



ADDIS ABABA UNIVERSITY
COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES
SCHOOL OF INFORMATION SCIENCE

**MAPPING STAKEHOLDERS' CONFLICTS TO ENTERPRISE
RESOURCE PLANNING IMPLEMENTATION PHASES: CASES
FROM ETHIOPIA**

By
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JUNE, 2021
ADDIS ABABA, ETHIOPIA



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A Thesis Submitted to School of Graduate Studies of Addis Ababa University in
Partial Fulfillment of the Requirements for the Degree of Master of Science in
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DECLARATION

This thesis work has not previously been accepted and recognized for any degree and is not being concurrently submitted in candidature for any degree in any university.

I declare that this thesis entitled “*Mapping Stakeholders’ Conflicts to Enterprise Resource Planning Implementation Phases: Cases from Ethiopia*” is a result of my own investigation, except where otherwise stated. I have undertaken the study independently with the direction and support of my research advisor. Other sources are recognized by citations giving explicit references. A list of references is appended in a reference section.

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

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ABSTRACT

Globally, the trend is towards implementing Enterprise Resource Planning (ERP) system. These days several organizations in Ethiopia are also implementing ERP system. Despite the huge investment in ERP systems, the failure rate of ERP projects is high and the situation is too serious in a resource constrained contexts such as in Ethiopia. Extant literature revealed that client-consultant conflict is one of the critical failure factors for ERP projects. However, there is lack of research on the types and sources of client-consultant conflicts. Few prior researches mainly focus on conflict categorization/ taxonomy such as technical and process conflicts and internal and external conflicts. This study aims to identify types and sources of client-consultant conflicts during ERP implementation and map the conflicts to ERP implementation phases.

This is a qualitative case study conducted in selected companies in Ethiopia that implemented Microsoft Dynamics NAV ERP. Fifteen CSFs were derived from previous studies and the effect of the absence of these identified CSFs on client-consultant conflicts is conceptualized. The conceptual framework was evaluated through interview with experts. A six-step qualitative data analysis framework by Braun & Clark (2006) is used to identify, analyze, organize, describe, and report patterns within the collected data.

The study results show that lack of top management support, project management issues, unbalanced project teams, ineffective communication, lack of skilled resources, resistance to change, undefined functional requirements, inadequate user training, and inadequate vendor support are the main client-consultant conflict types. These conflict types mostly occur on the client side and they are associated with the respective phases of ERP implementation. Some of client-consultant conflicts identified from the literature review were excluded after the investigation. On the other hand, some conflict types are newly identified in addition to the conflict types which are identified from the literature review. This study contributes to ERP literature by providing a better understanding of client-consultant conflicts during ERP implementation. Identifying and understanding the types and sources of client-consultant conflicts with the corresponding ERP implementation phases is important as it can provide a successful implementation.

Keywords: *Enterprise Resource Planning, Stakeholders Conflict, ERP implementation Phase, Microsoft Dynamics NAV*

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List of Acronyms

ERP	Enterprise Resource Planning
MSDN	Microsoft Dynamics NAV
CSFs	Critical Success Factors
IT	Information Technology
IS	Information System
PLC	Private Limited Company
MRP	Materials Requirements Planning
MRP II	Manufacturing Resource Planning
EERP	Extended ERP
CRM	Customer Relationship Management
SCM	Supply Chain Management
SAP	Systems, Applications, and Products in Data Processing
BPR	Business Process Re-engineering
BPO	Business Process Owner

CHAPTER ONE

INTRODUCTION

This introductory chapter presents the background of the research, research motivation, statement of the problem, research questions, study objectives, scope of the research, the significance of the study, and organizations of the study.

1.1 BACKGROUND

The advancement of Information Technology (IT) opens ample opportunities for any sector in this world and it has a crucial role in an organization (Lessa, 2015). These days, for instance, it is almost impossible for an organization to function without this technology. Hence, to make organizations successful and help them meet their goals, it is mandatory to align their working process with the IT system (Chung & Synder, 1999).

Different researchers (e.g. Goldston, 2020; Egdair et al., 2015; Chung & Synder, 1999) have investigated about ERP system, e.g. about its history, future, and impact on different organizations. Materials Requirements Planning (MRP) applications were introduced in 1960s to enable organizations to purchase, forecast, and schedule production (Egdair, Rajemi, & Nadarajan, 2015). ERP is an extension of MRP and MRPII with enhanced and added functionality which combines both business processes in an organization and IT into one integrated solution, which MRP and MRPII had been lacking (Chung

& Synder, 1999). Two waves of ERP change processes were observed during the past three decades; The first initial activities of the ERP implementation are commenced by organizations to integrate business activities and the second wave, upgrading already implemented ERP systems (Alsulami, Rahim & Scheepers, 2013).

Due to the escalation of the company's competitiveness, the application of Enterprise systems has increased. ERP system is recognized by the industry as a practical solution to achieve integrated enterprise information systems (Abdullah, 2017). ERP systems bring together

organizations business process of different functional areas (Zewdu, 2016). ERP systems are modular integrated systems and used for technical integration of different business modules or functions such as payroll and finance, production and sales, purchasing and warehouse, and human resource. It offers a single, integrated system that provides a common view of all the basic logistic and financial information an organization needs to function and it gives a new demand on cooperative relations among different modules (Allen, 2005). It is an important tool that helps organizations in automating and integrating corporate cross-functions and also in organizing and standardizing data and business processes (Biruk, 2018).

Enterprise systems are complex structural designs that help managers of organizations to make tactical and strategic business decisions (Goldston, 2020). The implementation of the ERP process needs to be strategic and has to follow implementation methodology by both the implementer and the client because it is much expensive due to resources, costs, and time. According to Osnes et al. (2018), adopting an ERP system is a complex organizational and technical undertaking, it is challenging to configure, adapt, and data conversion from a legacy system. Successful ERP systems have a capacity to up growth an organization's efficiency, whereas a failed ERP systems are troublesome for an organization (Derbew, 2020). According to Coelho*, Cunha & Meirelles (2016), successful implementation depends on the consultants' general technical knowledge and clients' practical local knowledge adjustment.

From a few years back, the private and governmental organizations became motivated to implementing ERP to facilitate their success and meet their goals. Governmental and private companies need to have a simple, productive, and efficient system to perform their tasks and to go to a higher level of business strategy implementation. Today many organizations in Ethiopia have started to use more sophisticated information system tools like ERP so that the internal workflow is shifted from manual to strategic ones (Foziya, 2017). In fact, the Internet has enabled organizations to expand ERP systems beyond the corporate boundaries and to connect their internal business process with the process of their customers and suppliers.

ERP systems are readymade solutions based on international best practices and developed by different solutions providers. Microsoft Corporation, for instance, is one of the largest and influential business providers around the world and is known for its MS Dynamics ERP

solution among the other popular products and services. Microsoft Dynamics NAV (MDN) is one of the business solutions provided by Microsoft and it has a major part in providing a business solution. Organizations that implement ERP do not only improve their operations efficiently, but they also intend to be more responsive to the customer needs in the global economy (Beheshti et al., 2014).

Currently, in Ethiopia, several manufacturing companies are implementing Microsoft Dynamics NAV ERP, and among these are MOHA Soft Drinks Industry, ASKU Plc, and Abbahawa Trading Plc to mention a few. And Cimac. Inc. is chosen from the implementer side.

1.2 RESEARCH MOTIVATION

Despite the ultimate advantages of the ERP system on integrating the workflows for private and governmental organizations, there exist conflicts during ERP implementation among implementers and clients. It is obvious that conflicts have occurred in everyday human interaction in accomplishing their objectives and it is considered normal. Different reasons in social relationships lead the disagreement among the parties.

In organizations, conflicts are raised because of many reasons (Thakore, 2013). Stakeholders have different levels of experiences, expectations, and participation during the implementation of the ERP system, so these differences lead to the occurrence of conflicts among participants. In developing countries like Ethiopia, ERP system implementation is considered as a promising market just for promoting their products because it encounters a big investment and capital but there are different challenges during the implementation (Netsanet, 2017; Rahel, 2018).

Throughout human interaction in the working environment, there occurs interpersonal and organizational conflicts that directly or indirectly affect an organization. During ERP implementation, conflicts are expected to occur through the interactions of the ERP implementer and the clients. The client-consultant relationship needs to be understood in-

depth and needs big attention to strengthen and build up the consultancy practices and avoid problems between stakeholders during ERP implementation (Kasapoglu & Kizilca, 2011).

The researcher is working as a Functional ERP manager on one of the golden partners of Microsoft corporation named CIMAC Inc. for the last five years. In the course of implementation of MDN for different clients, the researcher experienced different conflicts that are emerged from several reasons at different times, which affect the efficiency and the effectiveness of the overall projects as well as the organization's goal. The conflicts between the implementer and the client lead the ERP projects to fail, become time-consuming, and out of budget. According to Rahim (2001), conflicts increase resistance to change, reduce job performance, damage good relationships, develop an environment of distrust and suspicion, reduce individuals and group communication, promote job dissatisfaction, and reduce commitment and loyalty.

According to Alsulami, Scheepers & Rahim (2019), the impact of ERP implementation conflict has been given little attention by researchers. This implies that there is a lack of empirical researches in ERP stakeholders' conflict mapping with ERP implementation phases. Alsulami et al. (2019), suggested that additional conflict types might be discovered through a multiple case study and it needs further empirical evaluation. This motivated the researcher to research this issue to identify the type of conflicts that occur during ERP implementation and figure out the sources of those conflicts and map them to corresponding ERP implementation phases. Understanding the source and/ or background of conflict is so important to realize ERP implementation success.

1.3 STATEMENT OF THE PROBLEM

ERP systems implementation involves the adoption of new process models and/or significant changes in organization structure (Chou & Yeh, 2015). At the beginning of the ERP projects, the implementers promise to deliver and fulfill all critical information but things are not practically going as promised (Biruk, 2018). Despite the promising delivery or immediate advantages of ERP systems, it is not straight forward as it is believed in the promoting stage (Elias, 2019).

Alsulami et al. (2019) stated that conflict is an inherent part of the ERP system because of the involvement of different stakeholders with the contrary views and implementation phenomenon due to the involvement of different stakeholders with contradictory views and having the organizational change complexity. Conflict is undesirable, detrimental to the organizations and it should not exist, to increase organizational effectiveness (Rahim, 2001). The existence of conflicts among implementer and clients sometimes have a positive impact to assess their performance and capability on both sides. According to Rahim (2001), organizational conflict is important for managers and for scientists to understand organizational behavior and organizational processes. Franco, Virgilio & Pietro (2006) stated that a conflict is a powerful tool of organizational change that, if managed in the right way, leads to an evolution of a working group. But practically in Ethiopia, the researcher noticed that in most cases conflicts among stakeholders result in a negative impact during ERP implementation. This is mainly because both parties try to keep their interests and it takes time to find a solution for those conflicts.

According to Beheshti et al. (2014), identifying and managing critical components and their constitutes at each phase of the system implementation could promote and facilitate its success. Companies experiencing ERP system failure due to a lack of consideration of the success factors and the challenging factors. Different researchers found several critical success factors of ERP implementation in different organizations in Ethiopia (e.g. Biruk, 2018; Elias, 2019; Derbew, 2020). By studying and understanding the already identified critical success factors of ERP implementation on the previous findings, this study tries to find their relationship with the occurrence of ERP client-consultant conflict. Finding their relationship helps to examine types of conflicts, sources of conflicts, and at which stage those conflicts exactly occur during ERP implementation. The researcher also believes that difficulties to understand the critical success factors of ERP implementation lead the stakeholders into conflict, and such stakeholders' conflict, in turn, leads the ERP system to fail or delay. So, companies need to give due attention to those critical issues and understand the factors that lead to a serious problem during ERP system implementation (Sisay, 2018).

During ERP implementation we realize the existence of conflicts but we are not sure why and at what stage exactly the conflicts do occur, therefore mapping client-consultant conflicts with

the ERP implementation phase is very critical for the success of the implementation. A framework or a model should be drawn to clearly show the relationship of client-consultant conflicts reasons to the ERP implementation phases and their source.

Organizational changes can arrive at ERP implementation and post-implementation, conflicts can arise due to those technological and process changes because of different understandings, interpretations, and interests of stakeholders (Alsulami, Rahim & Scheepers, 2014). Alsulami et al. (2013) developed a model of consultant role during ERP post-implementation change process. In a related study, Alsulami et al. (2014) identified the types and sources of ERP conflicts during the ERP change process. Also in a related study, Alsulami et al. (2019) map the sources and types of ERP conflicts with ERP post-implementation context. Chou & Yeh (2015) determines the influences of stakeholders' conflicts on the implementation of Jomo Kenyatta International Airport. However, associating ERP implementation conflicts reasons to all phases is important because conflicts reasons during pre-implementation are different from the implementation and or post-implementation phase. This study, therefore, tries to identify the sources and the types of client-consultant conflicts and map them to the six ERP implementation phases.

1.4 RESEARCH QUESTION

ERP stakeholders' conflicts can be considered as one of the reasons for the ERP system failure or implementation delay because the involvement and contribution of stakeholders are vital for the success of ERP system implementation. Guided by the research gap presented in section 1.3 above, this research tries to answer the following research question:

- How can the sources and types of client-consultant-related conflicts be mapped with ERP implementation phases?

1.5 RESEARCH OBJECTIVE

1.6.1 GENERAL OBJECTIVE

The main objective of this study is to identify sources and types of client-consultant conflicts during ERP implementation and map the conflicts to ERP implementation phases.

1.6.2 SPECIFIC OBJECTIVES

The specific objective of the research is to address the general objective. The following points are the activities that will be done on the research.

- To identify the sources of client-consultant conflict during ERP implementation.
- To identify types of client-consultant conflict during ERP implementation.
- To figure out the stages to which the conflicts are associated.
- To develop a conceptual framework that maps stakeholders' conflicts to ERP implementation phases.
- To evaluate the proposed framework by area experts.

1.6 SCOPE OF THE STUDY

Recently there are different ERP vendors in Ethiopia. SAP, Microsoft Dynamics NAV, and ORACLE are ERP vendors implementing ERP solutions in private and governmental organizations in Ethiopia. This study focuses on the Microsoft Dynamics NAV business solution as the researcher worked on this product for five years. By considering the availability of data, time, cost, and the researcher's working experience, three manufacturing companies are considered: MOHA Soft Drinks Nifas Silk Plant, Abbahawa Trading Plc, and Asku PLC. And on the implementer side, CIMAC Inc. is chosen for this research. The study also focuses on client-consultant conflicts during ERP implementation.

1.7 SIGNIFICANCE OF THE STUDY

This research helps organizations to understand conflict issues during ERP implementation and helps them to divide the conflict sources and types according to implementation phases. The study also helps to form a smooth relationship between the implementer and the clients. Identifying the conflict reason is much important to manage the existing conflicts between the two parties and it helps to form harmony and collaboration among the ERP stakeholders. Also if there are distinguished or already known sources and types of ERP implementation conflicts, both ERP implementation parties make themselves ready to overcome and mediate the conflicts before it happens.

The results of this study also help the system users, top managers, project managers, consultants, and IT teams by letting them have a clear understanding of the sources and types of client-consultant conflicts during ERP system implementation phases. The system users, top managers, project managers, consultants, and IT teams get ready to accomplish what is expected from them to mitigate or avoid the identified conflicts from the very beginning. The results of this study can also help other similar companies to document and learn about the sources and types of ERP implementation conflicts concerning the implementation phase.

This research also has a theoretical contribution. Although conflicts among stakeholders are so common and prominent at different phases of ERP implementation, extant literatures (e.g. Alsulami et al., 2019; Alsulami et al., 2014) indicated that there is a lack of knowledge about types and sources of those conflicts as well as the ERP implementation phases there are associated with. Due to a lack of such knowledge so far, prior research reported that stakeholder conflicts are among factors contributing to ERP implementation failure. This study tries to fill the gap (the reasons that lead the client-consultant conflicts, at which phase these conflicts reasons are associated, and from whose side these reasons are sourced from) that are not well addressed in previous researches and thus adds to the ERP knowledge base. Besides, the research result can be an input for other researchers as a reference to make further investigation in this specific area.

1.8 ORGANIZATION OF THE STUDY

This research involves five chapters. The first chapter provides an overview of the ERP system, study background, the statement of the problem, research question, objectives of the research, the scope of the study, and significance of the study. Chapter two is the systematic review of significant literature about ERP systems, ERP critical success factors, ERP implementation phases, ERP stakeholders, conflicts among stakeholders, the conceptual framework of the study, and related works. The third chapter presents research methodology which constitutes research approaches, strategies, site and case selection, sampling technique, data collection methods, data analysis technique, and data reliability and validity. The fourth chapter deals with the presentation and analysis of the collected data. The final chapter, chapter five, presents the conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents the local as well as international research works and literature that are related to ERP systems and specifically relevant to this study. It provides and explains different related attributes that are identified by different scholars. The researcher has used different keywords to collect relevant works. The main topics are an overview of ERP, history of ERP, characteristics of ERP, benefits of ERP, ERP systems, ERP modules, ERP implementation phases, ERP Critical Success Factors, change management in ERP implementation, stakeholders of ERP system and their roles, Conflict & Negotiation, ERP stakeholders' conflicts, review of related works, the conceptual framework, and summary of the chapter. As well presented in chapter one, the main focus of this study is to map the sources and types of conflicts with ERP implementation phases on the selected manufacturing company in Ethiopia.

2.2 ERP SYSTEM OVERVIEW

ERP systems are fully packaged software intended for a complete range of business flows (Klaus, Rosemann & Gable, 2000; Ehie & Madsen, 2005). Beleş & Purcărea (2017) stated that the ERP system is an integral component of today's complex global market and helps companies streamline business processes. ERP systems are a method to plan and control all the resources effectively (Reshid, Hossain & Patrick, 2002). These systems allow data to be shared between different functions, departments, and units, and offering data visibility and information from various viewpoints (Arrahmane & Abdellah, 2016).

Beleş & Purcărea (2017) also defined an ERP system as a framework for defining, organizing, and standardizing business processes necessary to effectively plan and control an organization so an organization uses its internal knowledge to obtain eternal advantages. According to Singh (2006), ERP is a back-office system, which crunches the transactions, organizes

processing, and guides the employees through the business processes of the company and it provides the traditional functions of a business: buy, make, order, sell, account, pay, employ, plan, budget, etc.



