



**ADDIS ABABA UNIVERSITY**

**COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES**

**SCHOOL OF INFORMATION SCIENCE**

**AVOIDING CHANGE MANAGEMENT PITFALLS DURING ERP SYSTEMS  
IMPLEMENTATION IN ETHIOPIA LESSONS FROM SUCCESS AND  
FAILURE STORIES**

**By**

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**JUNE, 2024**

**ADDIS ABABA, ETHIOPIA**



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IN ETHIOPIA: LESSONS FROM SUCCESS AND FAILURE STORIES**

A Thesis submitted to AAU School of Information Science in partial fulfillment of the requirements for the Degree of Master of Science in Information Science and System

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JUNE, 2024

Addis Ababa, Ethiopia



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## **Declaration**

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

I declare that this thesis entitled “**Avoiding Change Management Pitfalls during ERP Systems Implementation in Ethiopia: Lessons from Success and Failure Stories**” is a result of my own investigation, except where otherwise stated. I have undertaken the study independently with the guidance and support of my research advisor. Other sources are acknowledged by citations giving explicit references. A list of references is appended.

Signature: \_\_\_\_\_

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

Advisor’s Signature: \_\_\_\_\_

Lemma Lessa (PhD)

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## List of Acronyms

ERP	Enterprise Resource Planning
CSF	Critical Success Factors
IT	Information Technology
IS	Information System
PLC	Private Limited Company
SAP ECC 6.0	SAP ERP Central Component 6.0
S/4HANA	stands for Suite for HANA
NAV	Microsoft Dynamics NAV (formerly Navision)
BPO	Business Process Owner
LLC	Limited liability company
ODOO	On Demand Open Object
EPSS	Ethiopian Pharmaceutical supply Service
SME	Small and medium-sized enterprises
FICO	Finance and Controlling
SD	Sales and Distribution
MM	Material Management
PP	Production Planning
EWM	Extended warehouse Management
QM	Quality Management

## **Abstract**

This research focuses on identifying and understanding the common obstacles that organizations encounter during the implementation of ERP systems in Ethiopia. The study aims to address the challenges faced by both private and governmental organizations in Ethiopia during ERP system implementation and determine the key factors that contribute to successful outcomes. By analyzing both successful and unsuccessful cases, the research aims to provide valuable insights into effective strategies for managing change in this specific context.

The study emphasizes the importance of clear communication, committed leadership, employee engagement, comprehensive training and support, as well as the identification of change agents and champions as crucial factors for successful ERP implementation. By examining various change and change management models and utilizing a case study research design, the study seeks to gain insights into the changes introduced during the initiation of ERP projects within organizations.

To achieve these objectives, questionnaires were distributed to employees from five organizations. More than 20 participants from each organization provided their responses. The research aims to recognize and gain a comprehensive understanding of the prevailing obstacles organizations face during ERP system implementation. By investigating tactics and methodologies that can help organizations overcome these challenges, the research aims to contribute to successful ERP implementation. Key factors identified for motivating employees and ensuring successful implementation include effective communication of changes, addressing resistance to change, and providing adequate support and training.

**Keywords:** Change Management Pitfalls, ERP Systems Implementation, Ethiopia, Successful Outcomes, Challenges, Communication, Leadership, Employee Engagement, Training, Change Agents, Change Champions.

# CHAPTER ONE

## INTRODUACTION

This introductory chapter provides an overview of the research, including its background, motivation, problem statement, research questions, aims, scope, significance, and organizational structure.

### 1.1 BACKGROUND

The concept change refers to modifications that take place in an individual's environment, leading to deviations and variations in routines and lives. These changes can be either simple or complex. Simple changes occur smoothly without disrupting one's work, while complex changes can pose a threat to the organization and its members (Lewis, 2011). Change within an organization is shaped by a combination of external and internal forces that exert their influence. The magnitude and speed of change may differ, but any alteration occurring within a particular area of the organization typically reverberates throughout the entire entity.

According to different researchers, change management is a structured and organized process that involves planning and implementing strategies and actions to guide organizations from their current state to a desired future state. This process includes two types of change: incremental change (first-order change) and transformational change (second-order change). Incremental change focuses on specific aspects like policies, procedures, individual needs, tasks, and skills, without fundamentally challenging the overall system and organizational context. It is often regarded as transactional change. Conversely, transformational change entails profound shifts in assumptions about reality, accompanied by a reassessment and realignment of vision, values, culture, beliefs, attitudes, and fundamental processes. Change management primarily concentrates on effectively managing the human aspects of change, ensuring that individuals within the organization are adequately guided and supported throughout the change process (Wang & Sun, 2012).

The field of implementing and adopting enterprise resource planning systems has garnered significant interest over the last 30 years, as evidenced by numerous studies (Ali & Miller, 2017). An enterprise resource planning system comprises software modules that facilitate real-time integration of an organization's business functions (Davenport, 1998). The implementation of an enterprise resource planning system typically brings about transformations in an organization's roles and fundamental

processes, underscoring the importance of effective change management. According to Laudon & Laudon (2017), many information systems projects encounter challenges due to insufficient focus on organizational change, highlighting the necessity for meticulous change management.

Previous research highlights change management as a critical success factor (CSF) in ERP implementations for large enterprises (Kim, Sadatsafavi & Kim Soucek, 2016). However, there is a gap in research concerning CSFs related to change management in ERP implementations.

Implementing an ERP system is a complex and lengthy process (Saxena & McDonagh, 2019; Prasetyo et al., 2019), and unfortunately, many ERP implementations fail to deliver the anticipated benefits. Several reports have highlighted the high failure rates and negative impacts on business performance (Wong et al., 2005). Here are some common gaps identified by researchers in the relationship between change management strategy and successful ERP implementations:

**Insufficient Top Management Support:** Top management plays a critical role in ERP implementation (Ehie and Madsen, 2005; Shao et al., 2017). The lack of support from top management can be a significant challenge across regions and countries (Ngai et al., 2008). Organizations must actively seek full support and commitment from top management to ensure successful implementation.

**Challenges in Change Management:** Change management is a crucial factor in ERP implementation and is often ranked as the second most critical challenge (Selander and Henfridsson, 2012; Chen et al., 2008).

Resistance to change, especially from middle managers, presents a common hurdle. Organizations should allocate resources to encourage employees to embrace change and minimize resistance. Change management activities should receive attention from the beginning of ERP projects.

**Critical Training and Development Needs:** Training and development are ranked as the third most critical challenge in ERP implementation. Given the complexity of ERP systems, specialized training is essential (Koch, 1996). Insufficient training can lead to failures and hidden costs (Hong and Kim, 2002; Plaza and Rohlf, 2008). Regular training opportunities and tailored programs should be provided to enhance employee skills and ensure successful implementation.

**Importance of Effective Communication:** Effective communication is ranked fourth in terms of complexity and significance during ERP implementation. Coordinating and communicating among users from different departments is crucial in cross-functional ERP systems (Bueno and Salmeron,

2008). Organizations should develop comprehensive communication plans to keep stakeholders informed about project updates and relevant information. Effective communication reduces resistance and contributes to successful implementation.

The research aims to examine the challenges and pitfalls associated with change management during ERP system implementations in Ethiopia. It seeks to learn from both success stories and failure cases to identify strategies and factors that can help organizations effectively navigate change and ensure successful ERP implementations. By addressing the call for research on ERP implementations and change management challenges, the study contributes to the understanding of how to avoid pitfalls and enhance the outcomes of ERP projects in the Ethiopian context.

When implementing an ERP system, organizations face substantial investments in time and effort due to the complexity involved. The process triggers significant changes in people, processes, and technology, often overwhelming the entire organization. Challenges arise during ERP projects, stemming from difficulties in adapting to these changes, resulting in failures linked to budget overruns, poor planning, and missed deadlines. Change management emerges as a pivotal factor, offering structured approaches to navigate these changes, empower change agents, and support individuals effectively. Highlighting the importance of embracing positive changes, it becomes clear that successful ERP projects hinge on robust change management practices. Moreover, the existing research gap underscores the need for a deeper exploration of critical success factors in change management within ERP implementations, aiming to boost overall project success rates

The implementation of modern ERP systems offers organizations the opportunity to optimize operational efficiency, eliminate unnecessary duplication, and increase productivity and effectiveness in management. These advanced systems possess essential features such as the capability to integrate, automate, and unify data and business processes across the entire organization, operating in a nearly real-time environment (Haddara, 2018; Keong et al., 2012). Additionally, these systems enable organizations to enhance decision-making processes and streamline operations, as highlighted in studies conducted by Beheshti et al. (2014), Hallikainen et al. (2004), and Rouhani and Mehri (2018)

As per the findings of Vera (2006), organizations are motivated to adopt ERP systems due to the necessity for precise and timely financial information, optimized processes, and improved information sharing across all aspects of the organization.

In recent years, both private and governmental organizations have been increasingly motivated to adopt ERP systems in order to enhance their success and achieve their objectives. The demand for a streamlined, efficient, and effective system has become crucial for these organizations to elevate their level of business strategy implementation.

In Ethiopia, numerous organizations have begun transitioning from manual workflows to more advanced information system tools like ERP, enabling them to shift towards strategic operations (Foziya, 2017). Furthermore, the advent of the Internet has provided organizations with the opportunity to extend the reach of ERP systems beyond their internal processes, allowing them to connect with customers and suppliers and integrate their business operations more seamlessly.

Enterprise resource planning (ERP) systems are pre-built solutions developed by various providers, incorporating international best practices. One of these solutions is SAP ERP SAP S/4HANA software

At present, various industries in Ethiopia, including manufacturing companies, retail businesses, governmental service providers, and the aviation industry, are adopting SAP ERP ECC and SAP ERP S/4HANA. Notable organizations implementing these systems include Ethiopian Pharmaceutical Service, Ethiopian Postal Service, Corporate Bank of Oromia Share Company, Luna Slaughterhouse P.L.C and Habesha brewery Share Company,

## **1.2 RESEARCH MOTIVATION**

The motivation for this research stems from recognizing the crucial role of change management in successful ERP system implementations. Through an examination of various ERP projects, encompassing both successful and unsuccessful implementations, there is a clear impetus to explore the factors that influence the outcomes and processes of these initiatives. Understanding these factors is paramount for organizations aiming to optimize their ERP system implementations.

The primary objective of this study is to identify and analyze the common pitfalls associated with change management during ERP system implementations in Ethiopia. While ERP systems are known for enhancing organizational efficiency and effectiveness, their implementation poses challenges due to the significant organizational changes involved. By focusing specifically on the Ethiopian context, this research aims to provide insights that can be valuable not only to organizations within Ethiopia but also to those beyond its borders. These insights will empower organizations to proactively address potential

pitfalls and improve their change management strategies, ultimately leading to more successful ERP implementations.

Throughout this research, the emphasis remains on the importance of change management in ERP implementations. Key points supported by literature and research findings, such as user adoption, organizational alignment, communication and collaboration, change readiness and resilience, and risk mitigation, are highlighted. These factors are critical in determining the success or failure of ERP system implementations, and addressing them effectively can significantly improve implementation outcomes.

By synthesizing existing knowledge, research findings, and practical examples, the aim of this research is to contribute new insights to the field of Information Systems (IS) and enrich the current literature on change management during ERP system implementations. These findings are anticipated to provide valuable guidance for practitioners, researchers, and organizations looking to enhance their understanding and implementation of change management strategies within the context of ERP systems. Ultimately, this research seeks to facilitate more successful ERP system implementations and contribute to the advancement of the field.

### **1.3 STATEMENT OF THE PROBLEM**

The failure to implement ERP systems often results from cancellations or time overruns (Ngai et al., 2008; Masa'deh et al., 2015). AlMashari and Zairi (2000) emphasize the need for five core competencies in successful ERP implementation: change strategy development, project management, change management techniques, integration of business process re-engineering, and technical aspects. However, effective change management requires balancing forces in favor of change over forces of resistance.

The laborious nature of the change process can be attributed to unanticipated implementation issues and dynamics within the workplace environment and the organization's communication strategy. Another significant challenge lies in the gap between change leaders and employees in assimilating change. The willingness of top managers to take responsibility for their responses to changing environments is crucial for the success or failure of change. Effective communication, leadership, and management skills are essential for building a successful strategic initiative for organizational change, such as implementing an ERP system (Salerno & Brock, 2008).

Furthermore, when the impact of change extends to external stakeholders, a lack of effective change management intervention can lead to the revocation of the change agenda, low acceptance levels, and increased costs and operational challenges.

When organizations or their employees are not fully committed to providing the resources needed and overcoming challenges, ERP implementations often fail (Chaudhry, 2018; Jordan, 2018). Studies indicate that around 75% of ERP implementations don't succeed (Jordan, 2018), resulting in organizations losing a lot of time and money they invested in these projects. That's why organizations and consultants put a lot of emphasis on important factors like careful planning, clearly defining the project's scope, setting a budget, and establishing timelines to increase the chances of successful ERP implementations.

In Ethiopia Many public and private organizations implemented SAP B1 ERP, SAP ERP ECC and SAP S/4hana system. Some of them failed because they have not implemented change management. Many organizations struggle to achieve the desired outcomes due to inadequate attention to change Management-related aspects.

Some companies in Ethiopia, public, private and share companies, successfully implemented ERP systems. This success can be attributed in part to their implementation of change management and ERP system awareness before the system's deployment.

Conversely, other organizations private and public organizations are facing challenges with ERP system implementation, taking more than three years without going live with the system. Despite research indicating that change management interventions can facilitate smooth implementation and rapid adaptation to change, many companies struggle to effectively utilize change strategies and interventions. This struggle often leads to financial and operational difficulties during ERP system implementation.

Poor readiness for change contributes to various challenges, including a lack of leadership ownership, inadequate understanding of project outcomes, insufficient oversight and sponsorship from top executives, a lack of skills and knowledge to implement change, as well as negative perceptions and resistance from affected groups.

Inadequate understanding of project outcomes, poor oversight and sponsorship from top executives, insufficient skills and knowledge to implement change, negative perceptions and resistance behavior from impacted groups.

This research aims to identify and understand the challenges and pitfalls associated with change management during the implementation of ERP (Enterprise Resource Planning) systems. The objective is to gather insights from both successful and less successful ERP implementation experiences across different contexts. By analyzing these experiences and extracting valuable lessons, the study seeks to provide guidance on how to avoid common pitfalls and enhance change management strategies during ERP system implementation.

It is important to note that the intention is to examine the broader landscape of ERP implementation challenges rather than specifically targeting individual companies or making unethical judgments. The research aims to contribute to the understanding of change management practices in ERP implementations and provide valuable insights for organizations undertaking such projects

## **1.4 RESEARCH QUESTIONS**

With reference to the research gap identified and discussed in section 1.3, the objective of this study is to answer the following research question:

- ✚ How can Change Management related Weakness during ERP implementation be Avoided?

These research questions lay the foundation for exploring the topic of change management challenges during the implementation of ERP systems.

## **1.5 RESEARCH OBJECTIVE**

### **1.5.1 GENERAL OBJECTIVE**

The main objective of this research is to recognize and acquire a comprehensive understanding of the prevalent obstacles organizations face in change management during ERP system implementation.

### **1.5.2 SPECIFIC OBJECTIVE**

The research has a specific goal of fulfilling the overall objective. The subsequent points outline the planned activities for the study.

- To identify the common challenges faced by organizations during ERP system implementation.
- To analyze the factors contributing to resistance to change during ERP system implementation.
- To examine the impact of ineffective change management on ERP system implementation.
- To explore the role of communication in managing change during ERP system implementation.  
To investigate the strategies and best practices for overcoming obstacles in change management during ERP system implementation.
- To assess the impact of leadership and employee engagement on successful change management during ERP system implementation.

By addressing these specific objectives, the research aims to provide valuable insights and recommendations for organizations to avoid change management pitfalls during ERP systems implementation.

### **1.6 SCOPE OF THE STUDY**

In Ethiopia, various ERP vendors like SAP, Microsoft Dynamics 365 Business Central, SAGE 300, ODOO, and Oracle are actively implementing ERP solutions in both private and government organizations. This study focuses specifically on the SAP ERP business solution due to the researcher's extensive experience of over ten years working with this product as an implementer and quality assurance consultant.

Considering factors such as data availability, time limitations, cost considerations, and the researcher's professional background, three private organizations (Habesha Brewery Share Company, Luna Slaughter House P.L.C, and Cooperative Bank Oromia Share Company and two government organizations Ethiopian Pharmaceutical Supply Service) and Ethiopian Postal Service) are chosen as the case organizations for this research. Fairfax Technologies LLC, Fairfax Solution P.L.C, deloitte consulting limited, and SEDIOR Africa Inc. are selected as the implementer entities for the study.

## 1.7 SIGNIFICANCE OF THE STUDY

The study on avoiding change management pitfalls during ERP systems implementation through lessons from success and failure stories in organizations has several key objectives:

**Informing Change Management Strategies:** The research aims to provide valuable insights into effective change management strategies for ERP implementation. It helps organizations understand the factors that contribute to successful change management and offers guidance on how to design and implement change management initiatives effectively (Esteves & Pastor, 2001).

**Addressing Resistance and Cultural Challenges:** Change management is crucial for addressing resistance from employees and managing cultural challenges during ERP implementation. The research helps organizations identify strategies and techniques to overcome resistance and foster a culture of acceptance and enthusiasm for the new ERP system (Nah & Delgado, 2006; Ram et al., 2014).

**Aligning Organizational Processes:** Change management in ERP implementation involves aligning organizational processes with the new system. The research provides insights into how organizations can effectively manage process changes, optimize workflows, and ensure smooth transitions to the new ERP system.

**Enhancing User Adoption and Acceptance:** Effective change management contributes to higher user adoption and acceptance of the ERP system. The research helps organizations understand how to involve users, provide training and support, and effectively communicate the benefits of the system to increase user acceptance and engagement (Parthasarathy, 2014).

**Developing Best Practices and Guidelines:** By analyzing success and failure stories, the research contributes to the development of best practices and guidelines for change management in ERP implementation. It provides organizations with practical recommendations and lessons learned to guide their change management efforts and improve the likelihood of successful ERP implementation (Lee et al., 2019).

**Mitigating Risks and Ensuring Project Success:** Change management pitfalls can pose significant risks to ERP implementation projects. The research aims to help organizations identify and mitigate these risks, reducing the likelihood of project delays, budget overruns, and failed implementations. It provides

insights into how organizations can plan and execute change management activities to ensure project success (Esteves & Pastor, 2001).

## **1.8 ORGANIZATION OF THE STUDY**

This study comprises five chapters aiming to provide a comprehensive understanding of the subject matter. In the first chapter, an introduction is presented, providing an overview of the ERP system and its importance. This chapter covers the study background, problem statement, research question, research objectives, scope of the study, and the overall significance of the research.

Chapter two consists of a systematic literature review, where relevant literature is reviewed and analyzed. The topics covered include an introduction to ERP system implementation, an overview of change management in ERP systems implementation, key concepts and frameworks, success stories and lessons learned from effective change management, failure stories, identifying pitfalls and lessons learned, factors influencing change management success in ERP implementation, challenges faced during ERP implementation, and strategies for avoiding change management pitfalls.

The third chapter of this study provides an explanation of the research methodology utilized. It covers different elements, such as the approaches and strategies employed, the selection of sites and cases, the sampling technique, the methods used for data collection, the technique for data analysis, and considerations related to the reliability and validity of the data.

Chapter four is dedicated to the presentation and analysis of the data collected for this study. The chapter systematically presents the findings, employing suitable analytical techniques to interpret and derive meaningful insights from the collected data.

Lastly, in chapter five, the research concludes with a summary of the findings and provides recommendations based on the results. This chapter highlights the key insights gained from the research and suggests actionable recommendations for practitioners and future scholars in the field.

By following this structure, the research endeavors to deliver a thorough and comprehensive analysis of the subject matter, contributing to the existing body of knowledge and offering practical recommendations for the field.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This review of previous studies aims to investigate how to avoid problems during the implementation of ERP systems by learning from both successful and unsuccessful experiences. Implementing ERP projects can be difficult, especially when it comes to managing changes. These challenges can greatly impact the overall success of the project. By understanding the factors that lead to successful change management and avoiding common mistakes, organizations can improve their implementation processes and increase the chances of successfully adopting ERP systems.

The introduction also highlights the significance of the research, emphasizing the potential benefits for organizations embarking on ERP implementation projects. By learning from the experiences of others, organizations can proactively address change management challenges, mitigate risks, and increase the chances of successful ERP adoption and utilization.

Moreover, the introduction presents a concise summary of the methodology utilized in the literature review. This includes outlining the search strategy employed to identify pertinent articles, the criteria for selecting articles, and the process of extracting and analyzing data.

By studying these insights gained from previous experiences, organizations can improve their change management strategies, minimize risks, and enhance the prospects of achieving successful ERP implementation.

#### **2.2 ERP SYSTEM OVERVIEW**

ERP systems, as described by Da Conceição & Gonzalez (2010), are complex information systems that integrate and streamline business processes using technology and process engineering. They are designed to support the operational operations of an organization and align them with the organization's business plan. By implementing an ERP system, businesses can improve the efficiency and effectiveness of their operations.

One of the key advantages of ERP systems is their ability to facilitate resource planning and control. They provide tools and functionalities that enable organizations to effectively manage their resources, such as materials, finances, and human resources. This allows for better coordination and optimization of various activities within the organization, leading to improved productivity and cost savings.

Another significant benefit of ERP systems is their capacity for data integration and sharing. ERP systems consolidate data from different functions, departments, and units of an organization into a centralized database. This enables seamless sharing of information across the organization, eliminating data silos and providing a holistic view of operations. Decision-makers can access real-time data and gain insights from multiple perspectives, enabling them to make informed decisions and respond quickly to changes in the business environment.

Furthermore, ERP systems offer a range of functionalities and modules that cover various aspects of business operations. These modules include manufacturing, order management, sales, accounting, human resources, procurement, inventory management, and more. By having these integrated functionalities within a single system, organizations can streamline their processes, reduce manual efforts, and improve overall efficiency.

It is worth noting that implementing an ERP system is a complex process that requires careful planning, customization, and training. Organizations also need to ensure proper change management practices to ensure smooth adoption and utilization of the system. However, when implemented successfully, ERP systems can provide tremendous benefits and play a vital role in enhancing business operations in today's competitive and rapidly changing market.



**FIGURE 2.1: ERP MODULES (SOURCE FROM WRIGHT 2013)**

ERP, according to Jacobs (2018), is a complete software solution that aids in corporate planning, control, and decision-making. ERP is a system that, from an IT standpoint, unifies application programmes from several organisational activities, including supply chain management, manufacturing, finance, sales and marketing, and human resources. A shared database and data-processing software are used to accomplish this integration (Jacobs, 2018).

According to Huang et al. (2019), implementing an ERP system is believed to enhance the reliability of internal control and bring value to sustainable operations. Abugabah and Sanzogni (2010) define ERP systems as tools used by organizations to bring together operations from different areas, centralizing data to improve decision-making.. ERP systems extend beyond automation and enable organizations to re-engineer their business processes, resulting in enhanced productivity, profitability, and overall organizational performance (Soliman & Karia, 2016).

According to Rani (2016), an ERP system is a software solution that processes transactions across an entire institution and operates on a unified software system and database. These systems are specifically designed to streamline various aspects of an institution's operations. Ara and Al-Mudimigh (2011) regard ERP as a management technique, highlighting the significance of employing a project management life cycle for successful implementation. ERP projects generally encompass multiple management functions, including project initiation, planning, execution, control, and closing.

## **2.3 ERP SYSTEM**

### **2.3.1 KEY CONCEPTS RELATED TO CHANGE MANAGEMENT IN ERP PROJECTS**

This section provides an overview of how ERP systems are implemented, the trends in the industry, and how they impact organizations. Surprisingly, a study by (Dey et al, 2010) found that ERP systems can sometimes cause problems for businesses during implementation. This has led to a greater recognition of the challenges involved in deploying these complex technologies.

It's important to note that implementing an ERP system involves significant changes to a company's processes, IT infrastructure, and strategic objectives. The methodology and strategy used in the implementation process are crucial for the organization to adapt to the new technology and manage the adoption and change effectively.

In today's global competitive environment, businesses need to be able to withstand competition and adapt to changes. Information systems, including ERP systems, play a key role in helping companies achieve their goals. ERP systems integrate different functions like accounting, supply chain, production, and HRM into a single database. They enable data sharing, improve efficiency, and provide advantages such as best practice dissemination, streamlined information flow, optimized logistics, improved customer service, and better supplier relationships. ERP systems also support decision-making processes and give companies a competitive edge.

### **2.3.2 KEY CONCEPTS THEORIES RELATED TO CHANGE MANAGEMENT IN ERP PROJECTS**

Change management strategies vary among companies. Change management involves guiding individuals through the emotional ups and downs that accompany significant organizational change (Nah & Sieber, 2002). In Goff's (2000) organization, change management is defined as a planned approach to integrating technological change. It includes structured procedures to evaluate how the change affects individuals and their work methods. It also involves methods to help individuals accept the change and adjust their behavior to make the most of new IT features. This definition highlights the importance of change management practices in IT projects to bring about fundamental transformations in how people work and interact within and between organizations.

. Resistance to change is often viewed as a response, expressing reservations (Block, 1989 cited in Sohal & Waddell, 1998). (Turbit ,2002) describes change management as the process of setting expectations to alleviate resistance to change among individuals in organizations.

Studies have shown that user resistance plays a major role in the high failure rate of ERP implementations in organizations. (Aladwani, 2001. Sheth's ,1981) framework, cited in Aladwani ,2001), categorizes user resistance into two main sources: perceived risk and habit. Perceived risk refers to individuals' perception of the risks associated with adopting the innovation, such as accepting the ERP system. Habit relates to the current practices individuals engage in. To reduce resistance, (Sheth ,1981) argues that top management must analyze these sources and employ appropriate strategies. Some argue that resistance should be recognized as something that can be utilized to support successful change management (Mabin, Foreson & Green, 2001).

For change to be successful, certain conditions must be met, such as having a clear vision communicated from top management, preparing the organizational culture for change, having strong leadership, and creating an environment that encourages participation. Developing a vision involves imagining how the organization will be in the future, gaining commitment from stakeholders, and aligning everyone's purpose and efforts. This lays the foundation for bringing about organizational change (Hamel & Prahalad, 1994; Senge & Roberts, 1994 cited in Mabin et al., 2001). Influencing the organizational culture is crucial, as it significantly impacts change initiatives (Schein, 1988; Handy, 1996; McAdams, 1996). A culture with shared values and common goals is conducive to success. Organizations should have a strong corporate identity that embraces change (Nah et al., 2001). Effective communication and strong leadership are vital in preparing and guiding organizations through change.

