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Challenge of Implementing ERP System in Equatorial Business Group

A Project Work Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment for Master of Arts in Project Management

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List of Acronyms

ERP Enterprise Resource Planning

BPR Business process reengineering

MIE Mesfine Industrial Engineering

SPSS Statistical Package for Social Sciences

ICT Information communication technology

USAID United States Agency for International Development

EBG Equatorial Business Group

IFMIS Integrated financial management information systems

Declaration

I, Rediet Yeshidagna, hereby declare that this thesis entitled "*Challenge of Implementing ERP System in Equatorial Business Group*" submitted by me for the award of the degree of master of project management (MAPM), Addis Ababa University, at Addis Ababa, Ethiopia, is my original work and it has never been presented in any university. All sources and materials used for this thesis have been duly acknowledged.

Name: **Rediet Yeshidagna** _____ _____

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Advisor's approval

This thesis has been submitted for examination with my approval as a university advisor.

Abdurezak Mohammed (PhD) _____ _____

Advisor's name signature date

Certification

Addis Ababa University School of Graduate Studies

This is to certify that the thesis entitled, "*Challenge of Implementing ERP System in Equatorial Business Group*" was carried out by Rediet Yeshidagna under the supervision of Abdurezak Mohammed (PhD), submitted in partial fulfillment of the requirements for the Degree of Master of Project Management complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

Approved by:

Internal examiner_____signature_____date_____

External examiner_____signature_____date_____

Advisor **Abdurezak Mohammed (PhD).** Signature_____date_____

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Abstract

The goal of this research is to determine the challenges of implementing an ERP system in the Equatorial Business Group. As a result of selecting human, organizational, technological, and project management challenges in Equatorial Business Group. A descriptive research method was used to address this subject, and both qualitative and quantitative methodologies were used. Questionnaires, interviews, and analysis of documents were utilized to collect data in this manner. The data collected via questionnaire was quantitatively analyzed using descriptive statistics such as frequency, percentage, mean, and standard deviation. Furthermore, the data gathered through interviews was qualitatively examined. A total of 92 respondents were involved in the data collection process. For this investigation Census type of sampling was used. With such broad coverage of the population of interest, there is less chance of missing potential insights from members who are not included. The study's findings demonstrated that major challenges of ERP implementation. Under human resource challenge the majority responds There was lack of team empowerment. Under organizational challenges the majority responds there is poor time management culture within the organization. Under project management Challenges the majority responds lack of project management experience. under technical Challenges Data Migration. The researcher has recommended, the company should strengthen its provision of training to the project team and users in order to increase their knowledge and expertise, empower capable employees and hire the right project managers who have the skill and knowledge. Companies should improve their time management culture throughout the organization because time is one of the constraints in projects. allowing all stakeholders to participate actively throughout the project Furthermore, a proper data migration plan is required for a successful data migration from the old system to the new system.

Keyword: ERP, Human Resource Challenge, organizational challenge, Project management Challenges, Technical Challenges

CHAPTER 1: INTRODUCTION

1.1 Background

An ERP system is a software solution that spans a variety of business activities and allows businesses to acquire a holistic view of their operations. It promises a unified interface, a single database, and a single application for the entire company. (Ehie and Madsen, 2005).

Since 1990, enterprise resource planning (ERP) systems started as a means of assisting organizations in reorganizing their work structures through the use of information and communication technology (ICT), as well as being a part of organizational change that is either ICT driven or ICT mediated. (Ehie and Madsen, 2005).

ERP system is a set of integrated software and a central database that may enable an organization to manage its resources efficiently and effectively through reengineering and automation of business processes, data sharing and access of updated information in real-time environment (Mahmood, Khan and Bokhari, 2019). The key objective of integrating ERP is to improve the operating efficiency of business by improving business processes and decreasing operation costs. ERP plays a critical role in standardizing processes and data within business best practices. The business can streamline the flow of data between different parts of the organization by creating a one-transaction system. The standardization of operations enables increased interoperability, which is difficult and expensive to achieve with most independent, custom-built systems. These advantages and benefits of ERP have made ERP the backbone of business intelligence for businesses by giving managers an integrated view of all the processes with the organization. (Vayyavur, 2015)

African countries, like the majority of developing countries, are situated in a unique environment. Low economic capacities, limited infrastructures, limited human skills, and a distinct culture describe this environment. with the complexities and risks in ERP systems, implementing them within the African context might enhance the difficulties of the implementation. To solve this problem, it may be helpful to learn about documented implementation cases, understand how things are currently done in the field, learn from previous studies, and identify existing gaps that need to be filled in the future. (Tobie, Etoundi and Zoa, 2016)

Many experts believe that ERP systems improve firms in a variety of ways. Many Ethiopian companies have embraced the system to take advantage of its multipurpose advantages. A study on ERP system implementation in Ethiopia was also undertaken by certain researcher. Abiot and Jorge (2012) have made a case study on Ms-Dynamics ERP implementation in Mesfin Industrial Engineering., Sintayehu (2014) reviewed success factors for implementation of ERP system at Ethiopian Airlines and Kibebework (2015) has conducted research on the challenges and current status of ERP implementation at Mugher and Derba Cement industries.

Based on USAID Ethiopia IFMIS analysis assessment Report Ethiopia's comparatively underperforming ICT infrastructure places considerable systemic constraints on a real-time integrated IFMIS. Reliability, security, and overall system integrity are a concern for a system hosted and supported on Ethiopia's nascent ICT infrastructure. ICT assimilation in the public sector has limitations. While Ethiopia has a strong but limited core of tech-savvy professionals, human capacity does not appear to be sufficient to meet the demands of the 1200 anticipated IFMIS locations over the next five years. The traditional IBEX system, which has been in use for than a decade, has yet to be deployed in various sub-national locations, indicating either capacity constraints or resistance to automation. (USAID, 2011)

Despite ERP increased growth from the late 1990s to date, there are several challenges that businesses and organizations encounter when implementing ERP. Several academics have looked into some of these aspects. Despite the significant financial inputs and potential benefits, not all ERP implementations achieve the desired results. ERP implementations are frequently delayed and run over budget. The biggest roadblocks to effective ERP installations aren't technological concerns like compatibility, technological complexity, or standardization; rather, they're organizational and human issues like change resistance, corporate culture, and business procedures. (Vayyavur, 2015).

Equatorial Business Group (EBG) intends to begin implementing its ERP system project in order to integrate and automate its business operations. Integration of processes including finance, HR, project management, procurement, workshop service management, inventory, sales, and marketing was the main result of this ERP implementation project.

The Scope of work for the system supplier implementer is to provide ERP system and implementation services & post implementation support services, for the proposed ERP system. The main purpose of deploying this integrated software is to provide a single view of the organization's information and to improve service offerings to the Customers, Employees and other Stakeholders.

The Project has two phases. Phase I of the implementation of the ERP to cover Finance and accounts, interfacing with POS machine, Procurement Management, Inventory management, Business Intelligence, Workshop management, sales management. The Phase II of the implementation to cover the following functions Fixed Asset Management, Human Resources and Payroll management and administration. The original plan for the completion of both phase one and two was one year but due to several reasons the project is not completed yet. Since ERP is a newly deployed system in EBG and its obstacles have not been thoroughly researched, the researcher is encouraged to perform an in-depth analysis of the challenges for implementing the system. The purpose of this study is to identify the main challenges associated with the deployment of an ERP system. A survey of the literature on the subject was undertaken in order to conduct this research, with a focus on implementation challenges in ERP projects.

1.2 Background of the Organization

Equatorial Business Group plc (EBG) is located in Addis Ababa, Akaki-Kalittiy sub city, Woreda 06 and close by Horizon-Addis Tire Co. EBG is a company currently having, a total manpower of more than 600 employees and an annual turnover of more than ETB 800 million. EBG at present is involved in five major merchandizing businesses and after sales service giving business sectors, namely: -

Equatorial Volvo Business

Engaged in the import, distribution & provision of spare parts and maintenance of Volvo trucks and construction Equipment's.

Equatorial Light Vehicles Business

Engaged in the import, distribution & provision of spare parts and maintenance of light automobiles, SUV and pickups.

Equatorial Energy Business

Engaged in the import and distribution/installation of generators, renewable energy source.

Equatorial Elevator & Escalator & Telecom Business

Engaged in the import and erection of Elevators/Escalators and provision of maintenance service.

Equatorial Pharmaceuticals and Medical Supplies Business

Engaged in the import and distribution of human medicine & medical supplies.

EBG has been managing its business using Sage 300 (Accpac 5.4) ERP system for the past 10 years, mainly for managing its accounting and sales activities including inventory management operations. There are also additional standalone programs including proprietary (partners' systems) and locally (in-house) developed software products that are used by respective departments with no integration to the ERP solution. It also evident that, this solution is not used as a complete ERP solution for not incorporating other business operation relevant components/applications. Rather only some departments, particularly Finance and Sales use it more extensively.