Figure 2.1: An ERP system (**Source:** Microsoft, 2012)

Since ERP systems are giant, complex, costly, and time taking systems that provide fully integrated business processes, they require properly defined organizational business processes, clear goals and objectives, skilled manpower, top management support, and other related CSFs to make the organization benefited from the final output. Before communicating with ERP vendors, the system users of each functional area need to know about the situation and need to assess their motivation and readiness to meet all the needs of the organization.

2.2.1 HISTORY OF ERP SYSTEM

Considering the evolution and historical perspective of ERP systems help to visualize how the business integration concept emerged and developed. Material requirements planning (MRP) was born in the late 1960s and it was a big and expensive solution developed to calculate and manage material required, that requires a large technical team to support the mainframe computers. It is a computer-based system intended to lever the ordering and scheduling of reliant demand inventories (Krantz & Skold, 2005). Beleş & Purcărea (2017) stated that the early MRP application software was the advanced method for planning and scheduling materials for complex manufactured products. Manufacturing resource planning (MRP II) introduced new futures and capabilities on MRP like sales planning, capacity management, and scheduling. According to Beleş & Purcărea (2017), MRP II was born in the late 1970s and it was designed to support closed-loop scheduling, enhanced shop floor reporting, linkages to due date scheduling or procurement, and detailed cost reporting. The current ERP system is originating from both MRP and MRP II.

The Gartner Groups introduced the ERP system in the early 1990s, with the future of its use of client-server hardware architecture (Beleş & Purcărea, 2017). The client-server feature had a rich interface for the users to use relatively with cheap elements. Reshid et al. (2002) stated that between the 1980s and 1990s ERP systems have appeared in the market aiming mainly at large complex business companies, that need consultants to implement them based on the company's requirements. Even though the term ERP has been around since the late 1980s, it is not before 1994 that the concept of ERP became evident with SAP R/3 (Krantz & Skold, 2005).

In the year 2000, ERP systems were quickly adopted by corporates as well as small and medium enterprises to address their needs and competitive advantages. In 2002, software companies strive to find a way to improve product offerings and enhance market share. In between 2000 and 2002, Cisco plays great roles by offering routers and switches that allow peoples in the company to connect to the world and again with ERP systems via remote connectivity. In 2010 the evolution of Internet technologies and programming languages has finally reached the cloud, which enables the business to run efficiently and has the entire

infrastructure taken care of (Beleț & Purcărea, 2017). Cloud ERP systems are written in web-based languages and easier to access from anywhere, on any local and remote devices.

According to Beleț & Purcărea (2017), ERP II (Extended ERP -EERP) is fast evolving, cross-functional, and enterprise-wide concerning all the internal as well as external business units such as SCM (Supply Chain Management) and CRM (Customer Relationship Management). Business environments increasingly become complex with functional units requiring more inter-functional data flows for decision making, procurement of product parts, efficient inventory management, human resources and payroll, and distribution (Reshid et al., 2002).



Figure 2.2: ERP Evolution (**Source:** Reshid et al., 2002)

2.2.2 CHARACTERISTICS OF ERP SYSTEM

ERP systems are complex, configurable, and adaptable software packages. According to Scott & Vessey (2002), the size and complexity of the implementation are influenced by the strategy chosen to roll out the modules (for example, Big Bang, phased, pilot, or some combination thereof). ERP systems have either the ability to support various industries within the solution or compromise pre-configured enterprise-individual solutions (Klaus et al., 2000). ERP systems are characterized more by their functionality than their technical design. Technical features are important in differentiating ERP systems from previous similar software

packages. ERP software packages enforce companies to business processes reengineering (Reshid et al., 2002).

ERP systems are computer applications that have two important characteristics: data integration and support for best practice processes (Sneller, 2014). Data integration means that the data are available for use throughout the company after they are entered once and make the organizations rely on one sharing of data. Whereas best practice is a generally conventional way of functioning that has been adopted by many companies. The ERP system implementation should be considered as a dynamic and continuous procedure with no end (Ahmad & Cuenca, 2012).

According to Reshid et al. (2002), ERP systems process common database management system, their corresponding units are integrated and offer seamless data flow, complex systems involving high cost, flexible and offer best business practices, time-consuming, work in real-time and they are or soon internet enabled. ERP system implementation is costly and time-consuming and makes a fundamental change in the process, if not implemented properly it will cause challenges in most parts of the organization and will certainly fail (Rahnavard & Bozorgkhoh, 2014).

2.2.3 BENEFITS OF ERP SYSTEM

Information Systems have the capability of providing the proper information at the exact time and situation. During the ERP systems implementation, managers need to understand the benefits and aspects of the system as it requires a high financial and labor investment (Wingreen, et al., 2014). ERP systems have several tangible and intangible, and strategic uses (Reshid et al., 2002). Beleş & Purcărea (2017) stated that to improve the companies' competitiveness, an efficient information system is required to cost reduction and better logistics. Sudevan, et al. (2014) argued that managers require to employ technologies to make their company successful and competitive. ERP system has great importance to have an implementation strategy, which includes technological aspects as well as; budgets, methodologies, time-plans, goals, visions, and managerial guidelines (Krantz & Skold, 2005).

According to Cripps & Standing* (2015), ERP system ensures data integrity and best of practice business processes and are used to streamline the flow of information within the enterprise. Because of its data integration and support of best practices, ERP systems can potentially lead to several advantages for business management and operations (Sneller, 2014). According to Maditinos et al. cited in (Wingreen et al., 2014), the ERP systems enhanced harmonization across functional units, increased effectiveness, reduced operating costs, facilitated day-to-day management, rapid access to information for decision making and managerial control, and support for strategic planning. The architecture of the ERP system facilitates the transparent integration of different modules in visible means (Reshid et al., 2002).

Table 2.1: Advantages of ERP Systems (**Source:** (Reshid et al., 2002))

What benefit	How
Reliable information access	Common DBMS, consistent and accurate data, improved reports.
Avoid data and operations redundancy	Modules access the same data from the central database, avoids multiple data inputs, and update operations.
Delivery and cycle time reduction	Minimizes retrieving and reporting delays.
Cost reduction	Time savings, improved control by enterprise-wide analysis of organizational decisions.
Easy adaptability	Changes in business processes easy to adapt and restructure.
Improved scalability	Structured and modular design with “add-ons.”
Improved maintenance	Vendor-supported long-term contract as part of the system procurement.
Global outreach	Extended modules such as CRM and SCM.
E-Commerce, e-business	Internet commerce, collaborative culture.

2.2.4 ERP SYSTEMS

There are distinct differences between ERP packages (Singh, 2006). Those different ERP packages are developed by different vendors. Each vendor has a different specialty in particular functional areas (Reshid et al., 2002). These suppliers are continuously updating their products and introducing new features. As time goes, it is difficult to differentiate between the products as the result of feature-overlapping and increasing competition.

The ERP software tiers have been distinguished based on different parameters such as industry or business category, client size, and financial factors. The common classification of their solutions into tiers, like tier I vendors are well-established and the top suppliers that work for big global business and, tier II and III vendors are the bottoms and newer suppliers that work for usually small and medium-sized business. Tier I suppliers were always more likely to serve everywhere, while tier II suppliers would support a limited number of countries, and tier III suppliers would support within one country (TEC Team, 2020).

- **TIER I ERP SYSTEMS**

Tier-1 systems are originally designed for large businesses, and they are useful in meeting multi-faceted needs of centralized functions for a large number of users (Singh, 2006). Tier-1 is well-known for superior functionalities, advanced technologies, and services to various vertical industries. The cost of Tier-1 is a very high implementation cost compared to Tier-2 products. SAP, Microsoft, and Oracle are well-known Tier I suppliers that are the most familiar in business industries. Tier I ERP software requires very skilled information technology and complex hardware to operate (TEC Team, 2020).

- ***SAP AG-Flagship Products R/3, mySAP.com***

SAP (Systems, Applications, and Products) is the largest ERP vendor, started in 1972 in Germany and it provides several modules like financial accounting, project system, human resources, production planning, and investment management with its famous R/3 ERP system (Reshid et al., 2002). In year 1999, SAP extended its functions by adding features as CRM,

SCM, sales-force automation, and data warehousing. Internet-enabled ERP packages are provided by the recently launched mySAP.COM ERP product.

- ***Oracle Corporation-Flagship Product Oracle Application***

Oracle is the second-largest software company next to Microsoft, founded in 1977 in the USA (Reshid et al., 2002). This application started to work in 1987 with six major categories: supply and chain, accounts payable, manufacturing, finance, projects, human resource, and front office. Oracle ERP system also has other software products such as data warehousing, DBMS, systems administration, application development tools, workflows, and consulting services. Oracle's DBMS is a notable feature in ERP systems and has become the industry leaders' competitor and partner. By eliminating complexity and simplifying IT, Oracle empowers its customers to speed up innovation and create added value for their customers (TEC Team, 2020).

- ***Microsoft***

Microsoft Business Solutions includes the businesses of Microsoft bCentral, Great Plains, and Navision a/s, and the company provides a range of business applications for small and mid-market businesses. Microsoft Business Solutions applications can help automate end-to-end business processes across the following areas (TEC Team, 2020). Among the ERP products are Microsoft Dynamics NAV (MDN) which is a fully integrated system that lets us inter-data and other business activities in a single database. (Microsoft, 2012). MDN enables companies to manage their business, including General ledger, Inventory, Sales and Receivable, Purchases and payable, Resources, Manufacturing, Jobs, Service management, and Human resources. MDN offers online help, user manuals, training material, technical white papers and a website that enables customers a lot of information.

- **TIER II ERP SYSTEMS**

Tier 2 ERP suppliers have served mid-market companies. Tier-2 ERP has the largest implementation that provides basic functionality for back-office operations and focuses on specific vertical markets such as the public sector, non-profit making utilities and it is web-

enabled to run on the J2EE environment (Singh, 2006). Tier -2 ERP lacks full functionality like process or discrete manufacturing but meets almost all the needs of large companies. Tier-2 ERP includes different products such as IFS Applications, Epicor ERP, Infor LN, Sage X3, SYSPRO ERP, and Glovia G2 (TEC Team, 2018).

- **TIER III ERP SYSTEMS**

Tier 3 typically covers medium-sized down to small business clients that rarely operate in multiple countries and markets. Tier 3 is represented by smaller ERP players, such as regional and local ERP companies that often aren't well known outside of a particular geographic market or particular business niche (TEC Team, 2018).

- **OPEN SOURCE ERP SOFTWARE SYSTEM**

Nowadays open-source software has become a familiar term in information technology and computer science, and this allowed developers to collaboratively download, modify, and improve the source code via the Internet as the medium of communication (Emanuel, Wardoyo, Istiyanto & Mustofa, 2010). According to Sneller (2014), open-source software is software in which the source code is distributed with the software, however, Proprietary software is distributed in library format that is readable for computers only and cannot be modified by people. Arrahmane & Abdellah (2016) stated that a program is a free software if it gives users adequately all of these freedoms, otherwise, it is non-free. An open-source system is developed by groups of developers that work together on a project. The developers do not meet in person but they meet virtually on open source hosting sites like Sourceforge. Sourceforge.net is the largest small-to-medium open-source software project development portal with a total of more than 160 thousand registered projects during the period of observation in January 2010 (Emanuel et al., 2010). Open-source software can be studied, improved, adapted, and distributed without restrictions. Almost 200 ERP systems are developed under open source software license agreements, however, it is difficult to judge to what extent these systems are full ERP systems with which data integration and support for best practices can be realized (Sneller, 2014).

2.2.5 ERP SYSTEM MODULES

Different vendors provide different ERP systems but the core modules are almost the same for all of them and the modules can either work as stand-alone units or several modules can be combined to form an integrated system (Reshid et al., 2002). The major ERP modules are: Accounting management, Financial management, Manufacturing management, Production management, Transportation management, Sales & distribution management, Human resources management, Supply chain management, Customer relationship management, and E-Business.

2.3 ERP IMPLEMENTATION PHASES

Classifying ERP implementation in different stages helps to examine and identify factors that are associated with ERP implementation stages and the degree of importance of each factor (Alizai, 2014). The challenges that are occurred in the ERP implementation phase may cause the failure of the project (Ahmadi, Yeh & Martin, n.d.). Different scholars identified different ERP system implementation phases. Most scholars divide the ERP implementation phases into Three, Five, and Six. A few to mention, Ball et al., (2000) identified six ERP system implementation phases: vision and commitment, business process re-engineering, statement of requirements and the invitation to tender, system selection, planning and implementation, and post-implementation. Sneller (2014) used four phases of ERP system implementation: ex-ante evaluation, configuration & roll out, go live, and onward and upward. Alizai (2014) identified six ERP implementation stages: Pre-planning; Planning; Setup & Re-engineering; System design; Configuration & Testing, and installation & 'go live' stages. Alizai (2014), puts those phases in a clear and detailed manner.

2.3.1 PRE-PLANNING

Performing a comprehensive pre-planning analysis of the organization's existing financial and operational performance indicators is very important. In this stage, all needed decisions prominent to the development of a business case, collecting suitable business, obtain financial confirmation, technical and architectural information should be obtained. To allow an informed decision, the necessary information should be shared with appropriate people. Before making any decisions or judgments, the business organizations need to assess the

operational significance and collective business benefits of the proposed application. And also change management and risk management plans should be developed to underline areas that should be considered during implementation.

2.3.2 PLANNING

At this stage, the project activities began to perform officially. The activities that are performed in this stage are the identification of key stakeholders and the formation of a governing body and project team selection. In this stage, project change management and risk management strategies that are identified in the previous stage should be revised and updated if necessary. By considering project time and cost, tasks should be scheduled, resources should be identified, and assigned. To perform and execute the project plans per their desired expectation, timely and precise information is important for a business organization.

2.3.3 SETUP & RE-ENGINEERING

Structuring and combining the technical and business professionals properly to the project team leads the effective project execution. Midsize businesses need to assess their available resources to structure the project teams based on the implementation plan, especially if customization is required. Before making any decisions, organizations need to assess and examine the attitude of staff and management change. To underline the expectation, the project rule should be identified and business case study should be finalized. The internal team training should be taken to enable and equip existing organizational staff with the appropriate skill level.

2.3.4 SYSTEM DESIGN

This stage is important to complete and approve the higher-level design. To address organizational expectations, extensive user communication and coordination are required. During the development process, users should be involved consistently and user acceptance details should be documented. By evaluating staff and management change attitudes, the change management plans should be updated to avoid change resistant. Associated risks with the complexity of ERP applications should be analyzed and addressed by developing an appropriate risk mitigation plan.

2.3.5 CONFIGURATION & TESTING

After the interactive prototype is completed and the requirement is identified in the design document, a comprehensive configuration should be performed. Actual data should be migrated to the test server, the test script should be developed accordingly, and based on the script, reports should be documented and tested. The respective project teams should be involved, and system functions should be assessed and important changes should be coordinated during the system testing process. The project budget and the existing staff skill levels should be assessed. In this phase, system and user testing should be finalized accordingly.

2.3.6 INSTALLATION & ‘GO LIVE’

In this phase, different activities are performed such as building the network, desktop installation, and constructing the production environment. Users should be trained well and the system should go live in the production database. experiences gained through the implementation process should be communicated and documented. Cut-off strategies and management support should be held to make users engaged in the system. The go-live support should be held to address the post-production issues.

2.4 ERP CRITICAL SUCCESS FACTORS

Due to the complexity of ERP systems, different authors studied ERP implementation's critical success factors. Rahnavard & Bozorgkhrou (2014) argued that some of the factors are indicators of the technological variables and some others are governing factors influencing the organization. ERP implementations are complex because a large number of internal and external influences are involved within the implementation process (Ahmad & Cuenca, 2012). The authors argued that despite the awareness of the problems related to ERP implementations, still, the majority of enterprises failed due to the lack of consideration of organizational factors. Krantz & Skold (2005) stated that since ERP systems are complex and require extensive changes in the organization, it is important that the implementation is successful. Most of the ERP projects implemented in the early phases of implementation and commissioning of these systems failed by the rate of between 40-60 percent (Rahnavard & Bozorgkhrou, 2014).

CSFs are measuring to achieve the benefits expected from the ERP system implementation. According to Finney & Corbett (2007), the CSFs are those factors that the organization must “get right” to achieve success and conditions that must be met for the ERP implementation process to occur successfully. CSF is a management term for an element that is crucial for an organization to attain its mission and it shapes features that are crucial to confirm that a successful ERP implementation proves to be a beneficial undertaking for an organization (Fetsum, 2017). CSFs are techniques for improving the chances of system success by applying measurements to update models for ERP project success and evaluate the performance of an implementation (Alizai, 2014). Derbew (2020) stated that CSFs define the key area of implementation performance essential for an organization to accomplish its mission and desired goals.

Cripps & Standing* (2015) stated that identifying CSFs may depend on different situations or contexts, these include the type of application being developed (e.g. Enterprise Resource Planning), General or country-specific CSFs, or different stages of development (general CSF or stage-specific factors). Whether the sector is public or private is also a contextual factor as government departments have different types of expectations to private companies that have to work under forces of competition. The notion of success is context-dependent as some managers may assess success in a variety of ways such as effectiveness, efficiency, attitudes, employee satisfaction (Cripps & Standing*, 2015). According to Krantz & Skold (2005), differences that might affect the critical success factors between smaller companies and larger corporation might be that different departments are not as divided in smaller companies as they are in larger companies, which might create conflicts but ease the communication if there are problems in the implementation.

Identifying the key CSFs in ERP implementation is important to prevent the projects from failure. Organizations are required to be aware of critical factors affecting ERP system implementation and give careful attention to the issues which would lend themselves to smooth rollouts and timely implementation of ERP systems (Ehie & Madsen, 2005). CSFs must be considered to make sure that the implementation is successful. Krantz & Skold (2005) stated that managers and implementation specialists often define the success of a project with terms like “in time” or “within budget”. Krantz & Skold (2005) identifies CSFs concerning

key players and activities for a successful ERP project implementation, as the factors have a different degree of importance in different phases of the ERP life cycle.