### **2.3.3 CHANGE MANAGEMENT FRAMEWORKS AND MODELS TO ERP IMPLEMENTATION**

There are three main types of change management models: top-down, transformation, and strategic. In the top-down model, the people leading the change have a detailed plan for managing the process. Planning the change management process in advance greatly improves the chances of a successful implementation.

In modern organizations, change management has evolved to become an integral function alongside finance, human resources, marketing, and other areas, rather than being a contingency approach to address abnormal business conditions. It is a structured process that helps companies prepare for and

adjust to the constantly changing business world. It ensures that the company can achieve its goals in a smooth and effective manner (Robbins & Judge, 2013; Hamdo, 2021). Managers understand that change is always happening and can be used to improve financial performance, customer satisfaction, internal processes, and learning and growth. To handle change effectively, managers use different models like ADKAR, Kurt Lewin's change model, Kotter's 8-step model, and the McKinsey 7S model. These models provide frameworks to guide the management of change in organizations.

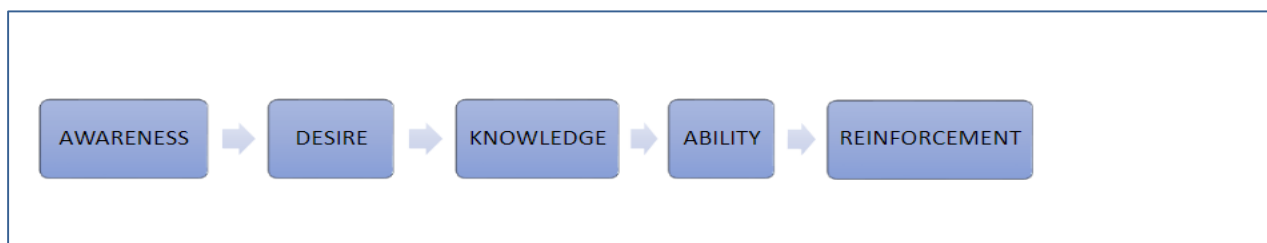
### **The ADKAR model**

The ADKAR model of change management was created by Jeffrey Hiatt, an entrepreneur and founder of the Prosci Learning Center, in 2006. Hiatt proposes that individual resistance to change can be effectively addressed by following five stages: awareness, desire, knowledge, ability, and reinforcement. According to Hiatt, managers often face the challenge of overcoming employees' resistance to change, regardless of the type of change being implemented.

To begin, managers should create awareness among employees, highlighting the inevitability and importance of the change for all parties involved. However, simply raising awareness is not sufficient to ensure employee acceptance. Managers also need to motivate employees by emphasizing the benefits of the change or illustrating the potential negative consequences if the change is not embraced.

Once employees have embraced the change, managers must provide them with the necessary knowledge to facilitate a smooth transition. This can be achieved through training programs designed to enhance employees' understanding and application of the new knowledge within the organizational context.

Finally, managers should establish a robust control and evaluation system to reinforce the change process. This system helps identify any difficulties encountered by stakeholders, especially employees, and offers the required support to overcome these challenges. Additionally, it plays a vital role in keeping employees involved and motivated throughout the change journey. (Hiatt, 2006,(Hamdo, 2021))



**FIGURE 2.2 : ADKAR CHANGE MODEL (SOURCE SAMER SHEIKH HAMDO ,CHANGE MANAGEMENT MODELS 2021)**

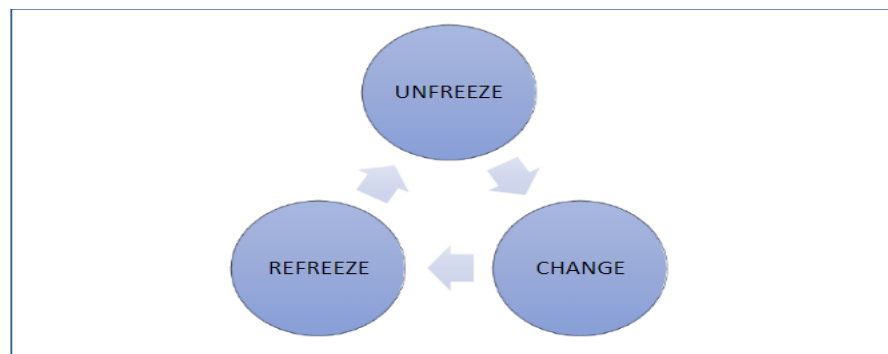
### **KURT LEWIN’S CHANGE MANAGEMENT MODEL**

In 1947, social psychologist Lewin introduced a three-stage model of the change process: unfreeze, change, and refreeze. According to Lewin, the change process begins by unfreezing the current situation or status quo. During this stage, employees become aware of the new conditions in their workplace. Managers play a crucial role in this stage by informing employees about the necessity of change through announcements, meetings, and other forms of communication.

In the second stage, Lewin suggested that employees actively participate in the change process. It is important for managers to effectively involve employees during this stage to ensure their engagement and contribution, thus enhancing the change process.

Finally, in the last stage, Lewin emphasized the significance of employees becoming fully integrated into the desired change. Managers in this stage have the responsibility of ensuring that employees actively participate and that the desired change is successfully implemented.

By utilizing this three-stage model, managers can adeptly navigate the process of change and foster substantial employee participation, which ultimately leads to the achievement of desired outcomes. (Hussain et al., 2018; Hamdo, 2021).



**FIGURE 2.3 KURT LEWIN’S CHANGE MODEL(SOURCE SAMER SHEIKH HAMDO ,CHANGE MANAGEMENT MODELS 2021)**

## KOTTER'S 8 STEPS CHANGE MANAGEMENT MODEL

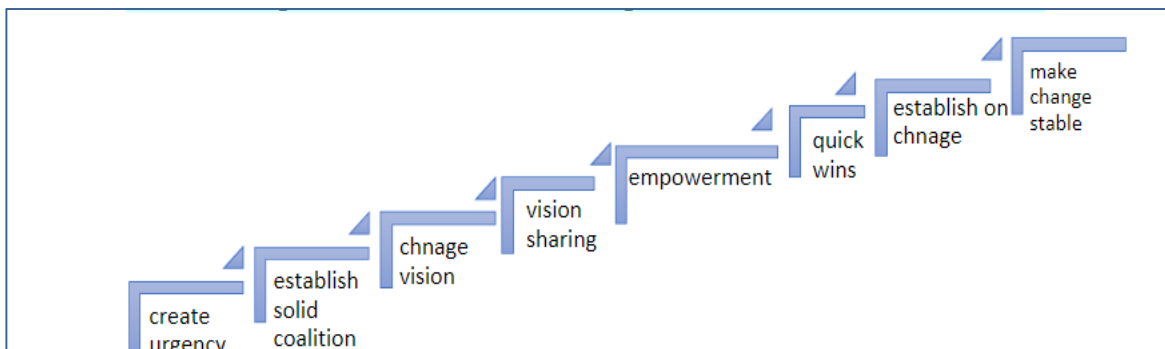
In his book "Leading Change," Kotter, a former professor at Harvard University who studied change management, presents an eight-step model for effectively managing change. These steps include: creating a sense of urgency, forming a strong team of leaders, establishing a clear vision for the change, communicating the vision effectively, empowering employees, achieving short-term successes, building on the progress made, and ensuring the change becomes a lasting and sustainable part of the organization (Kotter, 1996).

To kickstart the process of change, managers must create a sense of urgency among all stakeholders, highlighting the importance of implementing the change. This involves focusing on influential individuals, such as top and middle managers. By effectively promoting the concept of change, beginning with employees, managers can establish a common understanding and gain support (Kotter, 2008).

After promoting the idea of change, managers should establish a clear and well-defined vision that effectively communicates the desired change to all stakeholders. This helps foster a shared understanding and facilitates productive collaboration in working towards the change.

Empowering employees to actively participate in the change process is crucial. Recognizing and rewarding employees who contribute effectively can enhance their motivation and encourage their active involvement.

Lastly, managers should implement new systems and practices that align with the implemented change. This ensures that future plans and activities are in harmony with the accomplished change, establishing a stable foundation for the change to be sustained over time (Kotter, 1996).



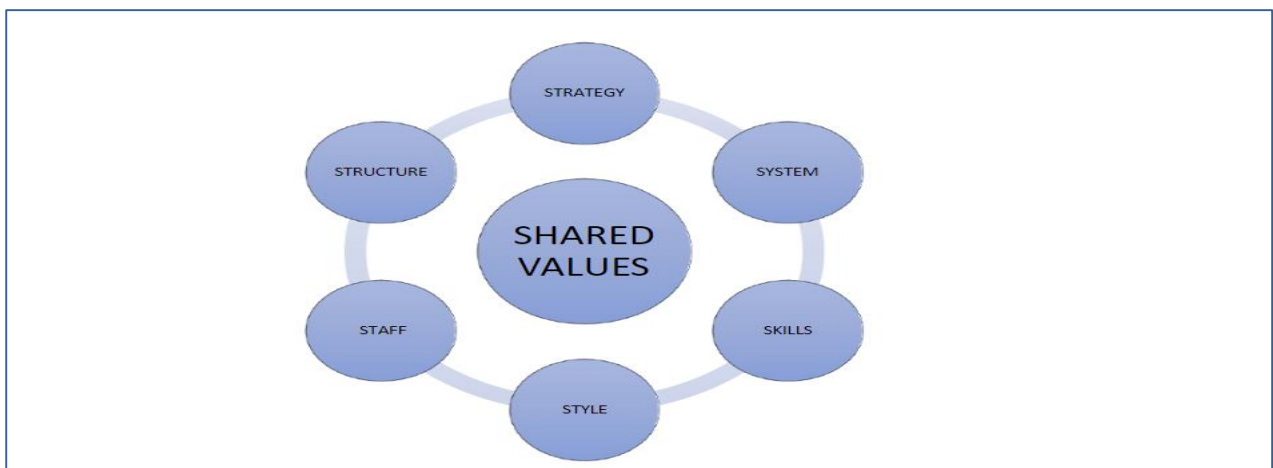
**FIGURE 2.4: KOTTER’S CHANGE MODEL( SOURCE SAMER SHEIKH HAMDO ,CHANGE MANAGEMENT MODELS 2021)**

### **The McKinsey 7-S model**

The McKinsey 7-S model, created by Tom Peters and Robert Waterman in the 1980s while they were working with McKinsey & Company, focuses on the internal alignment of organizations. According to this model, the success of an organization depends on seven key factors (Jurevicius, 2013).

Since its inception, the McKinsey 7-S model has gained widespread popularity and has been widely used in both academic and practical settings. It has become one of the most commonly employed tools for strategic planning. Unlike traditional approaches that emphasize tangible factors like assets and infrastructure, this model recognizes the importance of human resources in driving organizational performance (Jurevicius, 2013).

The primary objective of the McKinsey 7-S model is to illustrate the interconnections among seven crucial aspects of a company: Structure, Strategy, Skills, Staff, Style, System, and Shared values. These elements need to be aligned in a cohesive manner to achieve organizational effectiveness. It is essential to understand that these seven elements are interconnected, and changes made in one area necessitate corresponding adjustments in other areas for the organization to operate effectively.



**FIGURE 2.5: MCKINSEY 7S MODEL MODEL(SOURCE SAMER SHEIKH HAMDO ,CHANGE MANAGEMENT MODELS 2021)**

In the academic paper by Samer Seikh Hamdo, Figure 2.5 illustrates the McKinsey 7S Model. The model consists of seven key elements that are crucial for analyzing an organization.

- I. Strategy refers to the long-term plan devised by a company to achieve its vision. Common strategic approaches include cost leadership, differentiation, and innovation, which help define the company's mission and set aligned goals.
- II. Structure pertains to how the company's functions and divisions are organized. It can take the form of a functional, divisional, or matrix structure, depending on how the different units are combined.
- III. Systems involve the fundamental policies and standard operating procedures that regulate the operations of the company. They establish guidelines and frameworks that employees must adhere to in their daily tasks and responsibilities
- IV. the staff element of the organization concentrates on the human resources capabilities. It encompasses different facets of human resources management, including recruitment, selection, placement, training, and motivation. The objective is to ensure that the organization has the appropriate individuals in suitable roles to meet its needs.
- V. Skills, the fifth element, refers to the specific abilities and competencies possessed by the company's employees. These skills contribute to the overall capabilities of the organization.
- VI. Reflects the leadership style of the company's top managers. It influences the overall organization culture and how decisions are made communicated throughout the company.
- VII. Shared dvalues represents the core priciples and beliefs that shape the company's culture these values guide the organization in achieving its strategies goals and foster a sense of unity and propose among employees.

The McKinsey 7S Model, developed by Waterman, Peters, and Phillips in 1980, offers a comprehensive framework for evaluating and examining the seven essential elements within an organization. (Waterman, Peters, & Phillips, 1980.(Hamdo, 2021)).

## **2.4 SUCCESS STORIES FROM EFFECTIVE CHANGE MANAGEMENT**

This section focuses on the important lessons learned from successful ERP implementation projects. It identifies common themes and best practices that emerged from these success stories.

Implementing an ERP system often involves significant changes within an organization. To handle the challenges associated with this change, it is crucial for the organization to be responsive to its internal customers (Al-Mashari and Zairi, 2000; Aladwani, 1999; Aladwani, 1998). Top management requires assistance to address workers' resistance to ERP implementation, which can be a complex issue.

Several studies on ERP implementation highlight key success factors, including change management, involvement of top management, project management, business case, and training (Finney and Corbett, 2007; Nah et al., 2001; Somers and Nelson, 2004; Upadhyay et al., 2011). Although the ranking of these factors may vary, there is a general agreement on their importance. Somers and Nelson (2004) emphasize the critical role of change management in the adoption, adaptation, and acceptance phases of ERP system implementations. Shields (2001) reveals that change management activities are often neglected or rushed due to time and budget constraints, as they are typically addressed towards the end of the implementation project when the project is already delayed.

In the field of social sciences, the study of how entities and individuals respond to change is well-researched (Harris, 2006). However, in the IT world, the term "change management" is widely used but often not well understood (Fulla, 2007). Esteves (2007), in an annotated bibliography of ERP publications, notes that while many studies identify change management as a critical success factor, they rarely provide a concise definition of the term. Nevertheless, there are several definitions of change management in the ERP literature. Harris (2006) defines change management as the strategies and activities that support individuals, teams, and organizations in overcoming challenges associated with change. In the context of ERP implementations, Harris (2006) views change management as the efforts to facilitate a successful transition from an old system to a new enterprise system. Fulla (2007) defines change management as the management of modifications to an organization's culture, hierarchy, and/or business processes.

## **2.5 FAILURE STORIES: PITFALLS AND LESSONS LEARNED**

The extensive body of literature concerning Enterprise Resource Planning (ERP) covers a wide range of topics related to its implementation and the impact it has on organizations. This literature provides the necessary context for exploring failure stories, which delve into the main themes and factors discussed in the literature.

(Bafna et al, 2015) have identified several challenges encountered during ERP implementation, including significant financial implications, inadequate communication regarding strategic goals, subpar planning, engagement with unqualified vendors, insufficient attention to the selection of the implementation team, inadequate training, lack of proper technical support, a practical approach, inadequate consideration for future challenges, and insufficient management support (Bafna, Kaur et al. 2015).

(Amid et al, 2012) conducted an investigation into critical failure factors within organizations and identified seven groups of Critical Failure Factors (CFF): vendor and consultant issues, human resources challenges, managerial obstacles, project management difficulties, process-related complications, organizational factors, change management hurdles, and technical aspects (Amid, Moalagh et al. 2012).

Furthermore, a substantial volume of published studies describes the attributes associated with implementation failures. These studies emphasize factors such as a lack of understanding regarding the project scope, challenges in change management practices, inadequate user training, insufficient testing, suboptimal business process re-engineering, inadequate attention to data quality problems, weak human capital, and difficulties in data migration as the primary causes for unsuccessful ERP implementations (Markus, Axline et al. 2000, Ali and Miller 2017).

To date, there is a lack of literature examining ERP Change management implementation in Ethiopia both public and private organizations in Ethiopia. However, there are a few international studies available that are related to this topic. In the upcoming sections, these relevant international works will be extensively discussed and analyzed we aim to identify common pitfalls in change management and explore strategies to avoid them.

Globalization has brought significant changes to the business environment, presenting new opportunities for both public and private organizations. To remain competitive and survive, traditional organizations must embrace change. However, implementing change is often more challenging than accepting its necessity. Research indicates that nearly 70 percent of change initiatives fail due to improper implementation (Ortenzio, 2012). Therefore, effective change management is crucial for organizations to achieve competitiveness and future success. Inadequate implementation of change can lead to a disruptive work environment, employee resistance, and negative attitudes that impact organizational performance (Hussey, 2000). Poor communication about the change can result in low morale, decreased

optimism, and reduced productivity as employees focus on resisting rather than performing their daily tasks effectively (Hussey, 2000). This study examines the case of Siemens, a company that attempted to introduce change through the implementation of an ERP system but encountered failure. The study aims to identify the reasons behind the unsuccessful change implementation in the organization.

Current research in the field of information systems (IS) underscores the significance of organizations leveraging IS to effectively oversee and control their business operations holistically, spanning from strategic planning to the delivery of products or services. (Abusamhadana, Elias et al., 2018). A particular category of information systems, referred to as enterprise resource planning (ERP), has gained widespread adoption in order to enhance the efficiency of business processes through the provision of real-time data (Saade and Nijher, 2016). ERP systems have a crucial role in resolving challenges associated with information coordination and minimizing organizational shortcomings caused by outdated systems. (Nah, Zuckweiler et al., 2003). One fundamental characteristic of ERP is its capability to encompass all organizational functions and utilize a shared database that enables seamless information sharing and ensures the integrity of processes (Hadidi, Assaf et al., 2017). Effective execution of ERP projects can lead to cost savings and empower organizations to make informed decisions. (Ngai, Law et al., 2008). Moreover, the implementation of ERP offers organizations a chance to restructure and redesign their business processes. (Al-Mashari and Al-Mudimigh, 2003).

An ERP implementation project represents a strategic IT initiative for organizations, encompassing the integration of people, organizations, and technology (Bansal and Agarwal, 2015; Ahmed, Kumar et al., 2018). However, numerous studies have highlighted the complexity, challenges, costs, and time-consuming nature of ERP implementations for organizations (Al-Mashari, Al-Mudimigh et al., 2003; Shehab, Sharp et al., 2004; Xue, Liang et al., 2005; Ali and Miller, 2017). According to a report by Panorama Consulting Solutions in 2013, a significant number of ERP implementations were delivered late, exceeded their budget, and failed to achieve their organizational goals (Panorama Consulting Solutions, 2013).

While organizations acknowledge the importance of implementing ERP systems to gain a competitive edge, the persistently high failure rate of such implementations remains a significant concern. (Amid, Moalagh et al., 2012; Bafna, Kaur et al., 2015). Extensive literature exists on critical success factors (CSFs) and critical failure factors (CFFs) related to ERP implementation (Ngai, Law et al., 2008; Alsulami, Scheepers et al., 2016; Leyh, 2016; Saade and Nijher, 2016; Ahmed, Kumar et al., 2018).

However, with advancements in ERP system usage, there is a growing need to investigate and understand the reasons for ERP implementation failures in different contexts. Such studies can provide valuable insights and solutions to achieve higher success rates in ERP implementation (Calisir and Calisir, 2004; Ali and Miller, 2017). Sitkin (1992) also suggests that organizations should view failure as an opportunity for learning and adopt a strategy of learning through experimentation (Sitkin, 1992).

Several studies have described factors associated with implementation failure, such as limited understanding of project scope, inadequate user training, insufficient testing, ineffective business process re-engineering, inadequate attention to data quality issues, weak human capital, and challenges with data migration (Markus, Axline et al., 2000; Ali and Miller, 2017). Different studies have emphasized various factors, and the importance of specific critical success factors (CSFs) may vary across studies due to differences in sample sizes, research settings, and cultural, regulatory, and economic factors (Ngai, Law et al., 2008).

The findings of the investigation highlight that the most critical factor contributing to failure in this case was the lack of support from top management. When top managers were unwilling to change their decision regarding the implementation of the ERP system, their engagement and interest in the project diminished. This lack of support resulted in various other problems, including inadequate selection of the implementation team, poor project management, ineffective key users, communication difficulties, challenges in business process reengineering (BPR), and the absence of a user encouragement strategy. Bradford and Florin (2003) further emphasize that the irrational adoption of an ERP system can have a detrimental impact on its overall success.

The efficient handling of change is widely acknowledged as a critical component of ERP implementation. It is imperative to possess a comprehensive understanding of change management within an organization, as implementing changes without proper planning or strategy can result in employee confusion and organizational instability.

ERP implementations are plagued with high failure rates and inability to understand promised advantages and the failure rate has been estimated as 60-90% (Al-Shamlan and Al-Mudimigh, 2011; Al-Fawaz et al., 2008). The high failure rate within the implementation of ERP concerns to an improved understanding of the process (Somers and Nelson, 2004; Obeidat et al., 2014; Masa'deh, 2016; Shannak et al., 2012; Abu-Shanab and Al-Saggar, 2013). In fact, several cases of the failure to implement ERP

considered because of either or cancellations and time overruns have been reported (Ngai et al., 2008, Masa'deh et al., 2015). Al-Mashari and Zairi (2000) assert that effective implementation of ERP needs establishing five core competencies that are the utilization of change strategy development, project management, change management techniques, integration of business process re-engineering, and technical aspects to push the infusion of ERP within the workplace. However, change management engages the successful balancing of forces in favour of a change over forces of resistance (Masa'deh et al., 2015, Obeidat et al., 2016). Comprehensive income statement is a measure of firm performance. The purpose of issuing this statement is to make firms to disclose some certain elements of financial performance to help user groups of financial reports in making better financial performance evaluation. Also, comprehensive income as a basic financial statement, should report in details all the recognized revenues and expenses of the firm. The focus of income statement is on the operating revenues and expenses. User groups of financial reports for decision-making require data related to all revenues and expenses (including gains and losses). Therefore, a basic financial statement to include such items and to show changes in owners' equity related to those items is necessary

## **2.6 FACTORS INFLUENCING CHANGE MANAGEMENT SUCCESS IN ERP**

The implementation of an ERP system introduces new experiences to companies that they may not have encountered before. Given the significance of this large-scale project, it is crucial for organizations to have a clear understanding of their capabilities and potential before integrating the system into their operations. To effectively harness technology for development and innovation, organizations must have a thorough understanding of their competencies and existing systems. It is crucial for organizations to be well-informed about their capabilities in order to make the most of the available technology. (Hong & Kim, 2002). The achievement of a successful ERP system implementation relies on several factors, such as the support of top management, the formulation of a clear business plan and vision, efficient project management, effective communication, integration with existing legacy systems, adept change management, collaborative teamwork, thorough software testing and development, meticulous performance evaluation and monitoring, strategic business process reengineering, appropriate customization, and the cultivation of a culture that embraces change management. (Hong & Kim, 2002).

Change management and the process of change play a vital role in the aforementioned discussion. The external environment has been significantly impacted by globalization, leading to increased competition

in the global market and posing greater challenges for organizational sustainability. (Loonam & McDonagh, 2005). Hence, for organizations to thrive and improve profitability, they need to embrace change. Organizational change encompasses the alteration of existing business processes, culture, values, structure, rules, and regulations to enhance efficiency. However, as individuals often exhibit resistance to change, effectively managing the change process becomes crucial for achieving successful implementation. (Al Hinai, Edwards, & Humphries, 2013). Change management plays a crucial role in developing, enhancing, and sustaining change within an organization. It creates an environment conducive to change, motivates and encourages employees to embrace the change, and enables organizations to meet evolving customer needs in the 21st century. By implementing change management, organizations can effectively control and adapt to the changes brought about by the development and implementation of new technologies (Al-Mashari, 2003)

Therefore, organizations must prioritize the implementation of change management processes to successfully drive change, enhance competitiveness, and thrive in today's dynamic business landscape

## **2.7 CHALLENGES FACED DURING ERP IMPLEMENTATION**

### **2.7.1 COMMON CHALLENGES ENCOUNTERED DURING ERP IMPLEMENTATION**

Despite the significant growth of ERP systems since the late 1990s, there are several challenges that companies may face during implementation. Dillard and Yuthas (2006) observed that while multinational firms have widely adopted ERP, smaller companies are also beginning to embrace it. However, not all ERP implementations are successful, despite the promised benefits and significant investments. It is common for ERP implementations to encounter schedule delays and exceed initial budgets (Ehie & Madsen, 2005; Helo, Anussornnitisarn & Phusavat, 2008). Moreover, literature suggests that ERP implementations sometimes fail to achieve the desired outcomes and targets of organizations. Researchers have found that the failure of ERP implementations is typically not due to the software itself but rather the complexity and extensive changes that ERP introduces to organizations (Scott & Vessey, 2000; Helo et al., 2008; Maditinos, Chatzoudes & Tsairidis, 2012). These failures can be attributed to the fact that ERP implementation requires companies to adopt "best practices" observed in successful organizations and establish appropriate reference models (Zornada & Velkavrh, 2005).

According to (Helo et al.,2008), the major challenges in ERP implementation are primarily organizational and human-related, rather than technological issues such as complexity, compatibility, or

standardization. These challenges include resistance to change, organizational culture, incompatible business processes, project mismanagement, and top management commitment. (Huang, Chang, Li, and Lin ,2004) presented a list of the top ten risk factors that contribute to ERP implementation failure.

### **2.7.2 THE ROLE OF CHANGE MANAGEMENT IN ADDRESSING THESE CHALLENGES**

(Wijaya et al., 2018) conducted a study to identify problems and suggest ways to improve ERP implementation. They stressed the importance of change management factors like project leadership, rollout, end-user training, communication, and involvement in achieving successful implementation. They also developed comprehensive guidelines based on a research process, as there was a lack of guidance available to practitioners for effectively integrating resource planning systems.