1.3 Statement of the Problem

The successful implementation of ERP systems in any organization always necessitates careful planning and management in all areas as it incorporates technological innovation and organizational change management. (Mahmood, Khan and Bokhari, 2019).

There are much more failures in ERP projects than success stories. ERPs failures may be due to a variety of reasons cited in past research. Only 13 per cent firms meet their business expectations while more than 50% firms showed unsatisfactory adoption toward ERP (Panorama Consulting Group 2017) analysis about 342 ERP projects led to findings that 66 per cent ERP projects were late, 74% projects were over-budgeted and 37 per cent projects

received less than 50% benefits as expected. Various studies identified different factors that may affect ERP implementation.

Several research on the challenges have been undertaken in developed countries., success factors and adoption of ERP in various sectors. In Ethiopia (Abiot and Jorge,2012) has present a case study on successful implementation of Microsoft Dynamics ERP in Mesfin Industrial Engineering, (Sintayehu ,2014) has made a research on success factors for implementation of ERP system at Ethiopian Airlines, (Kibework ,2015) conducted research on the challenges and current state of ERP implementation at Mugher and Derba Cement. less research has been conducted in Ethiopia, specifically in the private sector. As a result, the study bridges the gap in order to identify the challenges in the implementation of ERP in Equatorial Business Group.

The project was started in 2019 with the plan of automating each business unit. In Equatorial Business Group the project was planned to be completed within one year/12 month and post implementation support services for 12 months. Even if they have gained benefits from the implementation but due to several challenges the first phase of project is not yet completed.

The primary goal of the research is to identify those Challenges in the Implementation of ERP in Equatorial Business Group, in order to answer the question: What are the challenges associated with Enterprise Resource Planning (ERP) systems implementation in EBG?

1.4 Research Question

The research answers the following basic questions;

1. What are the Project management related challenges during implementation of ERP in EBG?
2. What is Human Resource related challenges during implementation of ERP in EBG
3. What are Organizational challenges during implementation of ERP in EBG
4. What are Technological challenges during implementation of ERP in EBG

1.5 Objectives of the Study

1.5.1 General Objective

The main objective of the study is to identify/assess the challenges of implementing Enterprise Resource planning (ERP) System in Equatorial Business Group.

1.5.2 Specific Objectives

The study achieved the following specific objectives;

1. To identify Project management related challenges during implementation of ERP in EBG
2. To identify Human Resource related challenges during implementation of ERP in EBG
3. To identify Organizational challenges during implementation of ERP in EBG
4. To identify Technological challenges during implementation of ERP in EBG

1.6 Definition of Terms

Project, ERP Implementation

Project – According to PMI projects are a temporary effort to create value through a unique product, service or result. There is a beginning and an end to every project. They have a team, a budget, a timeline, and a set of goals that the team must achieve. Each project is unique from the ongoing activities of an organization's ordinary operations since projects come to an end after the goal is achieved.

ERP Implementation - ERP implementation describes the process of planning, configuring and deploying an ERP.

1.7 Significance of the Study

This research is significant in several ways. First, because EBG includes five merchandising and after-sales service businesses, each with a distinct nature. from one another Multiple companies can benefit from the challenges encountered during the ERP implementation in these business units, and this can serve as a good learning point or reference for companies looking to implement an ERP system.

Secondly, the implementation of ERP software has continued to grow in both public and private companies in Ethiopia. Thus, it is important that the public and private company

management have relevant information that will help them make intelligent decisions on the best initiatives. Thirdly, it is also important for the public and public company management to understand the issues with which they could be faced during ERP implementation, based on that, this study provides information that will assist them in making informed decisions on implementation strategies.

The study is to provide valuable information that can assist companies and implementation bodies in identifying their own weaknesses and strengths when it comes to ERP system Implementation. It is critical to investigate the difficult topics in order to set the foundation for the system's success and to take advantage of the opportunities.

The study is also utilized as a reference for staff who want to do more research in the area, explore important topics connected to implementation challenges as a foundation, and make it available for academic usage.

1.8 Delimitation/Scope of the Study

The study is focused on reviewing and assessing the challenges of implementation ERP in five major businesses namely Equatorial Volvo Business, Equatorial Light Vehicles Business, Equatorial Energy Business, Equatorial Elevator & Escalator & Telecom Business, Equatorial Pharmaceuticals and Medical Supplies Business.

The study's focus has been applied to EBG's Finance, Distribution, and Reporting modules, all of which are fully integrated and in operation. Covers all concerned bodies in the project area, including the ERP project manager, team leaders, and team members as needed

CHAPTER TWO: LITERATURE REVIEW

2.1.Introduction

This chapter examines the literature on Enterprise Resource Planning (ERP) systems that is relevant to the topic of this study. The chapter is organized in the following manner respectively definition of ERP, ERP implementation process, implementation challenges of ERP, ERP in Ethiopia, ERP in Africa Countries and Finally the Research framework.

2.2.Enterprise Resource Planning (ERP)

An Enterprise Resource Planning (ERP) system is an integrated set of programs that provides support for core organizational activities such as manufacturing and logistics, finance and accounting, sales and marketing, and human resources. An ERP system enables diverse areas of a company to share data and expertise, cut expenses, and improve business process management. Despite their advantages, many ERP systems fail. (Odhiambo, 2008).

ERP plays a critical role in standardizing processes and data within business best practices. The business can streamline the flow of data between different parts of the organization by creating a one-transaction system. (Vayyavur, 2015)

Implementing an enterprise resource planning (ERP) system successfully is extremely important to future competitive strategy of a company. Management must be aware of the ERP system's strategic role as the backbone in providing the dynamic business systems imperative to new systems implementations. Getting ERP into full operation and getting the most out of it is a big job that necessitates paying close attention to the most important success elements. (Ehie and Madsen, 2005)

The concentration of information through a single database is the core premise of ERP systems. ERP systems are information system software modules that share a central database and share information. They include functionalities for sales and marketing, product development and design, field service, production, inventory control, distribution, process design, management, and procurement, as well as quality, manufacturing, human resource, finance and accounting, and information services. Furthermore, ERP systems are the most complete business information systems to date, and they provide a solid informational foundation for operational processing as well as decision-making under the condition of successful implementation. (Ullah et al., 2017)

ERP system implementation has led to better performance. These systems brought enormous benefits to organizations such as increased productivity, improve access to accurate and timely information, enhance work flow, reduce reliance on paper, knowledge sharing, tight control,

as well as automate business processes by coordinating and integrating the information across departments. (Boltena and Gomez, 2012)

(Ehie and Madsen, 2005) Despite the fact that ERP has grown in popularity since the late 1990s, there are various problems that businesses and organizations face when implementing ERP. According to research, a substantial number of ERP implementations have failed to meet the organization's goals. The majority of these failures are driven by the complexity and huge changes that ERP brings to a business.

2.3. The ERP Implementation Process

The ERP implementation process is divided into five major phases.

Project preparation is phase one, which entails a complete planning process involving staff in leadership roles, budget targets, and the project plan to be followed.

The examination of existing business processes provides the background for system selection in the second phase, the business blueprint, before thorough education and training on functionality and configuration offers the project team the requisite insight to map the new process design. A solid project management structure is a necessary element for achieving overall ERP system success.

The realization phase focuses on building the technological foundation while piloting each process design in a conference room. The complete process design integration is tested under full data load and harsh scenarios in the fourth phase, final preparation. Simultaneously, those who will use the system and those who will be influenced by it will receive the necessary education and training to understand how data flows through the system and how it is operated at each step in the supply chain.

Finally, the go-live and support phase focuses on process flow optimization and continuing to expand the system to gain new competitive advantage. Knowledge obtained from the development of these phases served as the groundwork for the design of the study. The items in the questionnaire ranged from the driving motives of the implementation to the enforcement of change management and business process development in the organization. (Ehie and Madsen, 2005)

2.4. Implementation challenges of Enterprise Resource Planning

The systematic literature review by (Mahmood, Khan and Bokhari, 2019) led to the identification of 31 issues/challenges, which may be termed as most critical based on their occurrence/frequency in past studies. Top management approach, change management, training and development, effective communication, system integration, business process reengineering, consultants' / vendors selection, project management, project team formation, team empowerment/skilled staff, and data conversing/migration are the top ten issues/challenges identified among the 31 identified.

Implementing an ERP system is a large project that necessitates significant resources, commitment, and organizational changes. Often the ERP implementation project is the single biggest project that an organization has ever launched. As a result, the issues surrounding the implementation process have been one of the major concerns in industry. And it further worsens because of numerous failed cases including a few fatal disasters which lead to the demise of some companies. (Moon, 2007).

(Ehie and Madsen, 2005) presented the top ten risks that cause ERP implementation failures are

1. Lack of management commitment
2. Insufficient training with users
3. Ineffective communication with users
4. Inadequate support from the executive
5. Lack of effective project management methodology
6. Conflicts between department users
7. Attempt to build bridges to legacy application
8. Composition of the implementing project team members
9. Failure to redesign business processes
10. Misunderstanding of change requirements

According to (Mahmood, Khan and Bokhari, 2019). based on their occurrence/frequency in past studies. The topmost ten issues/challenges amongst 31 identified include change

management, top management approach, effective communication, training and development,system integration, business process reengineering, vendor/consultant selection, project management, project team organization, team empowerment/skilled staff and data conversing/migration, these were further categorized and fell under project management, HR, organizational, management/managerial, and technical/technological domains.