2.5 STAKEHOLDERS OF ERP SYSTEM AND THEIR ROLES

ERP stakeholders are parties who have direct or indirect involvement during ERP implementation with different roles and basic activities. The involvement of ERP system stakeholders is quoted as the most influential factor which leads to ERP implementation success (Alsulami et al., 2013). Before an organization can manage its stakeholders, it must first know who the project's relevant stakeholders are, as enterprise system projects involve large numbers of different groups of stakeholders from within and without the organization (Sathish, 2004). So the organization can have a general view of all relevant stakeholders who can affect or affected by the implementation process.

The stakeholders of ERP implementation could be IT staff, users of the ERP system, Top management, external parties, or other beneficiaries from the implementation. The stakeholder involvement and support during the implementation has a great influence and impact on the result of the ERP implementation. In different stages of the ERP implementation life cycle, different stakeholders become crucial to the organization with their respective roles. Sudevan, Bhasi & Pramod (2014) stated that the stakeholder roles differ at each phase of the ERP system implementation phase, so stakeholder issues should be communicated and solved throughout the implementation life cycle. The expertise system implementation required all necessary skills and expertise stakeholders to make the implementation successful (Sathish, 2004).

The identification of relevant stakeholders helps to have a better understanding and more efficient management of the complex inter-stakeholder web, and also have different benefits such as the consideration of organizational and political issues, which have often been identified as the main culprits of project failures, from multiple perspectives (Sathish, 2004). The stakeholders of the ERP system implementation work closely with different levels of interaction to enhance their contribution. ERP implementation introduces organizational

changes and this can promote conflicts, so the engagement of different stakeholders is required to solve those conflicts (Sudevan et al., 2014).

2.6 CHANGE MANAGEMENT IN ERP IMPLEMENTATION

ERP system implementations require sizable organizational changes along with technology changes (Alsulami et al., 2014). Because of the involvement of various stakeholders in the implementation, the change process is very complex to start with many challenges such as the risk of failure and cost (Alsulami, et al., 2013). Many ERP systems failed to deliver expected benefits to ERP system implementing organization for different reasons.

Organizational Change Management is the structured approach to transitioning project stakeholders from their current state to a desired future state to enable stakeholders to embrace organizational and process changes required by the new ERP system (Abel, 2018). Several risks are expected while implementing ERP implementation because the implementation involves big organizational changes (Sudevan et al., 2014). Manage the project; employ a strong project leader and a well-defined methodology, so that changes during the project are addressed appropriately (Scott & Vessey, 2002). Since ERP systems are intended to integrate all business processes, it will cause major changes in the organization, and this introduces resistance, confusion, and errors within the implementing organization (Krantz & Skold, 2005). Scott & Vessey (2002) argued that because of the cross-functional nature of enterprise system implementations, there have significant impacts on business processes and therefore on employees' work lives. Lack of change management can affect the quality of project implementation, and make results smaller (Sudevan et al., 2014).

To mitigate resistance, confusion, and errors during the changes in the organization processes, the employees should aware of the importance of the changes. Alizai (2014) stated that activities such as internal expectation mapping and staff training issues are dealt with appropriately; they help to reduce the change management issues during ERP system implementation. During the implementation, change management undertakings are important in the early phases of the implementation and continue throughout the adaptation and acceptance phases (Krantz & Skold, 2005). As the very complex nature of ERP system

projects, change management can play a significant role to improve employees to understand the aim of the implementation and making organizational changes easier (Sudevan et al., 2014).

2.7 CONFLICT AND NEGOTIATION

Ekpenyong & Udoh (2014) stated that negotiation is a structured process of discussion between conflicting parties without the involvement of third parties about the issues in which their interests or opinions differ, by seeking to resolve their conflicts. It is ruled by pre-established procedure between the representatives of the two parties who are involved in the conflict. The two parties realized that they have a problem and by talking to each other, they finally come up with the solution. Conflict might lead to a non-productive output, or can be beneficially resolved and lead to a quality final outcome (Thakore, 2013).

Nwobodo & Zimmerman (2020) stated that there are two types of negotiation: distributive and integrative negotiation. A distributive negotiation happens when one person gains at the expense of the other while integrative negotiation occurs when both parties have something beneficial from the agreement. And distributive negotiation encompasses traditional win-lose philosophy while integrative negotiation calls for a progressive win-win approach.

2.7.1 CONFLICT

Different researchers defined conflict depending on different contexts. The unequal distribution of power (that is the main feature of society) and resource are the main concerns of conflict theory, these resources might differ for different theorist (Mohammed, 2006). Due to its instinctual behavior, conflict is founded everywhere in the society. He also argued that there exists conflict of war, but there is also the conflict that human beings find in day-to-day activities and relationships. There is something that human beings or animals trying to achieve through conflict, and they use different ways to achieve their goal (Mohammed, 2006).

Thakore (2013) stated that conflict is defined as a contest between individuals with opposing views, beliefs, values, needs, or goals. Through individual interaction, conflict indeed occurs

due to different reasons such as differences in values, beliefs, understandings, and ideology. Conflict can also occur due to individuals' fear, tension, and uncertainty.

Conflict is a persistent phenomenon that affects the processes and outcomes of a large number of organizations, which appears between information systems and other organization departments (Alsulami et al., 2013). Conflict cannot be avoided since organizations continue to use work teams (Thakore, 2013). Due to the unavoidable behavior of conflict, different concepts like conflict management, negotiation, and conflict resolution have been introduced. According to Nwobodo & Zimmerman (2020), not all conflicts in an organization are debilitating because there are functional conflicts that can be beneficial to the organization.

Based on the consequences of whether the organization is benefited or threatened by the way of the conflict, Nwobodo & Zimmerman (2020) classified conflict into two: Functional conflict and Dysfunctional conflicts. Functional conflicts support the objective of the organization and enhance performance, whereas, dysfunctional or destructive conflicts slow down organizational performance.

2.7.2 CONFLICT PROCESS

Groups experienced conflicts by different reasons and task strategies such as how to distribute work, how to handle logical and temporal tensions involving scheduling and workflow, how to handle people who do not complete their assignments on time and do not handle their duties as expected (Behfar et al., 2011). Conflict is an ever-present process in human interaction, and which frequently present in the day-to-day life of individuals (Ekpenyong & Udoh, 2014). The consequences of group conflicts decrease performance, satisfaction, and increase negative emotion.

2.7.3 CONFLICT MANAGEMENT

According to Thakore (2013), conflict management involves acquiring skills related to conflict resolution, conflict communication skills, self-awareness about conflict modes, and establishing a structure for the management of conflict in the organizational environment. Since conflict occurs among groups is obvious, managing and resolving conflict is very

important to make the societies ideal, to reduce its negative and destructive effect, and to avoid violence (Ekpenyong & Udoh, 2014). Conflicts should be managed because resolving all conflicts is a difficult and impossible task. Difficulty to understand the behavior of conflicts may negatively affect the process of conflict management.

There exist diverse kinds of conflicts in an organization and it needs skills to manage and resolve them. Organizations that have a vision in productivity, profitability, agility, and sustainability must involve effective management of conflict, as a critical success factor (Nwobodo & Zimmerman, 2020). Therefore, there has to be good conflict management and negotiation to promote employee effectiveness and organizational productivity.

2.8 ERP STAKEHOLDERS CONFLICTS

Stakeholders' conflicts are important to understand the needs of the environment that eventually aid in delivering timelines and achieving community acceptance of projects (Omondi, 2018). Meer cited from Omondi (2018) classified stakeholders' conflicts as the task, relationship, and process-related conflicts. Task-oriented conflicts are conflicts that are related to disagreements on task content, goals, and direction. Relationship-oriented conflicts are conflicts that are originated from interpersonal relationships and hostility among parties. Process-oriented conflicts are originated from project activities, procedures, channels of communication, and performance timelines set for projects.

The ERP implementation environment becomes very complex because of the different stakeholders' interactions and relationships with external people (Sudevan, 2014). Poolman, Munamati & Senzanja (n.d.) argued that needs, perceptions, power, values, feeling, and emotions are "ingredients" that can lead to conflict when stakeholders take opposing sides. Stakeholders have different frames of reference in assessing enterprise system project success which can result in conflicting interests and incompatible requirements (Sathish, 2004). Alsulami et al. (2014) stated that stakeholders have different views and compete for dominance in an unstable situation that can lead them to opposition and conflict.

Alsulami et al. (2013) stated that ERP implementing organizations face different challenges and conflicts during the ERP change process because of the involvement of different stakeholders with different views and beliefs. Not all stakeholders' conflicts are come up with a negative outcome. It should be realized that conflict is not always negative, however, in fact, it can be healthy when effectively managed and healthy conflict can lead to growth and innovation, new ways of thinking, and additional management options (Poolman, n.d.). To help organizations to develop appropriate actions and improve the information system project outputs, conflicts require to be understood (Alsulami et al., 2013).

2.9 REVIEW OF RELATED WORKS

There is no literature on ERP client-consultant conflicts conducted neither on public nor private organizations of Ethiopia. Whereas, there are few related international works of literature. These related works of literature will be discussed in detail.

Alsulami et al. (2019) study ERP post-implementation conflicts by evaluating the taxonomy. In their study, conflict is defined as it is the characteristic of ERP implementation because of the engagement of different stakeholders with their different views and the complex nature of companies. Accordingly, ERP implementation literature classifies conflict into technical and process conflicts that are originated from inside or outside the organization and also on the ERP context, conflict taxonomy by using two dimensions: the types and sources of conflicts. These two dimensions generate four types of ERP implementation conflicts. The existing two ERP conflict dimensions are applied and refined with ERP post-implementation context.

The authors interviewed different internal and external stakeholders about ERP conflicts, observation, and written material including annual reports, e-mails, and websites. They used qualitative data analysis to evaluate the types and sources of ERP conflicts. The ERP conflicts taxonomy was evaluated and validated by analyzing data from Australian large educational institutes. The authors identified an additional new dimension of ERP conflict called people, then extend the existing taxonomy that has impact each other.

The authors argued that the result of the study has both theoretical and practical advantages. Concerning theoretical advantage, the taxonomy of ERP conflicts can help researchers to study how conflicts can relate to various resolution strategies. Whereas, concerning practical advantage, promote awareness among ERP consultants and ERP managers to prepare themselves to mitigate those conflicts and develops conflict management. Finally, the authors recommend further in-depth case studies to identify additional types of conflicts.

Alsulami et al. (2014) studied consolidating understanding of ERP conflicts by using a dialectic perspective. The authors argued that due to the involvement of organizational change in ERP system implementation and post-implementation, conflicts arise. The ERP conflicts categorization was developed to help stakeholders to understand the ERP implementation in terms of four scenarios and regard to two characteristics: sources and types of conflicts.

To explain the process of change associated with ERP implementation, various theories have been developed that are related to Van de Ven and Poole for the IS. Van de Ven and Poole theory conceptualized four change processes for IS development; that are teleological, life cycle, evolution, and dialectic. These different changes have been applied to ERP systems to the process of organizational development and change. They categorized the organizational change process into two dimensions: unit of change and mode of change. The main advantages of Van de Ven and Poole's typology is the identification of process dimensions with a different set of conditions.

The authors discussed the four scenarios: Internal technical conflicts, External technical conflicts, Internal process conflicts, and External process conflicts in detail. Internal technical conflicts are related misfits to internal system requirements as supposed by internal stakeholders with the ERP system. When the ERP packages misfit with the external business requirements is called external technical conflicts. When there occur differences of interest among internal stakeholder about how the internal process is required to be implemented is called internal process conflicts. External process conflicts occur when there is a clash of internal and external stakeholders' interests about how the external business process is implemented.

The authors argued that the categorization of ERP conflicts provides an understanding of how conflicts occur during ERP system implementation in the organizational change process and helps to illustrate the ERP change process conflicts during ERP system implementation. The authors place both theoretical and practical contributions. The result would help ERP literature in three ways, that is: it categorized the ERP conflicts into the process and technical conflicts throughout an organizational change process, it viewed the ERP change process as a dialectic procedure, and it helps researchers to understand the ERP conflicts during a change process. As a practical contribution, the managements are responsible for the decision-making process and will have a better understanding during the ERP change process to enhance the ERP system implementation

Alsulami et al. (2013) studied a model developed to understand how consultants manage conflicts during ERP post-implementation change process: a dialectic Perspective. In this study, the value of consultants to mediate conflicts due to the engagement of stakeholders in the change process is considered. To understand how the ERP consultants manage conflicts during the ERP change process, the study developed a theory-driven model from a dialect perspective.

The study conducted literature analysis and conceptual framework development, data collection, data analysis, and theory building to identify the role of consultants play in managing conflicts during ERP implementation. The authors applied empirical phases of qualitative approach: to refine the research model the study used an online expert panel, to find out how do consultants working the study used exploratory case study, and to develop an understanding of how the ERP consultants manage the ERP-post implementation change process conflicts with a dialectic view. The study has chosen six private and public sectors with a minimum of three consultants from each participating organization.

The authors argued that the result of this study provides a richer understanding of how ERP consultants manage the ERP-post implementation change process conflicts. And having an improved understanding of conflicts can help to implement organizations that have interests in engaging consultants.

Chou & Yeh (2015) studied stakeholder engagement conflicts and implementation of expansion and modernization projects at Jomo Kenyatta International Airport in Nairobi, Kenta. The authors aim to examine stakeholders' conflict and its consequence on the expansion projects performance in Jomo Kenyatta International Airport. The study assessed the role-related conflicts, process-related conflicts, interdependence conflicts, and relationship conflicts. In the study, the performance of projects was conducted using different parameters: cost, time, and quality of project completion.

The authors used descriptive design and the population was driven by the expansion projects Jomo Kenyatta International Airport. A stratified sampling method was used and questionnaires were used for the data collection. Data were analyzed by using a quantitative approach with the help of a statistical package for social science to ascertain the effects of the independent variable on the dependent variables.

The result of the study established that the involvement of stakeholder conflicts negatively affected the expansion projects of Jomo Kenyatta International Airport. The study recommends the stakeholder participation in all aspects of project participation should be anchored by law, policies, and performance appraisal of project managers to minimize uncertainties and compliments from project stakeholders.

2.10 SUMMARY OF RESEARCH GAP

Table 2.2. Research Gap summary

Authors	Research Gap
Alsulami et al. (2019)	The authors identified the source and types of ERP conflict in the ERP post-implementation phase. This study needs more investigation by considering different phases of ERP implementation.
Alsulami et al.	The authors identified the source and types of ERP conflict during the ERP change process. This study needs more investigation by

(2014)	considering different conflict factors.
Alsulami et al. (2013)	The authors develop a model of consultant role during ERP post-implementation change process. This study needs more investigation by considering different ERP implementation phases and conflict reasons.
Chou & Yeh (2015)	The study focused to determine the influences of stakeholders' conflicts on the implementation of a specific company (Jomo Kenyatta International Airport).

2.11 CONCEPTUAL FRAMEWORK

The conceptual framework (Figure 2.3) aims to map the types and the sources of client-consultant conflicts with the ERP implementation phases. According to Alsudari cited from Haregewoin (2017), measurement of ERP implementation in figures or statistically is a difficult task but it should be measure with these factors that how much it is working and how these factors are implemented successfully. Different scholars identified different ERP system implementation phases as mentioned earlier in section 2.3. Different factors could be the reasons of client-consultant conflicts that will be mapped with the six ERP implementation phases of Alizai (2014); Pre-planning; planning; setup & re-engineering; system design; configuration & testing and installation & 'go live' stages. Several authors identified different ERP implementation CSFs (e.g. Leyh, n.d., Haregewoin, 2017; Ahmad & Cuenca, 2012).

From several critical success factors that are identified by different researchers, the researcher chose the following factors for the conceptual framework that could answer the research question such as resource availability issues, unbalanced project team, lack of skilled resources, misunderstanding of the existing system, project management issues, ineffective communication, undefined functional requirements, resistance to change, ERP system tests issues, data inaccuracy, inadequate user training, required system readiness issues, system performance issues, vendor support issue, and lack of top management support are defined

with the corresponding six ERP implementation stages: Pre-planning; planning; setup & re-engineering; system design; configuration & testing and installation & ‘go live’ stages. See table 2.3 below.

Table 2.3. Conceptualized conflict factors (**Source:** Extant literature)

No.	Name	Sources
1	Lack of top management support	Leyh, n.d.; Krantz & Skold, 2005
2	Inadequate user training	Leyh, n.d.
3	Ineffective communication	Leyh, n.d.; AlQashami & Mohammad, 2015; Alizai, 2014
4	Unbalanced project team	Leyh, n.d.; Krantz & Skold, 2005; Finney & Corbett, 2007; AlQashami & Mohammad, 2015.
5	Lack of skilled resources	Leyh, n.d.; Krantz & Skold, 2005
6	Misunderstanding of the existing system	Elias, 2019
7	Undefined functional requirements	Rahel, 2018
8	Resistance to change	Leyh, n.d.
9	ERP system tests issues	Leyh, n.d.; Finney & Corbett, 2007
10	Data inaccuracy	Leyh, n.d
11	Project management issues	Leyh, n.d.; Krantz & Skold, 2005; Finney & Corbett, 2007; AlQashami & Mohammad, 2015.
12	Required system readiness issues	Leyh, n.d.; Finney & Corbett, 2007
13	System performance issues	Rahel, 2018
14	Vendor support issue	Leyh, n.d.; Bruk, 2018
15	Resource availability issues	Krantz & Skold, 2005; Rahel, 2018

2.11.1 TOP MANAGEMENT SUPPORT

Top management support was mentioned as the main element of ERP project success by several studies. The involvement of management is one of the most important elements of ERP implementation success (Leyh, n.d.). Because the acceptance and the application of new technology by the stakeholders is highly influenced by the top management. The involvement of top management is important to allocate resources, make effective decisions, and solve conflicts while lack of top management support is one of the conflicting factors. Finney & Corbett (2007) stated that top management support is the involvement and commitment of leaders who have both technically oriented and involved in strategic planning in the ERP implementation life cycle. Committed and effective top management support must be involved in every stage of ERP implementation (Elias, 2019; Krantz & Skold, 2005).

2.11.2 USER TRAINING

User training provides an effective understanding of the new processes, applications, and workflows that result from the ERP implementation to the users (Leyh, n.d.). Training encompasses the development of IT skills and that should be hands-on (Finney & Corbett, 2007). Inadequate user training leads the ERP implementation to fail and this situation promotes conflict among the stakeholders. Umbel et al. (2003) cited from Fozia (2017) argued that if the system users do not understand how the system works, then they will develop their own processes by extracting parts of the system that they can operate. So, to avoid misunderstandings, the consultants need to train and support the users who are directly or indirectly involved in the ERP implementation process.