Sar and Garg (2019) discovered that despite manufacturing organizations investing heavily in ERP systems to boost productivity, the failure rate of implementation remains high. They highlighted the limited focus of ERP implementation studies on critical success factors and proposed a conceptual model for ERP adoption in the automobile industry to address this gap. Figueroa-Flores et al. (2020) identified common challenges related to implementing information systems, such as poor management, vague project definition, and lack of consultation.

Phaphoom et al. (2018a) emphasized factors contributing to implementation failures, such as poorly structured organizational procedures, lack of transparency in change management, communication problems, and inadequate project management. Kirmizi and Kocaoglu (2020) observed that companies often overlook ERP readiness and rush into implementation, exposing a gap in the literature regarding evaluation methods and effective approaches to tackle implementation challenges.

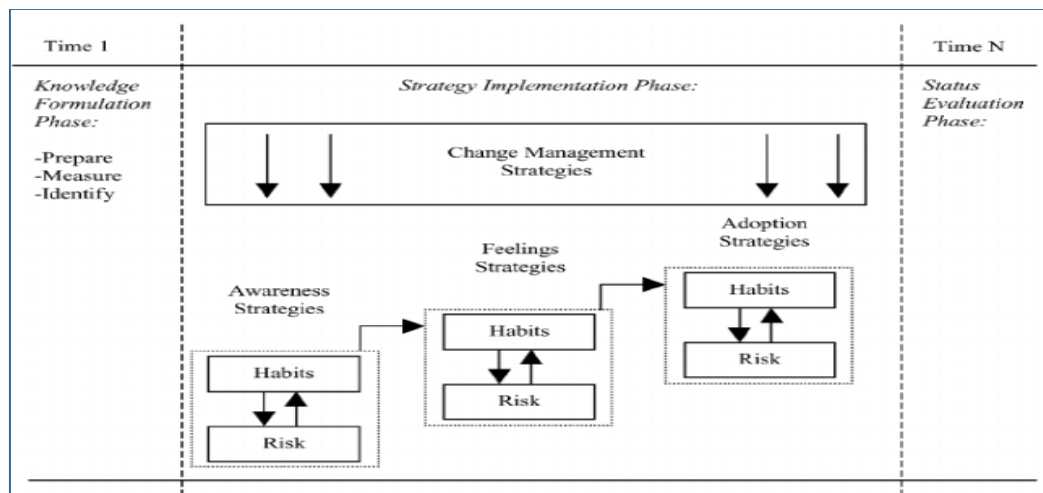
In summary, change management plays a crucial role in successful ERP implementation, involving effective communication, stakeholder involvement, readiness assessment, planning and strategy development, training, change champions, leadership support, monitoring, and celebrating milestones. By adopting these strategies, organizations can navigate the complexities of change and increase the chances of successful ERP implementation.

## **2.8 STRATEGIES FOR AVOIDING CHANGE MANAGEMENT PITFALLS.**

Change management strategies play a critical role in ensuring the successful implementation of ERP systems. When organizations embark on improvement initiatives such as ERP implementation, they

inevitably encounter significant changes. It becomes crucial to be responsive to the needs of internal stakeholders to effectively address the challenges that arise from this change (Al-Mashari and Zairi, 2000; Aladwani, 1999; Aladwani, 1998).

In order to tackle the complex issue of resistance among employees during ERP implementation, the researcher proposes an integrated conceptual framework that focuses on three key phases: knowledge formulation, strategy implementation, and status evaluation (refer to Figure 2.6). This process-oriented framework aims to assist top management in efficiently managing organizational issues related to ERP implementation and overcoming potential obstacles.



**FIGURE 2.6: A SUGGESTED FRAMEWORK FOR MANAGING CHANGE ASSOCIATED WITH ERP**

## 2.9 REVIEW OF RELATED WORKS

The process of implementing an ERP system requires careful attention to navigate the complexities associated with organizational transformation and ensure a smooth transition. This review of related works focuses on understanding the lessons learned from success and failure stories of ERP systems implementation in Ethiopia. By examining existing literature, (Bafna et al., 2015) identified challenges encountered during ERP implementation, including financial implications, inadequate communication, subpar planning, and engagement with unqualified vendors, inadequate training, and insufficient management support. (Amid et al, 2012) conducted an investigation into critical failure factors within organizations and identified groups of Critical Failure Factors (CFF), such as vendor and consultant

issues, human resources challenges, managerial obstacles, project management difficulties, and change management hurdles. (Markus et al, 2000) and (Ali and Miller, 2017) discussed factors associated with unsuccessful ERP implementations, including a lack of understanding of project scope, challenges in change management practices, inadequate user training, insufficient testing, suboptimal business process re-engineering, and difficulties in data migration.

The passage mentions a lack of literature examining ERP change management implementation in Ethiopia, indicating a research gap in this area. Additionally, the passage refers to the high failure rate of ERP implementations and highlights the need for investigating the reasons for failure in different contexts to achieve higher success rates. The importance of top management support for successful ERP implementation is emphasized, along with the negative impact of the lack of support on various aspects of the project. Furthermore, the efficient handling of change management is acknowledged as a critical component of ERP implementation, and the challenges associated with change management are highlighted. Several studies are mentioned that discuss critical success factors (CSFs) and critical failure factors (CFFs) related to ERP implementation.

In addition to the mentioned studies, local research conducted by (Engdayehu, 2014) indicates that the effectiveness of the ERP system varies across different divisions of implementation. This finding suggests the need to consider specific contextual factors in assessing the success and challenges of ERP systems in Ethiopia.

## **2.10 SUMMARY OF RESEARCH GAP**

Implementing ERP systems is a complex and challenging process for organizations. One critical aspect of successful implementation is effective change management. However, there is a research gap in understanding the specific pitfalls organizations face during ERP implementation and how to avoid them. This study aims to bridge this gap by examining successful ERP implementation cases and identifying key lessons learned in change management.

Most of the empirical studies have primarily focused on the various phases of ERP implementation (reimplementation, implementation, and post-implementation), with an emphasis on technical and business aspects.

Even the Existing literature on ERP implementation highlights the importance of change management in ensuring project success. However, the literature lacks a comprehensive analysis of specific pitfalls encountered during change management in ERP implementation. Prior studies have focused on technical aspects, such as system integration and customization, while overlooking the human factor and organizational change processes. This research aims to fill this gap by delving deeper into change management challenges faced during ERP implementation.

Furthermore, they identified problems that hindered the system's practice, including a lack of appropriate training for system users as the most significant issue. Additionally, insufficient support from integrators and a lack of appropriate customization processes aligned with the regulatory framework of companies and countries were also identified as significant problems. Fetsum (2017) and Sintayehu (2014) outlined critical success factors specific to their areas of expertise for successful ERP implementation. Dersese (2013) developed a framework and identified key success factors that should be addressed throughout the reimplementation, implementation, and post-implementation phases. They also examined the implementation of ERP systems, considering technical, business, and cultural dimensions, and investigated technical, organizational, and operational issues related to the success of ERP post-implementation.

It is crucial to acknowledge that ERP implementation and success can vary significantly among companies due to unique circumstances. Furthermore, there is a notable absence of previous studies that specifically address the change management pitfalls during ERP systems implementation.

## **2.11 CHAPTER SUMMARY**

This research looks for to fill a research gap by investigating the pitfalls of change management during ERP implementation. Through an examination of successful cases and a review of existing literature, this study aims to provide valuable insights and practical lessons for organizations undertaking ERP implementation projects. The findings of this research will contribute to the existing body of knowledge on ERP implementation, with a specific focus on change management. Additionally, it will offer guidance to organizations, helping them avoid common pitfalls and achieve successful ERP implementation.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

Research methodology refers to the systematic approach used by researchers to address a research problem and achieve the objectives of a study. It involves a step-by-step process that guides the researcher in conducting the study and includes various tools and techniques. Having a well-defined research methodology is crucial for the researcher to effectively conduct the study within the given time and resource constraints (Babbie, 2010).

The research methodology section of a research paper outlines the actions and procedures undertaken by the researcher. It helps in evaluating the progress of the study, scheduling activities, and implementing theoretical concepts and techniques. Additionally, this section discusses the limitations of the study and identifies potential areas for future research. Its primary goal is to gather relevant and reliable information that can be used for practical and theoretical purposes, supported by sound reasoning (Babbie, 2010). The research methodology section plays a vital role in enhancing understanding of the research topic and its practical implications.

The primary focus of this study is to examine the process of change management during the implementation of an ERP system in an organization. The research objective is to gain insights into the change management process and identify the key factors that contribute to successful change initiatives. In today's rapidly evolving business environment, effective change management is crucial for organizations to maintain competitiveness and meet the evolving needs of their customers. The research methodology involves an investigation into various aspects of change, including change management models and the ERP system. To ensure more specific and targeted findings, the study specifically focuses on five organizations as a case study, analyzing its ERP implementation process and the change management strategies utilized. The study also highlights the importance of adopting a change management approach and provides reasons for its necessity.

## **3.2 RESEARCH DESIGN**

The research design is an important aspect of the research process, allowing the researcher to address the research questions in a systematic manner. There are various types of research designs, including descriptive, exploratory, case study, and experimental designs. In this study, the researchers have employed a case study research design.

The specific case study chosen for this research includes the Ethiopian Postal Service, Habesha Brewery Share Company, Cooperative Bank of Oromia Share Company, Luna Slaughterhouse P.L.C., and Ethiopian Pharmaceutical Service. These organizations have been selected to examine the changes brought about by the implementation of an Enterprise Resource Planning (ERP) system within their respective operations.

The researchers aim to analyze the behavior of employees when a new technology or system, such as the ERP system, is introduced in the organization. It is expected that employees will need to step out of their comfort zones and adapt to a new way of working. By studying these organizations, the researchers seek to gain insights into how employees navigate this transition and the impact it has on their work processes.

Overall, the case study research design allows for an in-depth examination of specific organizations and provides valuable insights into the effects of implementing the ERP system on employee behavior and organizational change

### **3.2.2 A RESEARCH**

In the context of exploring change management challenges during ERP implementation in Ethiopia, a mixed research approach is considered suitable for this study. The research design incorporates both qualitative and quantitative approaches to provide a comprehensive understanding of the topic.

Qualitative studies play a crucial role in this research as they aim to understand the meanings people attribute to their experiences within the specific context of ERP implementation. These studies involve gathering data through interviews, observations, and participant involvement. By exploring different perspectives and utilizing various sources of evidence, researchers can gain insights into the challenges faced during ERP implementation.

The qualitative phase of the study focuses on collecting data through interviews, observations, and active engagement with participants. This process generates a significant amount of data, including transcribed interviews, field observations, and the researcher's notes.

Subsequently, the collected qualitative data is analyzed to derive explanations and understand the underlying factors contributing to change management challenges. The interpretations and findings are based on participants' descriptions, allowing for a deeper understanding of the issues at hand.

In addition to the qualitative component, a quantitative approach is incorporated to complement the qualitative findings. The quantitative phase involves collecting data through surveys or questionnaires from a larger sample of participants. This quantitative data provides statistical insights, allowing for a broader understanding of the prevalence and significance of the identified change management challenges.

By employing a mixed research approach, combining qualitative and quantitative methods, this study aims to provide a comprehensive exploration of change management challenges during ERP implementation in Ethiopia. The integration of qualitative and quantitative findings enhances the richness and validity of the research outcomes

### **3.2.2 RESEARCH APPROACH**

The choice of research approach depends on the nature of the research problem. It helps assess the importance of the research hypothesis and includes testing and outcomes, as well as determining the appropriate research methods to use (Babbie, 2010). By carefully considering the research approach, researchers can ensure the validity and reliability of their findings by aligning their methods with the specific requirements of the research problem.

### **3.2.3 RESEARCH STRATEGY**

The research strategy section in a research paper serves to explain in a clear and detailed manner the overall approach and methodology used in the study. This section describes the specific steps and methods employed to tackle the research question or problem and accomplish the research objectives.

### **3.2.4 STUDY SETTING**

This study focuses on examining five organizations in Ethiopia that have implemented the SAP ERP system. These organizations were specifically chosen to represent a range of sectors, including service

provider organizations, retail businesses, manufacturing, and the banking industry. The selection process involved considering companies and organizations that have implemented either SAP ECC 6.0 or SAP S/4HANA.

The primary objective of this exploratory study is to investigate the actual concepts and theories that emerge within these organizations during the implementation of the SAP ECC 6.0 and SAP S/4HANA ERP systems. It is worth noting that case studies, as emphasized by Yin (2011) and NEIMA SADIK & JUNE (2021), are particularly relevant for exploring theoretical propositions and have the potential for generalizability.

The selected organizations in this study boast substantial workforces and are currently implementing the SAP ECC 6.0 and SAP S/4HANA ERP systems. These systems have been acquired from various vendors, including Fairfax Solution P.L.C, Fairfax Technologies LLC, Ernst And Young Ethiopia Plc Fairfax Technologies, and SEDIOR Africa.

#### **Habesha Brewery Share Company.**

Habesha Breweries Share Company, a brewery in Ethiopia, as the focus of my case study. This company was established in 2009. They decided to implement an ERP system to enhance their performance, achieve their goals, and gain a competitive edge in the market. The selection process for the SAP ERP Ecc at Habesha Breweries Share Company began in February 2018. Evaluations were carried out at both their head office in Addis Ababa and their factory plant in Debreberhane.

#### **Ethiopian pharmaceutical Supply service.**

Federal Democratic Republic of Ethiopia legislation led to the official establishment of the Ethiopian Pharmaceuticals Supply Service (EPSS). Its main responsibility is to supply public health facilities around the nation with affordable, high-quality medical supplies. At the moment, EPSS serves more than 7,000 healthcare establishments through its 19 hubs, which are thoughtfully placed throughout Ethiopia. In turn, these facilities cater to a populace of 114 million people. By 2030, the company aims to become the pharmaceutical supply chain organisation in Africa with the highest level of responsiveness and efficiency. As a result, it has been working on the SMILE SAP implementation project.

Although each stream in the SAP S4/Hana deployment project has a number of processes unique to it, the integration points between the various streams are the SAP ERP's primary benefit and focal point. Cross integration points are what are known as these points of integration. The company made the decision to restructure and automate their manual business operations by implementing an ERP system. Their aim was to enhance performance, achieve organizational objectives, and enhance their market position. The selection process for the SAP S4/Hana Company began in February 2023, with evaluations conducted at both the Addis Ababa head office and 19 regional branch offices. Luna export slaughterhouse plc

Luna PLC, established in 2003, is a food company that is family owned and managed. With six brands under our portfolio, we have a workforce of 1055 employees. The primary mission is to cater to the needs of our customers, both domestically in Ethiopia and internationally, by offering high-quality meat, vegetables, fruits, prepared and semi-prepared healthy dishes, and wine,

The Company they decide to enhance their performance, achieve organizational objectives, and bolster their market position, they made the decision structuring or redesigning and change their non-automatic their organization by implementing an Enterprise system. The selection process for SAP ERP 6.0 ECC at Head office and in all branches in March 2018, with evaluations taking place at both the Addis Ababa head office and all branches.

### **Deloitte consulting limited**

Tanzania (Dar es Salaam), located in East Africa, is the base for a Tanzanian firm that has been in operation since before the First World War. Initially, the firm had branches in Dar es Salaam, Iringa, and Mbeya. However, it later decided to consolidate its services and closed down the Iringa and Mbeya branches, retaining only the headquarters in Dar es Salaam. When Deloitte first commenced operations, its primary focus was on Tax, Audit, and Secretarial services, known as Livingstone Registrars.

Recognizing the market demand, the firm introduced its Consulting department in 1998. This strategic move allowed Deloitte to expand its services and emerge as a significant competitor in the consultancy sector. Presently, Deloitte in Tanzania offers a comprehensive range of services encompassing tax, audit, secretarial, and consulting, and is widely acknowledged as a market leader in the country

### **Fairfax Technologies LLC (Ethiopian Branch)**

Fairfax Technologies is a forward-thinking company dedicated to harnessing advanced technology to provide exceptional process enhancements and organizational transformations for our clients. With extensive expertise as a system integrator and implementer, we hold a prominent position as a leading SAP partner in Eastern Africa. Our team of SAP certified professionals has successfully implemented the entire suite of SAP products, enabling us to deliver comprehensive solutions to our clients. Additionally, Fairfax Technologies takes pride in having the sole SAP certified Education Center in East Africa, offering our clients in Africa the opportunity to efficiently develop their capabilities at a reasonable cost.

<b>S.N</b>	<b>Revised list of organizations that have implemented an ERP solution and Consulting firms</b>	<b>categorization of a company</b>	<b>Address</b>
1	Habesha Brewery Share Company.	Large	Addis Ababa (Ethiopia)
2	Ethiopian pharmaceutical Supply service.	Large	Addis Ababa (Ethiopia)
3	Cooperative Bank of Oromia Share Company	Large	Addis Ababa (Ethiopia)
4	Ethiopian Postal service	Large	Addis Ababa (Ethiopia)
5	Luna Slaughter House P.L.C	Large	Addis Ababa (Ethiopia)
6	Fairfax Tecnologies LLC	Medium	Addis Ababa (Ethiopia)
7	Fairfax Soluation P.L.C	Medium	Addis Ababa (Ethiopia)
8	Deloitte consulting limited	Large	Tanzina (Dar es Salaam)

**TABLE 3.1: LIST OF CASE COMPANIES**

### **3.2.5 CASE SELECTION AND STUDY PARTICIPANTS**

In this study, the number of participants and how they were chosen were carefully decided based on the research goals, methodology, and the concept of data saturation. Utilizing a mixed research approach, a purposive sampling technique was employed to select individuals who could offer valuable insights relevant to the research questions.

The selection criteria were specifically designed to identify participants with hands-on experience in ERP project implementation, change management, and specific roles within ERP projects. Key respondents, including more than 20 individuals from the case companies such as system users, IT teams, project managers, consultants, and top managers, were chosen to ensure a diverse array of perspectives and insights from different stakeholders involved in ERP implementation.

### **3.3 RESEARCH TECHNIQUE**

Various research techniques were utilized in this study, such as participating in activities, conducting questionnaire surveys, and holding interviews. The researcher was deeply involved in the project under study, providing the opportunity for firsthand observations during the implementation phase. This holistic approach, which encompassed observations, interviews, and active participation, facilitated a comprehensive and nuanced comprehension of the subject matter at hand.

#### **3.3.1 DATA COLLECTION**

The data collection phase plays a critical role in ensuring the accuracy and validity of research results. To achieve reliable and valid outcomes, researchers must adhere to a proper data collection process. This involves systematically gathering data from various available sources, which can present a notable challenge as researchers must ensure the uniqueness and reliability of these sources (Robinson, 2002).

During the data collection stage, researchers need to demonstrate determination and possess a comprehensive understanding of the key aspects related to their research topic. Two primary methods of data collection are commonly employed: primary sources and secondary sources. Additionally, primary sources were utilized to directly collect data from employees working in five different organizations, including both governmental and private organizations.

The researchers designed and administered questionnaires to gain insights into the employees' perceptions and behaviors regarding organizational change and the implementation of the ERP system. By adopting this approach, the researchers were able to develop a deeper understanding of the employees' perspectives and their experiences with the change management process.

#### **3.3.2 DATA ANALYSIS**

Data analysis plays a vital role in research as it involves examining the collected data to draw conclusions. It entails evaluating and analyzing the data using appropriate tools to make sense of it. By

following a data analysis process, researchers can minimize personal biases and objectively examine the data. The data analysis process is essential for discovering valuable information that informs decision-making (Wilson, 2010). Its primary objective is to organize and make sense of the data gathered from various sources. During data analysis, the information is dissected into smaller components to uncover meaningful insights.

In this research, a combination of quantitative and qualitative data analysis methods was employed by the researchers to thoroughly examine the data. Through this comprehensive approach, the researchers identified and analyzed diverse themes that emerged from the observed patterns.

### **3.4 VALIDITY AND RELIABILITY**

To ensure the validity and reliability of the research conducted, several measures were implemented. These steps included meticulous attention to detail during the data collection process to guarantee the accuracy of the results. Additionally, various methods were employed to assess the precision of the gathered information. Special focus was placed on verifying the sources of the data to ensure reliability and credibility. Moreover, efforts were made to minimize any discrepancies or inconsistencies in the research outcomes, thereby enhancing the overall reliability and validity of the study.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND PRESENTATION**

## 4.1 INTRODUCTION

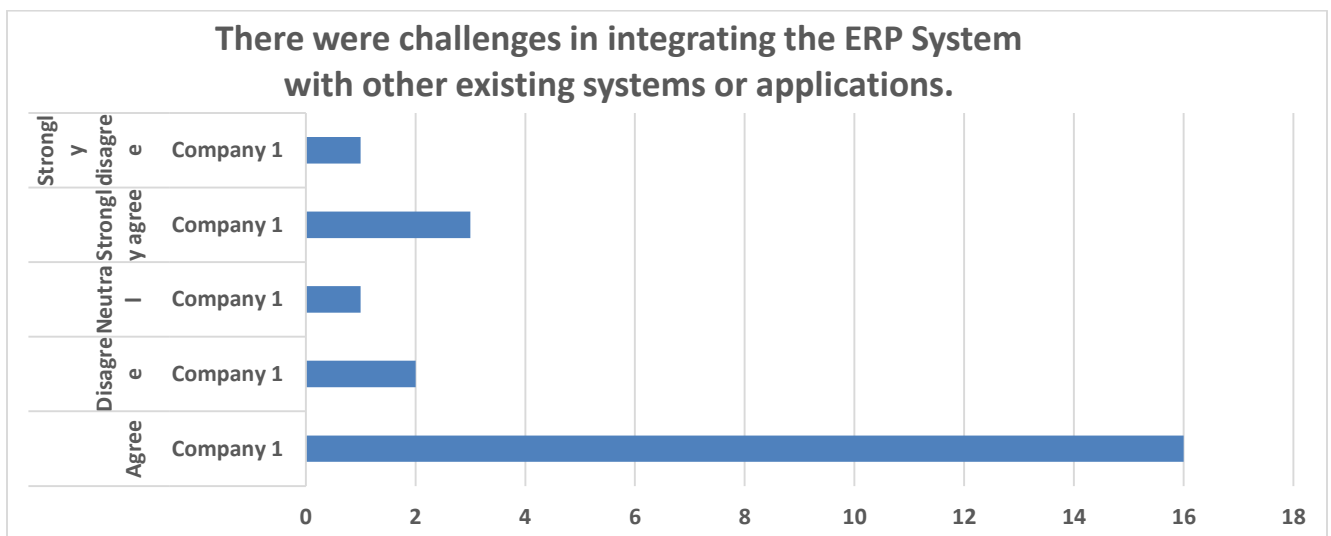
In this Section, we will give a brief summary of a survey that was done at two public organizations, two share companies, and one private limited company. The main goal of the survey was to collect important information about how these organizations managed changes when they implemented a type of software called Enterprise Resource Planning (ERP) systems. We used questionnaires, interviews, and observations to gather the data.

By looking at what these organizations went through, you can learn about effective ways to handle changes in a company. The survey results will give you valuable insights into the best methods and lessons learned when making and maintaining changes in an organization. This knowledge will be helpful for future changes in companies, as it will encourage them to be adaptable and strong in the face of new challenges.

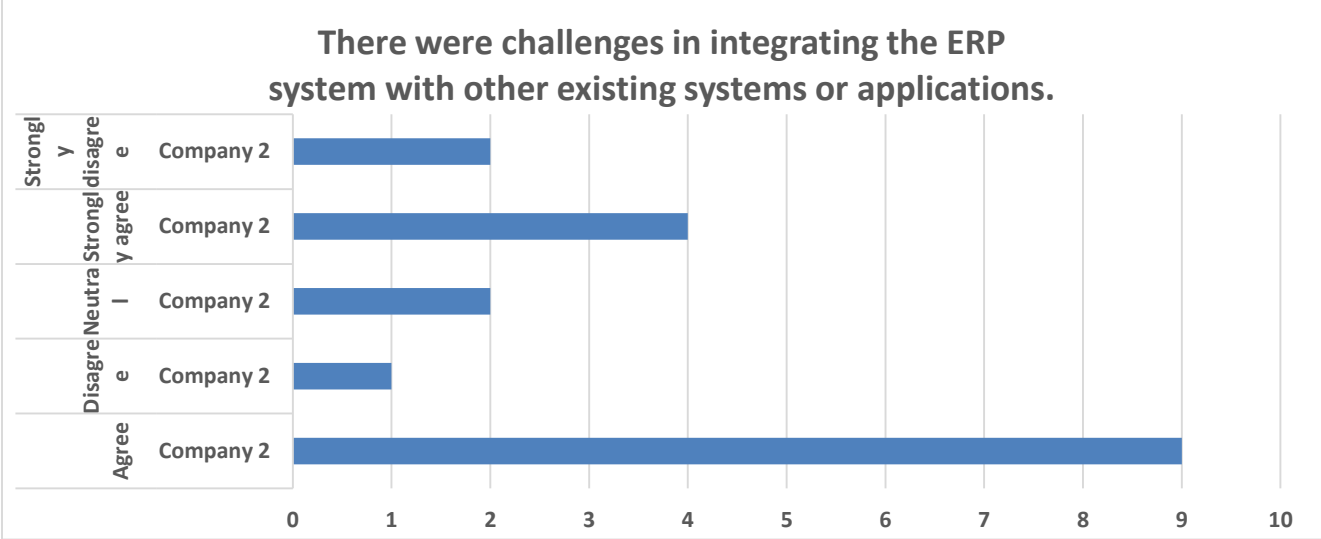
## 4.2 THEMATIC ANALYSIS

### The Challenges in integrating the ERP system with other existing systems or Applications

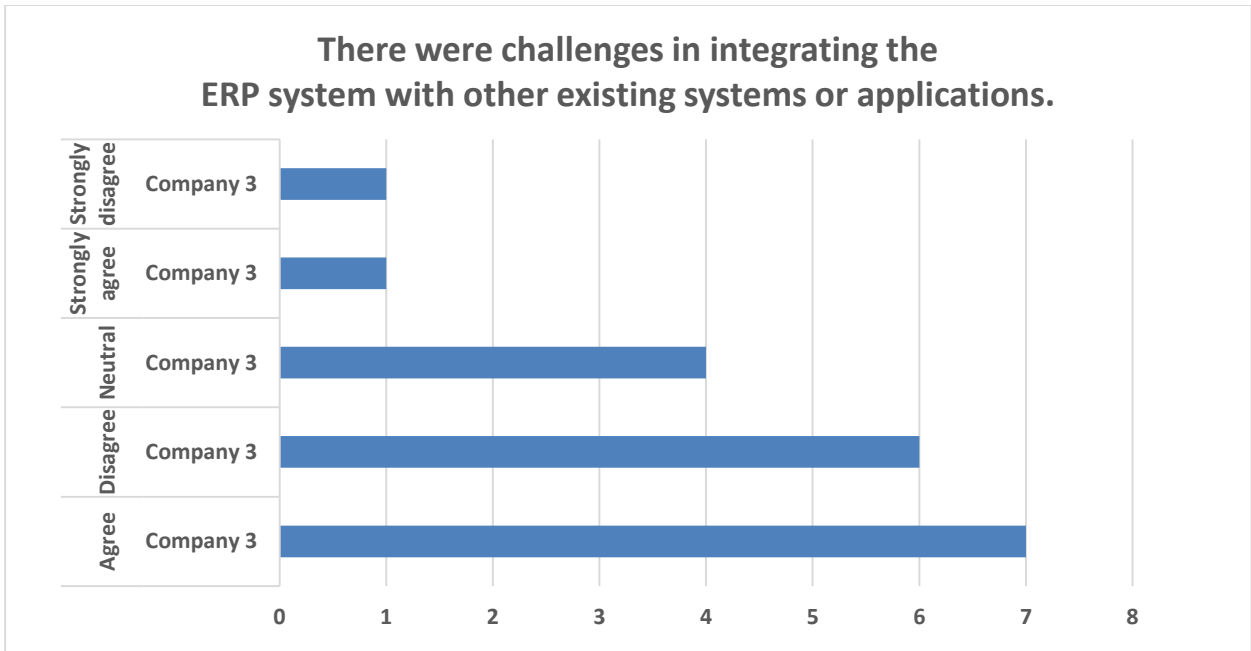
The integration of the ERP system with other existing systems or applications was accompanied by various challenges, as indicated by the questionnaire responses. One key challenge reported by respondents was the difficulty in achieving compatibility between the ERP system and the pre-existing systems or applications. This encompassed conflicts in data formats, communication protocols, and technical requirements, resulting in integration obstacles.