2.5. Top Management Approach

Top management approach (i.e. strategy/style/commitment) is appeared as the critical one top management in the organizations should show their concern about the projects and allocate resources for the implementation. For an ERP project, the top management identifies the concerned stakeholders having their vested interest in the project as the first step and then communicate them the desired level of involvement to accomplish tasks to be assigned. (Mahmood, Khan and Bokhari, 2019). The Top management support might include providing strategic direction by being actively involved in various high-level cross-functional implementation teams. (Ehie and Madsen, 2005).

2.6. Change Management

Resistance to change is the process of opposing or facing difficulties with the alterations or transformations. Middle managers mostly resist the ERP implementation process. middle managers who are reluctant to give up the old ways of working. The reason found was that they develop their own methodologies for doing different tasks, whereas ERP systems may have some different methods to carry out work processes as compared to their methodologies. As a result, middle managers avoid potential change. Individuals or employees within an organization are usually hesitant to adopt change, so organizations must invest all types of resources in encouraging their employees to be a part of this change while implementing ERP. (Mahmood, Khan and Bokhari, 2019).

The key challenge of ERP implementation is how an organization manages the various elements of changes in the organization to achieve the desired changes. ERP imposes new logic on the organization, which may result in a number of cultural conflicts. (Vayyavur, 2015).

2.6.1. Training and Development

User training and education refers to process of providing management and employees with the logic and overall concepts of ERP. Staff can gain a better understanding of how their jobs relate to other functional areas of the business. (Upadhyay, Jahanyan and Dan, 2011).

Development of employee skills is a major challenge. ERP systems are complex and demand special training. without proper training, 30-40% of employees were unable to use a new ERP system and insufficient user training as ERP risk factor. As a result, a lack of training may result in ERP failures. ERP systems necessitate regular training; organizations should provide opportunities for employee skill enhancement. (Mahmood, Khan and Bokhari, 2019).

2.6.2. Effective Communication

Organizational communication refers to information sharing amongst all stakeholders comprising team members in the entire organization (Upadhyay, Jahanyan and Dan, 2011).

Effective communication and coordination among different departments involved in ERP necessary because ERP systems are cross-functional systems. Effective communication and coordination among different departments involved in ERP implementation are necessary because ERP systems are cross-functional systems (Mahmood, Khan and Bokhari, 2019).

2.6.3. System Integration (Enterprise Resource Planning modules)

ERP systems may include multiple modules to ensure the smooth operation of business processes at both the department and enterprise levels in order to meet organizational needs. No single application can meet all of an organization's requirements. Furthermore, as the organization's requirements evolve over time, it is possible that organizations will purchase different modules from different vendors. To achieve maximum benefits ERP system, it needs to be integrated with other business systems (maybe other ERPs) in the organization. When integrating with a legacy system, the integration of ERP modules appears to be a challenge. A legacy system is an outdated software system that are not upgradeable to the latest versions. Lack of strategies regarding the integration of the legacy system with a new enterprise system resulted in the loss of data, delays and lack of trust in the new system. System because of lack of awareness and improper integration strategies of the new system. (Mahmood, Khan and Bokhari, 2019).

2.6.4. Business Process Reengineering

BPR may be defined as the rethinking and redesign of business processes to achieve improved organizational performance in terms of quality, cost, speed and service. Organizational willingness to change business processes to fit in the ERP software while minimizing customization is required for a successful ERP implementation. Customization often results from organizational resistance. It led to a problem that upgrading customized ERP systems is costly and laborious because customizations must be re-coded every time ERP systems are upgraded ERP implementation in any organization involves reengineering of an existing business process based on best practices. Lack of consideration of BPR resulted in the failure of ERP systems (Mahmood, Khan and Bokhari, 2019).

2.6.5. Consultants/Vendor' Selection

Many researchers take vendors and consultants as a critical factor in ERP system success Top management input is critical when selecting a vendor. (Bingi et al., 1999). Hurbean (2009) noted that The selection criteria for ERP vendors are typically based on product features rather than the satisfaction of the relevant stakeholders. Shortlisting ERP vendors may include financial viability and vendor diligence. (Mahmood, Khan and Bokhari, 2019).

2.6.6. Project Management

Project management covers the project goal clarification and their congruence with organizational mission and strategic goals. The scope should be established and controlled (Upadhyay, Jahanyan and Dan, 2011).

study showed system success more or less based on the process of project management. Poor risk management, scope creep and poor allocation of resources along with vendor management are some problems interrelated to implementation of ERP system originate during ongoing project management. Project Management focuses on initiating, planning, implementing, controlling different project activities to achieve milestones. frequency analysis from 95 journal articles indicated that factors relating to project management, ERP team composition, and competence and BPR are critical factors regarding ERP implementation (Mahmood, Khan and Bokhari, 2019).

2.6.7. Project Team Formation

The composition and leadership of the project team refers to the proper selection of the project team members who would be driving the implementation. Some researchers have stated that the team must have the necessary skills to investigate for details during the implementation planning phase. Once the team has been formed, it may be necessary to train the members. (Upadhyay, Jahanyan and Dan, 2011).

One of the most difficult challenges during ERP implementation is the formation of project teams. All stakeholders must be involved in the implementation of an ERP project. The ERP team may include representatives from various departments. The individuals in the project team should be authorized to make decisions that may lead to good chances of successful ERP implementation. Team composition and competence are positively related to successful ERP implementation (Mahmood, Khan and Bokhari, 2019).

2.6.8. Team Empowerment/Skilled Staff

Team empowerment is the authority to make decisions according to the choice, rather than to take approval from the top management. ERP implementation necessitates team empowerment because it increases confidence while decreasing time; however, skilled staff are required for efficient use of authority. Most importantly, if a key ERP individual leaves the organization, a massive knowledge gap will result (Kumar et al., 2003). To successfully execute and sustain such efforts in organizations, organizations must focus on employee development and training-related aspects. (Mahmood, Khan and Bokhari, 2019)

2.7. ERP Implementation in African Countries

African businesses are unlikely to be able to satisfy their customers. There appear to be some barriers that limit their competitiveness as well. Adoption and implementation of robust information systems could be a solution to overcome these barriers and become more competitive. ERP systems are expected to assist organizations in meeting their strategic goals.

African countries, like the majority of developing countries, are endowed with a unique context. This environment is distinguished by low economic capacity, limited infrastructure, limited human skills, and a distinct culture. Given the complexities and risks associated with

ERP systems, implementing them in the African context may exacerbate the implementation difficulties. (Tobie, Etoundi and Zoa, 2016)

According to research conducted in Kenyan public universities, the majority of respondents believe that the ERP system's prospects will be realized, which include the elimination of redundancy, easier access to data and information, improved customer relationship or supply chain management, improvement of internal communication, ability to produce better reports and information needed, integration of all business processes, and increased standardization of procedures. (Kipyegon Alfred, 2018)

Implementation of a SAP ERP R/3 system within a Libyan oil company. In this case, developing an effective implementation strategy was critical to success. The strategy used consisted of gradually replacing legacy system modules with their SAP counterparts. The involvement of users in the project and the commitment of senior management both contributed to the project's success. (Tobie, Etoundi and Zoa, 2016)

According to research conducted in Kenyan universities, the majority of respondents strongly agreed that management support is critical for an organization to successfully implement and use an ERP system. Furthermore, inadequate preparation by universities to manage change, failure to involve end users during the implementation stage, failure by system vendors to modify the system to conform to the requirements of these universities, failure by institutions to re-engineer their business processes to match ERP requirements, and a lack of effective end-user training were cited as major challenges to the success of ERP systems in newly chartered universities. (Kipyegon Alfred, 2018) Organizations in Africa are distinguished by unique laws and government regulations, as well as a distinct business culture that differs from that of the West. These characteristics are likely to result in misalignments or misfits between the best practices of a Western-designed ERP system and the African organizational context. A classification of misalignments in information, technology, role and skills, processes, organizational culture, and other resources was developed in a South African study (time and money). Misalignment issues can lead to ERP implementation failure. To address this issue, an Egyptian state-owned organization decided to modify the system. Unfortunately, this

attempt did not succeed. More research is needed to best address this issue in the context of Africa. (Tobie, Etoundi and Zoa, 2016.