2.11.3 EFFECTIVE COMMUNICATION

Communication or providing a clear concept is the most difficult and challenging element during ERP system implementation (Leyh, n.d.). AlQashami & Mohammad (2015) stated that communication involves sharing information, scope, activities, and objectives among the project team at each ERP implementation phase. The flow of concept or communication requires to be clear between stakeholders of the ERP project because ineffective communication leads the stakeholders' to conflicts and fears. Communication should be clear and focused on the internal team and organizational levels (Alzai, 2014). Both internal and external project teams

should have effective communication to share information and to build partnership trust. Motwani et al. (2005) cited from Fozia (2017) argue that organizations that have actively participating employees during ERP implementation are more successful than companies that do not.

2.11.4 BALANCED PROJECT TEAM

A project team comprises at least two individuals working together with defined responsibilities and functions for a common goal (Leyh, n.d.). During ERP implementation, it is important to have solid and core implementation teams that comprise the organization's best individuals (Finney & Corbett, 2007). The project team members should only focus on the project and it should be their priority. Krantz & Skold (2005) argued that it is important to mix inter-organizational team members and external consultants. Hence, the number of inter-organizational team members and external consultants needs to be balanced to become successful.

2.11.5 SKILLED RESOURCES

Employee's personal skills, knowledge, and experiences improve the ERP implementation success (Leyh, n.d.& Elias, 2019). The experience and the attitude of the team members should be considered for a project's success. ERP team incorporates different educational backgrounds, experiences, and skills to put a strong impact on the implementation success. The knowledge and experience of a project team member play a big role when there are areas that the other members lack (Krantz & Skold, 2005).

2.11.6 UNDERSTANDING THE EXISTING SYSTEM

The capability of the consultant is very important to a project's success because they have the required knowledge and experience to assist the implementing organizations effectively and they realize both the managerial and operational benefits (Elias, 2019). Accordingly, as they involved in every phase of the implementation like requirement gathering and analysis, configuring, and managing the implementation process, they should carefully be selected by considering their technical aspect experience and business process aspects. However,

difficulties to understand the existing system can lead to a wrong decision and may introduce conflict among the client and the consultant.

2.11.7 AVAILABLE RESOURCES

Krantz & Skold (2005) stated that ERP system demands a lot of resources. ERP system implementation needs a lot of resources such as time, organized employees, and money to ensure a project's success. The project managers need to consider and determine those elements in the early stage of ERP system implementation. Rahel (2018) stated that it is very hard to secure resource commitment in advance to ensure the success of a project.

2.11.8 PROJECT MANAGEMENT

Finney & Corbet (2007) defined project management as the ongoing management of the implementation plan. Krantz & Skold (2005) stated that effective project management is an important part of the ERP implementation from the first phase to the final phase. Hence, ERP projects are huge and complex projects, they need effective project management. Project management is important to define project scope, timelines, and goals, and careful tracking of ERP project progress to plan and coordinate in each phase of ERP implementation AlQashami & Mohammad (2015). Project management creates an organized approach to decision making, focuses on the important aspects of the implementation, and ensures timeliness and schedules are met (Leyh, n.d).

2.11.9 DEFINED FUNCTIONAL REQUIREMENTS

Legacy systems are important data sources for the newly implemented systems business process (Rahel, 2018). Each functional requirement requires to be stored in a well-organized and defined manner for the successful conversion and implementation of the ERP system. Defined and well-documented functional requirements help consultants to catch the client's requirements.

2.11.10 RESISTANCE TO CHANGE

Every ERP system stakeholder should be responsible and accountable for the system and they have to be committed to the implementation process (Leyh, n.d.). Lack of stakeholders' effort

and acceptance may reduce the chance of ERP system implementation success. The users and the stakeholders are required to psychologically ready to change and accept the new system as being important to their work (Leyh, n.d.).

2.11.11 SYSTEM READINESS

ERP system implementation needs IT readiness, including IT architecture and resource skills (Finney & Corbet, 2007). Organizations should develop a comprehensive plan carefully to transit from the legacy system, and if necessary, the infrastructure might need to be upgraded or changed depending on the ERP system requirements (Leyh, n.d.). Hence, IT infrastructure readiness needs to be considered for a successful ERP implementation.

2.11.12 ERP SYSTEM TEST

Leyh (n.d.) argued that in ERP implementation, system ‘go-live’ without adequate and planned system testing may lead to an organizational disaster. Testing of the ERP system is crucial to ensure that the system correctly works and that business process configuration was done the right way. Therefore, testing and validating the ERP system is necessary during the final phases of the implementation process for both separate (Finney & Corbett, 2007).

2.11.13 DATA ACCURACY

The availability of accurate data is a fundamental requirement for the effectiveness and the success of the ERP implementation (Leyh, n.d.). Since ERP system is an integrated system, inappropriate data might lead to impact the related or the whole module. To avoid implementation data inconsistency and delays, there should be effective data management throughout the implementation by identifying which data has to be loaded into the system, restructuring desperate data into a single consistent format (Leyh, n.d.). During data migration, interdepartmental communication is an important concern such as accounting, production, and data warehousing.

2.11.14 SYSTEM PERFORMANCE

As an ERP system is complex and has plenty of checks and balances, monitoring system performance is required to detect any alignment complications that may have occurred and

were not apparent (Rahel, 2018). Top management support must aware that there may occur system performance problems and failures in the system during the implementation because this can lead the ERP stakeholders to conflict.

2.11.15 VENDOR SUPPORT

Due to the complexity of the ERP system, the implementation requires consistent support from the ERP vendors to the implementing organization. After the implementation, there will be new modules and versions to install, bug fixes, and process changes to achieve a better fit between a business and system (Leyh, n.d.). A good and strategic relationship between the clients and the vendor is important to ERP implementation success while lacking vendor support detriment organization's competitiveness. Bruk (2018) stated that a means of vendor support is not only when a problem is occurring rather it should be continuous.

This conceptual framework tries to show how the independent factors that are identified above that promote the dependent variable which is client-consultant conflicts during ERP implementation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research design and methods used for data collection and analysis are explained in detail. The chapter presents the research design, research technique, and validity and reliability of the study. The chapter also includes the procedures followed during the research to answer the research question and achieve the study objective.

3.2 RESEARCH DESIGN

The research methodology is a procedure by which investigators go through their work of describing, clarifying, and predicting phenomena (Goundar, 2012). A research design provides a framework for data collection and analysis (Bryman, 2012; Sileyew, 2019). To do so, the researcher formulates an action plan to conduct this study wisely. Steps are formulated to collect, analyze, interpret, and validate the final findings of the research. The research design in this study follow these steps of processes;

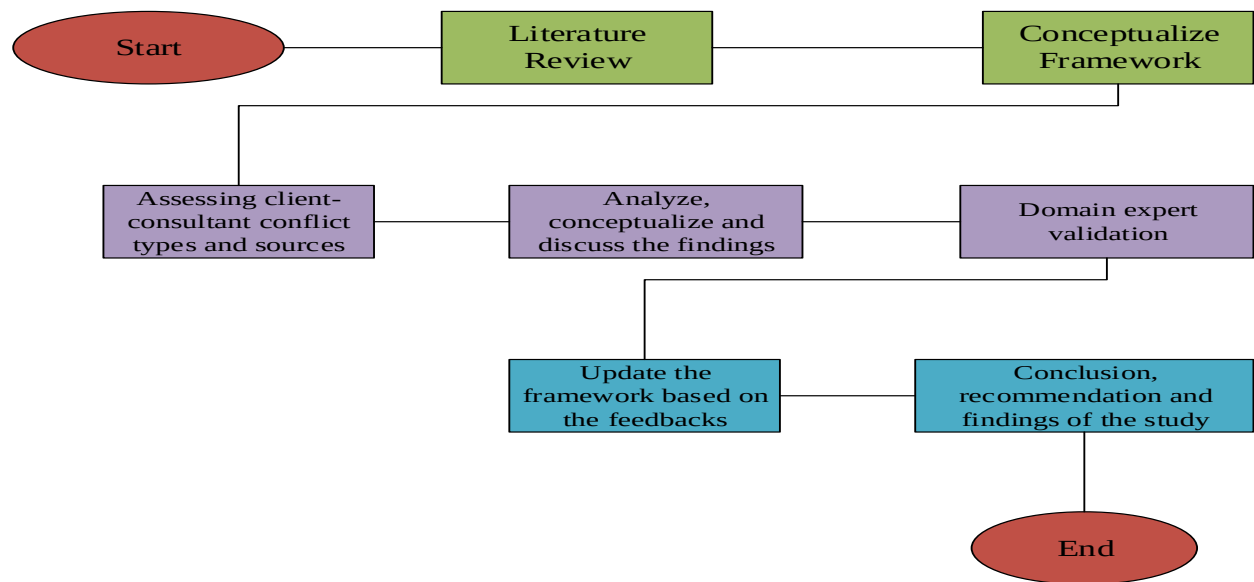


Figure 4.1. Research design

3.2.1 RESEARCH APPROACH

The choice of which method to use is relay upon the nature of the research problem (Noor, 2008). Based on the research question, the researcher wisely decides how relevant data should be collected. Research questions help the researcher to choose an appropriate research approach by anticipating the type of data needed to respond to the research question (Williams, 2007).

As the reasons and sources of client-consultant conflicts are unexplored and unstudied area (mentioned on ‘problem statement’ section), the qualitative approach is an appropriate for this study. Especially, in Ethiopia, there are no such studies related to this research. Qualitative study concerns, understanding the meanings of people’s lives, representing the views and perspectives, covering the contextual conditions in which individuals live, contributing perceptions, and striving to use multiple sources of evidence (Yin, 2011). The researcher first collects the data by using interview, observation, and participation, then explanations were derived. The large amount of data is produced from the interview transcription, observation, and researcher participation. The study interpretations were made from the respondents’ description about the raised issue.

Paradis et al. (2016) argued that qualitative research used when there is a problem and no clear solutions exist. Hence, this approach is used in this research as it helps the researcher to obtain an understanding of sources and types of client-consultant conflicts, representing the respondents' views and perceptions and contributing insights by mapping with ERP implementation phases. This approach also helps the researcher to know the feeling of the stakeholders about the sources and types of client-consultant conflicts in each ERP implementation phase.

3.2.2 RESEARCH STRATEGY

This section helps to put a plan to answer the research questions and put a strategy used to implement the proposed plan. From different types of research strategies, this research followed case study strategy as the researcher aims to have in-depth understanding of the reasons and sources of client-consultant conflicts in each phase of ERP implementation. The vital strength of a case study is its capability to deal with a full variety of evidence documents, artifacts, interviews, and field observations (Yin, 2014). And it is a multiple case study because this research tries to identify key issues and variables that lead the conflicts among the implementers and clients by conducting multiple companies. During this research conducting a case study helps to explore what are the sources of client-consultant conflicts, what types of client-consultant conflicts have occurred, and at what stages do those conflicts have occurred.

3.2.3 STUDY SETTING

For this study, four MS dynamics NAV implementing companies in Ethiopia were purposefully selected as a suitable case for this study, that are considered as appropriate for the study issues. From many MS dynamics NAV implementing companies, the researcher is interested to select MOHA soft drinks, Abbahawa trading PLC, and ASKU PLC for this study. As the study is exploratory, the researcher tries to explore the concepts or theories that are actually happens on these organizations. Yin (2011) stated that case study is generalizable to theoretical propositions and not to populations. All the selected companies have a significant staff size and currently, they are implementing the Microsoft Dynamics NAV ERP system, the software package was implemented by the same vendor CIMAC Inc. Ethiopia and the researcher has participated in all the implementation as a consultant.

MOHA SOFT DRINKS INDUSTRY

MOHA soft drinks industry S.C was acquired from the Ethiopian Privatization Agency and established on May 15, 1996, with vision, mission, and core values. MOHA soft drinks industry S.C establishes the following plants throughout the country, NIFAS SILK PLANT, TEKLEHAIMANOT PLANT, SUMMIT PLANT, GONDAR PLANT, DESSIE PLANT, BURE PLANT, HAWASSA PLANT, and MEKELE PLANT. Currently, MOHA soft drinks industry S.C is located at Bambis, Addis Ababa, Ethiopia. It becomes the best beverage industry with its obtainable Pepsi products throughout the Ethiopian market. MOHA soft drinks S.C won four awards in 2010 from Pepsi Cola international, as per the accomplishment of the standard required by AIBI – an internationally recognized third-party audit firm. They decided to re-engineer and automate their manual process of the company and implement an ERP system, to improve their performance, accomplish their goals, and strengthen their position in the market. The Microsoft Dynamics NAV ERP selection process in MOHA soft drink SC company at Nefas Silk plant started in September 2016.

ASKU PLC

ASKU PLC belongs to the set of companies being managed through ABIG Management Services PLC which is located at Kazanchis, Addis Ababa, Ethiopia (Infront of UNECA). ASKU's leadership made the strategic choice to continually invest in ensuring the company's long term future and market dominance, most notably evident in its vertical integration to its sister companies providing its main production inputs. ASKU produces aquaddis, the most popular bottled water brand in Ethiopia, known for its quality and purity, loved by many and available nationwide. ASKU is also the exclusive franchise bottler for all RC brands of RC Cola International, a division of Cott Beverage USA, within the East African region. It also bottles and manufactures the famous Ethiopicana Juice in different flavors. The company decided to re-engineer and automate their manual system and implement the ERP system to improve their performance, accomplish their business goals, and strengthen their position in the market. The Microsoft Dynamics NAV ERP selection process at ASKU plc started in August 2016.

ABBAHAWA TRADING PLC

ABBAHAWA TRADING PLC is located in Mebrat Hayle/ Haile Garment, Addis Ababa, Ethiopia, and is part of the Fruit & Tree Nut Farming Industry. ABBAHAWA TRADING manages a set of companies such as Abbahawa Cofee, One Water, and Zakie. One Natural Purified Water is purified bottled water that started to be produced in 2015. Zakie produces quality Preform to its sister plant one water for packaging purposes. They decided to re-engineer and automate the current process of the company and implement an ERP system, to improve performance, accomplish their goals, and strengthen their position in the market. The Microsoft Dynamics NAV ERP selection process in Abbahawa trading plc started in January 2019.

CIMAC Inc.

CIMAC is a trusted advisor and innovative solutions provider. It offers state-of-the-art Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), and Microsoft Cloud Services. Our customers leverage our technical ability to be productive, efficient, grow their business, and become competitive at home and in the global market. CIMAC is headquartered in San Jose, California the heart of Silicon Valley, and CIMAC Ethiopia is a regional office operating in Africa.

Table 3.1. List of case companies

No.	Company Name	Company Size	Company Location
1	MOHA Soft Drinks NSP.	Large	Nefas Silk
2	ASKU Plc	Large	Kasanchis
3	ABBAHAWA TRADING Plc	Large	Haile Garment
4	CIMAC Inc.	Medium	ICT Park

3.2.4 CASE SELECTION AND STUDY PARTICIPANTS

As the data provides a better understanding of a theoretical framework, it is important to select from whom the data can be acquired. To identify the data sources of this research, purposive sampling technique is used for the case companies. In this sampling method, key respondents were selected intentionally as information resources for the sake of the research questions to be properly answered. Participants of this study acquired to be involved in the ERP project or having knowledge and experience of ERP project role. The key respondents of the case companies include 13 respondents that are: 3 system users, 3 IT teams, 3 project managers, 2 consultants, and 2 top managers. There is no hard and fast rule for the number of respondent in qualitative research. But, as the data are large, detailed, and the respondents are experienced and rich in the area, considering more than 13 respondents probably make the data repetitive. So, the researcher gets all the information at this stage.

3.3 RESEARCH TECHNIQUE

In this study interviews, on job observations, and participations were used to conduct the research. Both unstructured and structured interviews were conducted to get an appropriate data. The researcher also participated in the project and observation were conducted during the implementation.

3.3.1 DATA COLLECTION

This section is concerned with the collection of data to make the data available for analysis. The following data collection methods are found to be appropriate for this research: -

- Based on the appropriate sample selection, primary data was collected on both the implementer and clients' sides by identifying key individuals who have been involved in ERP implementation.
- ✓ Interviews were made to gain a big picture of activities and to get technical information about implementer and clients conflict on the course of ERP implementation. The interview also helps to understand and interpret non-verbal communication, like gesture or body movement and voice intonation of the

interviewees about the issue. The interview was unstructured one to discuss freely and share the respondent's ideas and careers by involving respondents actively and somehow semi-structured to focus on the core information about client-consultant conflict. Interviews allow respondents to raise issues that the interviewer might have expected (Sileyew, 2019). Related questions based on the previous answers of the respondents were generated to get detailed exploration of the reasons and sources of client-consultant conflicts.

- ✓ On-job observations and participation were made because it is important to go to the workplace and observe how the implementation process is going in a detailed manner. Paradis et al. (2016) explained that "observation is used to gather information by using the senses: vision, touch, hearing and smell, and it allows the researcher to investigate and document what people do and why they do it beyond focusing on their perceptions" (p.264).
- A phone call follow-up is applied to get insights into client-consultant conflict.
- Recent existing literature was reviewed to understand the ERP and specifically ERP Microsoft Dynamics NAV through the internet, contract documents, the clients' legacy system document, the website of Microsoft, and CIMAC Inc. company website. The document review helps the researcher to understand what kind of findings are presented related to client-consultant conflicts during the pre-implementation, implementation, and post-implementation phases and any other findings related to ERP. Document review also helps the researcher to have plenty of information about the respondents' background and helps to prepare interview questions based on their background and experience.

3.3.2 DATA ANALYSIS STRATEGY

Data analysis is the formation of interpretations from the collected raw data to drive meaningful information or results. Qualitative research mainly collects unstructured forms of data such as textual data in the form of observation notes and interview transcripts. Thematic analysis, which is the most used analytical method in qualitative researches. Thematic analysis

is a technique of analyzing experiences, views, truths, and understandings of respondents. The thematic analysis aims to identify themes or patterns (Maguire & Delahunt, 2017). In this research, a thematic analysis is used to interpret respondents' audio records against the identified conceptual framework. During the research, understanding the thematic analysis was time taking and challenging due to the time required to research.