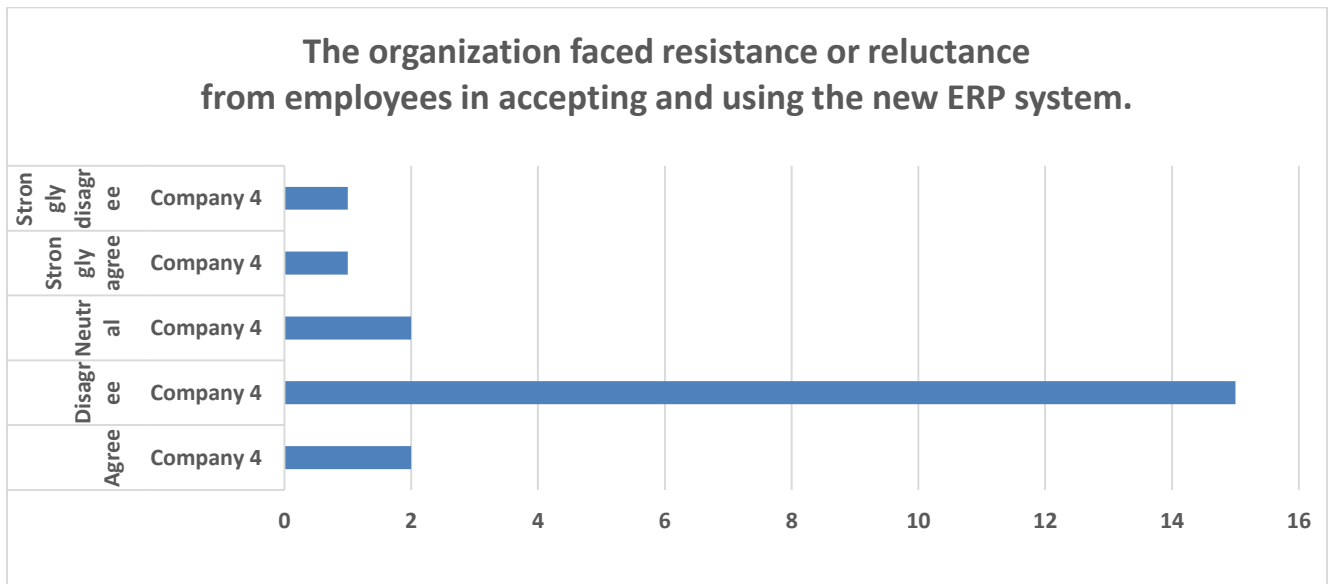
The graph above represents the feedback from 23 participants in Company 1. Agreed that there were challenges integrating the ERP system with other existing systems or applications is effective with the current system. Furthermore, 3 participants strongly agreed, supporting the opinion of the 19 participants. One participant had a neutral opinion, while 2 participants disagreed, and 2 participants strongly disagreed. Based on these responses, it can be concluded that the integration with other systems is not working as intended for Company 1.



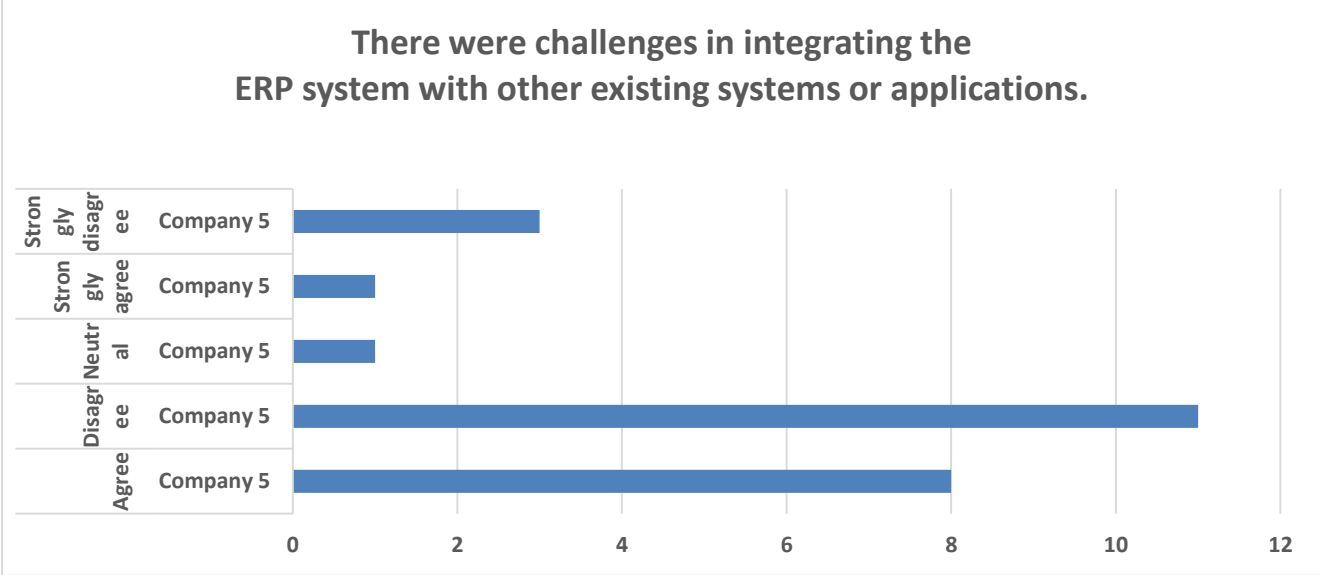
The graph above represents the feedback from 18 participants in Company 2. Out of these participants, 9 agreed that integrating the ERP system with other existing systems or applications is effective with the current system. Furthermore, 4 participants strongly agreed, supporting the opinion of the 9 participants. 2 participant had a neutral opinion, while 1 participants disagreed, and 2 participants strongly disagreed. Based on these responses, it can be concluded that the integration with other systems is not working as intended for Company 2.



The graph above represents the feedback from 19 participants in Company 3. Out of these participants, 7 agreed that there were challenges integrating the ERP system with other existing systems or applications is effective with the current system. Furthermore, 1 participants strongly agreed, supporting the opinion of the 7 participants. 4 participant had a neutral opinion, while 1 participants disagreed, and 1 participants strongly disagreed. Based on these responses, it can be concluded that the integration with other systems is not working as intended for Company 3.



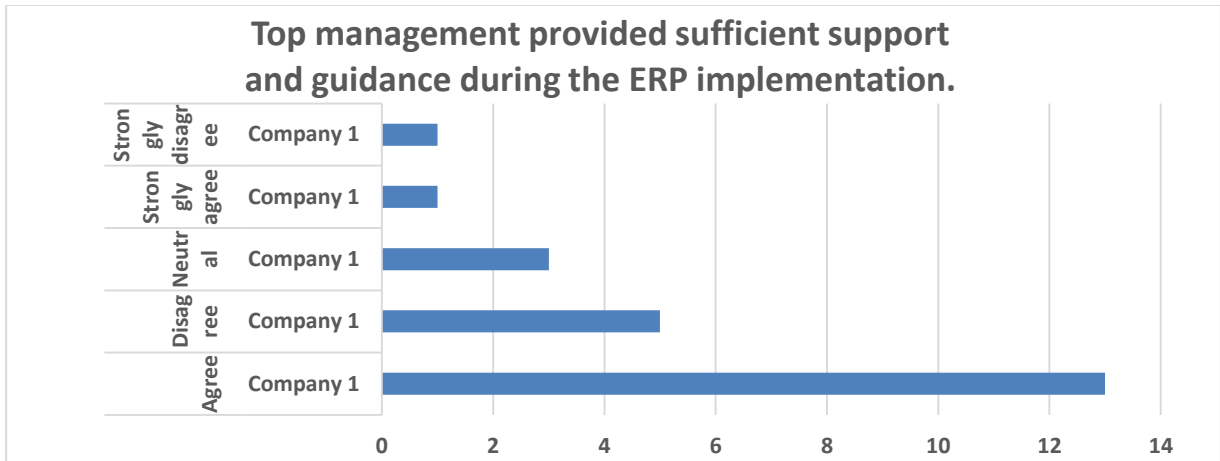
The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 2 agreed that there were challenges integrating the ERP system with other existing systems or applications is effective with the current system. Furthermore, 1 participants strongly agreed, supporting the opinion of the 2 participants. 2 participant had a neutral opinion, while 15 participants disagreed, and 1 participants strongly disagreed. Based on these responses, it can be concluded that the integration with other systems is working as intended for Company 4.



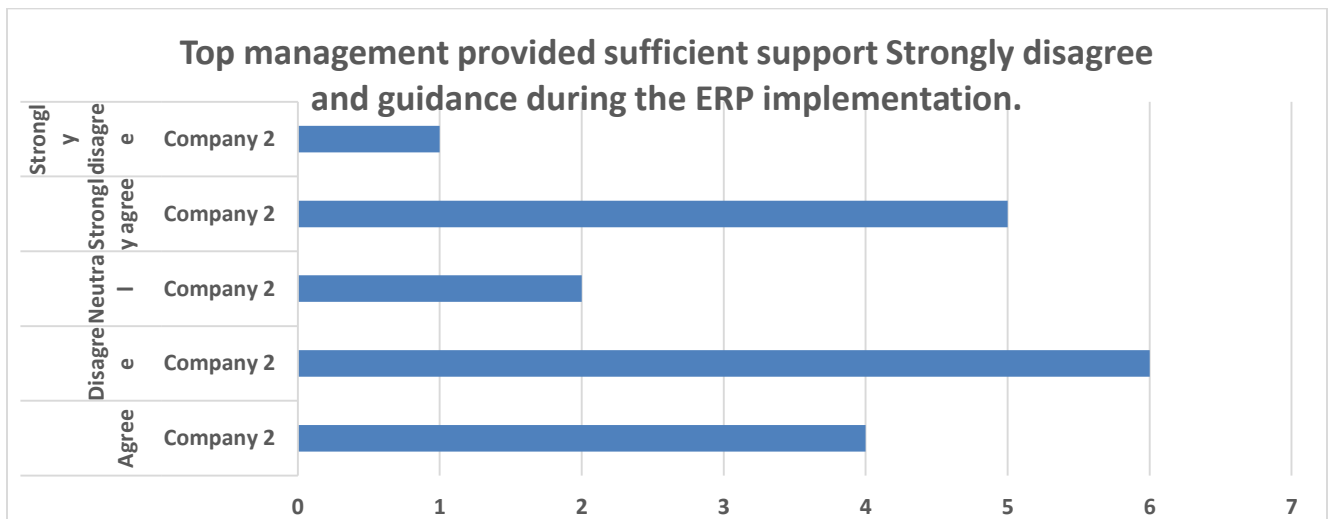
The graph above represents the feedback from 23 participants in Company 5. Out of these participants, 8 agreed that there were challenges integrating the ERP system with other existing systems or applications is effective with the current system. Furthermore, 1 participants strongly agreed, supporting the opinion of the 8 participants. 1 participant had a neutral opinion, while 11 participants disagreed, and 1 participants strongly disagreed. Based on these responses, it can be concluded that the integration with other systems is working as intended for Company 5.

**Top management support and guidance**

The strong participation and leadership of top management were crucial in ensuring the success of the Enterprise Resource Planning (ERP) implementation. Their active involvement guided the project towards successful results by making important decisions and allocating resources effectively. Top management's support was visible in different parts of the implementation, goals

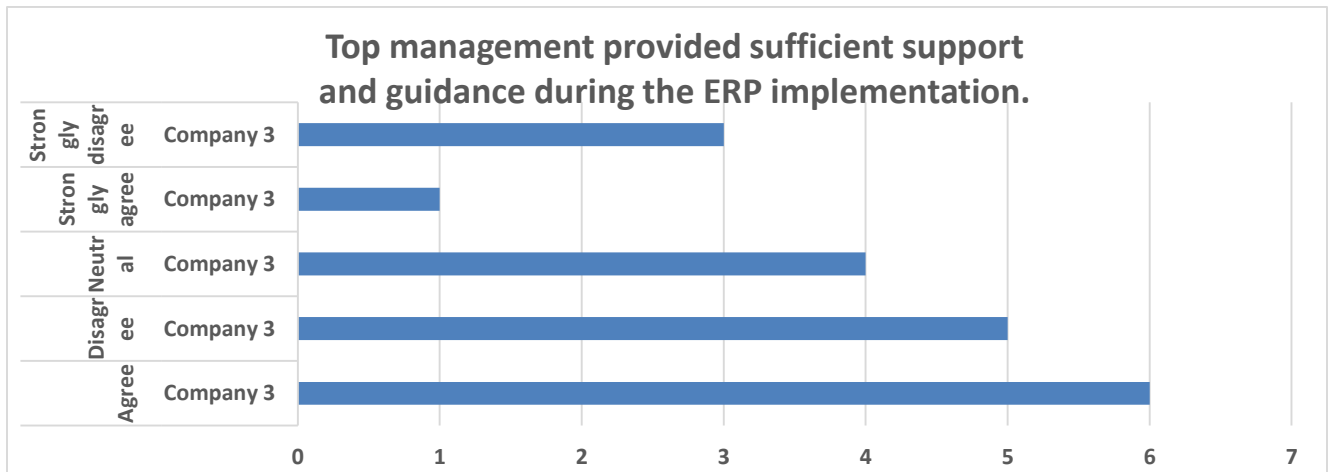


The graph above represents the feedback from 23 participants in Company 4. Out of these participants, 13 agreed that Top Management provided sufficient support and guidance during ERP implementation. Furthermore, 1 participants strongly agreed, supporting the opinion of the 13 participants. 2 participant had a neutral opinion, while 3 participants disagreed, and 1 participants strongly disagreed. Based on these responses, it can be concluded that Top Management provided sufficient support and guidance during ERP implementation Company 1.

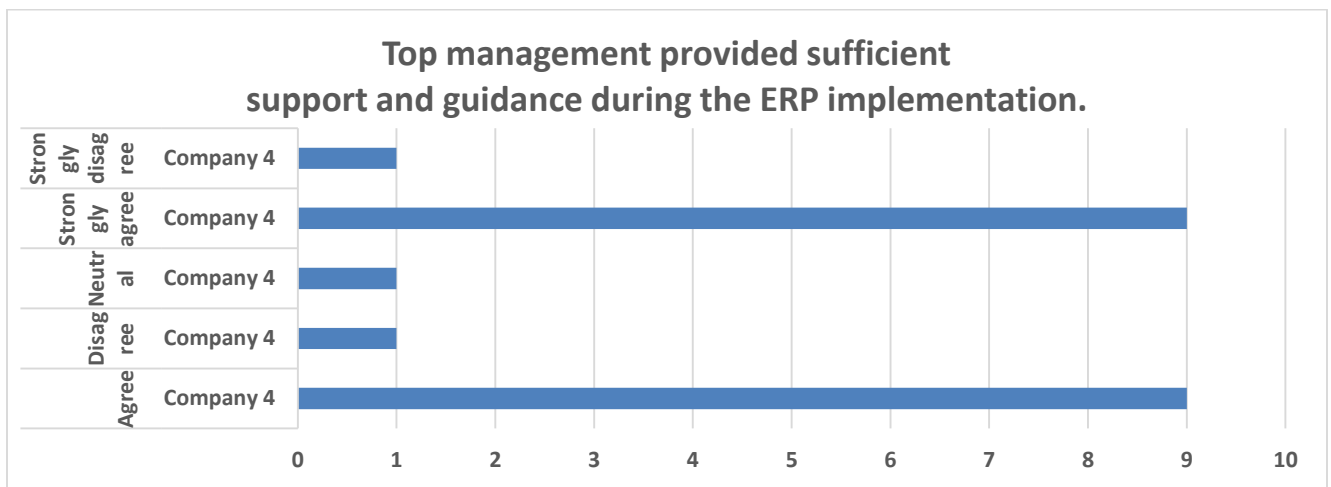


The graph above represents the feedback from 20 participants in Company 2. Out of these participants, 4 agreed that Top Management provided sufficient support and guidance during ERP implementation. Furthermore, 5 participants strongly agreed, supporting the opinion of the 4 participants. 2 participant had a neutral opinion, while 6 participants disagreed, and 1 participants strongly disagreed. Based on

these responses, it can be concluded that Top Management not provided sufficient support and guidance during ERP implementation Company 2.

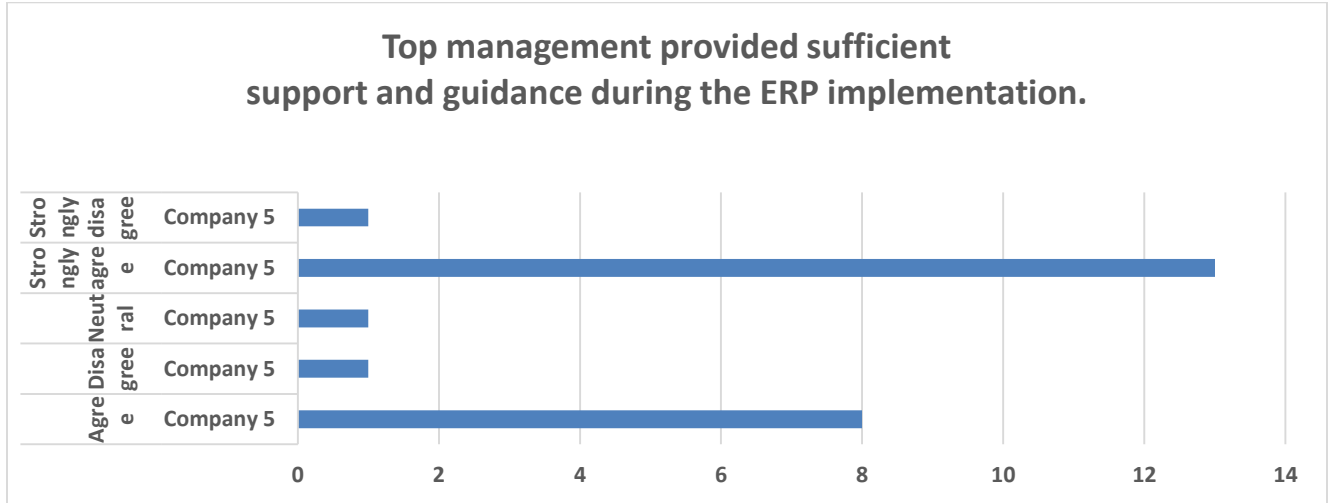


The graph above represents the feedback from 19 participants in Company 3. Out of these participants, 6 agreed that Top Management provided sufficient support and guidance during ERP implementation. Furthermore, 5 participants strongly agreed, supporting the opinion of the 6 participants. 4 participants had a neutral opinion, while 5 participants disagreed, and 3 participants strongly disagreed. Based on these responses, it can be concluded that Top Management not provided sufficient support and guidance during ERP implementation Company 3.



The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 9 agreed that Top Management provided sufficient support and guidance during ERP implementation. Furthermore, 9 participants strongly agreed, supporting the opinion of the 9 participants. 1 participant

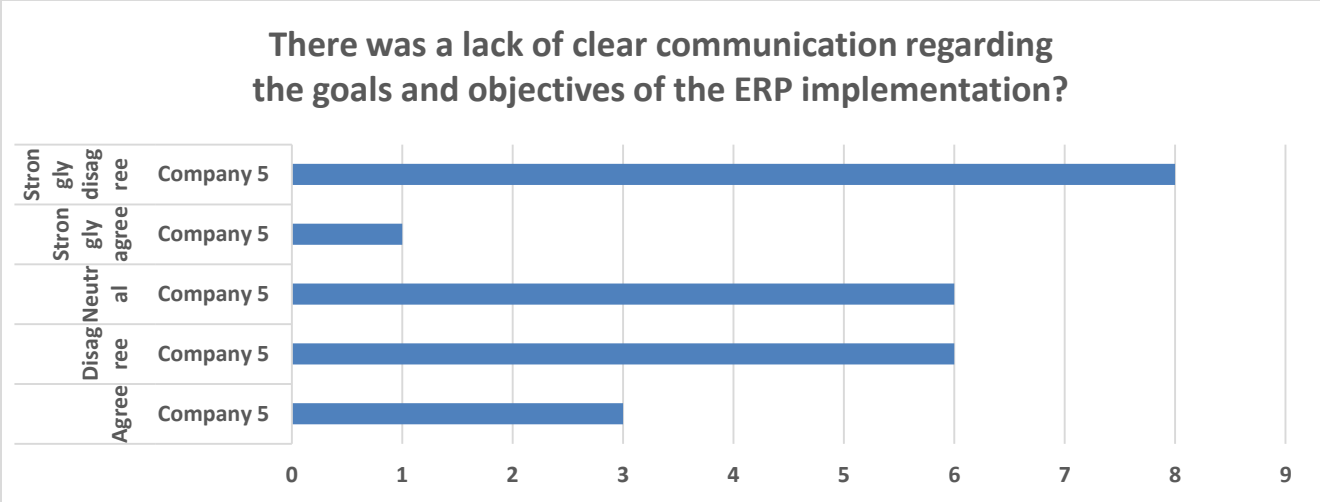
had a neutral opinion, while 1 participants disagreed, and 1 participants strongly disagreed. Based on these responses, it can be concluded that Top Management provided sufficient support and guidance during ERP implementation Company 4.



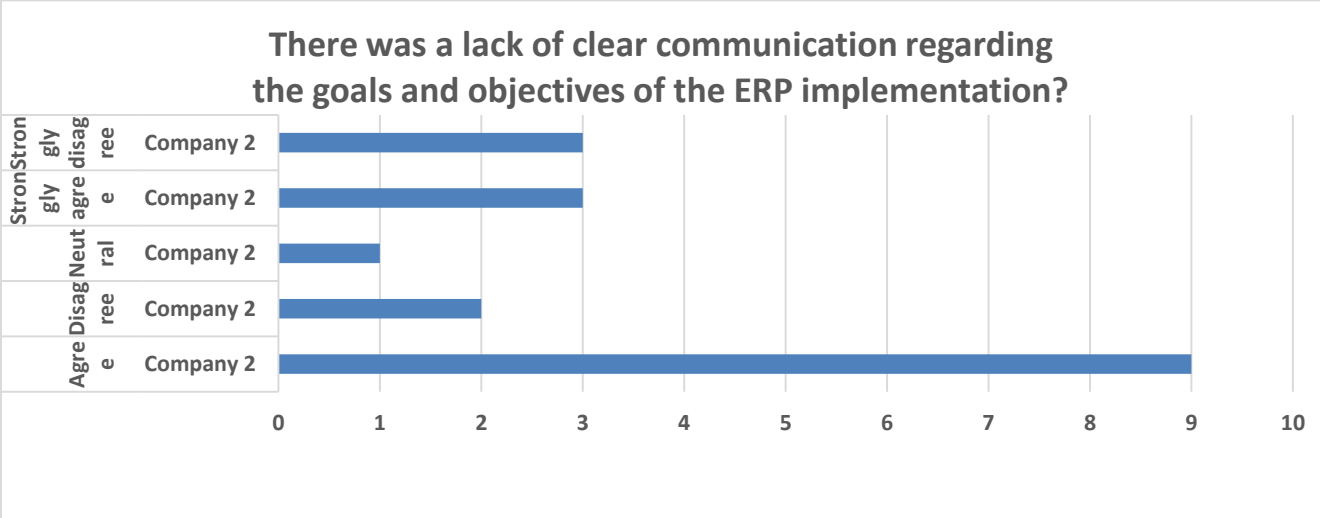
The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 8 agreed that Top Management provided sufficient support and guidance during ERP implementation. Furthermore, 13 participants strongly agreed, supporting the opinion of the 8 participants. 1 participant had a neutral opinion, while 1 participants disagreed, and 1 participants strongly disagreed. Based on these responses, it can be concluded that Top Management provided sufficient support and guidance during ERP implementation Company 4.

**Communication within the Organization**

Conversations surrounding the issue and the choice to initiate a change and implement the ERP project were restricted to higher-ranking individuals within the organizations. The significance and benefits of the change were exclusively discussed among managers, leading to a lack of awareness among other employees regarding the reasons behind the change and the specific advantages it would bring.