2.7.1. Data Conversion/Migration

Data is converted from the old to the new system, either electronically or manually. Although electronic data conversion is faster, data integrity is a difficult task because successful implementation is dependent on the accuracy of the data. Manual conversion may be difficult and time-consuming, but it will improve employees' abilities to use the new ERP system. Poor data is one of the causes of a high failure rate in new computer systems. Previous studies have also discussed various data migration barriers. (Mahmood, Khan and Bokhari, 2019)

2.8.ERP in Ethiopia

Ethiopian businesses have successfully used ERP systems. Ethiopian Airlines, Ethiopian Telecom, Mugher and Derba Cement Industries, and Mesfine Industrial Engineering are just a few examples. Furthermore, in the Ethiopian banking industry, it is deployed at the commercial bank of Ethiopia, ERP Software, once implemented, brings great benefits to the firm, such as improved quality, better utilization of scarce resources, and cost reduction. An ERP Suite is essential for integrating and automating an organization's business processes.

ERP in Ethiopia has contributed in exposing Ethiopian businesses to worldwide best practices and processes, as well as serving as a catalyst for increased productivity and efficiency. Ethiopian businesses are increasingly recognizing and appreciating the amazing benefits that a flexible and powerful ERP System can provide, as well as the critical necessity for them to embark on their own enterprise automation path by implementing an appropriate ERP Solution.

2.8.1. Mesfine Industrial Engineering (MIE)

Before the ERP project, MIE used over 5 systems, many of which were developed by local vendors and internally by MIE over the previous decade. These legacy systems were costly to operate and difficult to maintain and develop. They failed to provide the necessary accurate, consistent, and accessible data for good and timely decision-making and performance evaluation (e.g. delivery performance, quality metrics).

These aging systems did not always lend themselves well to modern manufacturing environments. One flaw in the system was the lack of communication between individual sites. Work in progress was frequently transferred between sites and could not be accurately tracked, causing inventory and stock take issues. MIE recognized that the adoption of an ERP system was the most important factor in enabling the company to overcome challenges and achieve business success. MIE considered traditional factors such as financial situations, history, success/failure cases, and staff when selecting an ERP vendor. Specialist internal managers and staff with critical knowledge of cross-functional business relationships and experience with the old internal systems are part of the project team. (Boltena and Gomez, 2012)

2.8.1.1. Challenges During Project Implementation

The implementation project encountered several issues, which are classified as business and technical difficulties.

2.8.1.2. Cultural Problems

The implementation project team anticipated that the system would be well received in areas where it provided equal or better functionality than the previous system. However, some functions and processes may not receive the same level of attention that legacy systems once did. The project team decided to solve this by illustrating the company's overall improvements, thus breaking the traditional departmental segregation. The original implementation plan was expanded in an attempt to address training and cultural changes. (Boltena and Gomez, 2012)

2.8.1.3. Business Problems

Participants in cross-functional workshops quickly realized that their working practices needed to be adjusted to accommodate Microsoft Dynamics SL, ultimately changing the way MIE does business. They accomplished this through the use of an internal business process reengineering (BPR) program. The program had four steps, the first of which involved drawing and mapping the current processes. The second step was to identify any problems or issues that arose as a result of the mapped process. The third step involved applying some of these issues to a Microsoft Dynamics SL demonstration in order to identify potential problems

with the new system. The fourth step involved re-mapping or modifying the processes to conform to Microsoft Dynamics SL. (Boltena and Gomez, 2012).

2.8.1.4. Technical Problems

The new system necessitates the extraction of old data from legacy systems, which must be normalized, screened, and stored in a logical data format within the new system's data repository. Data duplication was a major issue that MIE had to address. In some cases, old systems were kept running until they could be phased out by new systems, and to accomplish this, the IT department built interfaces between the systems. (Boltena and Gomez, 2012)

MIE has twenty-one business processes, which when taken together describe everything the company does. MIE required over 50 Microsoft Dynamics SL licenses for users across all the business. The server was provided by Sun Microsystems and in excess of 2 Terabytes of disk space. The system required almost 15 weekly manufacturing resource planning (MRP) runs cascaded by plant. A UNIX server bridges the data from legacy systems and testing and training required an NT server. (Boltena and Gomez, 2012)

2.8.2. Mugher and Derba Cement Industries

The researcher uses theoretical framework which comprises strategy, staff and organizational critical success factors (soft factors) and attempts to relate them to various implementation stages. The theoretical framework is represented by three main sets of factors. The strategy related factors consists of top management commitment, clear goals focus and scope, legacy systems, and ERP strategy Staff related factors includes training and education, user's involvement, employee's attitude and project team. Organizational related factors comprise of effective project management, process management, change management strategy, IT maturity, computer culture, empowerment, organizational culture, and communication. Kibebework (2015).

2.8.2.1. Strategy Factors

The researcher identified a number of issues, including the lack of clear project goals, focus, and scope, as well as top management commitment and training. Despite the fact that top management provided the necessary financial resources for successful ERP implementation, their involvement and support in the project was minimal. Furthermore, they lacked a clear

strategy and direction. The majority of employees were not well trained, which makes the implementation process to take more time and money in both factories. The structure and business process of the legacy system was changed after the project is implemented. In general, factories were missed and not considering the strategy factors. Kibebework (2015)

2.8.2.2. Staff Factors

The research found that end users were only allowed to participate in the ERP project after the implementation stage. Their participation and involvement were minimal in the project's early stages, which included the system development and implementation processes. Employees were resistant to change during the early stages of ERP implementation due to a lack of awareness of the ERP system and a lack of understanding of the strategic goals of the ERP project. Furthermore, there was no implementation team that was dedicated to and accountable for the project's progress. Kibebework (2015).

2.8.2.3. Organizational factors

According to the research findings, the project lacks project management. Despite the fact that the ERP system was designed to reengineer existing business processes following the BPR implementation process in the factory, the business processes were not analyzed to identify potential re-engineering opportunities. The implemented system was not reflected and includes major structural and process changes discovered during BPR implementation. Furthermore, employees were not empowered, involved, participated, or trained to understand how the ERP project is progressing and to communicate and provide feedback on the project's progress. It is clear from these that the critical organizational factors for ERP were not adequately considered. Kibebework (2015)

2.8.3. Ethiopian Airlines

The researcher identified twenty critical success factors for ERP implementation success. Success factors for ERP include project planning and strategy, top management support and commitment, project management and leadership, training, documentation, and knowledge transfer, clear user requirement and need assessment, capability of consultants and implementers, change management and communication, team composition and retention, and organizational culture and readiness. This research also found relatively new contextual

success factors such as establishing support team, quality control and feedback, basic IT capability of users and team members, and incentives and milestone celebration. Sintayehu (2014)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the research methodology applied for the study specifically, on the research design, Research Approach, source of data collection, data collection tool, data analysis, validity and reliability, Ethical Consideration and at the end some ethical issue has been explained.

3.2. Research Methodology

3.2.1. Type/design of Research

A descriptive research design will be used in this study. (Kothari, 2004) Descriptive research includes surveys and fact-finding enquiries of different kinds. The primary goal of descriptive research is to describe the current state of affairs. The main feature of this method is that the researcher has no control over the variables; he can only report what has occurred or is occurring. Descriptive research studies are those concerned with describing the characteristics of a specific individual or group.

The purpose of this is to identify the Challenge of Implementing ERP System in Equatorial Business Group. By relating prior research and existing theories, the research will describe what has happened and what is happening. For this study, a descriptive approach was chosen since it will allow for a more in-depth investigation and comprehension of the phenomena at hand.

3.2.2. Research Approach

Quantitative research is based on quantifying or quantifying something. It is applicable to phenomena that can be expressed numerically. In contrast, qualitative research is concerned with qualitative phenomena. (kothari,2004).

Qualitative research is a technique for investigating and comprehending the importance that individuals or groups ascribe to a social or human problem. The research process includes developing questions and procedures, data collection in the participant's environment, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the data's meaning. Quantitative research examines the relationship between variables to test objective theories. These variables can then be measured, typically with instruments, and the resulting numbered data can be analyzed statistically. Mixed methods research is a method of investigation that combines or associates both qualitative and quantitative forms of inquiry. It entails philosophical assumptions, the use of qualitative and quantitative approaches, and the combination of both in a study. Thus, it entails more than just collecting and analyzing both types of data; it also entails using both approaches concurrently so that the overall strength of a study is greater than either qualitative or quantitative research. (Creswell,2009)

In order to achieve the study's overall objective, a mixed research method will be used for this study. This Mixed research method involves both collecting and analyzing quantitative and qualitative data. Accordingly, both qualitative and quantitative methods will be applied so as to present facts in a reasonable way.

3.2.3. Sampling Design

(Kothari, 2004) A sample design is a specific strategy for selecting a sample from a given population. It refers to the method or procedure used by the researcher to select items for the sample. The sample design may also specify the number of items to be included in the sample. Before collecting data, the sample design is determining. A good sample design has the following characteristics: Sample design must produce a truly representative sample, and sample design must produce a small sampling error. The sample design must be feasible in light of the funds available for the research study. The sample design must be such that

systematic bias can be better controlled. The sample size should be large enough that the results of the sample study can be applied to the entire universe with a reasonable level of confidence. For this research Census type of sampling was used. With Census type of sampling was used it is possible to gain deep understanding of a phenomenon of interest.