According to Braun and Clarke (2006) six steps of thematic analysis processes, this research adopted these steps as a strategy for data analysis:

Step 1: Become familiar with the data: To become familiarize and understand the body of the collected data, the researcher extensively read the interview transcripts and the observation notes and made notes about the early impressions.

Step 2: Generate initial codes: The researcher codes and organizes relevant pieces of data in a meaningful manner to reduce lots of data to small chunks of meaning.

Step 3: Search for themes (Patterns): The researcher examined the codes, decide which codes are the most relevant, and organized them into broader themes that are relevant to a research question.

Step 4: Review Themes: The researcher review, modify and develop the initial themes that the researcher identified in step 3. The researcher read the data associated with each theme and make sure whether the identified themes make sense, whether the data support the themes, whether the themes separate, whether there are themes within themes and whether there are other themes within the data.

Step 5: Define Themes: The researcher aims to identify what each theme about and if there are sub-themes, learn how do they interact and relate with the main theme, figure out how do the themes relate to each other, and decide if one theme is more important than the other.

Step 6: Writing up results: Writing a report is the last stage of research. In this stage the categories were described and how they are connected, and write out the researcher interpretations and discuss the results.

3.4 VALIDITY AND RELIABILITY

This section concerns how the validity and reliability of the data is checked. In this study, the data was collected by using different methods and sources to triangulate the collected data. Palić et al. (2016) argued that valid data capture and answers the modeled research question, while reliable data reproduces the same result in every trial, unconcerned of the researcher. Different stakeholders were considered and different data collection methods were used. For the reliability of the data, the collected data were well documented. To generate valid, truthful, and believable results, the interview answers were transcribed and send email back to the respondents, and get their confirmation. This helps the researcher to check the accuracy and reduce the researcher subjectivity and bias. Validity and reliability are challenging issues in qualitative research because there is a risk of researcher subjectivity when collecting qualitative data (Lessa, 2015).

The findings of this research should be applicable for similar cases in other organizations and or other countries since identifying and mapping the sources and types of client-consultant conflicts are vital to the success of Microsoft Dynamics NAV ERP implementation in an organization. The finding of this research also expected to be applicable for other ERP business solution products because conflicts are expected on any kind of project as long as there is stakeholders' interaction. The findings of the research should be repeatable or the research has to obtain the same or related results each time on the same or similar subject.

3.5 CHAPTER SUMMARY

In this section, the research design and procedures on how to address the research objectives have been discussed. The research approach, research strategy, sampling method, data collection methods, the data sources, validity and reliability, and data analysis processes have been well presented. This chapter conceptualized all the methods that the researcher intends to use. The qualitative approach has been used since the purpose of this study is to develop a proposed framework for the types and the sources of ERP implementation conflicts. A case study has been used as a research strategy. Purposive sampling has been employed for the selection of relevant respondents. As a qualitative approach, interviews, observations,

participation, and document reviews have been employed to collect relevant data for the study. Thematic analysis has been employed to analyze the collected data.

The next chapter presents the data presentation, analysis, and discussion of the study findings.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 INTRODUCTION

This section presents the data obtained from interviews from the case companies in Ethiopia: MOHA soft drinks S.C, Asku PLC, Abbahawa trading PLC, and CIMAC Inc. In-depth interviews were conducted by using face-to-face interviews and online Telegram calls. All four cases are presented based on the identified conceptual framework.

4.2 RESPONDENT INFORMATION

The study participants of this research were three system users, three IT teams, two consultants, three project managers, and two top managers out of the case companies who are involved in the ERP system implementation and who play significant roles in the implementation process. In addition to face-to-face interviews during the data gathering, the researcher used Telegram call interviews for the CIMAC Inc. consultants due to inconvenient times at their office because of the Covid-19 pandemic.

4.3 CHALLENGES DURING DATA COLLECTION PROCESS

After a letter of support from Addis Ababa University was received, at the end of February 2021, the first letter was submitted to Abbahawa Trading PLC, and they were willing to accept the letter after the researcher explained the study's purpose to conduct an interview. The second letter was submitted to Aqua Addis PLC and they were also willing to accept the letter. The third support letter was submitted to Moha Soft Drinks S.C and they were willing to accept it. Then the final support letter was submitted to Cimac Inc. and they were also willing to accept it.

However, several personal visits and phone calls were made to arrange a convenient interview time with the respondents. Besides, there were different challenges that are related to the interview respondents. Collecting the data was not an easy task especially sensitive issues like

the conflict reasons and sources, but by using the researcher socialization and good relationship, the respondents volunteered to help. Phone call was used when the researcher needed clarifications on some concepts or issues.

The researcher tried to contact Abbahawa trading plc's top management at her office and her phone was not reachable. All CIMAC Inc. employees were work from home because of the Corona Virus pandemic. So this is one of the challenges to contact some of CIMAC Inc.'s interviewees. For that matter, the researcher was forced to conduct the interview by online Telegram call with some of CIMAC Inc.'s respondents. The researcher tried to get CIMAC Inc.'s top manager for the interview, but the researcher could not find him. The researcher sends him an email but he did not reply, and even though the researcher called, he could not answer his phone. The researcher also tried to get CIMAC Inc.'s project manager, but he was really busy with different project tasks.

4.2 DATA PRESENTATION

4.2.1 INTERVIEW DATA

During the interview, questions are asked by starting with general and demographic questions and continue to the research-related questions. The questions raised were towards the project or company level not an individual level. During the participants' response, the researcher listens, takes notes, and recorded answers from respondents to obtain further and detailed understandings. The interviewees were the system users, IT teams, project managers, top managers, and consultants.

The concepts of the interview questions were drawn from the conceptual framework and it incorporates six phases: Pre-planning phase, Planning phase, Setup & re-engineering phase, System design phase, Config & Testing phase, and Installation and Go live phase as discussed in the literature review section. Accordingly, different components are associated with those ERP implementation phases. The pre-planning phase comprises the development of a business case, collecting suitable business, technical and architectural information obtained and shared with appropriate people. The planning phase comprises the identification of key stakeholders, project team selection, project task scheduled, and resources identified and allocated. The

setup & re-engineering phase consists of resource availability check, checking staff & management attitude to change, and train and equip the internal team. System design phase comprises the consistent engagement of users, checking staff & management attitude to change, and extensive communication and coordination to address the organizational expectation. The configuration & testing phase consists of a comprehensive configuration based on the identified requirements, real data migration to the test server, test interface development, reports documented and tested, budget and staff skill assessed, and user training completed. Installation & Go-live includes building the network, desktop installation executed, building the production environment, the system should go live, and obtained experiences are documented (Alizai, 2014).

Because of there is no standard questions on the reasons and sources of client-consultant conflicts, the researcher assessed and conceptualized different CSFs at each ERP implementation phase from the local as well as international literature. Then the researcher formulates the interview questions at each ERP implementation phase. Before starting the actual data collection, the formulated interview questions were evaluated by the domain experts. The interview questions were written in English but the interview conversation was in the Amharic language. Therefore, language translation from Amharic to English and transcription of the recordings were made to present the collected data. The data collected from the respondent's interview were manually encoded to a computer by using the Microsoft word 2016 application. The application was chosen for the purpose of simple insertion, to make it organized, to make the analysis process easy and visible.

Pre-planning phase

Interview question was raised for the respondents to explain what kinds of relationships are existing and what conflict factors are occurring between the clients and the implementers of ERP system in this phase. All respondents conclude that there are no conflicting factors in the pre-planning phase.

A Cimac Inc. consultant A said:

“The relationship is depending on the company like some implementers prepare a seminar by inviting interested companies and make a demo presentation. As this is a selection phase, there is no reason for conflicts because the implementers just show their system and the clients decide whether it is appropriate for their existing system or not.”. According to Asku plc. Top manager, in this phase, the client’s business process is defined clearly and decide which process must be mapped and incorporated in the system. All interviews explained that, there are no client consultant conflicts during this phase of ERP implementation.

The respondents were asked about whether the conflict issues could exist and explain some factors that could be conflicting reasons that are associated with the next phases.

Planning phase

Lack of top management support

Asku plc. IT team mentioned that the project teams are very influenced by the top management decisions, therefore if the top managers do not believe in the implementation, they could be an obstacle to the ERP success. Accordingly, Moha soft drinks S.C. IT team explained that, the top managers should be with the project teams for decision making and since they are managers, they should have a special knowledge.

The Top manager of Asku plc. said:

“A skillful Top Management has to involve seriously at a higher level unless it could be a reason for client-consultant conflicts and the project will be jeopardized. However most of the time the Top Managers do not have the skill, knowledge, and even time but they try to involve highly because they only consider what the project costs them. Therefore, skilled top management makes the project teams skilled and trustful on their tasks”.

Most interviewees agreed that, this issue occur by the client side.

Resource availability issue

The project manager and system user of Abbahawa trading plc. and Cimac Inc. consultant A mentioned that the resource can be materials or human resources, so if the required resources such as the project manager for the planning phases are not available, the project timeline will lag and this promotes conflicts among the stakeholders.

Moha soft drinks S.C. system user and top manager said:

“On the implementer side, they run more than one project at a time and by the client-side, the users are available at their office but, they involve in their day-to-day tasks.”

Most of the respondents mentioned that, this issue occurs by both sides.

Unbalanced project teams

Asku plc. IT team highlighted that, the project managers on both sides should check whether there is a balanced team or not before the project is started and find a solution to make the project successful. Because this affects the project schedule by both sides.

The Project manager of Abbahawa Trading plc. said:

“It is obvious that the output of the work done by one person and the work done by two persons is different and it affects the project schedule. And it promotes conflicts between the consultant and client Project Managers. But the output can also be depending on the teams’ skill.”

Most of the respondents mentioned that, this issue occurs by both sides.

Project management issue

Asku plc. IT team and Top manager, and Cimac Inc. consultant A explained that, the project manager should evaluate and assign resources, budget, and follow up the projects by both

sides unless the project schedule is affected and conflicts occur. Asku plc. Project manager highlighted that, project manager should aware of every project task, follow up on the project, answers every project-related question, should give proper mandate for the resources and facilitate other project-related tasks. Accordingly, by consultant side, the Project manager should make a plan and risk assessment, and also by client-side, should make the Project teams ready for the project for the sake of project success.

The IT team of Abbahawa Trading Plc. and Moha soft drinks S.C. said:

“Without the strong and professional Project manager, the ERP system will not be successful at all. Because the project should go with its schedule and the Project manager has to plan and follow up the project to achieve its goal unless conflicts could occur”.

Most of the respondents mentioned that, this issue occurs by both sides.

Budget allocation issue

Asku plc. Project manager and IT team mentioned that, budget allocation problems affect the project schedule and can be a cause for client-consultant conflicts because sometimes there occur scope and requirement changes in the middle of the implementation. He highlighted that, this issue occurs by both sides.

Setup & re-engineering phase

Lack of top management

IT team of Moha soft drinks S.C. mentioned that, in the process of setting up the working environment like the network, license, server, security, and other equipment, top management involvement is very crucial to achieve the project goals. Abbahawa Trading Plc. & Moha soft drinks IT teams described that, the top managers should know the purpose of the implementation to support the project team. Accordingly, the top management support promotes confidence to the project team and minimize resistance to change.

Abbahawa Trading Plc. Project manager said:

“If there are some changes in the company, the low-level employee waits for the Top management decision by culture, so if there is a lack of Top management involvement to set up the environment and other related decisions, things do not go as planned.”

Most of the respondents agreed that, this issue occurs by both sides.

Unbalanced project team

Asku plc. Project manager explained that, the project managers on both sides should check whether there is a balanced team or not for the project and he added that, the project managers should check a project team based on the assessment which is done in the planning phase. The IT team of Abbahawa trading plc. explained that, balancing the project-teams by both the client and the implementer sides create a good working environment unless complain and conflicts can happen by both sides.

The IT team of Abbahawa trading plc. highlighted *“But the work performance still depending on the teams’ skill”*.

Most of the respondents agreed that, this issue occurs by both sides.

Project management issue

Moha soft drinks S.C. IT team explained that, the project managers by both sides should be certified and have the project management background to get understand each other and if there are issues, should be fixed timely. Abbahawa trading plc. IT team highlighted that, the project manager should assess the working environment and if there is something wrong, they immediately try to find a solution before starting the next phase. Otherwise, the project may delay and can be a cause for conflicts.

Asku plc. Project manager said:

“A strong Project manager is a must at each stage to facilitate the project plan and tasks”.

Most of the respondents agreed that, this issue occurs by both sides.

Resource availability issue

Asku plc. IT team mentioned that, all functional modules assigned resources have to be available and make themselves familiar with one another by both sides unless conflicts can occur.

System design phase

Lack of top management support

Most respondents agreed that, this phase requires more technical peoples to involve in the technical activities. The top management actually need to involve more to see the system output. The IT team and System user of Abbahawa trading plc., and the Top manager of Moha soft drinks S.C. explained *“if the Project manager follows the project appropriately and if there are capable technical teams, the top management support is not that much necessary.”*

Lack of skilled resources

The Project manager of Asku plc. explained that, the implementers must hire experienced, certified, and skilled resources, and the clients must assign who have system skills and have full knowledge about the business process. He added, *“Usually, the implementers only know the happy path of the system but he/she has to know each detail of the system.”*

Asku plc. IT team, Asku plc. System user, and Abbahawa trading plc. System user highlighted that, the client requires skilled resources to design the business process and give necessary information for consultants, and by consultant side, it is important to understand what the users saying. The Cimac Inc. Consultant B, Abbahawa trading plc. IT team, and Moha soft

drinks S.C. System user mentioned that, wrong data are migrated because sometimes the users do not know what they are doing or what is expected from them, so they fail to deliver the required information, and the consultants also do not know what should they ask and why they ask for it.

Most of the respondents agreed that, this issue occurs by both sides.

Misunderstanding of the existing system

The Project manager and Top manager of Asku plc., and System user of Abbahawa trading plc. mentioned that, because of skill problems, the consultants fail to understand the manual system and they may define it in a wrong way and also the setup will be done wrongly. Moha soft drinks S.C. Project manager explained that, the clients should give adequate requirements and should have enough knowledge about the manual system and the consultants also should be capable.

The Cimac Inc. Consultant B said: *“Misunderstanding of the existing system is part of the skill problem.”*

Most of the respondents agreed that, this issue occurs by consultant side.

Project management issue

The Cimac Inc. Consultant A mentioned that, the project manager is very important and a key to verify that all the working progress is properly going with the contract or scope and fix the related issues to make the project successful. Asku plc. Project manager described that, it is critical to have a strong project manager to check whether the system is ready, to follow up whether the demo database being ready or not, and other related tasks.

The Abbahawa trading plc. Project manager and System user explained, *“During the design phase, the project manager has to follow up the project and if there exist issues, he/ she has to find a solution unless the project schedule is affected and conflicts could happen”.*

Most of the respondents agreed that, this issue occurs by both sides.

System readiness issue

Asku plc. IT team explained that, as long as it is a project, it should have a time frame. But on the client-side, if the server, license, and other equipment do not ready for different reasons like the shortage of currency, and the transportation problem, the consultant starts to complain about the project schedule. On the consultant side, if they fail to set up and prepare the demo database on time, then the client starts to complain. The Moha soft drinks S.C. Project manager added that, if the systems are not ready based on the requirements and timely by different reasons like budget allocation problem, there occur conflicts. Abbahawa trading plc. System user highlighted that, the client's project manager should facilitate and make ready the required system.

Abbahawa trading plc. Project manager said *“If the client failed to prepare the infrastructure and network for the ERP implementation, then the problem will be by the client-side. But if all infrastructure and networks are ready by the client-side and if the consultant does not prepare the demo database, then the problem is on the consultant side.”*

Most of the respondents agreed that, this issue occurs by client side.

Resistance to change

The Cimac Inc. Consultant B mentioned that, users are misinformed about the system like if the process is done on the system, they think they may get fired, so they start to resist it. He added that, to minimize resistance to change, the top managers should create an awareness for their employees. The Abbahawa trading plc. System user have agreed with the explanation of the Cimac Inc. Consultant B.

The Project manager of Moha soft drinks S.C. highlighted that, if the users are not interested in the system by fear or another reason, they waste a time to give necessary information and this disappointed the consultants and affect the project schedule. Moha soft drinks S.C. IT team mentioned that, the users have the fear that the system may not handle their process and they do not want to take a risk and they hesitate to accept.

The Top manager of Asku plc. said:

“...especially the users hesitate to accept the system, think of their existing system is better and they try to find the problem of the system part. And they even say the system will not be successful because it was not successful at somebody’s company, and the like.”

Most of the respondents agreed that, this issue occurs by client side.

Undefined functional requirements

Asku plc. Project manager mentioned that, it is difficult to take the individual's speech as a last and approved process requirement because the users can change their mind in the middle. So there should be a defined functional requirement. He added that, this happens because of the absence of proper business process re-engineering at the beginning of the project. So, before communicating with any vendors, the manual system should be re-engineered and even it is better to design an appropriate system from the scratch based on the business process.

An Asku plc. Top manager explained that, the clients know each and every problem on the course of their work, but there may not necessary to have a format, so the consultants have to listed and recommend their format. Most of the time implementers used this issue as a scape. They request a sample document for each request rather than prepare and recommending a standard format. The conflict occurs when the consultant asks for a format and the clients unable to present the format and wait for the consultant's recommendation.

A Cimac Consultant A explained: *“Most end-users have been using the old way of doing things for a long time and they have grown a custom to it. So when we enter to do the new way of doing the same task that helps them, they have a hard time accepting it. This leads to client-consultant conflicts.”*

Most of the respondents agreed that, this issue occurs by client side.

Ineffective communication

A Cimac Inc. Consultant B mentioned that, communication is a basic issue in ERP implementation, so there should be a formal checklist for every activity to make the project successful and the implementers should guide the clients to being formal during the communication. Both Moha soft drinks S.C. Project manager and System user described that, the informal and ineffective communications cause both parties to change their ideas and even lead them to be disloyalty and irresponsibility. An Asku plc. IT team highlighted that, because of gathering requirements orally or phone calls, the consultant may miss the full process and may open the door to lie for both client and consultant. A Cimac Inc. Consultant A explained that, ineffective communication makes the users to change their requirements as they want and it is difficult for the consultants to make the system design accordingly and timely.