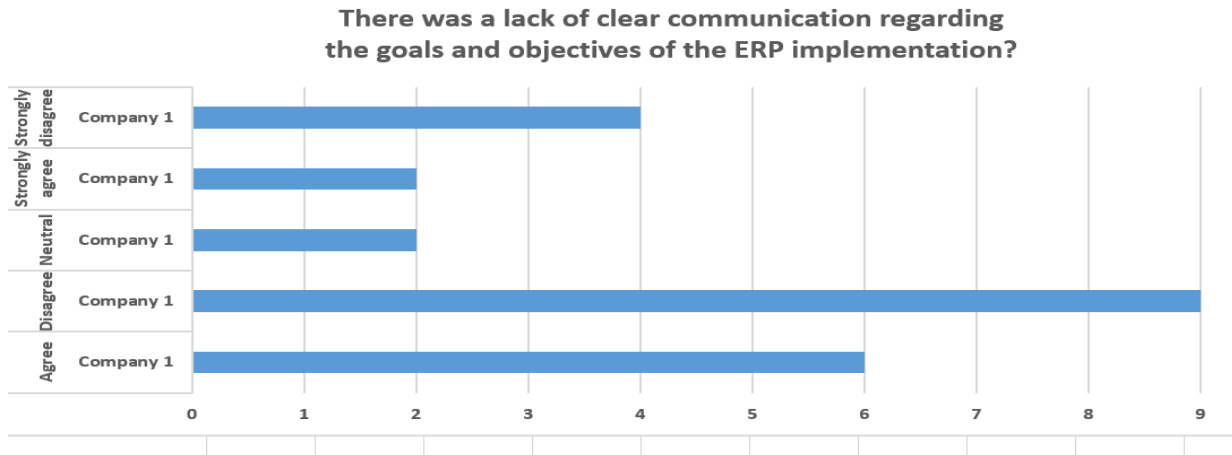


The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 3 agreed that there was a lack of clear communication regarding the goals and objectives of the erp implementation. Furthermore, 1 participants strongly agreed, supporting the opinion of the 00013 participants. 6 participant had a neutral opinion, while 5 participants disagreed, and 8 participants strongly disagreed. Based on these responses, there no a lack of clear communication regarding the goals and objectives of the erp implementation in Company 5.

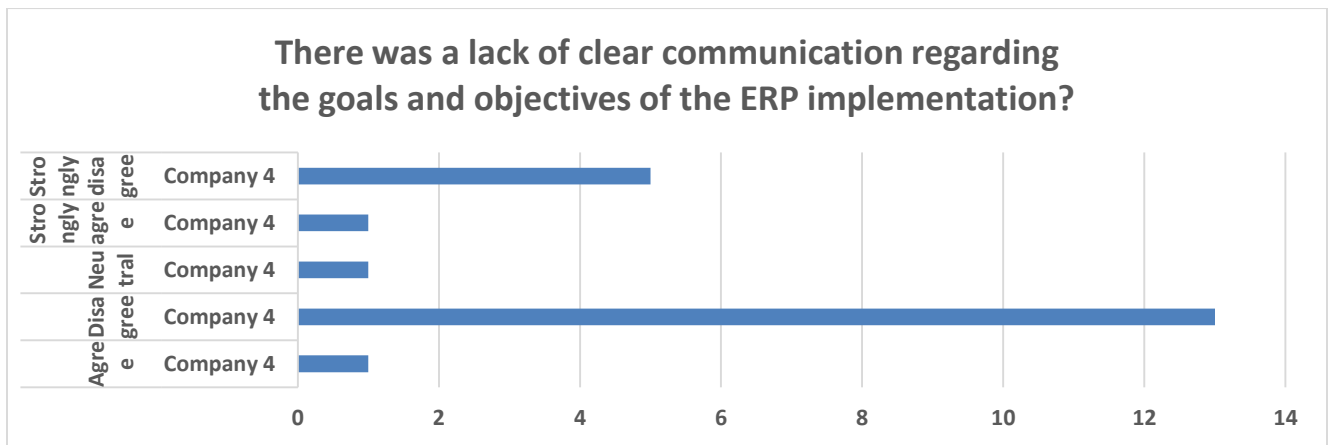


The graph above represents the feedback from 18 participants in Company 2 . Out of these participants, 9 agreed that there was a lack of clear communication regarding the goals and objectives of the erp implementation. Furthermore, 3 participants strongly agreed, supporting the opinion of the 9 participants. 1 participant had a neutral opinion, while 2 participants disagreed, and 3 participants

strongly disagreed. Based on these responses, there was a lack of clear communication regarding the goals and objectives of the erp implementation in Company 2.

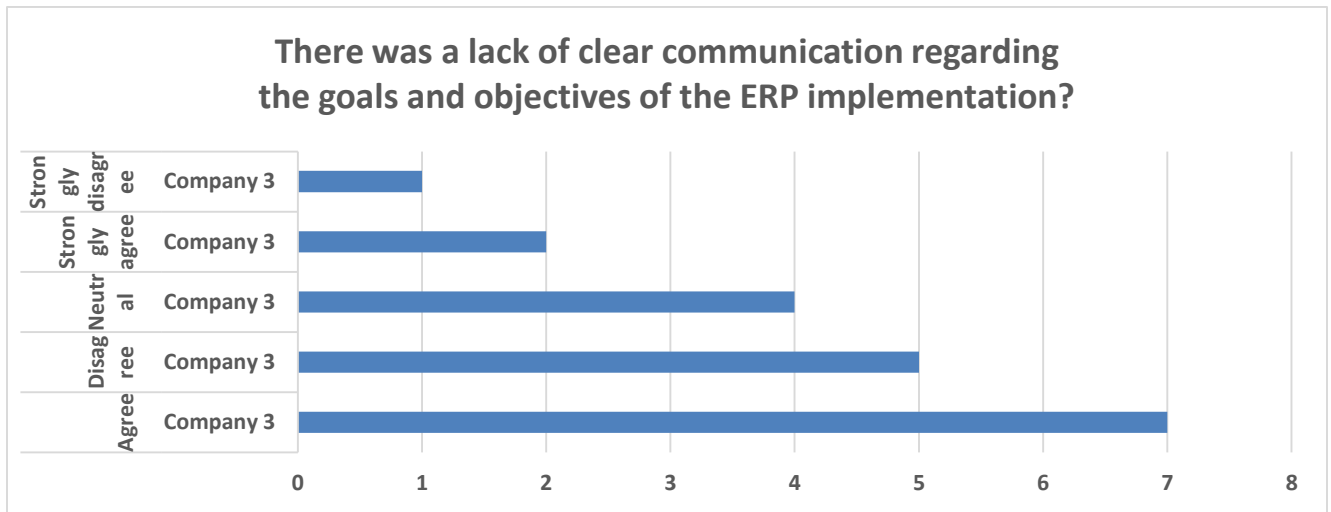


The graph above represents the feedback from 23 participants in Company 1. Out of these participants, 6 agreed that there was a lack of clear communication regarding the goals and objectives of the ERP implementation. Furthermore, 2 participants strongly agreed, supporting the opinion of the 6 participants. 2 participants had a neutral opinion, while 9 disagreed, and 4 participants strongly disagreed. Based on these responses, there is no lack of clear communication regarding the goals and objectives of the ERP implementation in Company 1.



The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 1 agreed that there was a lack of clear communication regarding the goals and objectives of the ERP implementation. Furthermore, 1 participant strongly agreed, supporting the opinion of the 1 participant. 1 participant had a neutral opinion, while 13 disagreed, and 5 participants strongly disagreed. Based

on these responses, there is no a lack of clear communication regarding the goals and objectives of the ERP implementation in Company 4.



The graph above represents the feedback from 19 participants in Company 3. Out of these participants, 7 agreed that there was a lack of clear communication regarding the goals and objectives of the ERP implementation. Furthermore, 2 participants strongly agreed, supporting the opinion of the 7 participants. 4 participants had a neutral opinion, while 5 disagreed, and 1 participant strongly disagreed. Based on these responses, there was a lack of clear communication regarding the goals and objectives of the ERP implementation in Company 3.

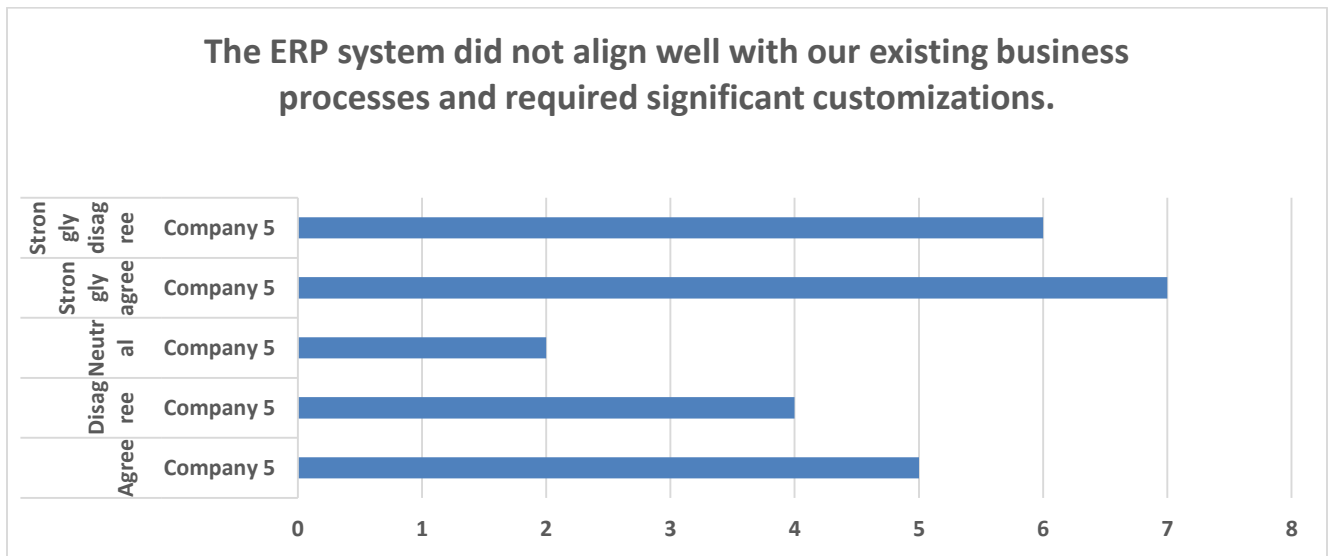
**Conclusion** Based on the presented graph, it is evident that in organizations such as Company 1, Company 4, and Company 5, the majority of respondents perceived clear communication and understanding of the aims and objectives of the ERP implementation. However, Company 2 and Company 3, a significant number of respondents pointed out a lack of clear communication regarding the goals and objectives of the ERP implementation. This lack of clarity in communication within these two organizations could have contributed to challenges or difficulties in effectively implementing the ERP system.

**The ERP system alignment with existing business processes**

The organization faced challenges in integrating the ERP system with its existing business processes, which necessitated substantial customization efforts to achieve alignment. The misalignment between

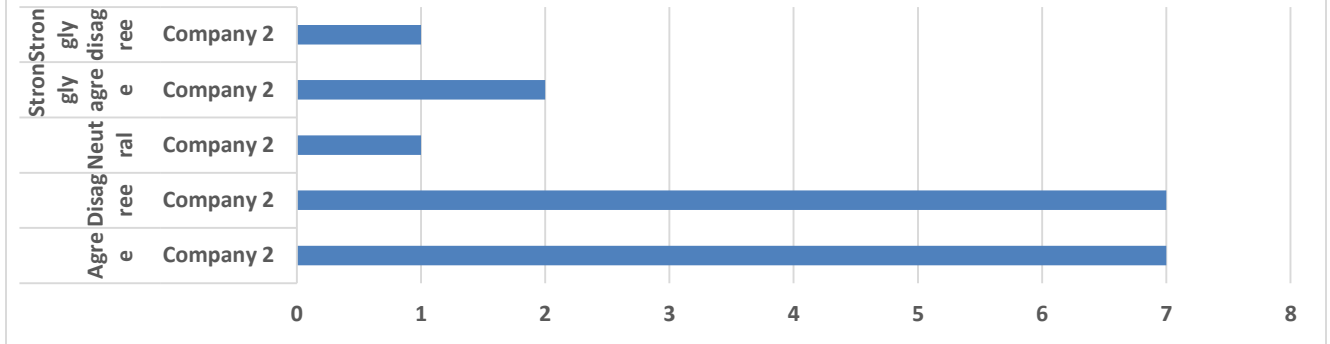
the ERP system and existing processes posed hurdles during the implementation phase, requiring extensive modifications to ensure a seamless fit.

The need for significant customization indicates that the ERP system did not seamlessly integrate with the organization's pre-existing workflows and operations. This misalignment could stem from differences in terminology, data structures, or specific requirements of the organization. As a result, customization became a crucial step to bridge the gap and tailor the ERP system to meet the organization's unique needs.



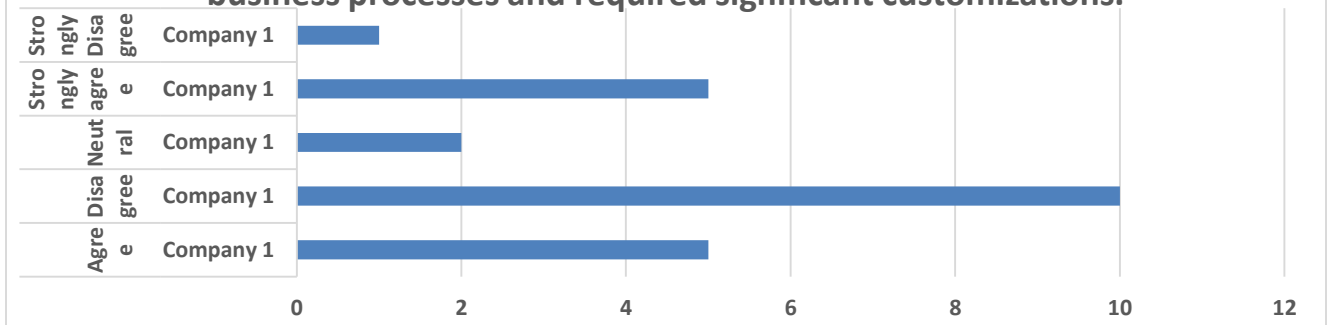
The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 5 agreed that the ERP system did not align with our existing business process and required significant customization. Furthermore, 5 participants strongly agreed, supporting the opinion of the 7 participants. 2 participants had a neutral opinion, while 4 disagreed, and 6 participants strongly disagreed. Based on these responses, the ERP system did not align with our existing business process and required significant customization in Company 5.

**The ERP system did not align well with our existing business processes and required significant customizations.**



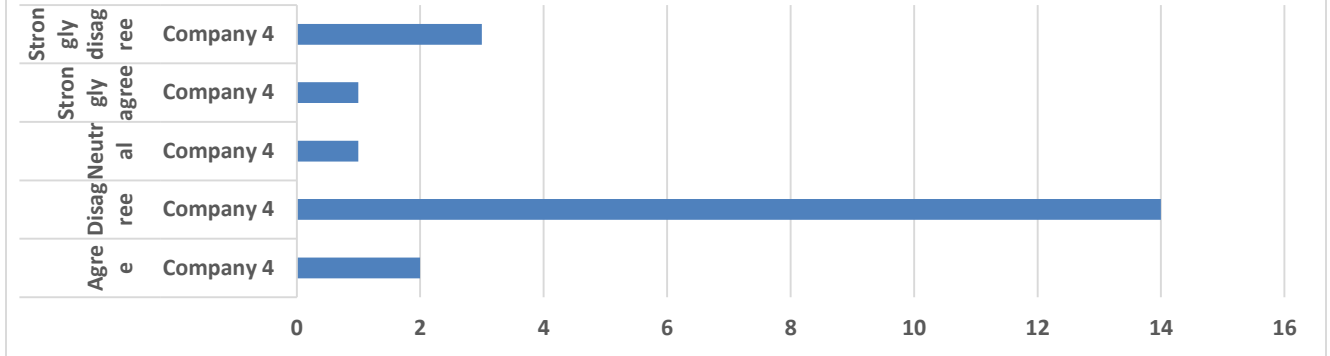
The graph above represents the feedback from 18 participants in Company 2. Out of these participants, 7 agreed that the ERP system did not align with our existing business process and required significant customization. Furthermore, 2 participants strongly agreed, supporting the opinion of the 7 participants. 1 participant had a neutral opinion, while 7 disagreed, and 1 participant strongly disagreed. Based on these responses, the ERP system did align with our existing business process and required significant customization in Company 2.

**The ERP system did not align well with our existing business processes and required significant customizations.**



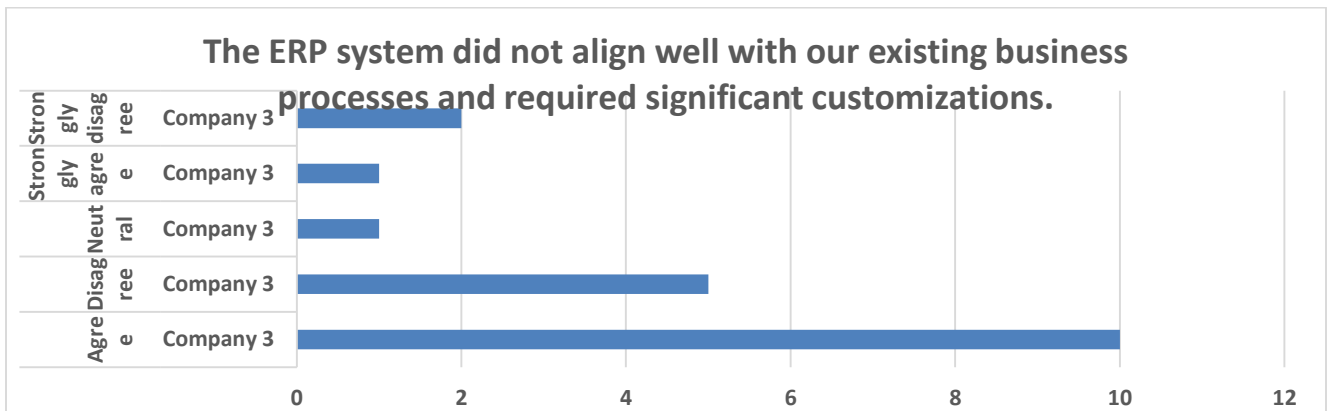
The graph above represents the feedback from 23 participants in Company 1. Out of these participants, 5 agreed that the ERP system did not align with our existing business process and required significant customization. Furthermore, 5 participants strongly agreed, supporting the opinion of the 5 participants. 2 participants had a neutral opinion, while 10 disagreed, and 1 participant strongly disagreed. Based on these responses, the ERP system did align with our existing business process and required significant customization in Company 1.

**The ERP system did not align well with our existing business processes and required significant customizations.**



The graph above represents the feedback from 23 participants in Company 4. Out of these participants, 2 agreed that the ERP system did not align with our existing business process and required significant customization. Furthermore, 1 participant strongly agreed, supporting the opinion of the 2 participants. 1 participant had a neutral opinion, while 14 disagreed, and 3 participants strongly disagreed. Based on these responses, the ERP system did not align with our existing business process and required significant customization in Company 4.

**The ERP system did not align well with our existing business processes and required significant customizations.**



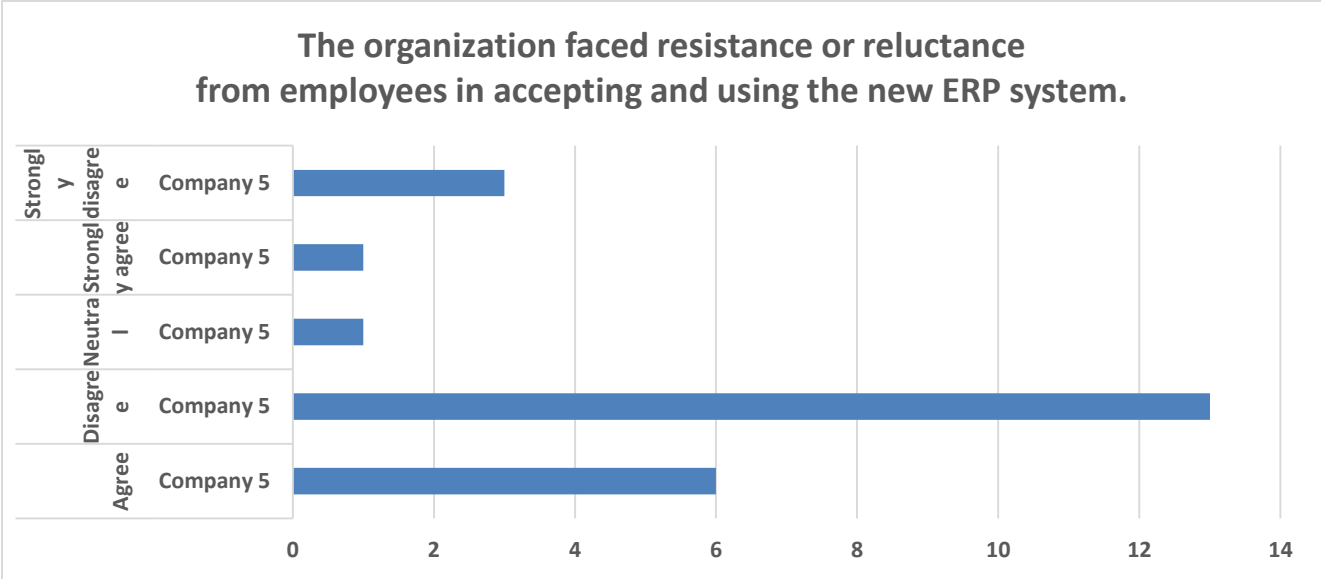
The graph above represents the feedback from 19 participants in Company 3. Out of these participants, 10 agreed that the ERP system did not align with our existing business process and required significant customization. Furthermore, 1 participant strongly agreed, supporting the opinion of the 10 participants. 1 participant had a neutral opinion, while 5 disagreed, and 2 participants strongly disagreed. Based on these responses, the ERP system did not align with our existing business process and required significant customization in Company 3.

**Conclusion** Based on the graph presented above, it is evident that the majority of organizations, including Company 2 and company 3 encountered challenges in integrating the ERP system with their existing business processes. These challenges required significant customization efforts to align the ERP system with their specific needs.

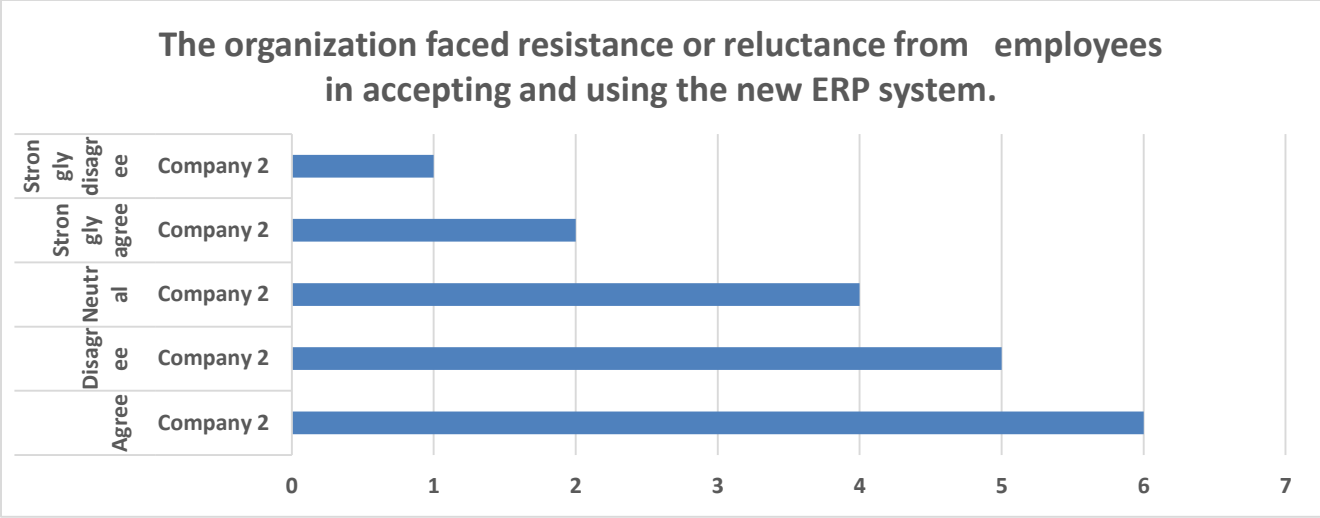
However, in the case of Company 4 Company 5 and company 1, the majority of respondents indicated that the enterprise resource planning system worked effectively without any customization. Company 4 utilized the standard ERP system without the need for extensive modifications or adjustments.

**Resistance to Change**

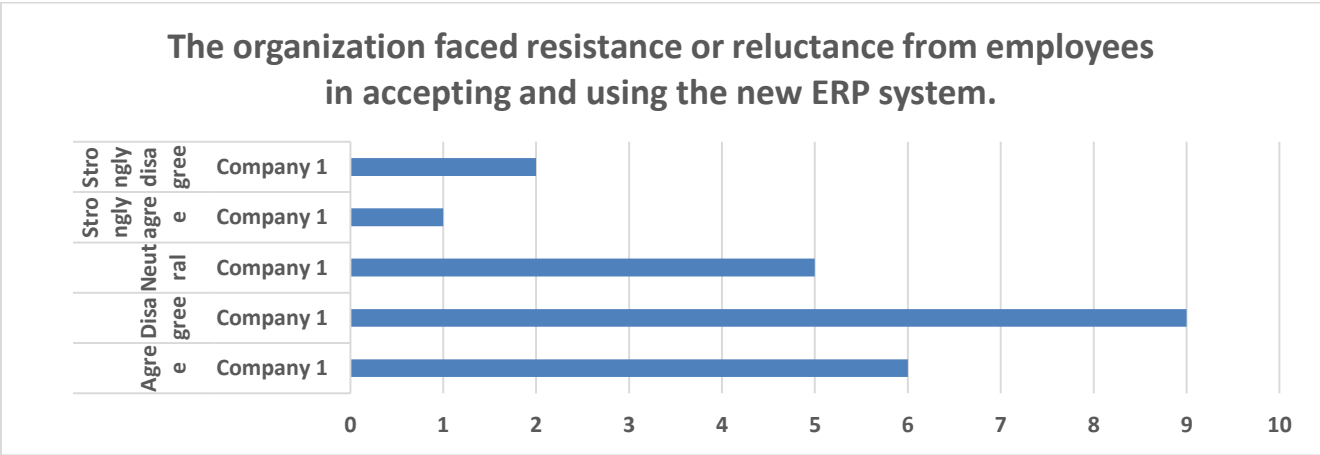
Organization encountered significant obstacles during the implementation phase of the new ERP system due to employees' resistance or reluctance to accept and utilize it. This resistance may have several underlying causes, including fear of change, a lack of understanding regarding the system's advantages, or concerns about disruptions to their daily work routines.



