ exchange rate was impacting T24 re-implementation project					
2.2. Inflation was a problem in the T-24 re-implementation project					
2.3. There was a hostile economic Environment making T-24 implementation challenging					
3. Social					
3.1. There was a poor relationship among the project's participants (vendor & internal staff communication)					

Variable	Strongly disagree	disagree	neutral	Agree	Strongly agree
3.2. As a society we have a low tendency for teamwork					
3.3. Health and Safety measures were not in place					
3.4. Hostile social Environment was exhibited					
3.5. There are too many unofficial holidays making the project implementation difficult					
4. Legal					
4.1. Complying with laws and regulations in the T24 re-implementation project was challenging in T24					
4.2. Contract document improper verification was a challenge in the T24 re-implementation project					
4.3. Contract breach by the project party was an issue in the T24 re-implementation project					
4.4. There was a Lack of enforcing a legal judgment in the re-implementation process					
5. Technological					
5.1. Material equipment specification un-clarity and unavailability were a challenge					
5.2. Information technology necessary for the T-24 project implementation was not available locally					
5.3. The unavailability of experts was a problem in the T-24 re-					

implementation project					
5.4. It was difficult to set technologies that help to reduce time & cost in T-24 re-implementation					
5.5. The technology in the market does not help us to enhance the quality of our output.					

Part III: Related to success criteria

For the following statements, please show your choices by putting a tick mark in the givenspace.

Please answer the question concerning the project area assigned.

Project success-related issues	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1. The project was completed on time.					
2. The project was completed according to the budget allocated					
3. The outcomes of the project are used by its intended end users					
4. The outcomes of the project are likely to be sustained					
5. The outcomes of the project have directly benefited the intended end users, either through increased efficiency or effectiveness					
6. Given the problem for which it was developed, the project seems to do the best job of solving that problem					
7. I was satisfied with the process by which the project was implemented.					
8. Project team members were satisfied with the process by which the project was implemented.					
9. The project had no or minimal start-up problems because it was readily accepted by its end users					

10. The project has directly led to improved performance for the end users/target beneficiaries					
11. The project has made a visible positive impact on the target beneficiaries					
12. Project specifications were met by the time of handover to the target beneficiaries					
13. The target beneficiaries were satisfied with the outcomes of the project					
14. Our principal donors were satisfied with the outcomes of the project implementation.					

Thank you for your sound cooperation.