Both Moha soft drinks S.C. Top manager and IT team said: *“The communication between the client and the implementer has to be facilitated by the project managers”*.

Most of the respondents agreed that, this issue occurs by both sides.

Resource availability issue

Asku plc. IT team explained that, this phase requires frequent communication and interaction of the users and the consultants as it is a requirement gathering phase. He added that, especially by the time of the budget closing season, it is hard to communicate the clients and also before finalizing the current project the consultants are assigned to another project. The Abbahawa trading plc. IT team have agreed with Asku plc. IT team explanation. Abbahawa trading plc. Project manager and Cimac Inc. Consultant A highlighted that, because of the unavailability of required resources, the required information will not be gathered on time and the project timeline will lag.

The respondents agreed that, this issue occurs by both sides.

- ✚ **Payment request from the implementer:** The IT team of Asku plc. mentioned that, when the implementer issues payment requests after presenting the demo, the clients start to find undone tasks and start complaining.

Configuration & Testing phase

✚ **Lack of top management support**

According to interviewees, no need to involve the top management as long as there is a strong project manager, and the technical guys'/ business experts to proceed the technical activities. So this could not be a conflicting issue in this stage.

A Cimac Inc. Consultant B stated: *“As long as the top-managements already show and guides the project teams at the early phase, top management involvement is not that much important in the Configuration & Testing phase.*

✚ **Project management issue**

A Cimac Inc. consultant A highlighted that, the project manager should assign and schedule all the tasks done in this phase like training and testing time. And if there occur issues, the project manager immediately has to solve them unless conflict by both sides can occur. A Cimac Inc. consultant B stated that, the project managers by both sides should prepare the project checklists and should show their management skill. The Moha soft drinks S.C. Project manager said that, the project managers by both sides should follow the technical activities and issues, to make sure the activities are progressing based on the schedule and put alternative solutions if issues are occurring.

The respondents agreed that, this issue occurs by both sides.

✚ **Inadequate user training**

An Asku plc. Project manager explained that, the training should be practical and timely effective to make the staff capable. He mentioned that, most of the time the training is given

just for formality and for signup. The Project manager and System user of Abbahawa trading plc., the IT team of Asku plc., and Moha soft drinks S.C. system user highlighted that, sometimes consultants are not skilled and do not give adequate training and clients also have a skill problem to grasp and understand the necessary knowledge.

The Project manager of Moha soft drinks S.C. and Cimac Inc. Consultant A said *“As long as the users do not train properly, they have never gone to use the system by themselves and this can promote skill problems. Therefore, skill problem leads to resistance and system failure.”*

The respondents agreed that, this issue occurs by client side.

System performance issue

A Cimac Inc. Consultant A mentioned that, system performance is not a conflicting issue at this phase, because without preparing the required system, even we cannot start the training and the testing. He added that, if both sides understand something is wrong with the system and agree to continue to deploy, then conflict does not occur. The Moha soft drinks S.C. Project manager and System user both have agreed with the Cimac Inc. Consultant A.

Moha soft drinks S.C. IT team explained: *“In this phase, the users mostly focus on the technical aspects of the system”*.

System test issue

An Asku plc. Project manager explained that, most of the time the test script is prepared by the consultant and they prepare it as their interest, so the clients have not satisfied and start to complain during the testing and by the client-side, the user tries to raise new issues and asks for additional requirements. An Asku plc. Top manager added that, before testing the system, both the client and the consultant have to agree with the test script. Sometimes the consultants are interested to test in their way and also the clients are interested to test the system which is not suitable for this stage. An Asku plc. IT team mentioned that, on the client-side, if the tester is not the same guy as at the requirement gathering phase, he/she may start complaining, and by the consultant side, if they fail to show what the clients need, then the users start to resist.

The System user of Moha soft drinks S.C. said:

“Especially if there is no formal communication, the users sometimes complain that ‘this is not my requirement’ and try to add additional requirements.”

The respondents agreed that, this issue occurs by both sides.

Data inaccuracy

An Asku plc. Project manager explained that, sometimes the inaccurate beginning financial data is entered into the system by the weakness of the management to approve the data or by the consultants’ skill problem. The Project manager and System user of Abbahawa trading plc., and Asku plc. System user have agreed with the Asku plc. Project manager explanation and they added that, the amendment could affect the project schedule because it takes time to get the approved data and import it to the system again.

An Asku plc. IT team highlighted that, the problem is on the client-side, sometimes the managers give unaudited beginning data but when the users see the data on the system they start to complain again. This is the managers’ problem or the finance manager has to give audited data. The Abbahawa trading plc. IT team explained: *“the beginning data should be approved by finance managers and in the course of adjusting and importing the data, the consultants have to be careful, unless conflict can happen.”*

The respondents agreed that, this issue occurs by both sides.

Resistance to change

An Asku plc. Project manager and System user both mentioned that, sometimes the users and business process owners (PBOs) want to pool the system process to their manual system and give complaints on the system. The Top manager of Asku plc. and System user of Abbahawa trading plc. both highlighted that, when testing the system, the users try to blame the system by finding the negative parts only.

A Cimac Inc. Consultant B and an Asku plc. IT team both highlighted: *“When the users see their process on the system, they find it complex compared to their manual process and they start to resist”*.

The respondents agreed that, this issue occurs by client side.

Ineffective communication

Asku plc. Top manager explained that, sometimes both the client and the consultant try to escape from accountability and start lying if there is no formal and effective communication. An Abbahawa trading plc. IT team, Moha soft drinks S.C. System user, and Cimac Inc. Consultant B have agreed with Asku plc. Top manager explanation and they added that, ineffective communication leads them to forget the conversation at all. A Cimac Inc. Consultant A highlighted that, the main problem on both sides is the communication problem. They communicate without evidence and ineffectively, then finally they cannot agree.

The Moha soft drinks S.C. Project manager mentioned that, sometimes the communication is ineffective due to skill problems, for that reason, the consultants understand the existing system inappropriately and the clients may disagree with the system outputs.

An Asku plc. Project manager said:

“... as I said earlier, we do not like documentation and we try to finish every task by phone. So because of the absence of formal and effective communication, both the implementer and the client start complain.”

All respondents agreed that, this issue occurs by both sides.

 **Resource availability issue:** The Project manager of Abbahawa trading plc. said that, if the resources are not available by either side, the necessary testing-related tasks could not be done and the testing schedule will be postponed.

 **Payment request issue:** An Asku plc. IT team mentioned that, when the consultant issues payment requests, the clients start to find undone tasks and start to complain.

- ✚ **Project delivery issue:** An Asku plc Top manager highlighted that, timely and proper project deliverability issues can lead to client-consultant conflicts especially by the implementer side.

Installation and Go live phase

✚ **Lack of top management support**

An Asku plc. Project manager explained that, the top management should decide and push the end-users to learn and use it properly unless there exists resistance to change. An Asku plc. Top manager added that, when there is strong and skilled top management involvement in this phase to push the end-users to use the system, peoples start to learn and use the system and reduce complain but, most companies' top management needs the system just to say 'I have a system'.

Abbahawa trading plc System user said that, as the top management ignores the system, then the users also start to ignore it and focus on their manual system. The top management should push to cut over the manual system and use the automated system. The Moha soft drinks S.C. IT team and System user both explained that, top management support is very important especially in this phase to force the users to work the manual system along with the ERP system and to make users engaged seriously in the system.

All respondents agreed that, this issue occurs by client side.

✚ **Inadequate vendor support**

An Asku plc. Project manager and Abbahawa trading plc. System user both mentioned that, even there is a support agreement, the consultant does not give timely and adequate support because the implementer has no enough human resources and has no commitment. For that reason, the clients wait for the response and the backlog data is increased. The Moha soft drinks S.C. Project manager and IT team both explained that, when the users performing their jobs on the system, different errors may have occurred, but to fix those issues the consultants should be available on time.

Abbahawa trading plc. IT team and Asku plc. IT team both said: *“The implementer's top management considers the ERP system as a business. When they found new projects, immediately move their teams to the new project and fail to give enough support to the clients.”*

All respondents mentioned that, this issue occurs by implementer side.

Project management issue

Asku plc. Project manager and IT team both mentioned that, from start to end, a strong project manager is crucial to support, follow up the project status, and give a solution for the problem. An Abbahawa trading plc. Project manager highlighted that, the role of the project manager is very critical here because the actual work is started and there exist many unseen and new issues.

The IT team and System user of Abbahawa trading plc. both said:

“The project managers should follow up the project progress, facilitate the manual system to cut off, and other project management issues unless conflicts can occur.”

All respondents mentioned that, this issue occurs by both sides.

System performance issue

The Top manager and IT team of Asku plc. both explained that, sometimes the consultant recommends inappropriate system equipment or the clients did not buy the recommended one, in that case there exist system performance issues. An Asku plc. Top manager and Project manager both mentioned that, on the consultant side, sometimes the system setup may have done inappropriately and lead to the system performance issue. A Cimac Inc. consultant B explained that, when the actual and day-to-day data are inserted, the performance of the system may become weak and this can be a cause for change resistance.

The Moha soft drinks S.C. IT team highlighted: *“It depends on the users; as an IT team we observe different things. Some users have a skill problem, and just click frequently and make the system busy, and some users have enough skill and understand when the system is busy.”*

Most respondents mentioned that, this issue occurs by both sides.

Resistance to change

An Asku plc IT team said that, in this phase, there is a document cut off. The assumption is the users work on both manual and the current system side by side, but for different reasons, the users ignore the current system and continue their manual system. A Cimac Inc. Consultant A explained that, it is obvious that the users are resisting the system and focus on their manual work. Since most of the employees have been working on the manual system for so long, it becomes hard for them to work on a system, so they try to resist the technology. The IT team of Moha soft drinks S.C. highlighted that, during the project meeting, the users make themselves ready to debate rather than accepting the system.

The System user of Moha soft drinks S.C. explained: *“Because of skill problems and lack of support, users ignore the system and even start to say ‘the system is not working’. So this leads the client-consultant conflict”.*

Lack of skilled resources

An Asku plc. Top manager explained that, a skilled resource is required by both the client and consultant side to use the system properly and to solve the problems. If both incapable of solving system problems, conflicts could occur. The Moha soft drinks S. C. System user and Abbahawa trading plc. System users both have agreed with the explanation of Asku plc. Top manager. An Asku plc. Project manager mentioned that, sometimes the consultants fail to figure out the system issues and the users are forced to stop the transactions and wait for the consultants’ responses, and by the client-side, the users’ skill is under expected and fail to perform their transaction accurately.

A Cimac Inc. Consultant B highlighted *“Lack of the users’ skill could affect the project plan because the work is done inappropriately and needs amendment every time”*.

Most respondents mentioned that, this issue occurs by client side.

Data inaccuracy

An Asku plc. IT team explained that, the users enter the transactional data carelessly or by skill problems especially related to a unit of measure and posting date and when they see the data on the system they start complaining again. An Asku plc. Project manager mentioned that, when the clients try to perform their tasks both manual and on the system side by side, data inaccuracy may happen on the system because the user enters the data just to say ‘I perform my task’. There should be someone to correct the data. It is time taking to find the error and make a reverse.

The Moha soft drinks S.C. IT team said: *“Especially when testing reports, conflicts have existed. The users feed wrong data but when they see the report, they start to complain and these arguments affect the project schedule and can be a cause for conflict.”*

Most respondents mentioned that, this issue occurs by client side.

-  **Lack of commitment:** An Asku plc. Project manager mentioned that, implementers only focus on their income and if they found a new project, they even move their staff to the new project.
-  **Payment request issue:** An Asku plc. IT team mentioned that, when the consultants’ issues payment request, the clients start to find undone tasks and start complaining.
-  **Task delivery issue:** An Asku plc. Top manager mentioned that, timely and proper project deliverability issues can lead to client-consultant conflicts especially by the implementer side.
-  **Over expectation:** An Asku plc. Project manager highlighted that, the clients sometimes expect big output from the system as long as they invest in it but when they see the result, they start to complain.

Table 4.1. Coddling Data into Themes

Coddling data into themes		Codes
Pre-planning phase	As this is a selection phase, there is no reason for conflicts because the implementers just show their system and the clients decide whether it is appropriate for their existing system or not. There are no client-consultant conflicts during this phase of ERP implementation.	No reason/ No client consultant conflicts
Planning phase	Project teams are very influenced by the top management decisions. They could be an obstacle to the ERP success. Top managers should be with the project teams for decision making and since they are managers, they should have a special knowledge. This issue occur by the client side	Influenced/ obstacle/ decision making/ a special knowledge/ client side
	If the required resources such as the project manager for the planning phases are not available, the project timeline will lag and this promotes conflicts among the stakeholders. This issue occurs by both sides.	Resources /project timeline/ lag/ promote conflicts/ both sides
	It is obvious that the output of the work done by one person and the work done by two persons is different and it affects the project schedule. But the output can also be depending on the teams' skill. The project managers on both sides should check whether there is a balanced team. This affects the project schedule by both sides.	Balanced team/ output/ work done/ project schedule/ teams' skill/ both sides
	Project manager should aware of every project task, follow up on the project, answers every project-related question, should give proper mandate for the resources and facilitate other project-related tasks. Without the strong and professional project manager, the system will not be successful.	project manager/ follow up/strong & professional/ facilitate/ both sides
	Budget allocation problems affect the project schedule and can be a cause for client-consultant conflicts because sometimes there occur scope and requirement changes in the middle of the implementation. This issue occurs by both sides.	Budget allocation/ project schedule/ scope and requirement changes/ both sides
Setup & re-engineering phase	In the process of setting up the working environment like the network, license, server, security, and other equipment, top management involvement is very crucial to achieve the project goals. The top managers should know the purpose of the implementation to support the project team. The top management support promotes confidence to the project	Top management/ crucial/ project goals/ confidence/ change resistance/ both sides

	team and minimize resistance to change. This issue occurs by both sides.	
	The project managers should check a project team based on the assessment which is done in the planning phase. Balancing the project-teams by both the client and the implementer sides create a good working environment unless complain and conflicts can happen by both sides. But the work performance still depending on the teams' skill.	Project team/ good working environment/ teams' skill/ both sides
	The project managers by both sides should be certified and have the project management background to get understand each other. The project manager should assess the working environment. A strong Project manager is a must at each stage to facilitate the project plan and tasks. This issue occurs by both sides.	Project managers/ certified/ project management background/ assess/ facilitate/ both sides
	All functional modules assigned resources have to be available and make themselves familiar with one another by both sides unless conflicts can occur.	Resources/ available/ familiar/ both sides
System design phase	This phase requires more technical peoples to involve in the technical activities. The top management actually need to involve more to see the system output. if the Project manager follows the project appropriately and if there are capable technical teams, the Top management support is not that much necessary.	Technical peoples/ technical activities/ system output/ capable/ not necessary.
	The implementers must hire experienced, certified, and skilled resources, and the clients must assign who have system skills and have full knowledge about the business process. They fail to deliver the required full knowledge. This issue occurs by both sides.	Experienced/ certified/ skilled resources/ system skills/ full knowledge/ full knowledge/ both sides
	Because of skill problems, the consultants fail to understand the manual system and they may define it in a wrong way and also the setup will be done wrongly. The clients should give adequate requirements and should have enough knowledge about the manual system and the consultants also should capable. Misunderstanding of the existing system is part of the skill problem. This issue occurs by implementer side.	Skill problem/ adequate requirements/ capable/ Misunderstanding/ existing system/ implementer side
	Critical to have a strong Project manager to check whether the system is ready, to follow up whether the demo database being ready or not, and other related tasks. the Project manager is very important and a key to	Critical/ strong/ project manager/ follow up/ very

	verify that all the working progress is properly going with the contract or scope and fix the related issues to make the project successful. This issue occurs by both sides.	important/ both sides.
	As long as it is a project, it should have a time frame. If the systems are not ready based on the requirements and timely by different reasons like budget allocation problem, there occur conflicts. The client's Project manager should facilitate and make ready the required system. This issue occurs by client side.	Time frame/ requirements/ timely/ make ready/ required system/ client side.
	Users are misinformed about the system like if the process is done on the system, they think they may get fired, so they start to resist it. To minimize resistance to change, the top managers should create an awareness for their employees. If the users are not interested in the system by fear or another reason, they waste a time to give necessary information and this disappointed the consultants and affect the project schedule. This issue occurs by client side.	Misinformed/ resist it/ awareness/ not interested/ necessary information/ disappointed/ client side.
	It is difficult to take the individual's speech as a last and approved process requirement because the users can change their mind in the middle. this happens because of the absence of proper business process re-engineering at the beginning of the project. before communicating with any vendors, the manual system should be re-engineered and even it is better to design an appropriate system from the scratch based on the business process. The conflict occurs when the consultant asks for a format and the clients unable to present the format and wait for the consultant's recommendation. This issue occurs by client side.	Individual's speech/ approved process requirement/ business process re-engineering/ business process/ format/ client side
	Communication is a basic issue in ERP implementation, so there should be a formal checklist for every activity to make the project successful and the implementers should guide the clients to being formal during the communication. The informal and ineffective communications cause both parties to change their ideas and even lead them to be disloyalty and irresponsibly. Because of gathering requirements orally or phone calls, the consultant may miss the full process and may open the door to lie for both client and consultant. This issue occurs by both sides.	formal checklist/ formal checklist/ informal/ ineffective/ disloyalty/ irresponsibly/ orally or phone calls/ lie/ both sides
Configuration & testing phase	No need to involve the top management as long as there is a strong Project manager, and the technical guys'/ business experts to proceed the technical activities. This could not be a conflicting issue in this stage. As long as the top-managements already show and guides the project teams at	No need/ strong Project manager/ technical guys'/ technical activities/