The graph above represents the feedback from 23 participants in Company 5. Out of these participants, 6 agreed that the organization faced resistance or reluctance from employee in accepting and using the new erp system. Furthermore, 1 participants strongly agreed, supporting the opinion of the 6 participants. 1 participant had a neutral opinion, while 13 disagreed, and 3 participants strongly disagreed. Based on these responses, the organization is not faced resistance or reluctance from employee in accepting and using the new erp system Company 5

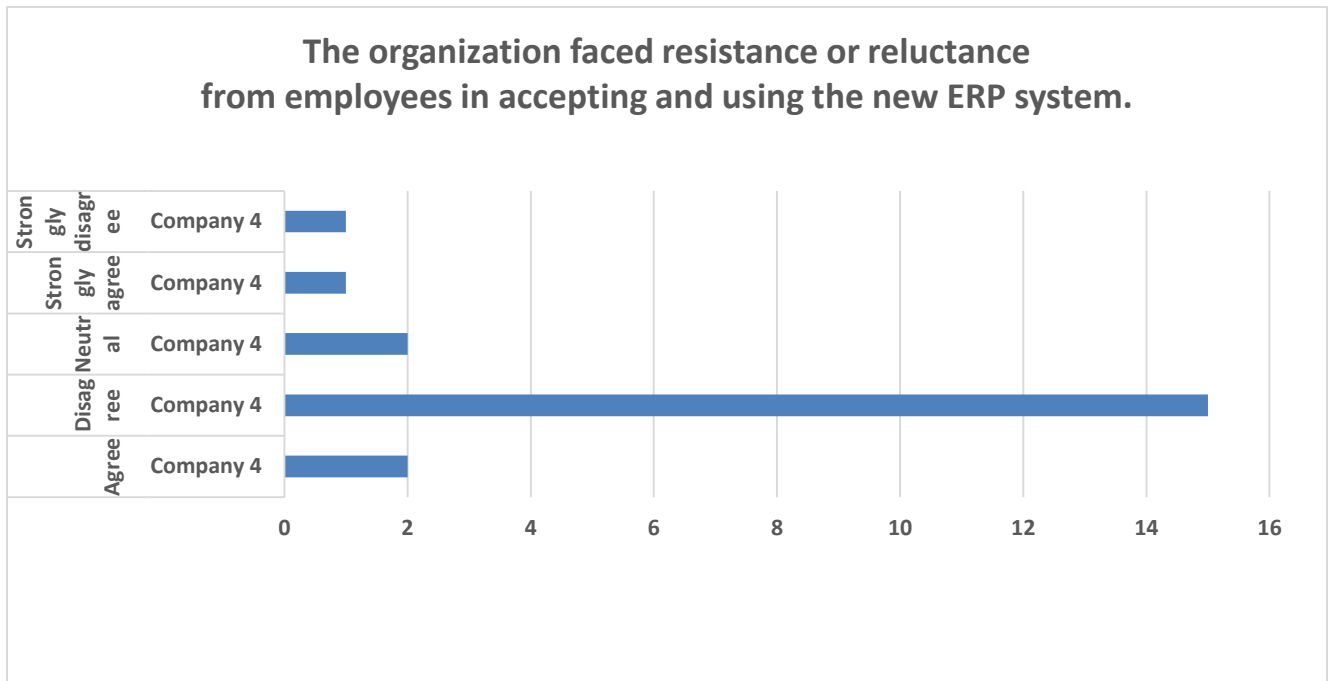


The graph above represents the feedback from 18 participants in Company 2. Out of these participants, 6 agreed that the organization faced resistance or reluctance from employees in accepting and using the new ERP system. Furthermore, 2 participants strongly agreed, supporting the opinion of the 6 participants. 4 participants had a neutral opinion, while 5 disagreed, and 3 participants strongly disagreed. Based on these responses, the organization is not faced with resistance or reluctance from employees in accepting and using the new ERP system, Company 2.

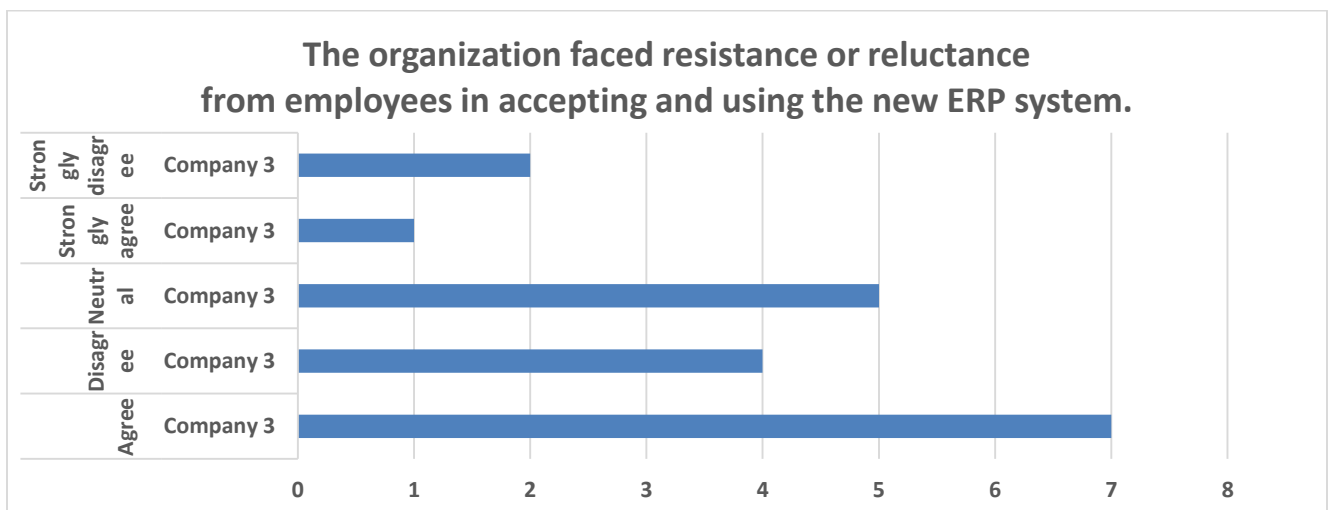


The graph above represents the feedback from 23 participants in Company 1. Out of these participants, 6 agreed that the organization faced resistance or reluctance from employees in accepting and using the new ERP system. Furthermore, 1 participant strongly agreed, supporting the opinion of the 6 participants. 5 participants had a neutral opinion, while 9 disagreed, and 2 participants strongly disagreed. Based on these responses, the organization is not faced with resistance or reluctance from employees in accepting and using the new ERP system, Company 1.

on these responses, the organization is not faced resistance or reluctance from employee in accepting and using the new erp system Company 2



The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 2 agreed that the organization faced resistance or reluctance from employee in accepting and using the new erp system. Furthermore, 1 participants strongly agreed, supporting the opinion of the 2 participants. 2 participant had a neutral opinion, while 15 disagreed, and 1 participants strongly disagreed. Based on these responses, the organization is not faced resistance or reluctance from employee in accepting and using the new erp system Company 4



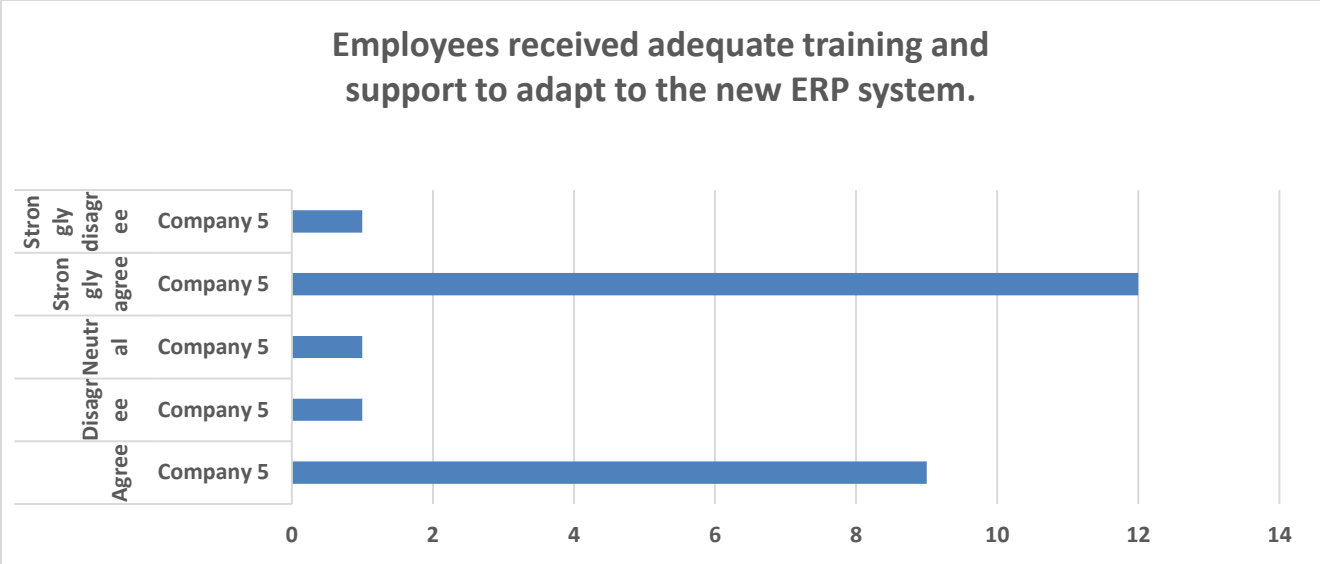
The graph above represents the feedback from 19 participants in Company 3. Out of these participants, 7 agreed that the organization faced resistance or reluctance from employees in accepting and using the new ERP system. Furthermore, 1 participant strongly agreed, supporting the opinion of the 7 participants. 7 participants had a neutral opinion, while 4 disagreed, and 2 participants strongly disagreed. Based on these responses, the organization is faced with resistance or reluctance from employees in accepting and using the new ERP system. Company 3.

**Conclusion:** During the implementation phase of the new ERP system, the organization faced significant challenges attributed to employees' resistance or reluctance to accept and utilize it. According to the graph, the majority of respondents from Company 4, Company 5, and Company 1 indicated that their employees did not exhibit resistance or reluctance in accepting and utilizing the Enterprise Resource Planning (ERP) system.

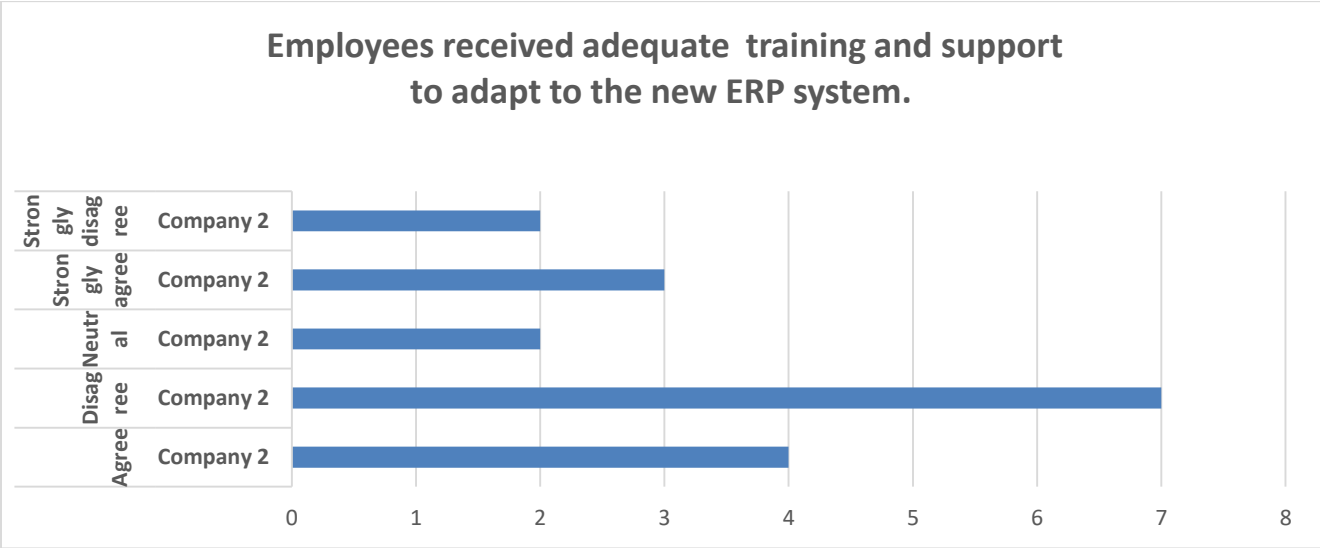
Regarding Company 2 and company 2, the majority of respondents expressed that their employees displayed resistance or reluctance in accepting and utilizing the new ERP system. This resistance or reluctance could have impacted the smooth adoption and integration of the ERP system within these organizations.

### **Training**

Employees were provided with comprehensive training and robust support mechanisms to facilitate their transition to the new Enterprise Resource Planning (ERP) system. The training sessions were meticulously designed to equip staff with the necessary skills and knowledge required to effectively utilize the system. Additionally, dedicated support channels were established to address any queries or challenges that arose during the implementation phase. This concerted effort ensured that employees were well-prepared and confident in navigating the new ERP system, ultimately contributing to a smoother and more successful transition process within the organization.

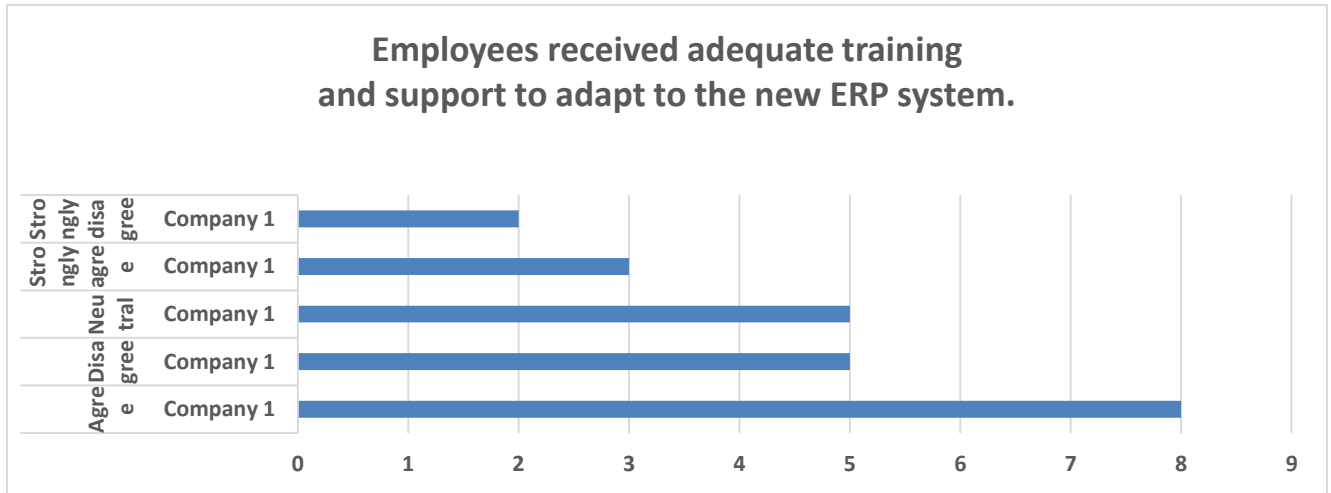


The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 9 agreed that Employee received adequate training and support to adapt to the new ERP system. Furthermore, 12 participants strongly agreed, supporting the opinion of the 9 participants. 1 participant had a neutral opinion, while 1 disagreed, and 1 participants strongly disagreed. Based on these responses, Employee received adequate training and support to adapt to the new ERP system Company 2

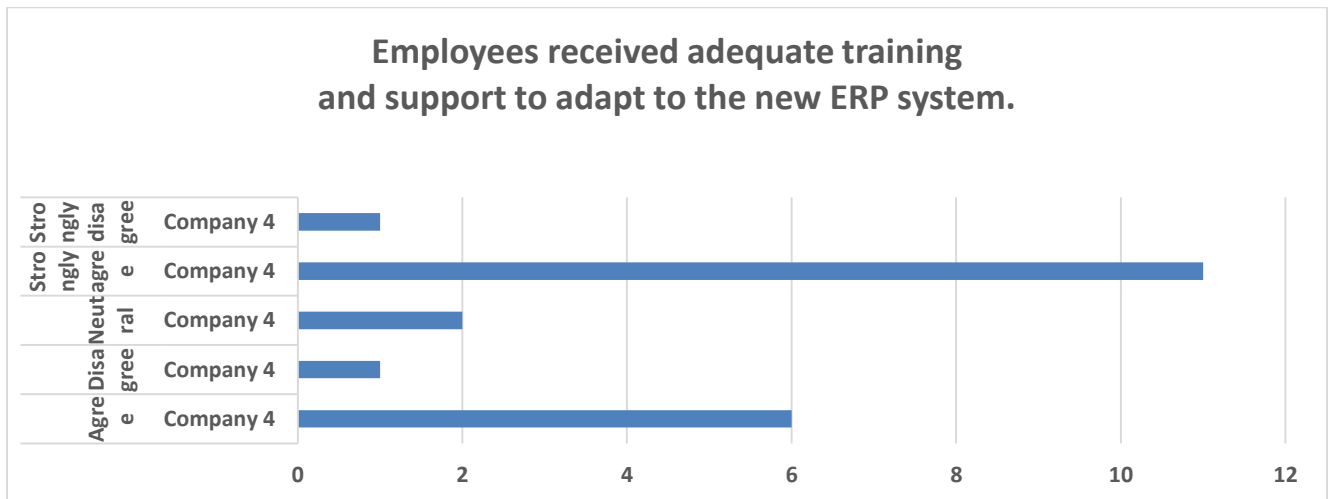


The graph above represents the feedback from 18 participants in Company 2. Out of these participants, 4 agreed that Employee received adequate training and support to adapt to the new ERP system. Furthermore, 3 participants strongly agreed, supporting the opinion of the 4 participants. 2 participant

had a neutral opinion, while 7 disagreed, and 2 participants strongly disagreed. Based on these responses, Employee is not received adequate training and support to adapt to the new ERP system Company 2

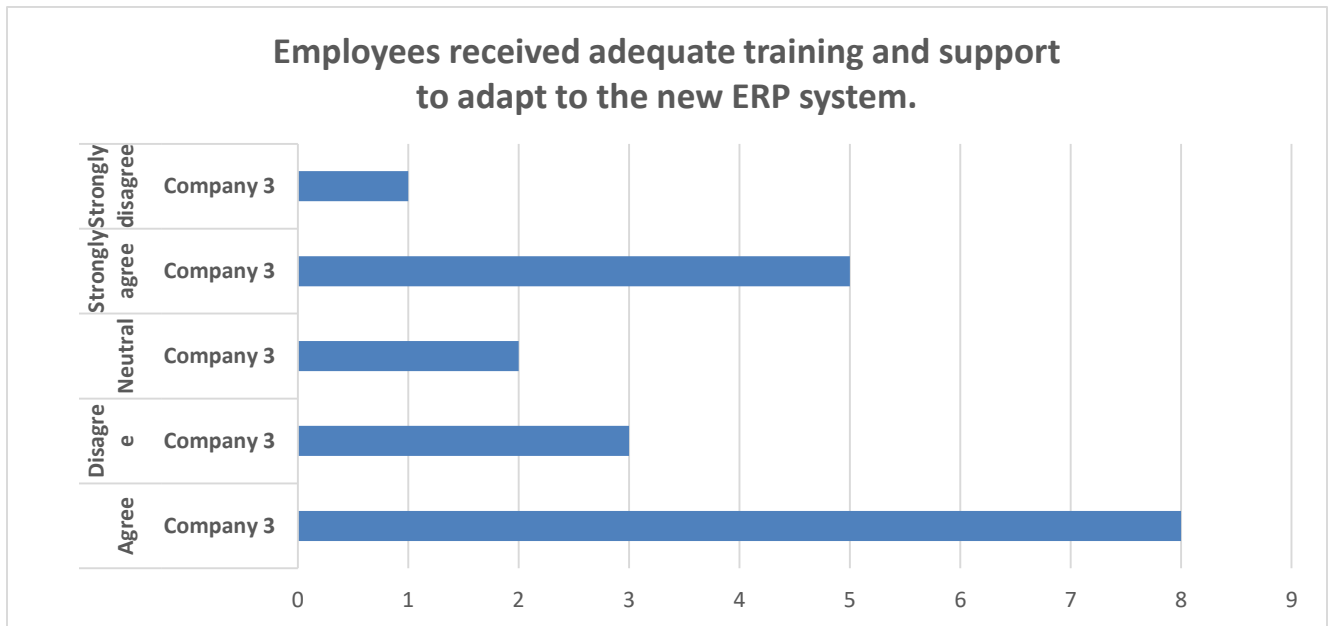


The graph above represents the feedback from 23 participants in Company 1 Out of these participants, 8 agreed that Employee received adequate training and support to adapt to the new ERP system Furthermore, 3 participants strongly agreed, supporting the opinion of the 8 participants. 5 participant had a neutral opinion, while 5 disagreed, and 2 participants strongly disagreed. Based on these responses, Employee received adequate training and support to adapt to the new ERP system Company 1



The graph above represents the feedback from 21 participants in Company 4 Out of these participants, 6 agreed that Employee received adequate training and support to adapt to the new ERP system Furthermore, 11 participants strongly agreed, supporting the opinion of the 6 participants. 2 participant

had a neutral opinion, while 1 disagreed, and 1 participants strongly disagreed. Based on these responses, Employee received adequate training and support to adapt to the new ERP system Company 4



The graph above represents the feedback from 18 participants in Company 3. Out of these participants, 8 agreed that Employee received adequate training and support to adapt to the new ERP system. Furthermore, 5 participants strongly agreed, supporting the opinion of the 8 participants. 2 participants had a neutral opinion, while 3 disagreed, and 1 participant strongly disagreed. Based on these responses, Employee received adequate training and support to adapt to the new ERP system Company 3

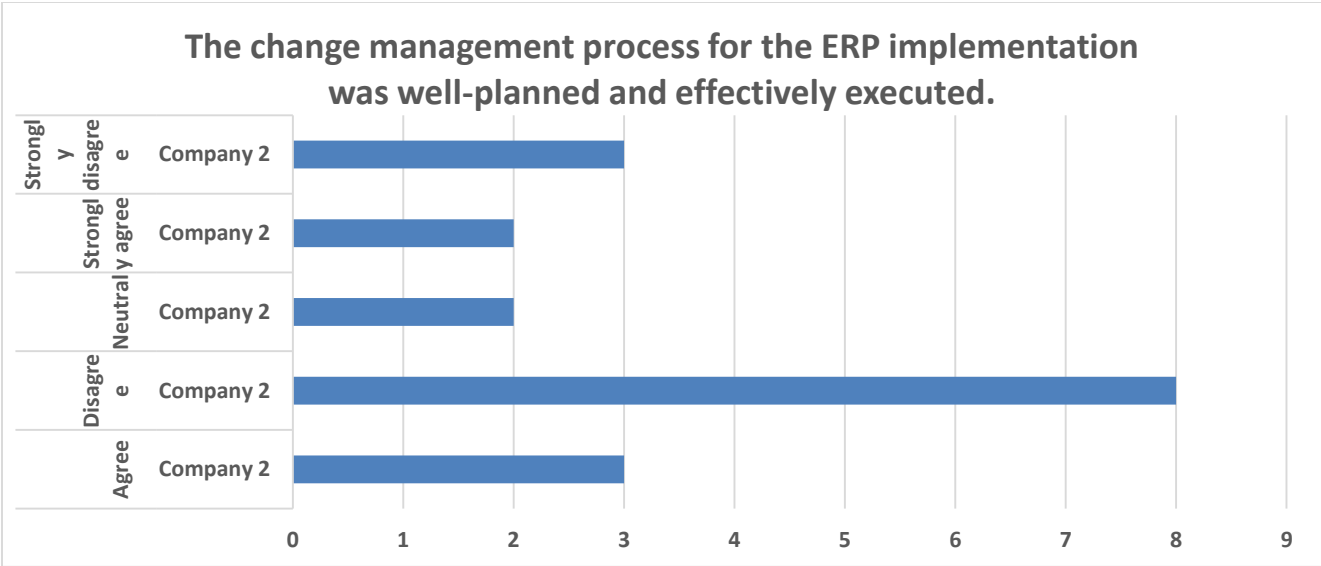
**Conclusion** Based on the data presented in the graph, it is evident that the majority of respondents from four organizations, namely Company 4, Company 5, Company 3, and Company 1, expressed satisfaction with the training programs conducted during workshops. This signifies a strong level of recognition and appreciation for the effectiveness of the training sessions among the participants. The positive feedback received highlights the organization's commitment to providing its employees with the necessary skills and knowledge to excel in their respective roles.

However, in the case of Company 2, the majority of respondents expressed that training programs were not sufficient during workshops. The absence of these workshop-based training initiatives could potentially impact the organization's ability to foster professional growth and equip employees with the necessary skills to navigate the challenges they face.