3.2.4. Sources of Data Collection

Primary and secondary data gathering approaches will be employed to make the study full and useful. Personal interviews and questionnaires are the methods used to acquire primary data. Secondary data was gathered from a variety of sources, including books, yearly reports, the internet, and magazine articles.

3.2.5. Data Collection Tool

The main data collection techniques used for this research will be questionnaire, interview and document review both from consulting company and EBG. For primary data collection, questionnaire will be taken as a preferable data-gathering tool for this research because It allows the researcher to collect information on facts and attitudes from a wide range of sources. Moreover, it is one of the most important tools to guide the respondent since it gives clear choices to check. Close-ended types of questionnaires will be designed and distributed. Interview with IT and project manager will be used.

Various documents will be examined in order to gather the information required. Relevant information from published documents such as books, journals, and conference papers relating to ERP implementation will be utilized in this respect.

3.2.6. Data Analysis

The collected data will be rearranged, edited and calculated in order to make complete data that is useful for this study. Both quantitative and qualitative methods of data analysis will be used. The collected close-ended questions will be inserted in to SPSS software in order to make a descriptive analysis of the data, which enabled to present quantitatively using frequency and percentage. The descriptive statistics (percent, mean and standard deviations) are used to analyze the general trends of the data.

Before analyzing the data, the collected raw data will be cleaned and edited for completeness and consistency.

3.2.7. Validity and Reliability

It is critical to present the validity and reliability of any research. The validity of the collected data explains how well it covers the actual area of investigation. The term "validity" refers to the ability to "measure what is intended to be measured." The degree to which a measurement of a phenomenon produces a stable and consistent result is referred to as its reliability. Repeatability is another aspect of reliability. A scale or test, for example, is said to be reliable if repeated measurements taken under constant conditions yield the same result. (Taherdoost, 2016).

The internal consistency will be checked with SPSS statistics software. The content validity will be assured by the extensive reading of literature review.

3.2.8. Ethical Considerations

The research will be conducted for a specific project within the company, data collection must be ethical and confidential. The researcher will give each subject a briefing on the research's goal before starting the interview. Interviewees will be advised the rights to withdraw from the study or refuse to answer any questions that they find uncomfortable. As a result, the researcher will assure that no personal or business information will be release in the final report. To ensure confidentiality names of the respondents will not be used in the study.

3.2.9. Research /Time Schedule /Time Line

3.2.9.1. Time Schedule

Table 1 Time Schedule

S/No	Activities	Duration in Months (M)		
		April	May	June
1	Finalizing the proposal			
2	Finalizing the Review of Related Literature			

3	Finalizing the Research Methodology			
4	Development of the research instrument			
5	Data collection			
6	Research Report Writing			
7	Submission of Draft Report			
8	Submission of Final Report			
9	Presentation			

3.2.9.2. Budget Schedule

Table 2 Budget Schedule

Ser. No.	Activities	Unit of Measure	Unit Cost/Rate	Quantity	Total Cost (in Birr)
1	Print	Pcs	2	100	200.00
2	Pen	Pcs	12	2	24
3	Binding	Pcs	50	1	50.00
4	Internet		1year Package		5000
5	Transportation				1000
6	Sub Total				6274.00
7	Contingency (10%)				627.4
	Grand Total				**6,901.4**

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1.Introduction

This chapter has four parts. The first the demographic characteristics of respondents. second, Human Resource challenges of ERP system implementation and third organizational challenges of ERP system implementation. Finally, Technical / Technological challenges for the Implementation. The data was analyzed using SPSS application and cross tabulation methods are used with the help of IBM SPSS application version 23. The data was collected based on the questionnaire and interview questions in English language. A total of 92 questionnaires were distributed.

4.2. Descriptive Statistics Result

4.2.1. Demographic Characteristics of Respondents

Table 3: Gender of respondents

	Frequency	Valid Percent
Female	28	30.4
MALE	64	69.6
Total	92	100.0

Source: SPSS, 2022

The gender profile of the respondents shows that, as indicated in table one above, the majority of the respondents are male, representing for 69.6% of the sample respondents, while female respondents account for 30.4 percent of the sample respondents. This means that, in general, Male employees make up a large portion of the company's workforce.

Table 4: Age of Respondents

	Frequency	Valid Percent
25-35	56	60.9
36-46	32	34.8
46 and above	4	4.3
Total	92	100.0

Source: SPSS, 2022

In terms of age, 60.9 percent of employees are between the ages of 25 and 35, while 34.8 percent are between the ages of 36 and 46. Furthermore, 4.3 percent of the workforce is above 46. This shows that the organization has a youthful and dynamic workforce. To put it another way, the majority of the employees are of working age.

Table 5 :Educational Status of respondents

	Percent	Valid Percent
BA/BSC	72.8	72.8
Masters & Above	27.2	27.2
Total	100.0	100.0

Source: SPSS, 2022

When it comes to the educational status of the company's personnel, 72.8 percent have a bachelor's degree, while the remaining 27.2 percent have a master's degree or higher. As a result, the majority of employees have at least a bachelor's degree, and we can conclude that the company's human resource profile in terms of educational background is in good shape.

4.2.2. Human Resource Challenges

Table 6: Employees fear of losing job

	Frequency	Valid Percent
Disagree	4	4.3
Neutral	20	21.7
Agree	56	60.9
Strongly Agree	12	13.0
Total	92	100.0

Source: SPSS, 2022

Based On Table 6 The percentage of respondents who agreed with the statement "Employees Fear of Job Loss" The majority of respondents (73.9 percent) agreed that employees were concerned about losing their jobs. They immediately fear that their job is at risk and afraid

that their position in the company will lose its value and There was high resistance of changes.21.7% responds neither agree or disagree and 4.3% of the respondents disagree with the statement . The reason for this resistance is a fear that the new system will force them out of their jobs, reducing job security. Based on Table 11 The Standard deviation is 0.705 and the mean is 3.83which indicate the data points are close to the mean. Which implies there is fear of losing job due to the reason of the implementation of ERP System.

Table 7: Lack of Staff development through Training and Certification

	Frequency	Valid Percent
Strongly disagree	7	7.6
Disagree	16	17.4
Agree	53	57.6
Strongly Agree	16	17.4
Total	92	100.0

Source: SPSS, 2022

Based on the collected data from respondents 57.6% agree and 17.4% strongly agree,17.4% disagree and 7.6% strongly disagree on the statement “Lack of Staff development through training and certification”. As indicated in table 11 below the standard deviation was 1.19 which indicate the data points are closer to the mean 3.6. Based on this information we can understand the project team lacks sufficient training to handle both technical and functional tasks. Lack of staff training is one of the challenges during implementation.

Table 8: Inadequate support and knowledge transfer from vendor

	Frequency	Valid Percent
Strongly disagree	15	16.3
Neutral	14	15.2
Agree	38	41.3
Strongly Agree	25	27.2
Total	92	100.0

Source: SPSS, 2022

Regarding the human resource challenge, whether vendors provide adequate support. The majority of respondents (27.2 percent and 41.3 percent strongly agree and agree, respectively), while 16.3 percent and 15.2 percent strongly disagree and neutral. We can conclude from this that the vendor does not provide adequate support or knowledge transfer. Based on the table 11 the standard deviation 1.33 and mean3.6. Which is low standard deviation the data points are concentrated around the mean It is mandatory for vendors to support their customer during and after implementation.

Table 9: Turnover of Key Employee

	Frequency	Valid Percent
Strongly disagree	7	7.6
Disagree	12	13.0
Neutral	6	6.5
Agree	46	50.0
Strongly Agree	21	22.8
Total	92	100.0

Related to the raised human resource challenge if there were high staff turnover. The result shows that majority response of 22.8% and 50% are strongly agree and agree respectively. On the other side 7.6%, 13% and 6.5% of respondents strongly disagree, disagree and neutral respectively. From this we can conclude that staff's turnover challenges are above the average. Based on Table 11 the standard deviation shows 1.187 and the mean 3.67 the data points are concentrated around the mean. From this we can conclude that companies should motivate and encourage their key employees in order to minimize the turnover rate,

Table 10: Team Empowerment /skilled Staff

	Frequency	Valid Percent
Neutral	8	8.7
Agree	64	69.6
Strongly Agree	20	21.7
Total	92	100.0

Source: SPSS, 2022

One of the criteria of ERP deployment in the company is the availability of appropriate skilled human resource who can maintain track of ERP. To investigate this, respondents were asked if they face team empowerment challenges and issues related to finding skilled staff. According to the findings, 21.7 percent and 69.6 percent of respondents with in strongly agree and agree that the current project team functional and technical human resources are insufficient and not skilled for the implementation of ERP by the deadline. Based on the table 11 the Standard deviation is 0.54 and the mean is 4.13. which mean the data is aggregated all around mean.

The open ended questioner's responses also highlighted that adopting and working on the system was difficult and challenging for the project team because they were new to the system. It is difficult to say there is sufficient and skilled professional staff to undertake ERP-related activities. The remaining 8.7% of staff say they are neutral. According to the majority of respondents, more human resource recruiting was required, as well as capacity building training for project team members were needed, in order to successfully implement ERP in the company.