	the early phase, top management support is not that much important in the Configuration & Testing phase.	guides/ project teams
	The Project manager should assign and schedule all the tasks done in this phase like training and testing time. If there occur issues, the Project manager immediately has to solve them unless conflict by both sides can occur. The project managers by both sides should prepare the project checklists and should show their management skill. The Project managers by both sides should follow the technical activities and issues, to make sure the activities are progressing based on the schedule and put alternative solutions if issues are occurring. This issue occurs by both sides.	Assign/ schedule/ solve/ follow/ prepare checklists/ management skill/ both sides.
	The training should be practical and timely effective to make the staff capable. Most of the time the training is given just for formality and for sign-up. Sometimes consultants are not skilled and do not give adequate training and clients also have a skill problem to grasp and understand the necessary knowledge. Skill problem leads to resistance and system failure. This issue occurs by client side.	Practical/ timely/ staff capable/ formality/ sign-up/ adequate training/skill problem/ leads to resistance / client side.
	System performance is not a conflicting issue at this phase, because without preparing the required system, even we cannot start the training and the testing. If both sides understand something is wrong with the system and agree to continue to deploy, then conflict does not occur. In this phase, the users mostly focus on the technical aspects of the system	System performance /not a conflicting issue/ understand/ agree/ technical aspects.
	Most of the time the test script is prepared by the consultant and they prepare it as their interest, so the clients have not satisfied and start to complain during the testing and by the client-side, the user tries to raise new issues and asks for additional requirements. Before testing the system, both the client and the consultant have to agree with the test script. On the client-side, if the tester is not the same guy as at the requirement gathering phase, he/she may start complaining, and by the consultant side, if they fail to show what the clients need, then the users start to resist. This issue occurs by both sides.	test script/not satisfied/complain/ new issues/ additional requirements/ complaining/start to resist/ both sides.
	Sometimes the inaccurate beginning financial data is entered into the system by the weakness of the management to approve the data or by the consultants' skill problem. The amendment could affect the project schedule because it takes time to get the approved data and import it to the	Beginning financial data/ skill problem/ amendment/ unaudited beginning

	system again. Sometimes the managers give unaudited beginning data but when the users see the data on the system they start to complain again. The beginning data should be approved by finance managers and in the course of adjusting and importing the data, the consultants have to be careful, unless conflict can happen. This issue occurs by both sides.	data/ complain/ careful/ both sides.
	Sometimes the users and business process owners (PBOs) want to pool the system process to their manual system and give complaints on the system. when testing the system, the users try to blame the system by finding the negative parts only. When the users see their process on the system, they find it complex compared to their manual process and they start to resist. This issue occurs by client side.	Pool the system/ blame the system/ negative parts/ complex/ start to resist/ client side
	Sometimes both the client and the consultant try to escape from accountability and start lying if there is no formal and effective communication. Ineffective communication leads them to forget the conversation at all. They communicate without evidence and ineffectively, then finally they cannot agree. we do not like documentation and we try to finish every task by phone. this issue occurs by both sides.	Escape from accountability/ start lying/ forget the conversation/ without evidence/ by phone/ both sides
Installation and go-live phase	The top management should decide and push the end-users to learn and use it properly unless there exists resistance to change. When there is strong and skilled top management involvement in this phase to push the end-users to use the system, peoples start to learn and use the system and reduce complain but, most companies' top management needs the system just to say 'I have a system'. Top management support is very important especially in this phase to force the users to work the manual system along with the ERP system and to make users engaged seriously in the system. This issue occurs by client side.	decide and push/ to learn and use/ resistance to change/ strong and skilled/ reduce complain/ to force the users/ make users engaged/client side.
	Even there is a support agreement, the consultant does not give timely and adequate support because the implementer has no enough human resources and has no commitment. For that reason, the clients wait for the response and the backlog data is increased. When the users performing their jobs on the system, different errors may have occurred, but to fix those issues the consultants should be available on time. The implementer's top management considers the ERP system as a business. When they found new projects, immediately move their teams to new project and fail to give enough support to the clients. This issue occurs by implementer side.	Support agreement/ timely and adequate support/ no enough human resources/ no commitment/ available on time/ move their teams/ implementer side.

	From start to end, a strong Project manager is crucial to support, follow up the project status, and give a solution for the problem. The role of the Project manager is very critical here because the actual work is started and there exist many unseen and new issues. The Project managers should follow up the project progress, facilitate the manual system to cut off, and other Project management issues unless conflicts can occur. This issue occurs by both sides.	Strong Project manager/ follow up/ give a solution/ unseen and new issues/ project progress/ both sides
	Sometimes the consultant recommends inappropriate system equipment or the clients did not buy the recommended one, in that case there exist system performance issues. Sometimes the system setup may have done inappropriately and lead to the system performance issue. When the actual and day-to-day data are inserted, the performance of the system may become weak and this can be a cause for change resistance. It depends on the users; as an IT team we observe different things. Some users have a skill problem, and just click frequently and make the system busy, and some users have enough skill and understand when the system is busy. This issue occurs by both sides.	Inappropriate system equipment/ system setup/ change resistance/ day-to-day data/ skill problem / click frequently/ both sides
	The assumption is the users work on both manual and the current system side by side, but for different reasons, the users ignore the current system and continue their manual system. It is obvious that the users are resisting the system and focus on their manual work. Since most of the employees have been working on the manual system for so long, it becomes hard for them to work on a system, so they try to resist the technology. Because of skill problems and lack of support, users ignore the system and even start to say ‘the system is not working’.	skill problems/ ignore the current system / side by side/ focus on manual work/ resist the technology/ lack of support/ client side.
	A skilled resource is required by both the client and consultant side to use the system properly and to solve the problems. If both incapable of solving system problems, conflicts could occur. Sometimes the consultants fail to figure out the system issues and the users are forced to stop the transactions and wait for the consultants’ responses, and by the client-side, the users’ skill is under expected and fail to perform their transaction accurately. Lack of the users’ skill could affect the project plan because the work is done inappropriately and needs amendment every time. This issue occurs by client side.	Solving system problems/ perform transaction accurately/ affect the project plan/ client side

4.3 DISCUSSION

This research aimed to answer the question “How can the sources and types of client-consultant related conflicts be mapped with ERP implementation phases?” and propose a framework of the sources and the types of ERP conflicts for the corresponding implementation phases that can be used as a base for ERP implementation success in Ethiopian organizations and provide better knowledge for peoples who are working on this area of the field. The interview questions were developed from the literature which was presented in the literature review section above.

4.3.1 THE MAIN CONFLICT TYPES WITH THE CORRESPONDING PHASES

In this section the core sources of client-consultant conflict with the corresponding ERP implementation phases will be discussed based on the interviews of the case studies of Asku plc., Abbahawa trading plc., Moha soft drinks S.C., and Cimac Inc. Now a day, ERP implementation is widely spread in the world, but conflicts are the main reasons for the failure of the implementation. Therefore, it is crucial to assess which conflict factors frequently occur and what factor is mostly associated with which implementation phase. These phases are pre-planning, planning, setup & re-engineering, system design, configuration & testing, & installation & go live

PRE-PLANNING PHASE

Sometimes, implementers prepare seminars by inviting different companies and present and demonstrate their ERP system. Others may not have any interaction with implementers in this phase, the implementing organizations only define their business process and decide which process must be mapped and incorporated into the system. Organizations can follow either way as their preference. Therefore, even there is an interaction among the stakeholders, there could not occur any conflicts as long as the interactions are to choose an appropriate vendor.

PLANNING PHASE

As is agreed by most respondents, most client-consultant conflicts in the planning phase are occurred because of lack of top management support, unbalanced project team, and project management issues.

Lack of top management support: During the early stage, the top managers should highly support and push the project teams to make them involved in the project. The top managers should have special skills and knowledge unless they may disturb and jeopardize the implementation process. The top manager of Asku plc. stated that the client's top managers do not have the skill, knowledge, and even time but they try to involve highly because they only consider what the project costs them. They also should believe in the final output of the implementation to make the project teams confident.

Project management issue: ERP implementing companies should have a strong and skilled project manager to define the implementation plan, to evaluate, identify and allocate appropriate resources, budget, and to define risk assessment plan. The system user of Abbahawa trading plc. stated: by consultant side, the project manager should make a plan and risk assessment, and also by client-side, should make the project teams ready for the project for the sake of project success. The project manager should be professional and aware of every project task to understand the project teams and give a proper mandate for the resources.

Unbalanced Project team: Balancing the project team is important for finalizing the project timely and cooperatively. Before starting the actual work, the project manager should assess the project teams that are required to be involved in the project. The Project manager of Abbahawa trading plc. explained even if the output of the work is depending on the individual's skill, the output of the work done by one person and the output of the work done by two individuals is different. If there occurs a lack of resources, the project manager should immediately find other alternatives like hiring additional staff for the project.

SETUP AND RE-ENGINEERING PHASE

As of the planning phase of ERP implementation, most client-consultant conflicts in the setup and re-engineering phase are occurred because of lack of top management support, unbalanced project team, and project management issues.

Lack of top management support: Most respondents agreed that lack of top management is a reason for client-consultant conflict during the ERP implementation. Top management support creates better cooperation within the project team. The top managers should announce and aware of all the project teams as the ERP project is primary and critical for the company. The IT team of Abbahawa trading plc. explained: If there are some changes in the company, the low-level employee waits for the Top management decision by culture, so as there is a lack of Top management involvement to set up the environment and other related decisions, things do not go as planned. They also need to check the company's IT infrastructure and support financially to start the project as planned.

Project management issue: Project management issue becomes one of the client-consultant conflict factors in this phase. The project manager should be capable of putting a clear project plan for the project life cycle and able to communicate with the project team. A project manager should be the first contact person for different issues that are come from the project team and facilitate and solve the issues. The project manager should check resource availability, resource attitude to change, and the working environment.

Unbalance project team: An ERP implementation needs the engagement and collaboration of the project teams accordingly. When organizations are implementing an ERP system, they should prepare and dedicate their employees that are suitable and capable for the implementation. The Project manager of Asku plc. said: The Project managers should check a Project team based on the assessment which is done in the planning phase. The appropriate and balanced team helps to deliver the project tasks at right time and this makes the project successful.

SYSTEM DESIGN PHASE

Lack of skilled resources: Lack of skilled resources is one of the main client-consultant conflicting factors during the system design phase. The resources should be empowered, trained, and participated to be skilled in how the system is working and they also need to know the legacy system as well. The Project manager of Asku plc. explained: the implementers must hire experienced, certified, and skilled resources, and the clients must assign who have system skills and have full knowledge about the business process. Usually, the implementers only know the happy path of the system but he/she has to know each detail of the system. Misunderstanding the existing system could occur because of the users' and consultants' skill problems.

Undefined functional requirements: The legacy system business process should be reviewed and defined by business process owners (BPO's) before starting the implementation. Sometimes, users do not understand the effect of providing additional requirements on the project scope, time, and cost. The Project manager of Asku plc said: it is difficult to take the individual's speech as a last and approved process requirement because the users can change their mind in the middle, so there should be a defined functional requirement. He added: this happens because of the absence of proper business process re-engineering at the beginning of the project. Hence the manual system business process is re-engineered properly at the pre-implementation phase, the project will be effective.

Ineffective communication: Most of the respondents agreed that ineffective communication is a client-consultant conflicting factor during the system design phase of the ERP implementation. If the communication is not effective and formal, the project team may miss the full process and may also open the door to lie. Effective communication forms a structure for the project teams and helps to find out and trace what is happening during the system design phase. The project teams should apply different tools to communicate formally and effectively such as Email communication and weekly meetings. Effective communication helps to create a smooth relationship and prevent unnecessary requirement changes because if there are frequent requirement changes, it is difficult for the consultants to make the design accordingly and timely. Every communication should go in a formal way to make the

communication effective and trustful. All project teams should communicate and report the progress of their dedicated tasks formally and effectively.

CONFIGURATION AND TESTING PHASE

Most respondents agreed that frequently occurring client-consultant conflict factors during this phase are project management issues, inadequate user training, and ineffective communication.

Project management issue: The project managers should assist and guide the project teams during the development of test interfaces, solve system test issues, and assess the staff skills and budget. They should follow the progress of every activity, delivery, and prepare project checklists that are required to be done on this implementation phase. The Project manager of Moha soft drinks S.C. highlighted: The Project managers by both sides should follow the technical activities and issues, to make sure the activities are progressing based on the schedule and put alternative solutions if issues are occurring. They should show their management skill by putting different alternatives for the success of the implementation.

Inadequate user training: Adequate user training helps to improve the user's knowledge base and helps to understand different business processes of the ERP system. The users who have involved in the implementation need to train sufficiently since the ERP system is complex and difficult to understand. Because of the lack of awareness of the users, they may resist the system at all. The Project manager of Asku plc. said: the training should be practical and timely effective to make the staff capable, but most of the time the training is given just for formality and for signup. The users should train and educated well to make the system easy to use and understandable, which in turn the system become successful.

Data inaccuracy: The interview data indicate that data inaccuracy is a very challenging issue during this phase. As the ERP system is an integrated system, the data entered in one module definitely affect other modules. The department managers should deliver accurate and an approved beginning data for the consultants. And before data migration, the consultants should carefully check the accurateness of the data. When we run a report, the ERP system

will give us what we enter into it. Therefore, the amendment will take our time and this affects the project schedule.

INSTALLATION AND GO-LIVE SUPPORT

Lack of top management support: This issue becomes a significantly conflicting factor during the go-live phase of the ERP implementation. The top managers should support and push the users to do their tasks on the ERP system. It is mandatory to push the users to mitigate resistance to change and to use the system properly and timely. Peoples by nature start to learn something new if there is someone that push and support them.

Inadequate vendor support: The ERP implementers should have a good relationship with their clients for the success of the implementation. They should provide adequate and timely support to escalate the user's proficiency and skill. The implementers should have well-experienced and skillful resources for the implementation. The Project manager of Asku plc. and the system user of Abbahawa trading plc. explained: even if there is a support agreement, the consultant does not give timely and adequate support because the implementer has no enough human resources and has no commitment. They added: in that case, the client waits for the response and the backlog data is increased. In this case, clients start to complain. And the implementer should finalize the project before moving their resources to another project.

Project management issue: Most respondents agreed that project management issue is one of the client-consultant conflict factors during the go-live phase of ERP implementation. They should effectively communicate with the project teams, capable of solving implementation issues and facilitate change requests. During this phase there occur many unseen and new issues, so the project manager should continuously follow these issues and provide a solution.

Resistance to change: The interview result shows resistance to change is very challenging during the go-live phase. User involvement is very important to the success of ERP implementation. This implies that if the user ignores the system, the backlog data will be increased and the project schedule will be affected. A Ciman Inc. Consultant A said: it is obvious that the users are resisting the system and focus on their manual work, since most of the employees have been working on the manual system for so long, it becomes hard for them

to work on a system, so they try to resist the technology. To mitigate resistance to change, the top managers should create awareness about the advantage of the system.

4.3.2 REJECTED CONFLICT TYPES WITH THE CORRESPONDING PHASES

SYSTEM DESIGN PHASE

Lack of top management support: The interview results of the respondents shows that the Top management involvement is not that much critical as the phase is a more technical phase and requires technical peoples for technical activities. The Moha soft drinks S.C. Top manager and Abbahawa trading plc. IT team and System user explained: *“The design phase is more of a technical phase and if the Project manager follows the project appropriately and if there are capable technical teams, the Top management support is not that much necessary.”*

CONFIGURATION & TESTING PHASE

Lack of top management support: The interview results indicate that Top management support is not that necessary. The Top manager, Project manager, and IT team of Asku plc., System user of Abbahawa trading plc., and the Top manager, project manager, and System user of Moha soft drinks S.C. said: *“No need to involve the Top management as long as there is a strong Project manager, and the technical guys’/ business experts to proceed the technical activities. So this could not be a conflicting issue in this stage”.*

System performance issue: Most of the respondents agree that the system performance issue is not a conflicting issue during this phase. A Cimac Inc. Consultant A said: *“System performance is not a conflicting issue. Because without preparing the required system, even we cannot start the training and the testing. If both sides understand something is wrong with the system and agree to continue to deploy, then conflict does not occur”.*

4.3.3 NEWLY ADDED CONFLICT TYPES AND SOURCES BASED ON THE EMPIRICAL DATA

SETUP & RE-ENGINEERING PHASE

Resource availability issue: The interview result indicate that resource availability is essential for the environment setup process. The IT team of Asku plc. explained: *“All functional modules assigned resources have to be available and make themselves familiar with one another by both sides unless conflicts can occur”*.

SYSTEM DESIGN PHASE

Resource availability issue: The respondents agreed that resource availability is important to gather the required information and perform tasks. The IT team of Asku plc. highlighted: *“This phase requires frequent communication and interaction of the users and the consultants as it is a requirement gathering phase. On the client side, especially at the time of the budget closing season, it is hard to communicate with them. On the implementer side, before finalizing the current project the consultants are assigned to another project, then conflicts occur”*.

Payment request: The interview result shows the payment request from the implementer is the reason for conflicts. After preparing and presenting the demo, the implementers request their payment, at that time the clients hastate to pay and find an issue, the IT team of Asku plc. explained: *“When the implementer issues payment requests after presenting the demo, the clients start to find undone tasks and start complaining”*.

CONFIGURATION & TESTING PHASE

Resource availability issue: The interview result shows that the resource availability issue can lead the client-consultant conflict during configuring and testing the system. The Project manager of Abbahawa trading plc. explained: *“If the resources are not available by either side, the necessary testing-related tasks will not be done and the testing schedule will be postponed”*.

Task delivery issue: The interview result shows that the timely delivery of project task issue promotes client-consultant conflicts. If the project tasks are not delivered on time, the project schedule is affected. The Top manager of Asku plc said: *“Timely and proper project deliverability issues can lead to client-consultant conflicts. Especially by the implementer side”*.

Payment request: The interview result indicates payment requests issue can be a cause for client-consultant conflicts. After configuring and testing the system, the implementers request their payment. The IT team of Asku plc. highlighted: *“When the consultant issues payment requests, the clients start to find undone tasks and start to complain”*.

INSTALLATION & GO-LIVE PHASE

Data inaccuracy: The interview result indicates data inaccuracy is the reason for client-consultant conflicts during this phase. Entering the wrong data makes the implementation ineffective. The data amendment takes time and affects the project schedule. The IT team of Asku plc. explained: *“The problem is by the client-side, the users enter the transactional data carelessly or by skill problems especially related to a unit of measure and posting date and when they see the data on the system they start complaining again”*.

Project delivery issue: The interview result shows the project delivery issue is a reason for client-consultant conflicts. The Top manager of Asku plc. said: *“Timely and proper project deliverability issues can lead to client-consultant conflicts. Especially by the implementer side”*. The tasks should be delivered timely and as promised for the project's success.