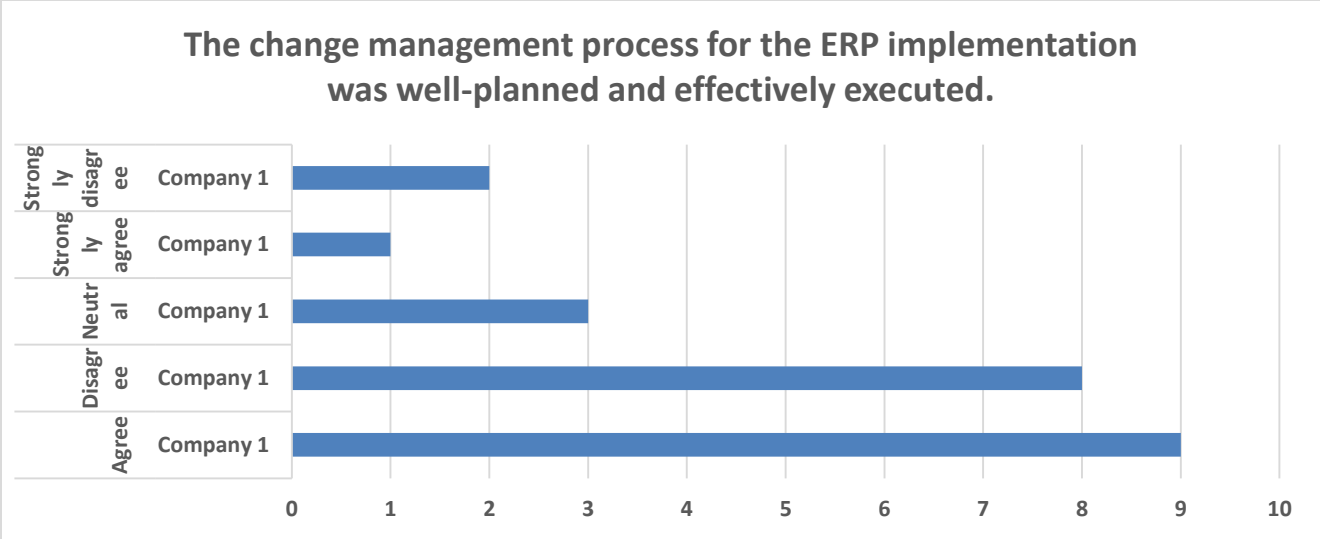
It is crucial for organizations to prioritize and invest in well-designed training programs conducted through workshops to ensure employees are adequately trained and prepared to handle their responsibilities effectively. Such initiatives contribute to the overall development and success of both employees and the organization as a whole.

**The change management process**

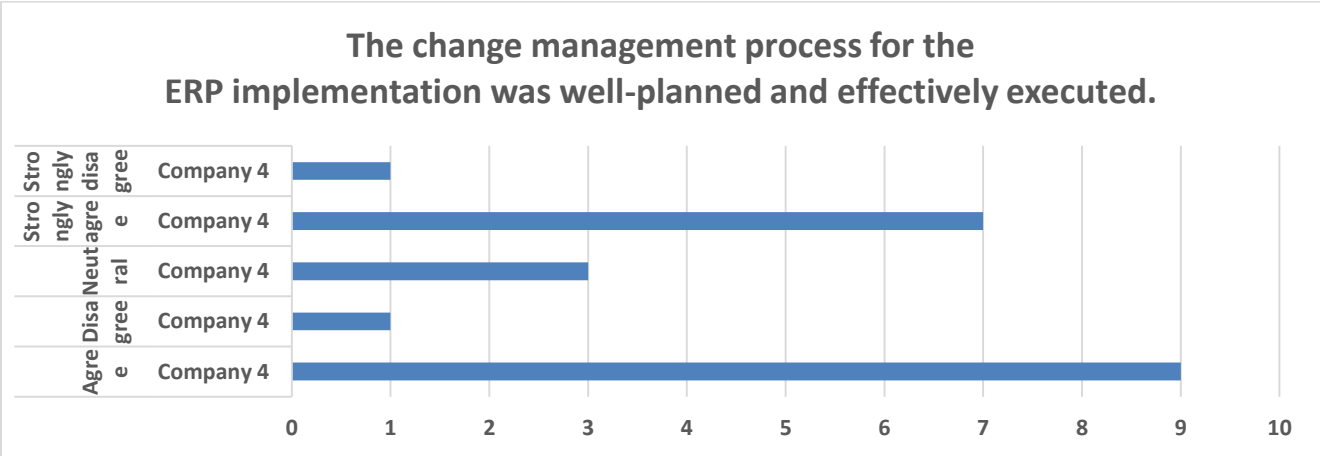
The importance of a well-planned and effectively executed change management process during ERP implementation is evident. Organizations that prioritize managing change demonstrate a proactive approach to ensuring a smooth transition. Key elements such as communication, training, and stakeholder engagement are crucial in this process. Establishing transparent communication channels to inform employees about upcoming changes, the ERP system's purpose, and the organizational benefits it brings is fundamental for successful implementations



The graph above represents the feedback from 18 participants in Company 2. Out of these participants, 3 agreed the change management process for the ERP implementation was well planned and effectively executed. Furthermore, 2 participants strongly agreed, supporting the opinion of the 3 participants. 2 participants had a neutral opinion, while 8 disagreed, and 3 participants strongly disagreed. Based on these responses, the change management process for the ERP implementation was well planned and effectively executed in Company 2.

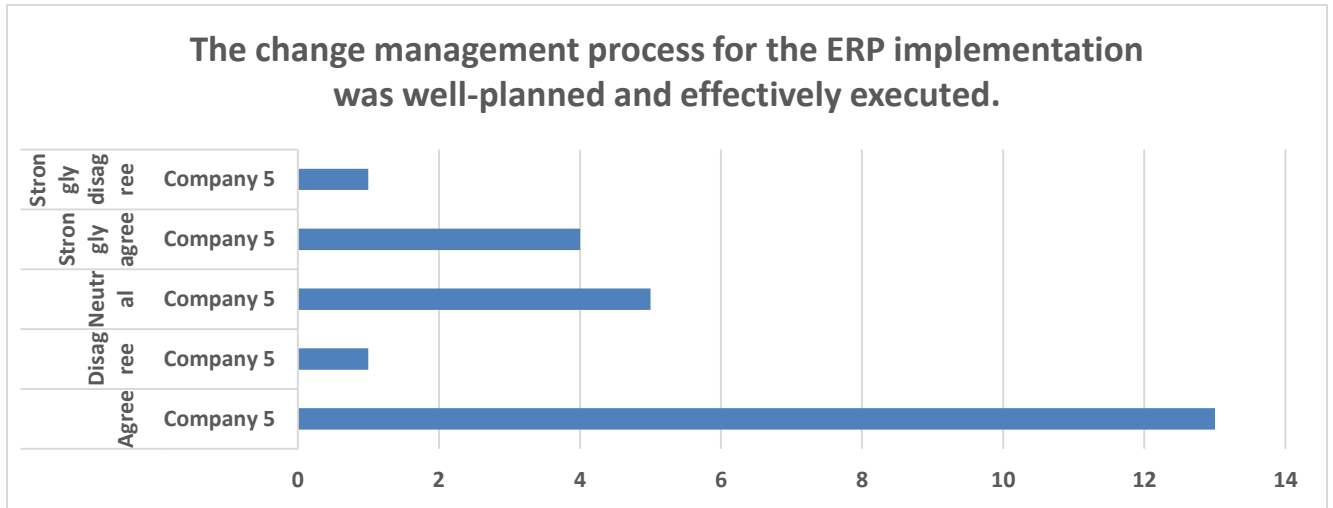


The graph above represents the feedback from 18 participants in Company 1. Out of these participants, 9 agreed the change management process for the ERP implementation was well planned and effectively executed. Furthermore, 1 participant strongly agreed, supporting the opinion of the 9 participants. 3 participants had a neutral opinion, while 8 disagreed, and 2 participants strongly disagreed. Based on these responses, the change management process for the ERP implementation was well planned and effectively executed in Company 2.

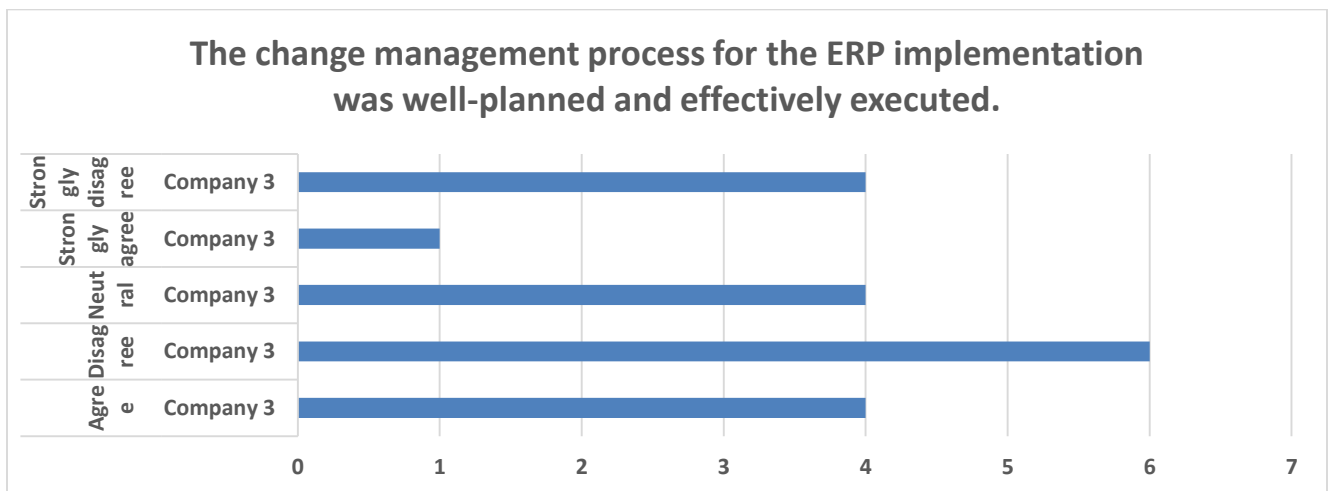


The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 9 agreed the change management process for the ERP implementation was well planned and effectively executed. Furthermore, 7 participants strongly agreed, supporting the opinion of the 9 participants. 3 participants had a neutral opinion, while 1 disagreed, and 1 participant strongly disagreed. Based on

these responses, the change management process for the ERP implementation was well planned and effectively executed in Company 2



The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 13 agreed the change management process for the ERP implementation was well planned and effectively executed. Furthermore, 4 participants strongly agreed, supporting the opinion of the 13 participants. 5 participants had a neutral opinion, while 1 disagreed, and 1 participant strongly disagreed. Based on these responses, the change management process for the ERP implementation was well planned and effectively executed in Company 5.



The graph above represents the feedback from 19 participants in Company 3. Out of these participants, 4 agreed the change management process for the ERP implementation was well planned and effectively

executed Furthermore, 1 participants strongly agreed, supporting the opinion of the 4 participants. 4 participant had a neutral opinion, while 6 disagreed, and 4 participants strongly disagreed. Based on these responses, the change management process for the ERP implementation was not well planned and effectively executed in Company 3

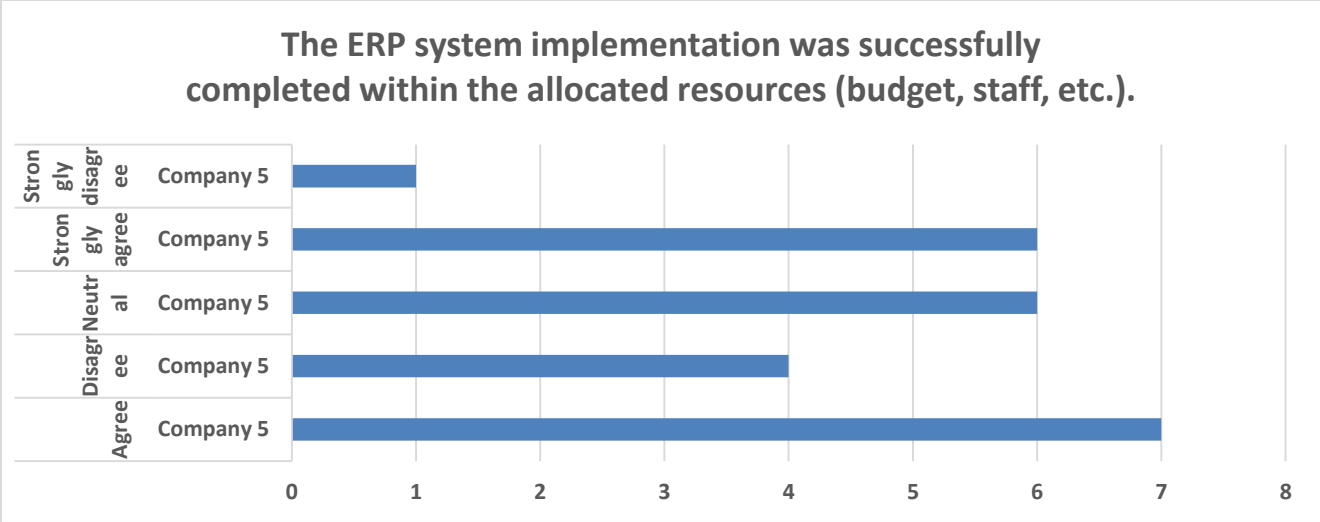
**Conclusion** Based on the data displayed in the graph, it is clear that the majority of respondents from three organizations, namely Company 1, Company 4 and Company 5 Brewery, expressed satisfaction with the change management process for the ERP implementation. They indicated that the process was well-planned and effectively executed.

However, according to the graph, in the case of Company 2 and Company 3 , the majority of respondents expressed dissatisfaction with the change management process for the ERP implementation. They felt that the process was not well-planned and effectively executed, leading to potential challenges and difficulties in implementing the enterprise resource planning system.

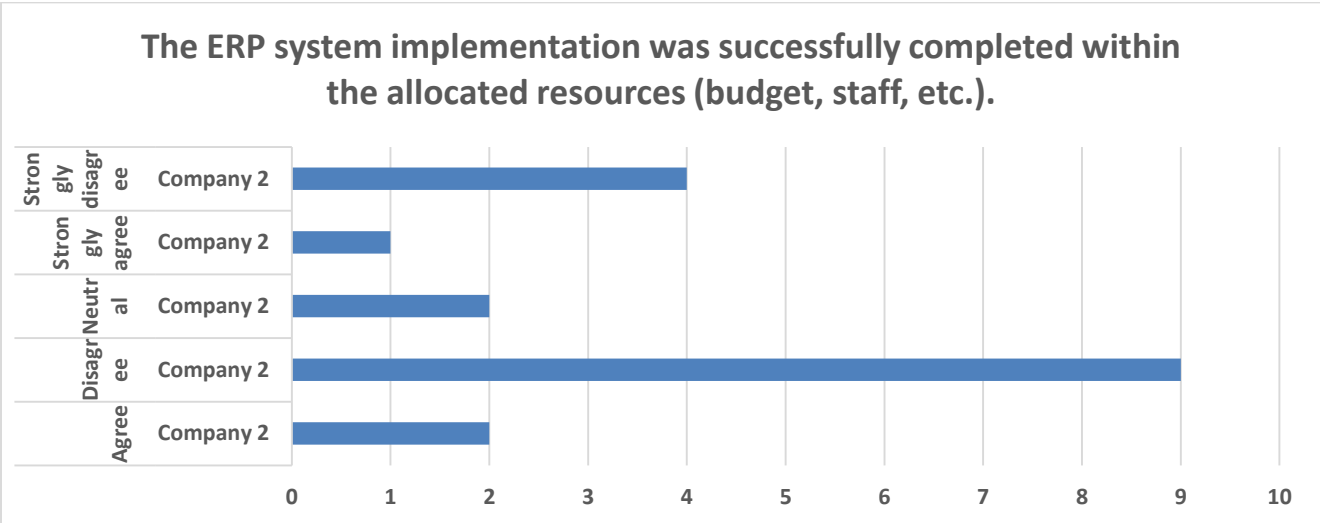
A well-planned and effectively executed change management process is crucial for successful ERP implementation. It helps organizations navigate through the transition, address resistance, and ensure a smooth adoption of the new system. It is important for organizations to carefully plan and execute change management strategies to mitigate potential risks and maximize the benefits of ERP implementation.

### **Resource allocation**

The accomplished completion of the ERP system implementation within the designated resources, including the budget and staff, exemplifies the organization's effective project management and resource utilization. This achievement signifies the organization's ability to plan and execute the implementation process efficiently, ensuring that the project was carried out within the predetermined constraints. By accomplishing the implementation within the allocated resources, the organization demonstrates its commitment to responsible financial management and optimal utilization of available human capital. This successful outcome also reflects the organization's capacity to effectively align its project goals and objectives with the available resources, resulting in a seamless implementation process

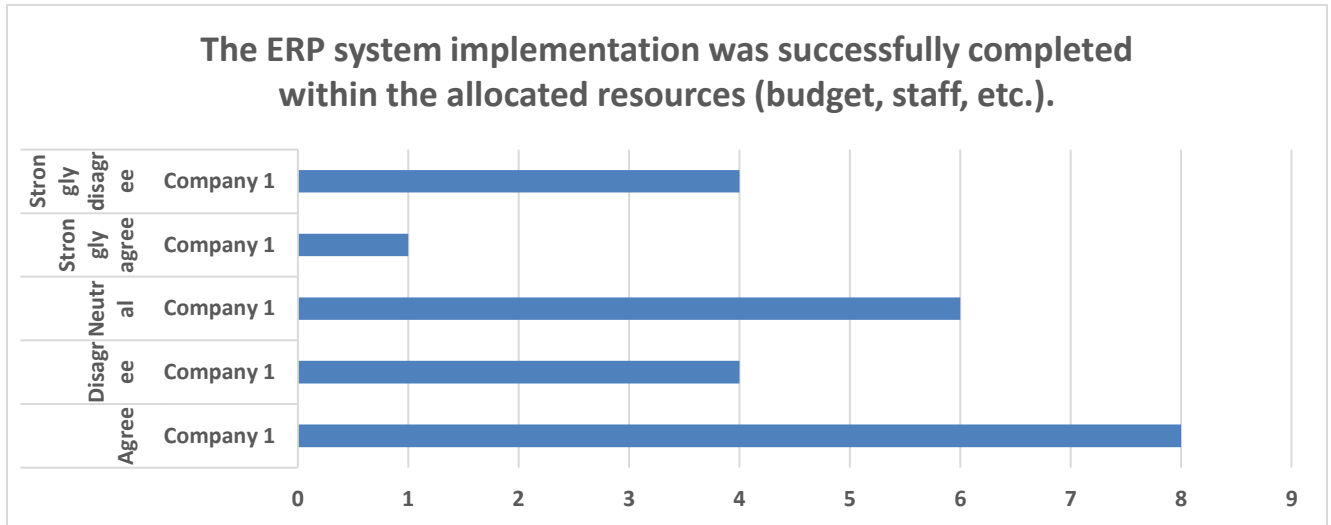


The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 7 agreed the ERP system implementation was successfully completed within the allocated resource. Furthermore, 6 participants strongly agreed, supporting the opinion of the 7 participants. 6 participants had a neutral opinion, while 4 disagreed, and 1 participant strongly disagreed. Based on these responses, the ERP system implementation was successfully completed within the allocated resource in Company 5.

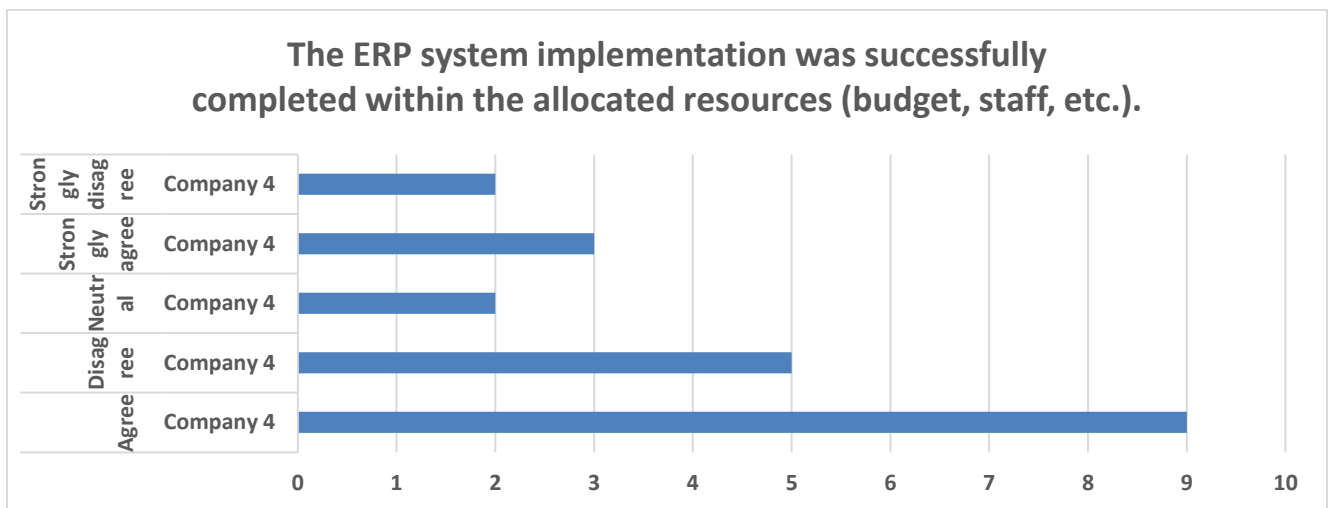


The graph above represents the feedback from 24 participants in Company 2. Out of these participants, 2 agreed the ERP system implementation was successfully completed within the allocated resource. Furthermore, 1 participant strongly agreed, supporting the opinion of the 2 participants. 2 participants had a neutral opinion, while 9 disagreed, and 4 participants strongly disagreed. Based on these responses,

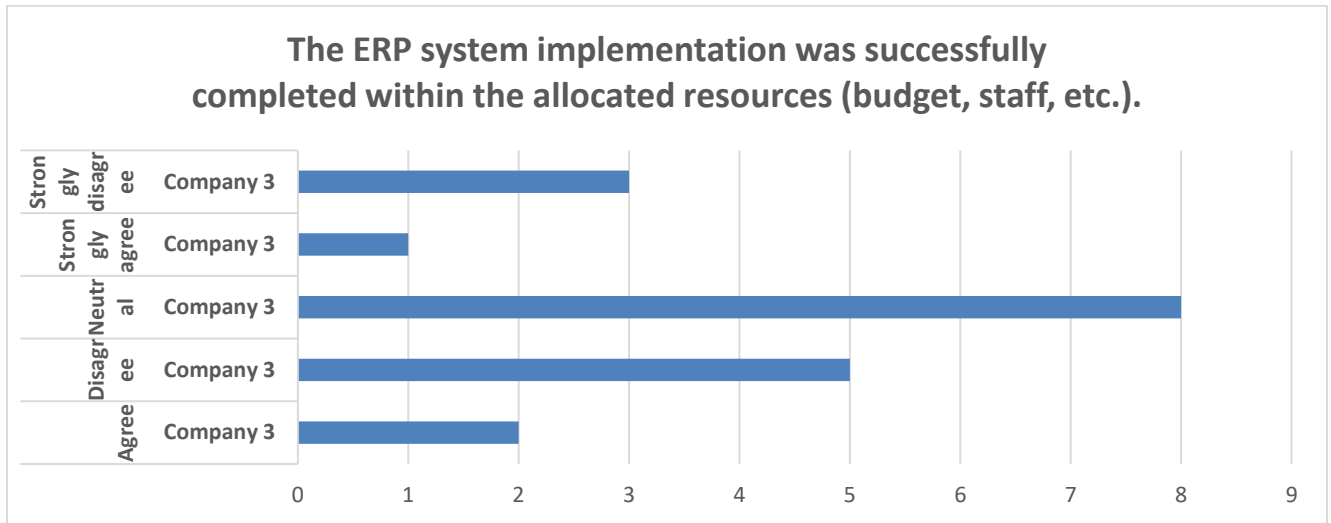
the ERP system implementation was not successfully completed within the allocated resource in Company 2.



The graph above represents the feedback from 23 participants in Company 1. Out of these participants, 8 agreed the ERP system implementation was successfully completed within the allocated resource. Furthermore, 1 participant strongly agreed, supporting the opinion of the 8 participants. 6 participants had a neutral opinion, while 4 disagreed, and 4 participants strongly disagreed. Based on these responses, the ERP system implementation was successfully completed within the allocated resource in Company 1.



The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 9 agreed the ERP system implementation was successfully completed within the allocated resource. Furthermore, 3 participants strongly agreed, supporting the opinion of the 9 participants. 2 participants had a neutral opinion, while 5 disagreed, and 2 participants strongly disagreed. Based on these responses, the ERP system implementation was successfully completed within the allocated resource in Company 4.



The graph above represents the feedback from 21 participants in Company 3. Out of these participants, 5 agreed the ERP system implementation was successfully completed within the allocated resource. Furthermore, 1 participant strongly agreed, supporting the opinion of the 5 participants. 8 participants had a neutral opinion, while 5 disagreed, and 3 participants strongly disagreed. Based on these responses, the ERP system implementation was successfully completed within the allocated resource in Company 3.

Based on the data presented in the graph, it is evident that a significant majority of respondents from two organizations, namely Company 1, Company 4 and Company 5, expressed that the implementation of the ERP system was successfully completed within the allocated resources. This indicates that these organizations were able to effectively manage their budget, staff, and other resources during the implementation process.

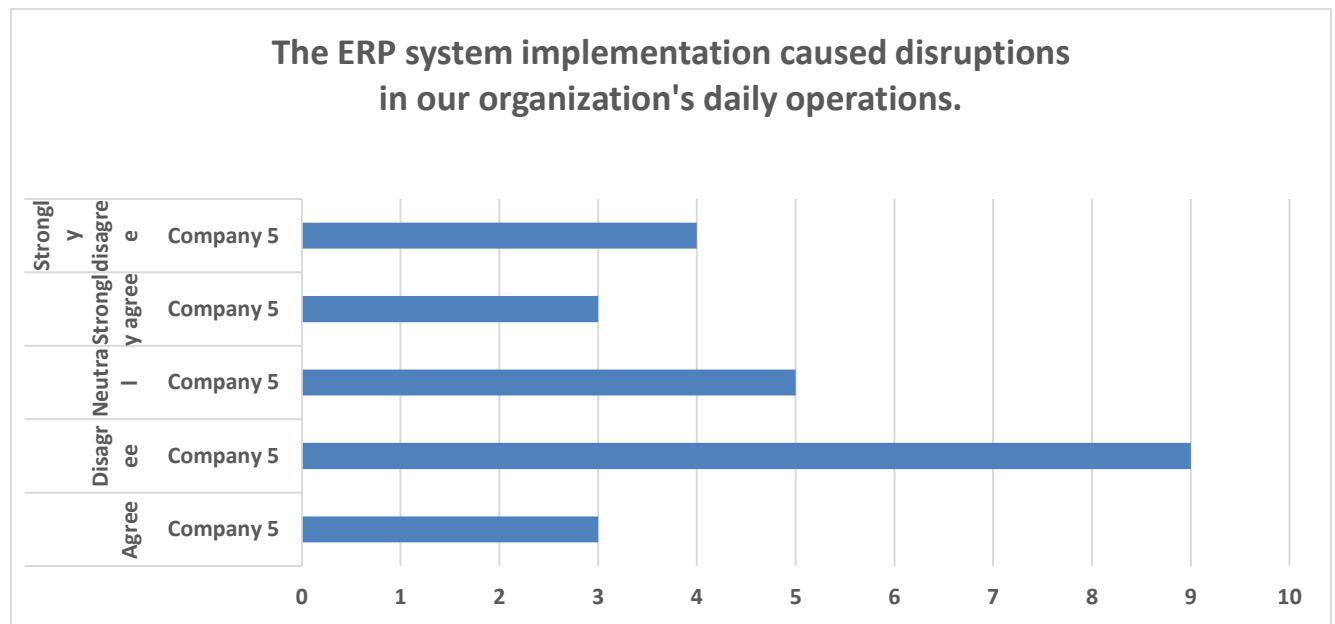
However, in the case of three organizations, Company 2, and Company 3, the majority of respondents expressed that the ERP system implementation was not successfully completed within the allocated

resources. These organizations faced challenges in managing their budget, staff, and other resources effectively, which impacted the successful completion of the implementation process.