Table 11:Human Resource Challenges Standard deviation and mean

	Mean	Std. Deviation
Employees fear of losing job	3.83	.705
Staff development through Training and certification	3.60	1.187
Inadequate support and knowledge transfer from vendor	3.63	1.332
Turnover of key employee	3.67	1.187
Team Empowerment Skilled staff	4.13	.539

Source: SPSS, 2022

Table 12:Summary of Human Resource Challenges

HUMAN RESOURCE CHALLENGES	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Total (Agree and Strongly agree)	CV(Coefficient of Variance	Total (disagree and Strongly disagree)
Employees fear of losing job	0.0%	4.3%	21.7%	60.9%	13.0%	3.83	.705	73.90%	0.184073	4.30%
Lack of Staff development through Training and certification	7.6%	17.4%	0.0%	57.6%	17.4%	3.60	1.187	75.00%	0.329722	25.00%
Inadequate support and knowledge transfer from vendor	16.3%	0.0%	15.2%	41.3%	27.2%	3.63	1.332	68.50%	0.366942	16.30%
Turnover of Key Employee	7.6%	13.0%	6.5%	50.0%	22.8%	3.67	1.187	72.80%	0.323433	20.60%
Team Empowerment /skilled People	0.0%	0.0%	8.7%	69.6%	21.7%	4.13	.539	91.30%	0.130508	0.00%

Source: SPSS, 2022

4.2.3. Organizational Challenges

Table 13: Lack of support from Top and Senior Manger

	Frequency	Valid Percent
Strongly disagree	4	4.3
Disagree	12	13.0
Neutral	12	13.0
Agree	28	30.4
Strongly Agree	36	39.1
Total	92	100.0

According to the above table, the majority of respondents (39.1 percent and 30.4 percent, respectively) strongly agree and agree that there was a lack of top and senior management support in the project's implementation. On the other hand, 13% of respondents are neutral, 13% disagree, and the remaining 4.3 percent strongly disagree with the statement. Based on table 17 the standard deviation is 1.197 and mean 3.87. which implies low standard deviation

and data are spread more spread around mean. Respondents noted that there was a lack of top management commitment to properly and timely monitoring and evaluating progress, as well as being a part of the implementation process, in the short response section.

Table 14: No Reward System to project team

	Frequency	Valid Percent
Strongly disagree	19	20.7
Disagree	44	47.8
Neutral	9	9.8
Agree	11	12.0
Strongly Agree	9	9.8
Total	92	100.0

Source: SPSS, 2022

The table shows how many staff agree with the statement "no reward system for project members." The majority of respondents disagreed with this assertion, with 47.8% disagreeing strongly and 20.7 percent strongly disagreeing. The organization provided a reasonable incentive/reward to show appreciation for the staff's efforts. The remaining 9.8% of respondents are split between agreeing and disagreeing on this concept, with 12 percent and 9.8% agreeing and strongly agreeing on the statement. Based on table 17 the standard deviation is 1.225 and the mean is 2.42. The coefficient of variation is 0.5 which is closer to the mean.

Even if the rewards add additional costs to the organization, the incentive given encourages the staff to work hard on working days and weekends overtime, as per the interview discussion.

Table 15:Poor time management culture in the organization

		Frequency	Percent	Valid Percent
	Strongly disagree	4	4.3	4.3
	Neutral	16	17.4	17.4

	Agree	48	52.2	52.2
	Strongly Agree	24	26.1	26.1
	Total	92	100.0	100.0

Source: SPSS, 2022

In response to the statement "poor management culture in the organization," 52.2 percent agreed, 26.1 percent strongly agreed, and 4.3 percent strongly disagreed. In contrast, 17.4 percent of respondents did not agree or disagree with the statement. This implies that there was poor time management or a poor time management culture. According to the interview results, Some managers are slow to respond to urgent tasks and there was also a poor time management culture on the consultants' side, such as the time it took for consultants to return from vacation and the integrator's late response for urgent tasks. Based on table 17 the standard deviation is 0.913 and mean is 3.96 which makes the coefficient of variance 0.23 which implies low standard deviation and data points are dispersed around the mean.

Table 16: Lack of effective communication culture within the organization

	Frequency	Valid Percent
Disagree	16	17.4
Neutral	8	8.7
Agree	40	43.5
Strongly Agree	28	30.4
Total	92	100.0

The respondents' level of agreement with the statement "Lack of an effective communication culture within the organization" is shown in the table. The majority of the respondents (43.5 percent and 30.4 percent, respectively) agreed and strongly agreed with the statement, while 17.4 percent disagreed and the remaining 8.7% did not agree or disagree. According to the table 17 below, the standard deviation was 1.04, implying that the data points tended to be quite close to the mean, which was 3.87. This means that ERP deployment will be impacted by a lack of effective communication culture within the firm.

Table 17: Organizational Challenges Standard Deviation and mean

	Mean	Std. Deviation
Lack of support from Top and senior managers	3.87	1.197
No Reward System to project team	2.42	1.225
Poor time management culture in the organization	3.96	.913
Lack of effective communication culture within the organization	3.87	1.040

Table 18:Summary of Organizational Challenges

ORGANIZATIONAL CHALLENGES	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Total (Agree and Strongly agree)	Total (disagree and strongly disagree)	CV(Coefficient of Variance
Lack of support from Top and Senior Manger	4.3%	13.0%	13.0%	30.4%	39.1%	3.87	1.197	69.50%	17.30%	0.309302
No Reward System to project team	20.7%	47.8%	9.8%	12.0%	9.8%	2.42	1.225	21.80%	68.50%	0.506198
Poor time management culture in the organization	4.3%	0.0%	17.4%	52.2%	26.1%	3.96	0.913	78.30%	4.30%	0.230556
Lack of effective communication culture within the organization	0.0%	17.4%	8.7%	43.5%	30.4%	3.87	1.040	73.90%	17.40%	0.268734

Source: SPSS, 2022

4.2.4. Project Management Challenges

Table 19: The project managers lacked project management experience.

	Frequency	Valid Percent
Disagree	8	8.7
Neutral	8	8.7
Agree	60	65.2
Strongly Agree	16	17.4
Total	92	100.0

Source: SPSS, 2022

The question of whether the project manager lacks project management experience has arisen. The results suggest that 65.2 percent of respondents agreed, with 17.4 percent strongly agreeing. On the other hand, 8.7% and 8.7% of respondents are neutral and disagree, respectively. Based on table 23 The standard deviation is 0.78 and mean is 3.91. Which implies the standard deviation is low and the coefficient of variance is 0.2. The data is more clustered around the mean We can conclude from this that the project manager is inexperienced. The interview results reveal that not only does the individual lack project management experience, but he also lacks project management knowledge.

Table 20: The project is not going as anticipated

	Frequency	Valid Percent
Neutral	20	21.7
Agree	52	56.5
Strongly Agree	20	21.7
Total	92	100.0

Source: SPSS, 2022

According to the study's findings, 56.5 percent and 21.7 percent of respondents agreed or strongly agreed with the statement "The project was going as anticipated." Only 21.7 percent of those polled said they don't agree or disagree. Based on table 23 the standard deviation is 0.663 and the mean is 4, this indicates the there is less variance among the respondents .The

results show that the project did not go as anticipated, and that a number of requirements were changed and new requirements were created as a result of the interview. Because each change takes a certain amount of time, the project did not proceed as planned.

Table 21: Poor Project Team Formation

	Frequency	Valid Percent
Disagree	21	22.8
Neutral	14	15.2
Agree	43	46.7
Strongly Agree	14	15.2
Total	92	100.0

Source: SPSS, 2022

One of the most important requirements for effective ERP system implementation is the presence of a strong project team. To investigate this issue, respondents were asked whether there was a poor project team formation and whether the implementation was adequately planned with appropriate and knowledgeable employees. According to the results, 46.7 percent of respondents agree and 22.8 percent disagree .15.2% they respond neutral and the remaining 15.2 strongly agree with statement. Base on Table 23 The Standard deviation is 1.0 and mean is 3.54. Which implies low standard deviation. That the current project team has insufficient knowledgeable staff for ERP implementation. The interview replies also suggested that it is difficult to say whether or not there are sufficient and skilled personnel.

Table 22:Lack of Stockholder involvement

	Frequency	Valid Percent
Disagree	12	13.0
Neutral	8	8.7
Agree	47	51.1
Strongly Agree	25	27.2
Total	92	100.0

In terms of whether or not there is a lack of stakeholder involvement in the project. The majority of respondents (51.1 percent and 27.2.5 percent, respectively) agree and strongly agree that project stakeholder participation is poor. The remaining 8.7% and 13% of respondents were neutral and disagreeing, respectively. The findings show that project stakeholders had a low level of participation. Based on the table 23 The standard deviation is0.94 and mean 3.92 .from this we can conclude there is low Standard deviation and the data pointes are closer to the mean.