Payment request issue: The interview result shows payment request issues can lead to client-consultant conflict. After the system goes live, the implementers request their payment, at that time the client starts to find an issue. The IT team of Asku plc. said: *“As of the previous phases, when the consultants' issues payment request, the clients start to find undone tasks and start complaining”*.

Lack of commitment: The interview result indicates the lack of commitment by the implementer side leads to client-consultant conflicts. The Project manager of Asku plc.

explained: *“Usually, implementers only focus on their income and if they found a new project, they even move their staff to the new project”*. The implementers should be committed to their works and finalize accordingly.

Over expectation: The interview result indicates over expectation from the client-side lead the client-consultant conflicts. The clients think of all the tasks that can be done on the system, but when they see it things become different. The Project manager of Asku plc. said: *“The clients sometimes expect big output from the system as long as they invest in it but when they see the result, they start to complain”*.

4.4 ERP IMPLEMENTATION CLIENT-CONSULTANT CONFLICT TYPES AND SOURCES FRAMEWORK VALIDATION

The ERP implementation client-consultant conflict types and sources framework should be validated through area experts to prove the quality of the developed framework. The measurement criteria used to evaluate the client-consultant conflicting sources and types are functionality, reliability, usability, completeness, and fit to the ERP implementing organizations. The client-consultant conflicting types and sources framework are evaluated through expert validation methods that are chosen based on the study that the research is conducted. In this research, an expert validation method is used from the focus group of the four selected companies to evaluate the proposed framework. All the selected experts confirmed that each factor should be included in the framework. The validation was chosen to get the different viewpoints of the experts. Choosing different experts for validating this framework will help to gain valuable knowledge at different levels.

Validation Feedbacks from area experts:

The IT team of Asku plc. commented:

“From my perspective, this framework is very important for ERP implementing organizations, especially companies who will implement an ERP system for the future. Our company passed those challenges that could occur at the first implementation phase. It helps organizations to make themselves ready and minimize the issue at each phase of ERP implementation before it

happens. The reliability and usability of each type and sources of ERP implementation that are included in this framework are valid and acceptable. Besides each phase that are included in this framework is complete and detail”.

The Ciman Inc. Consultant A commented:

“For the Cimac Inc. point of view, this framework helps to know where conflict could happen and to do it in ways to avoid those mistakes that can cause those conflicts and to have solutions for future works with other companies so it learns from behaviors and problems encountered working with different companies and adopts its approach so it can avoid or have a solution for problems when working with other clients based on the studies data, so it can do its job with minimum to no conflicts.”

The Ciman Inc. Consultant B commented:

“Cimac Inc. will be benefited from this framework. This framework helps to shape the structure of the whole project implementation, pre-organize itself for incoming projects with planning the risk management, and will be aware of things ahead of time, and plan to have better project management. The framework helps Cimac Inc. to help the clients, to assign and manage resources, budget, and time. Then finally, helps to finalize the project on time”.

Pre-planning		Planning		setup & re-engineering		system design		Config & Testing		'Go Live'	
Consultant	Consultant	Consultant	Consultant	Consultant	Consultant	Consultant	Consultant	Consultant	Consultant	Consultant	Consultant
No client-consultant conflict	Unbalanced Project team Project Mgmt. Issues Resource avail. issues	Resource Availability Issue Project Mgmt. Issues Unbalanced Project Team	Misunderstanding of Existing system	Lack of skilled resources Project Mgmt. Issues Resource Avail. Issue	Inadequate User Training Task Delivery Issue	System test issue Project mgmt issues Resource avail issues Ineffective comm. Data Inaccuracy	Inadequate vendor support Task delivery issue Lack of commitment	Resistance to change Undefined functional req. Ineffective communication System Readiness Issues Payment Request	Resistance to change Lack of skilled resources Data inaccuracy Payment request Over expectation	Resistance to change Lack of top mgmt.support Lack of skilled resources	Conflict Occur
Client	Client	Client	Client	Client	Client	Client	Client	Client	Client	Client	
Pre-planning		Planning		setup & re-engineering		system design		Config & Testing		'Go Live'	

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

In this chapter, the summary of the key findings, conclusion, the limitation of the study, and recommendations have been discussed well. Future works of this research have been forwarded to help other researchers to extend this study to related or other domains.

5.2 SUMMARY OF KEY FINDINGS

The purpose of this study was to identify and map the types and sources of client-consultant conflicts with the corresponding ERP implementation phases and propose a framework. To achieve the objective of research, a qualitative approach was used and data were collected by using a structured interview. To select the representatives of this study, a case study was used. Asku plc., Moha soft drinks S.C., Abbahawa trading plc., and Cimak Inc. companies are selected as cases for this research. An extensive literature review was conducted to identify the concepts of the types and sources of client-consultant conflicts and to conceptualize a framework. An interview protocol was developed from the conceptual framework. Face-to-face & online Telegram interview was conducted with the Top managers, Project managers, IT teams, and System users of the three selected ERP implementing organizations and the consultants of the ERP implementer company about conflicts they experienced during the ERP implementation.

Thematic analysis was used to identify, analyze, organize, and evaluate the types and the sources of client-consultant conflicts with the corresponding ERP implementation phases. Most of the participants in all selected four case companies explained that the main client-consultant conflict types are: lack of top management support, project management issue, unbalanced Project team, ineffective communication, lack of skilled resources, resistance to change, undefined functional requirements, inadequate user training, and inadequate vendor support.

The respondents said these types of client-consultant conflicts have mostly occurred on the client-side.

In addition to these types of client-consultant conflicts those are identified from the literature review, the researcher found some new types of client-consultant conflict to be included in each phase of ERP implementation. The newly founded types of client-consultant conflicts are

- ✚ Resource availability issues in the Planning phase
- ✚ Resource availability issues and payment request from the implementer in the System design phase
- ✚ Resource availability issues, task delivery issue, and payment request from the implementer in the Configuration & testing phase
- ✚ Lack of commitment, task delivery issue, data inaccuracy, payment request from the implementer and over expectation in Installation & go-live phase.

The following two types of client-consultant conflicts identified during the literature review were excluded after the investigation.

- ✚ Lack of Top management support in the system design phase
- ✚ Lack of Top management support, and System performance issue in the configuration & testing phase.

5.3 CONCLUSION

The main objective of this study is to identify sources and types of client-consultant conflicts during ERP implementation and map these conflicts to ERP implementation phases in the selected four case companies. The findings of this study could address the research objectives that are explained in the first chapter. In this research, a qualitative in-depth investigation was used to assess the types and sources of client-consultant conflicts during ERP implementation. The qualitative data that are collected from the four case companies provides practical support for the conceptual types and sources of client-consultant conflicts during the ERP implementation.

Business organizations use the ERP system as a strategy to integrate and improve their business processes. This helps them to make continuous improvement in productivity, cost-minimizing, facilitate decision making, improving employees' performance, and enhance their competitiveness. As the ERP system is complex and requires a huge investment, organizations need to assess the types and sources of client-consultant conflicts that are associated with the six ERP implementation phases: Pre-planning, Planning, Setup & re-engineering, System design, Configuration & Testing, and Installation & go-live phase to make the implementation successful.

The output of this study have both the practical and theoretical contributions. To practice, mapping these types and sources of client-consultant conflicts to the respective ERP implementation phases helps the practitioners to learn how the conflicts occur and prepare themselves to mitigate those conflicts. Having understanding about the client-consultant conflicts helps the top managers, project managers, IT teams, and consultants to plan and develop conflict management plan. Organizations should focus on the top management support, project management, project team, formal and effective communication, resources skills, user involvement, business process re-engineering, adequate user training, and adequate vendor support. To theory, the finding of this research provides a deep understanding of how conflicts map with the ERP implementation phases for the researchers. The study result helps to improve the researchers' understanding about the sources and types of client-consultant conflicts during the ERP system implementation.

The client-consultant conflicts cause several problems as the project schedule is affected, the project effectiveness is jeopardized, and even the project is going to fail. The output of this research shows that there are no such studies that are related to this investigation output. Because works of literature that are done before do not incorporate those reasons of client-consultant conflicts that are identified in this study.

5.4 STUDY LIMITATIONS

This research adds value to the existing knowledge regarding the types and sources of client-consultant conflict of the ERP implementation phases. The existence of once research

limitation provides possibilities for future works. This study has some limitations. These limitations reduce the generalizability of the study.

- This study represents the respondents' attitudes towards the reasons and sources of client-consultant conflicts during ERP implementation.
- This study only focuses on the Microsoft Dynamic NAV ERP package.
- The case companies are all private Ethiopian organizations.
- The researcher was interested to use Nvivo tool, but learning the software was time taking and needs more time to use the software.
- A team meeting was not applicable due to inconvenient time and team organization.

5.5 RECOMMENDATIONS

According to the finding of the study, the researcher recommends the following points to help the ERP implementing organizations:

- The four selected case companies' system users, top managers, project managers, consultants, and IT teams should have a clear understanding of the sources and types of client-consultant conflicts in every phases of ERP system implementation to become successful.
- Organizations that are interested to implement and currently implementing the ERP system can consider and learn these identified types and sources of client-consultant conflicts regard to the ERP implementation phases.
- Organizations should improve their efficiency in the ERP system by eliminating client-consultant conflicts with skillful top management support, strong project management, balanced project team, effective and formal communication, skilled resources, the positive involvement of users, defined functional requirements, adequate user training, and timely and adequate vendor support.

- The CSFs should be applied properly to make the implementation successful and to get continues improvement.
- Organizations should be benefited by managing those types and sources of client-consultant conflicts in each phase between the two parties.

5.6 FUTURE WORKS

- As this research is conducted on private business organizations, studying on governmental organizations can give a general picture of the types and sources of client-consultant conflicts in ERP system implementation.
- As this research is conducted on Microsoft Dynamics NAV ERP solution, conducting on other ERP packages (like, SAP, Oracle, and Sage) help to generalize all the ERP solutions.
- Besides, this study can be an input for other researchers as a reference to make further investigation in this specific area such as ERP client-consultant conflict management.
- Propositions can be made from this study and test them quantitatively.

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APPENDICES

Appendix A: Interview Questions

Interview questions by each ERP implementation phase.

Implementation phase	Questions
Pre-planning phase:	In this phase business case development, gathering appropriate business, technical and architectural info obtained & shared with appropriate people. • What kind of relationship exists between client and consultant in this phase? • Do you think there exist conflict issues between client and consultants in this phase? • What factors can lead client-consultant to conflict on this phase of ERP implementation?
Planning	In this phase the identification of key stakeholders and the formation of a governing body and project team selection, project task scheduling, and resource identified and allocated based on time and cost. • Do you think there exist conflict issues between client and consultants in this phase? • Do you think there are factors that lead to client-consultant conflicts in this ERP implementation phase? • Do you think lack of top management support leads client-consultant to conflict? Why? • What do you think of lack of top management; occurred by client or consultant side? Why? • Do you think the resource availability issue leads the client-consultant to conflict? Why? • What do you think of the resource availability issue; occurred on the client or consultant side? Why? • Do you think an unbalanced project team leads client-consultant to conflict? Why? • What do you think of an unbalanced project team; occurred by the client or consultant side? Why? • Do you think project management issue leads client-consultant to conflict? Why? • What do you think of a project management issue; occurred on the client or consultant side? Why?
Setup & re-engineering	In this phase, resource availability checked, assess staff and management's attitude to change, and train and equip the internal team. • Do you think there exist conflict issues between client and consultants in this phase? • Do you think there are factors that lead to client-consultant conflicts in this ERP implementation phase? • Do you think lack of top management support leads client-consultant to conflict? Why?

	• What do you think of lack of top management; occurred by client or consultant side? Why? • Do you think an unbalanced project team leads client-consultant to conflict? Why? • What do you think of an unbalanced project team; occurred by the client or consultant side? Why? • Do you think project management issue leads client-consultant to conflict? Why? • What do you think of a project management issue; occurred on the client or consultant side? Why?
System design	In this stage extensive communication and coordination are required to address organizational expectations, consistent user engagement, and users and management attitude to change. • Do you think there exist conflict issues between client and consultants in this phase? • Do you think there are factors that lead to client-consultant conflicts in this ERP implementation phase? • Do you think lack of top management support leads client-consultant to conflict? Why? • What do you think of lack of top management; occurred by client or consultant side? Why? • Do you think lack of skilled resources leads client-consultant to conflict? Why? • What do you think of lack of skilled resource; occurred by client or consultant side? Why? • Do you think the misunderstanding of the existing system leads the client-consultant to conflict? Why? • What do you think of a misunderstanding of the existing system; occurred by the client or consultant side? Why? • Do you think project management issue leads client-consultant to conflict? Why? • What do you think of a project management issue; occurred on the client or consultant side? Why? • Do you think the system readiness issue leads the client-consultant to conflict? Why? • What do you think of the system readiness issue; occurred on the client or consultant side? Why? • Do you think resistance to change leads client-consultant to conflict? Why? • What do you think of resistance to change; occurred by the client or consultant side? Why? • Do you think undefined functional requirements lead the client-consultant to conflict? Why? • What do you think of undefined functional requirements; occurred on the client or consultant side? Why? • Do you think ineffective communication leads client-consultant to conflict? Why? • What do you think of ineffective communication; occurred by the client or consultant side? Why?
Config & Testing	In this phase a comprehensive configuration is executed based on the identified requirements, real data populated to test server, test interface developed, and reports documented and tested. Staff should be engaged during the testing. The project budget and staff skills should be assessed. System and user testing should be completed.

	• Do you think there exist conflict issues between client and consultants in this phase? • Do you think there are factors that lead to client-consultant conflicts in this ERP implementation phase? • Do you think lack of top management support leads client-consultant to conflict? Why? • What do you think of lack of top management; occurred by client or consultant side? Why? • Do you think inadequate user training leads client-consultant to conflict? Why? • What do you think of inadequate user training; occurred by the client or consultant side? Why? • Do you think system performance issue leads client-consultant to conflict? Why? • What do you think of the system performance issue; occurred on the client or consultant side? Why? • Do you think project management issue leads client-consultant to conflict? Why? • What do you think of a project management issue; occurred on the client or consultant side? Why? • Do you think the system test issue leads the client-consultant to conflict? Why? • What do you think of the system test issue; occurred on the client or consultant side? Why? • Do you think data inaccuracy leads client-consultant to conflict? Why? • What do you think of data inaccuracy; occurred by the client or consultant side? Why? • Do you think resistance to change leads client-consultant to conflict? Why? • What do you think of resistance to change; occurred by the client or consultant side? Why? • Do you think ineffective communication leads client-consultant to conflict? Why? • What do you think of ineffective communication; occurred by the client or consultant side? Why?
Installation & 'Go-live'	In this phase, all post-testing activities like building the production environment, building the net, and desktop installation executed. User training finalized and the system should go live. The lesson learned should be documented, including change and risk management strategies, mgmt. of staff attitudes to change, business technology issues, and ERP implementation. • Do you think there exist conflict issues between client and consultants in this phase? • Do you think there are factors that lead to client-consultant conflicts in this ERP implementation phase? • Do you think lack of top management support leads client-consultant to conflict? Why? • What do you think of lack of top management; occurred by client or consultant side? Why? • Do you think inadequate vendor support leads the client-consultant to conflict? Why? • What do you think of inadequate vendor support; occurred by the client or consultant side? Why? • Do you think system performance issue leads client-consultant to conflict? Why? • What do you think of the system performance issue; occurred on the client or consultant side? Why? • Do you think project management issue leads client-consultant to conflict? Why? • What do you think of a project management issue; occurred on the client or consultant side? Why?

	• Do you think resistance to change leads client-consultant to conflict? Why? • What do you think of resistance to change; occurred by the client or consultant side? Why? • Do you think lack of skilled resources leads client-consultant to conflict? Why? • What do you think of lack of skilled resources; occurred by client or consultant side? Why?
	Are there any other issues that can lead to client-consultant conflict during ERP implementation that have not been included in this interview and that you wish to get to my consideration?
	Please provide any additional information that you think would be helpful in my study?

Appendix B: Support Letters to Concerned ERP implementing Organizations

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Addis Ababa University
College of Natural Science
School of Information Science

Date: February 24, 2021
Ref No. SIS/18/2021/13

To Whom It Concern

Subject:- Student Neima Sadik

Dear Sir /Madam,

Student Neima Sadik (ID.No GSE/0255/11) is graduate student at the School of Information Science, Addis Ababa University. She is currently conducting a M.Sc. Thesis research under the title "Mapping Stakeholders Conflict to Enterprise Resource Planning Implementation Phase: Cases from Ethiopia".

I would like to thank you in advance for all the assistance that you would provide to the student.

With Regards

Tibebu Beshah (PhD)
Head, School of Information Science



☎: 1176

Email: information_cci_cns@aau.edu.et

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Appendix C: Sample Email Data Validity Check by Respondents

The screenshot displays a Gmail interface with a sidebar on the left containing 'Compose', 'Inbox', 'Starred', 'Snoozed', 'Sent', 'Drafts' (with a count of 2), 'Meet' (with 'New meeting' and 'Join a meeting' options), and 'Hangouts'. The main area shows a list of six emails, all marked as read (star icon) and with checkboxes. The emails are as follows:

From	Subject	Date
me, Abebaw 2	Data validity check - I confirm On Mon, Apr 12, 2021 at 1:34 PM neima sadik <neimaa.sadik@g...>	Apr 19
me, Befekadu 2	Data validity check - Confirmed. Best Regards, Befekadu Asmare MIS Manager Tel : +251(11)5...	Apr 19
Ermias, me 2	Data validity Reconformation - Received, thank you. On Mon, Apr 19, 2021 at 1:07 PM Ermias T...	Apr 19
me, Thomas 3	Data validity check - Thank you for your feedback Thomas. On Sat, Apr 17, 2021 at 10:33 AM T...	Apr 17
Ermias, me 2	Data validity conformation - Received, thank you.	Apr 16
me, Abreham 2	Data validity check - Yes, I confirm. you can continue.	Apr 16

Each email entry includes a preview of the content and a link to the full email. The interface also shows a search bar at the top, a '1-50 of 614' indicator, and various icons for actions like 'Compose', 'Inbox', 'Starred', 'Snoozed', 'Sent', 'Drafts', 'Meet', and 'Hangouts'.