Table 23:Project Management challenges Standard Deviation and Mean

	Mean	Std. Deviation
The project managers lacked project management experience	3.91	.780
The project is not going as anticipated	4.00	.663
Poor Project team formation	3.54	1.010
Lack of Stockholder involvement	3.92	.940

Source: SPSS, 2022

Table 24:Summary of Project Management Challenges

PROJECT MANAGEMENT CHALLENGES	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Total (Agree and Strongly agree)	Total (disagree and strongly disagree	CV(Coefficient of Variance
The project managers lacked project management experience	0.0%	8.7%	8.7%	65.2%	17.4%	3.91	0.780	82.60%	8.70%	0.199488
The project is not going as anticipated	0.0%	0.0%	21.7%	56.5%	21.7%	4.00	0.663	78.20%	0.00%	0.16575
Poor Project Team Formation	0.0%	22.8%	15.2%	46.7%	15.2%	3.54	1.010	61.90%	22.80%	0.285311
Lack of Stockholder involvement	0.0%	13.0%	8.7%	51.1%	27.2%	3.92	0.940	78.30%	13.00%	0.239796

Source: SPSS, 2022

4.2.5. Technical / Technological challenges

Table 25: System Integration Issues

	Frequency	Valid Percent
Disagree	52	56.5
Neutral	17	18.5
Agree	14	15.2
Strongly Agree	9	9.8
Total	92	100.0

The respondents were questioned if there were any system integration challenges in the implementation process. According to the results, 56.4 percent of respondents disagree and 15.2 percent agree that system integration concerns doesn't exist. On the other hand, 18.5 percent agree, 9.8 percent. Based on table 31 the mean is 2.78, the standard deviation is 1.036 which is close to the mean and indicates that there was general agreement among respondents

on this variable. As a result, we may conclude that the company's ERP implementation had no system integration issues.

Table 26:System performance issue and network problem

	Frequency	Valid Percent
Neutral	20	21.7
Agree	52	56.5
Strongly Agree	20	21.7
Total	92	100.0

Source: SPSS, 2022

The main challenge for any organization when implementing a new system is technological, as seen by the data gathered from the responders above. For the purpose of determining whether or not there are system performance and network concerns, the question was raised. The majority of respondents (66.3%) disagreed, according to the survey. 16.3%, 14.1 percent, and 3.3 percent of respondents were neutral, agree, and strongly agree, respectively. Based on the table 31 the standard deviation is 0.857 and mean is 2.54 which indicate the data points are closer to the mean. This indicates that there was some system performance and network difficulty, but it was not severe, therefore we may conclude that no system performance or network problem existed.

Table 27: Data Migration Challenges

	Frequency	Valid Percent
Disagree	12	13.0
Neutral	8	8.7
Agree	44	47.8
Strongly Agree	28	30.4
Total	92	100.0

Source: SPSS, 2022

Respondents were asked if they faced any difficulties with data migration. According to the survey's findings, 47.8% of respondents agree, with 30.4 percent strongly agreeing. The remaining 13%, or 8.7%, disagree and neutral respectively. Based on table 31 the mean is 3.96 and the standard deviation is 0.96. which is close to the mean and indicates that there was general agreement among respondents. We can deduce that there was issues on data migration. They stated in the interview that they have had critical challenges with data migration, which takes time to resolve.

Table 28:Security risks /Data security issues

	Frequency	Valid Percent
Strongly disagree	8	8.7
Disagree	49	53.3
Neutral	16	17.4
Agree	13	14.1
Strongly Agree	6	6.5
Total	92	100.0

Source: SPSS, 2022

One of the most important factors to consider when implementing an ERP system is data security. According to the survey, 53.3 percent of respondents disagree and 8.7 percent strongly disagree, while 17.4 percent, 14.1 percent, and 6.5 percent respectively respond Neutral, Agree, and Strong Agree. Based on table 31 the mean is 2.57 and the standard deviation is 1.05 which indicates the data points are closer to the mean. As a result, we can conclude that there were fewer data security concerns. According to their interview responses, they claimed that in order to keep their data private, they have included several procedures such as secure authentication into the system.

Table 29: Functionality limitation

	Frequency	Valid Percent
Strongly disagree	31	33.7

Disagree	51	55.4
Neutral	5	5.4
Agree	4	4.3
Strongly Agree	1	1.1
Total	92	100.0

Source: SPSS, 2022

When it comes to whether or not the project has a functional limitation. There were no critical functionality limitations in the system, according to the majority of respondents (55.4 percent and 33.7 percent, respectively). The remaining 5.4 percent, 4.3 percent, and 1.1 percent of respondents, respectively, were neutral, agree, and strongly agree.to table 31 the mean is 1.84 and the standard deviation is 0.8 which indicate the data points are closer to the mean. According to the findings, the system has fewer constraints. Based on the interview session, the respondents were satisfied with the system's core functionality, and when additional requirements arise that are not covered by the core functionality, the consultants develop and customize a solution to solve the problem.

Table 30:Poor Requirement Definition

	Frequency	Valid Percent
Disagree	28	30.4
Agree	36	39.1
Strongly Agree	28	30.4
Total	92	100.0

Source: SPSS, 2022

The respondent's level of agreement with the statement Problems with requirement definition is shown in the table above. The majority of respondents (30.4 percent and 39.1 percent, respectively) strongly agree and agree with the statement. 30.4 percent of the remaining respondents disagree with the assertion. Based on the table 31 below the mean is 0.8 and standard deviation is 1.84 and the coefficient of variance is 0.43 which has low standard deviation and the points are closer to the mean. As a result, we can conclude that

their requirement specification was inadequate. Based on the interview session, they explained that they have had to deal with a lot of change requests as a result of weak requirement definition.

Table 31 Technical Challenge Standard Deviation and Mean

Technical Challenges	**Mean**	**Std. Deviation**
System Integration issues	2.78	1.036
System performance issue and network problem	2.54	.857
Data Migration Challenges	3.96	.960
Security risks Data security issues	2.57	1.051
Functionality Limitation	1.84	.802
Poor Requirement Definition	3.70	1.202

Source: SPSS, 2022

Table 32:Summary of Technical Challenges

TECHNICAL CHALLENGES	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation	Total (Agree and Strongly agree	Total (disagree and strongly disagree	CV(Coefficient of Variance
System Integration issues	0.0%	56.5%	18.5%	15.2%	9.8%	2.78	1.036	25.00%	56.50%	0.372662
System performance issue and network problem	0.0%	66.3%	16.3%	14.1%	3.3%	2.54	0.857	17.40%	66.30%	0.337402
Data Migration Challenges	0.0%	13.0%	8.7%	47.8%	30.4%	3.96	0.960	78.20%	13.00%	0.242424
Security risks /Data security issues	8.7%	53.3%	17.4%	14.1%	6.5%	2.57	1.051	20.60%	62.00%	0.408949
Functionality limitation	33.7%	55.4%	5.4%	4.3%	1.1%	1.84	0.802	5.40%	89.10%	0.43587
Poor Requirement Definition	0.0%	30.4%	0.0%	39.1%	30.4%	3.70	1.202	69.50%	30.40%	0.324865

Source: SPSS, 2022

4.3. Interview Results

In addition to the quantitative study, qualitative data analysis is carried out to examine the challenges in the implementation of the ERP. The interview used also served as a complement and to enhance the survey results that were found. In order to present the following discussions, interview data has been compiled.

The interviewees answered that there are various benefits of ERP system such as the system integrates throughout the department that helps to monitor and manage the company businesses, Real time, integrated and accurate reports for decision making, Ease of collect, store, manage, and interpret data from various business units. Reliable and user friendly, also maximizing organizational profit, improved efficiency, Clear Data visualization, Standardizing procedure and reports generated from the system.

4.3.1. Project Management Challenges

The interviewees answer there are project management challenges such as project manager don't plan data migration properly, Technical team business understanding, project managers' ability to manage Time and deliverables are not delivered on time, majority of communications are oral/not formal, Steady follow-up and on time delivery. Stakeholder management, Skill and scope definition especially on change requests, Lack of skills, knowledge and experience on system. Numerous difficulties would arise during the implementation of ERP software, as the findings highlight. Avoiding or managing the challenges that arise during implementation phases of ERP systems is essential for its success.

4.3.2. Human Resource

The interviewees respond that there was high project team resistance to change and expecting manual business process from ERP, poor communication, excuse on system for unrelated issues, luck of willingness for the new system to adapt. Subject matter skill, inadequate team support

4.3.3. Organizational challenges

The system requires high Costs to implement, Change management, Stakeholders less focus

change management, resistant to change, poor vendor support, lack of strong internal IT

knowledge management, Key stakeholders are not available, Budget and priority of requirement

Lack of adequate business requirement, Training and fear

4.3.4. Technological Challenges

Master table data, historical data, or outstanding balance transaction data are the types of data that need to be migrated to the ERP system. Old legacy systems served as the data's primary sources. Therefore, data from the old legacy systems needs to be prepared, cleaned up, and formatted in order for the data migration process in the ERP project to go smoothly. The project can be paused if the data is not prepared for testing or migration. So the project manager should plan every process in data migration. The respondents respond there was data migration challenges The project was paused for months while solving issues with migrated data and reconciling data.

Additionally, there was poor requirement definition for customization of new features in addition to the standard features. The respondents respond that there was a lot of change of requirement after the requirement definition for customization document was signed.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1. Summary and Conclusions of Findings

The study conducted in-depth interviews, questionnaires, and document reviews before identifying challenges associated with the implementation of an ERP system in Equatorial Business Group.

The researcher concluded that team empowerment /skilled staff which under Human resource challenges are the highest from the other challenges on the first place. On the second place the project managers lacked project management experience under project management challenge. On third place lack of effective communication culture within the organization under organizational challenge. On the fourth data migration challenges under technical challenges

The majority of respondents agreed on human resource challenge is that the most influential challenge in ERP implementation is a lack of team empowerment/skilled staff. The second most influential challenge is a lack of adequate Staff development through Training and certification. The third challenge in the category of human resources is employees' fear of losing their jobs. Fourth, key employee turnover, and fifth, inadequate vendor support and knowledge transfer

The research found that organizational challenges influence ERP system implementation. The majority of respondents ranked poor time management culture in the organization as the most serious. The second most pressing organizational challenge is a lack of an effective communication culture within the organization, followed by a lack of top and senior managers and a lack of a reward system for project team members.

Regarding the Project Management Challenge, the respondent agrees that the main challenge in the company is a lack of project managers with project management experience. The respondents agree that project managers with skill, knowledge, and experience play an important role in the successful implementation of an ERP system. on the second position The project is not progressing as planned, and there is a lack of stockholder involvement. This means that the project is not progressing as planned and that the stakeholders are not actively involved in the implementation. Poor project team formation is ranked third.

In terms of technological challenges, the majority of respondents believe that data migration challenges are the most difficult. Poor requirement definition is the second most difficult technical challenge, and system integration issues are the third most difficult. Fourth, there are security risks and data security concerns. Fifth, there is a challenge with performance of the system as well as a network issue. according to the research Functionality limitations are regarded as the sixth and least influential challenge in the company.

5.2.Recommendation

The major goal of this research is to identify and describe the challenges that arise during the implementation of ERP in EBG, as well as how it can be best leveraged. As a result, the following suggestions are made.

- The study recommends that the empowering team and giving them the authority and responsibility to make decision is mandatory rather than waiting for top manager to approve requests. Regarding Employee fear of losing job the most critical tasks for a project lead on a new ERP implementation is to address this fear and get employees on board.
- Because ERP systems are relatively new and complex, training is a critical factor in ERP implementation. Organizations must carefully evaluate their employees' training needs, and the type, quality, content, and duration of the training must be clearly organized and controlled.
- The organization's top management should strengthen its support for the project and ensure that all resources required for system implementation are available. Stakeholder should actively participate during the implementation of the project
- It is important to bear in mind that one of the major factors in EBG ERP implementation regarding technological challenge is data Migration Challenges. In order to overcome such type of time taking challenges planning data migration is a necessity.
- By identifying the pain points of the project, the ERP project manager should motivates the employees. Before engaging a project manager, be sure that the ERP installation goals, processes, and timelines are all properly articulated. It is recommended that the project manager should manage all resource, Implementation timeline and implementation plan, He/she should have the ability to lead the project effectively and efficiently. Additionally, an effective method of communication should be adopted.
- Finally, the researcher suggested that more research case studies of ERP implementation in Ethiopian organizations be conducted in order to strengthen the findings of implementation challenges.

References

Boltena, A.S. and Gomez, J.M. (2012). A Successful ERP Implementation in an Ethiopian Company: A case Study of ERP Implementation in Mesfine Industrial Engineering Pvt. Ltd. Procedia Technology, 5, pp.40–49.

Ehie, I.C. and Madsen, M. (2005). Identifying critical issues in enterprise resource planning (ERP) implementation. Computers in Industry, 56(6), pp.545–557.

Ehie, I.C. and Madsen, M. (2005). Identifying critical issues in enterprise resource planning (ERP) implementation. Computers in Industry, 56(6), pp.545–557.

Kipyegon Alfred, B. (2018). Challenges and Prospects of Enterprise Resource Planning (ERP) Systems in the Newly Chartered Public Universities in Kenya. International Journal of Scientific Research and Management, 6(02).

Kothari, C.R. (2004). Research methodology: methods and techniques. 2nd ed. New Delhi: New Age International (P) Limited, Publishers.

Mahmood, F., Khan, A.Z. and Bokhari, R.H. (2019). ERP issues and challenges: a research synthesis. Kybernetes, 49(3), pp.629–659.

Manga, A., Atsa, R. and Zoa, J. (2016). A LITERATURE REVIEW OF ERP IMPLEMENTATION IN AFRICAN COUNTRIES. The Electronic Journal of Information Systems in Developing Countries, 76, pp.1–20.

Moon, Y.B. (2007). Enterprise Resource Planning (ERP): a review of the literature. International Journal of Management and Enterprise Development, 4(3), p.235.

Odhiambo, J. (2008). ERP IMPLEMENTATION CHALLENGES Vendors' Perspective. In: Tenth International Conference on Enterprise Information Systems. Middlesex University Burroughs Roads, NW4 4BT, U.K.: School of Business and computing Science, pp.505–510.

Taherdoost, H. (2016). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. SSRN Electronic Journal, 5(3), pp.28–36

Tobie, A.M., Etoundi, R.A. and Zoa, J. (2016). A Literature Review of ERP Implementation in African Countries. The Electronic Journal of Information Systems in Developing Countries, 76(1), pp.1–20.

Vayyavur, R. (2015). ERP Implementation Challenges & Critical Organizational Success Factors. International Journal of Current Engineering and Technology, 5(4), pp.2759–2765.

Ullah, A., Bin, R., Siddique, M. and Nazir, M. (2017). Enterprise Resource Planning (ERP) Systems and ERP Quality Factors: A Literature Review. Journal of Managerial Sciences, 11(4), pp.298–322.

Upadhyay, P., Jahanyan, S. and Dan, P.K. (2011). Factors influencing ERP implementation in Indian manufacturing organizations. Journal of Enterprise Information Management, 24(2), pp.130–145.

Appendix

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECOMOMICS

SCHOOL OF COMMERCE

Masters of Art in Project Management

Dear

The main goal of this questionnaire is to gather information about ERP (Enterprise Resource Planning) implementation challenges at Equatorial business group in order to fulfill the requirements for a Masters of Project Management at Addis Ababa University. This study's findings will only be used for academic purposes.

As a result, your truthful answers to the questions are essential to the study's quality and completion. The study's reliability is strongly influenced by the accuracy of the data you provide. Please take a few minutes to complete the questionnaire, knowing how valuable your time is. Thank you so much for your time and help with my educational goals. This information will be kept private and used only for the stated purpose.

Appendix I: Survey Questionnaire

Part I: General Information - Please put "**X**" in the box

1. Gender:

1. Male [ ] 2. Female [ ]

2. Educational Status:

1. Diploma [ ] 2. BA/BSC [ ]

3. Masters & Above [ ]

2. Age

1. 25– 35 [ ] 2. 36 – 46 [ ]

3. 46 and above [ ]

3. Other please specify _____

Challenges of Implementing ERP System

Human Resource challenges for the Implementation

Please indicate to what extent the statement applies by placing (√) inside the appropriate box Where, 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

	Human Resource challenge	1	2	3	4	5
	Employees fear of losing job					
	Staff development through Training and certification					
	Inadequate support and knowledge transfer from vendor					
	Turnover of key employee					

	Team Empowerment /Skilled staff					

Organizational Challenges for the Implementation

Please indicate to what extent the statement applies by placing (√) **inside** the appropriate box Where, 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

	Organizational Challenges	**1**	**2**	**3**	**4**	**5**
	Lack of support from Top and senior managers					
	No Reward System to project team					
	Poor time management culture in the organization					
	Lack of effective communication culture within the organization					

Project Management Challenges for the Implementation

Please indicate to what extent the statement applies by placing (√) **inside** the appropriate box Where, 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

	Project management Challenges	**1**	**2**	**3**	**4**	**5**
	The project managers lacked project management experience.					
	The project is not going as anticipated.					
	Poor Project team formation					
	Lack of Stockholder involvement					

Technical / Technological challenges for the Implementation

Please indicate to what extent the statement applies by placing (√) **inside** the appropriate box Where, 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

	Technological challenges factors	**1**	**2**	**3**	**4**	**5**
	System Integration issues					
	System performance issue and network problem					
	Data Migration Challenges					
	Security risks /Data security issues					
	Functionality limitation					
	Poor requirement definition					

Interview Questions

1. What are the Project management related challenges during implementation of ERP in EBG?
2. What is Human Resource related challenges during implementation of ERP in EBG
3. What are Organizational challenges during implementation of ERP in EBG
4. What are Technological challenges during implementation of ERP in EBG

Source: Own

Thank You