Managing allocated resources is crucial for the successful implementation of an ERP system. Organizations need to carefully plan, allocate, and monitor their resources to ensure a smooth and efficient implementation process. Proper resource management helps in meeting project objectives, staying within budget, and ensuring the availability of adequate staff and resources to support the implementation effort

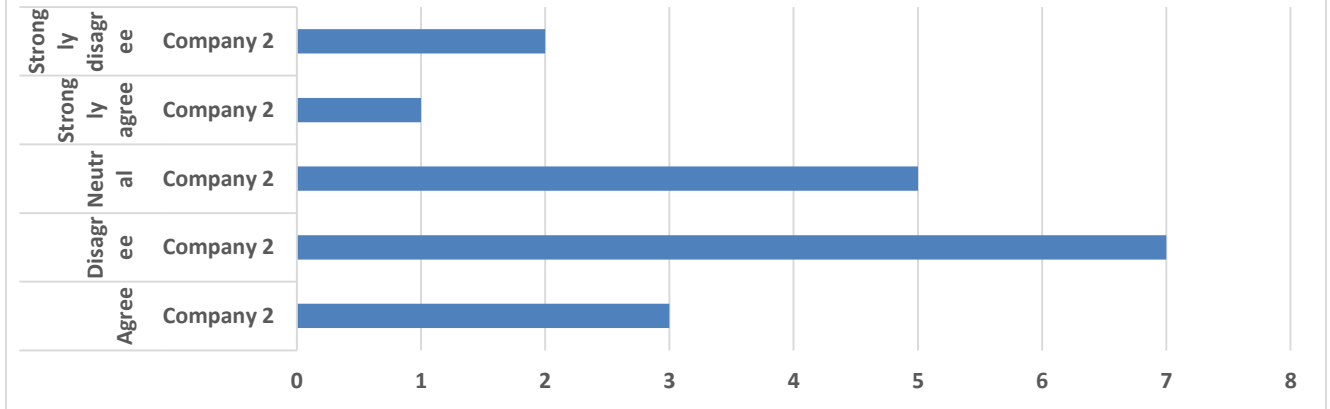
**Disruptions resulted due to ERP implementation**

ERP system caused interruptions in our organization's regular activities and workflows. When the ERP system was put into action, it caused changes in the organization's day-to-day operations, affecting how different tasks and processes ran smoothly.



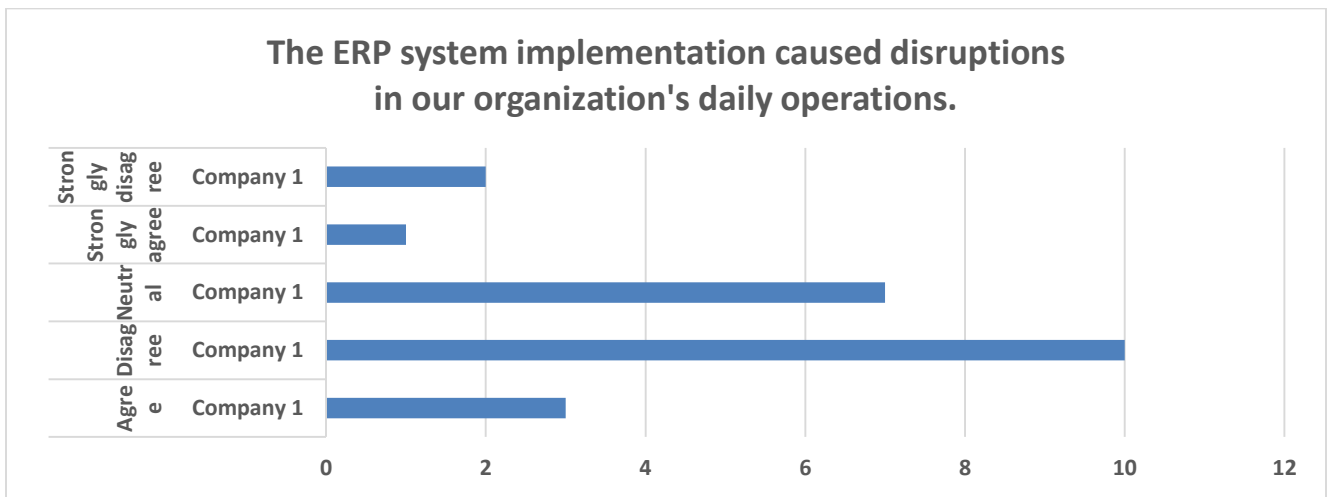
The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 3 agreed the ERP System implementation caused disruptions in our organizations daily operations. Furthermore, 3 participants strongly agreed, supporting the opinion of the 3 participants. 5 participant had a neutral opinion, while 9 disagreed, and 4 participants strongly disagreed. Based on these responses, The ERP system implementation caused disruptions the organizations daily operations in the Company 5.

**The ERP system implementation caused disruptions in our organization's daily operations.**



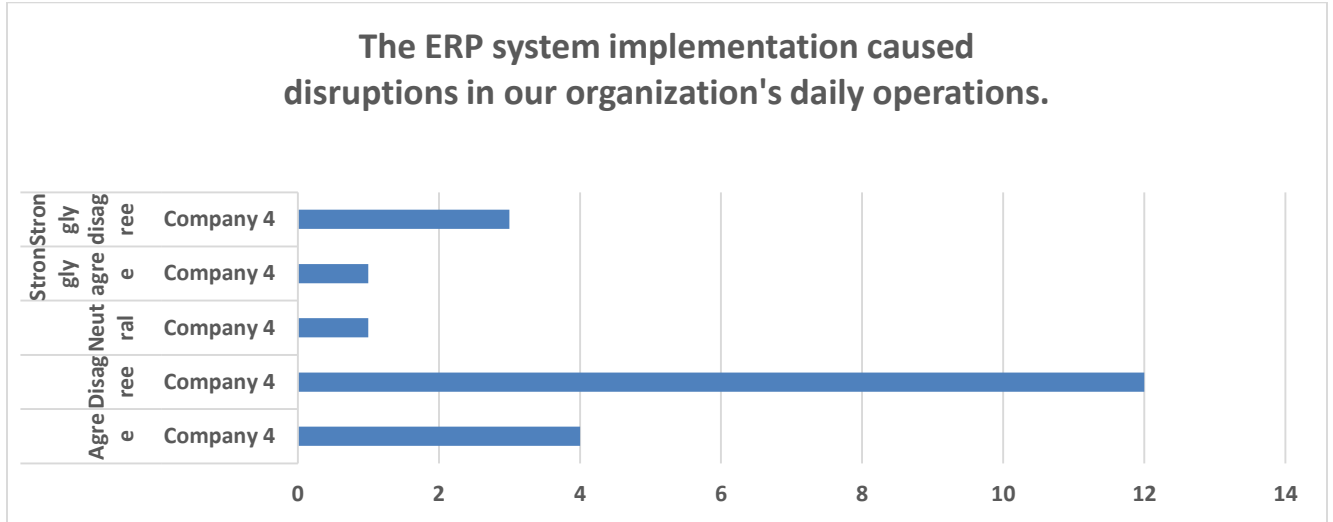
The graph above represents the feedback from 18 participants in Company 2. Out of these participants, 3 agreed the ERP System implementation caused disruptions in our organizations daily operations. Furthermore, 1 participants strongly agreed, supporting the opinion of the 3 participants. 5 participant had a neutral opinion, while 7 disagreed, and 2 participants strongly disagreed. Based on these responses, The ERP system implementation caused disruptions the organizations is not affected daily operations in the Company 5.

**The ERP system implementation caused disruptions in our organization's daily operations.**

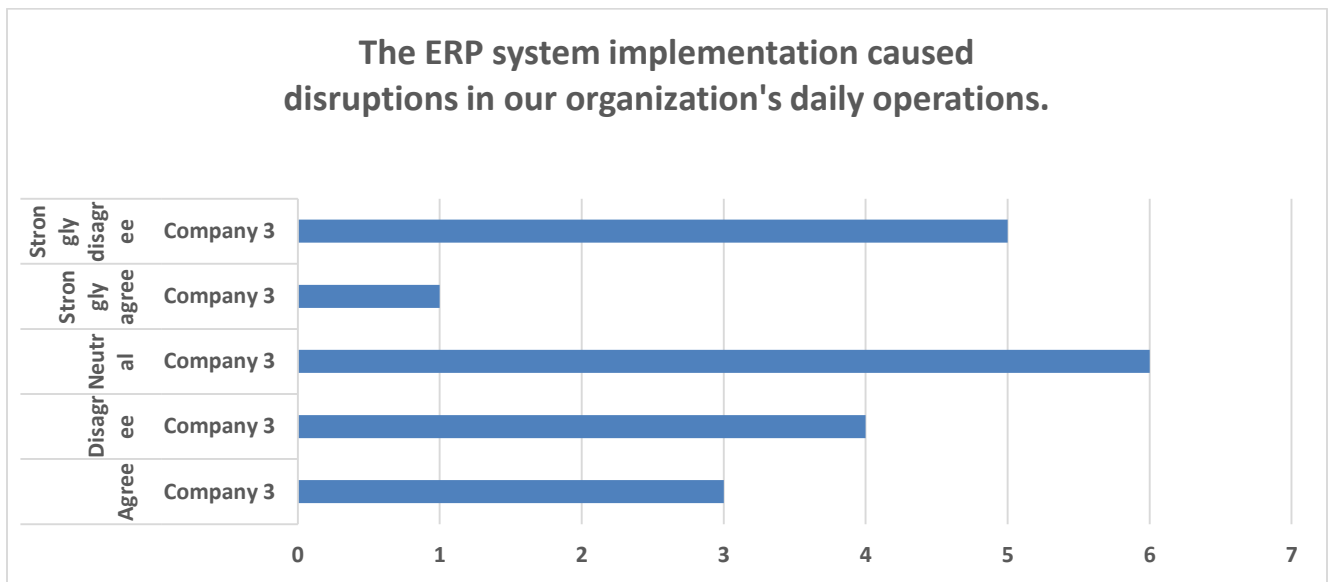


The graph above represents the feedback from 23 participants in Company 1. Out of these participants, 3 agreed the ERP System implementation caused disruptions in our organizations daily operations. Furthermore, 1 participants strongly agreed, supporting the opinion of the 3 participants. 7 participant

had a neutral opinion, while 10 disagreed, and 2 participants strongly disagreed. Based on these responses, The ERP system implementation caused disruptions the organizations is not affected daily operations in the Company 1.



The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 4 agreed the ERP System implementation caused disruptions in our organizations daily operations. Furthermore, 1 participants strongly agreed, supporting the opinion of the 4 participants. 1 participant had a neutral opinion, while 12 disagreed, and 3 participants strongly disagreed. Based on these responses, The ERP system implementation caused disruptions the organizations is not affected daily operations in the Company 4.



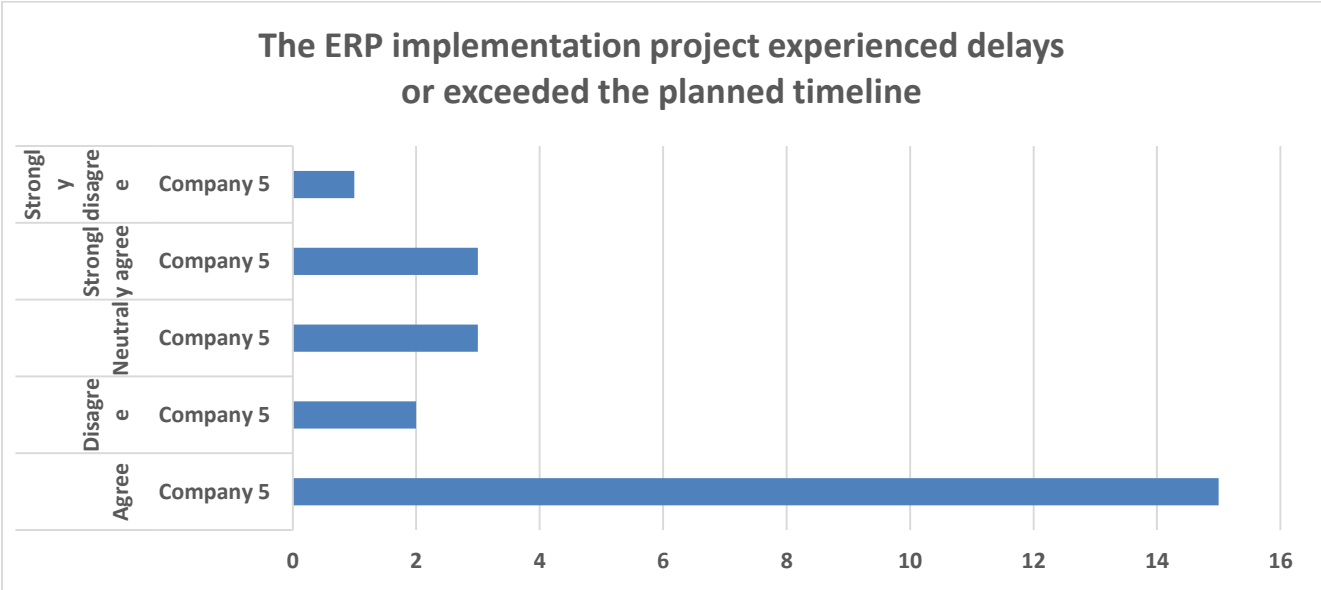
The graph above represents the feedback from 19 participants in Company 3. Out of these participants, 3 agreed the ERP System implementation caused disruptions in our organizations daily operations. Furthermore, 1 participants strongly agreed, supporting the opinion of the 3 participants. 6 participant had a neutral opinion, while 4 disagreed, and 5 participants strongly disagreed. Based on these responses, The ERP system implementation caused disruptions the organizations is not affected daily operations in the Company 3.

In most organizations such as Company 1, company 5, company 4 and company 2 and company 3 , most of the people surveyed believed that the ERP system did not greatly affect their daily tasks and did not cause any disruptions to the organization's smooth workflow. This suggests that the implementation of the ERP system was well-integrated into their existing processes, allowing for a seamless transition.

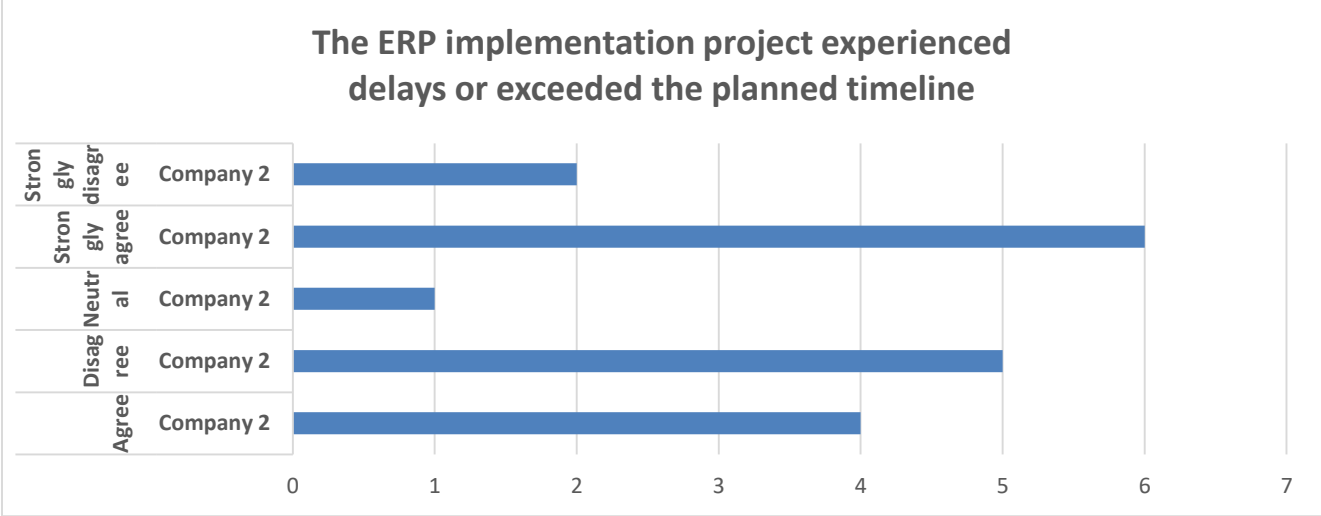
Overall, the successful integration of an ERP system should aim to streamline operations and enhance efficiency without causing significant disruptions to the organization's regular workflow. Continuous evaluation and adjustment of the system implementation can help resolve any issues and ensure a smooth transition for all stakeholders involved.

**The ERP implementation timeline**

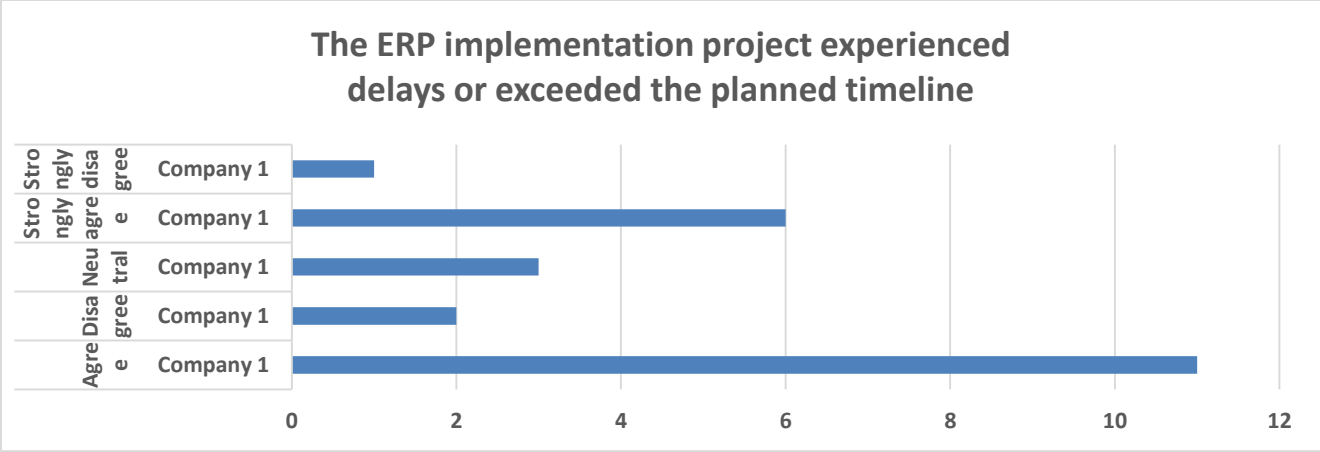
The process of putting the ERP system into action experienced delays and went beyond the originally scheduled timeline, resulting in a longer duration for the project than initially anticipated.



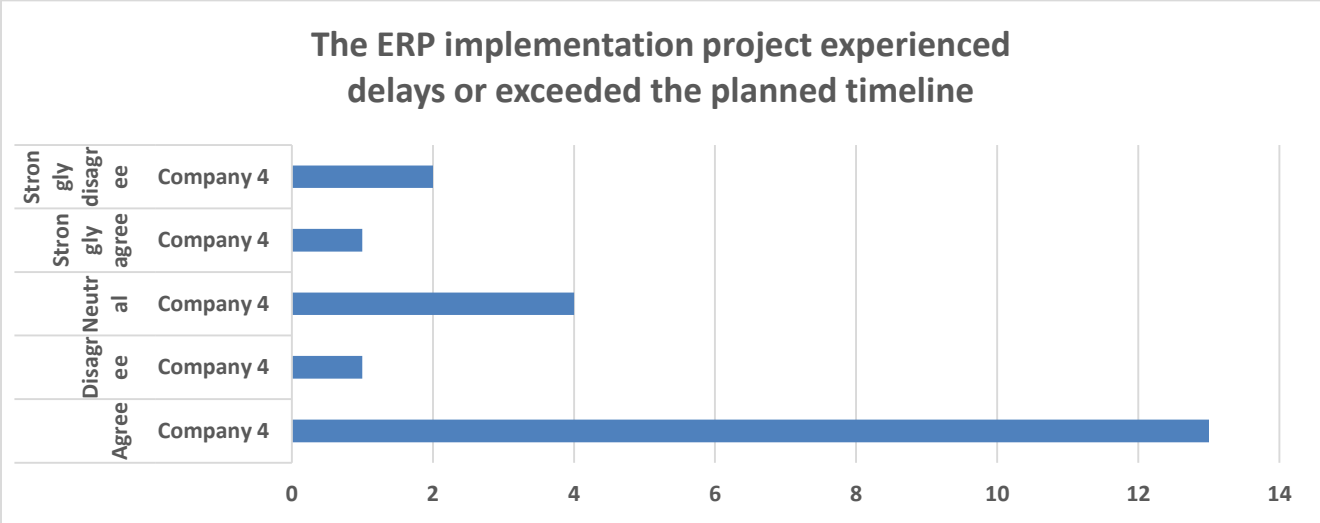
The graph above represents the feedback from 24 participants in Company 5. Out of these participants, 15 agreed the ERP implementation project experienced delays or exceeded the planned timeline. Furthermore, 3 participants strongly agreed, supporting the opinion of the 15 participants. 3 participants had a neutral opinion, while 2 disagreed, and 1 participant strongly disagreed. Based on these responses, the ERP implementation project experienced delays or exceeded the planned timeline in the Company 5.



The graph above represents the feedback from 18 participants in Company 2. Out of these participants, 4 agreed the ERP implementation project experienced delays or exceeded the planned timeline. Furthermore, 6 participants strongly agreed, supporting the opinion of the 4 participants. 1 participant had a neutral opinion, while 5 disagreed, and 2 participants strongly disagreed. Based on these responses, the ERP implementation project experienced delays or exceeded the planned timeline in the Company 2.

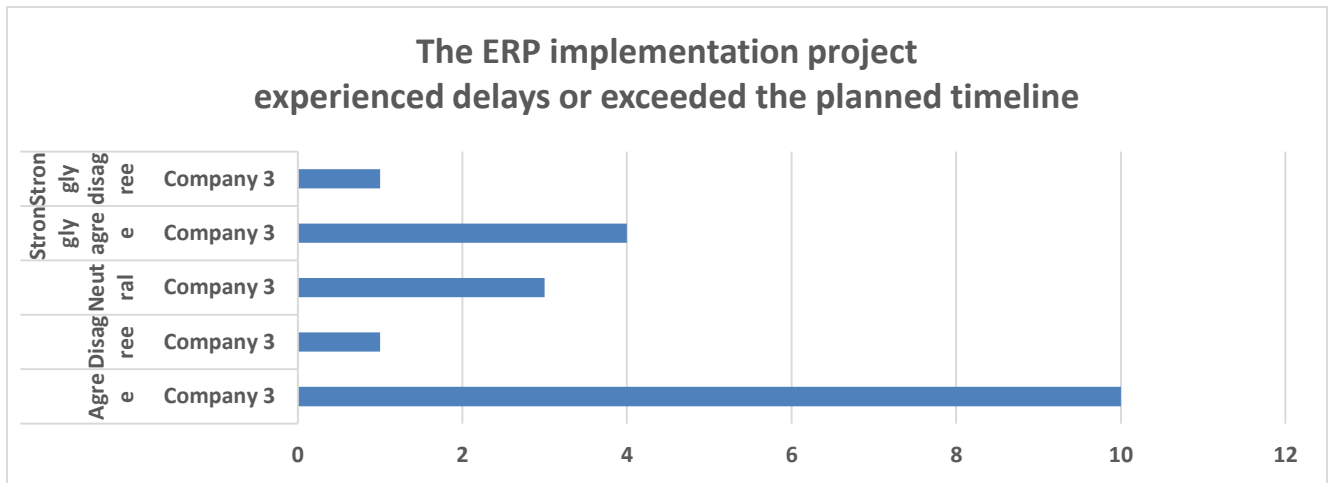


The graph above represents the feedback from 23 participants in Company 1. Out of these participants, 11 agreed the ERP implementation project experienced delays or exceeded the planned timeline. Furthermore, 6 participants strongly agreed, supporting the opinion of the 11 participants. 3 participants had a neutral opinion, while 2 disagreed, and 1 participant strongly disagreed. Based on these responses, the ERP implementation project experienced delays or exceeded the planned timeline in the Company 1.



The graph above represents the feedback from 21 participants in Company 4. Out of these participants, 13 agreed the ERP implementation project experienced delays or exceeded the planned timeline. Furthermore, 1 participant strongly agreed, supporting the opinion of the 13 participants. 4 participants had a neutral opinion, while 1 disagreed, and 2 participants strongly disagreed. Based on these

responses, the ERP implementation project experienced delays or exceeded the planned timeline in the Company 4.



The graph above represents the feedback from 18 participants in Company 3. Out of these participants, 10 agreed the ERP implementation project experienced delays or exceeded the planned timeline. Furthermore, 4 participants strongly agreed, supporting the opinion of the 10 participants. 3 participants had a neutral opinion, while 1 disagreed, and 1 participant strongly disagreed. Based on these responses, the ERP implementation project experienced delays or exceeded the planned timeline in the Company 3.

**Conclusion** The majority of respondents from five organizations expressed concerns about the ERP system implementation not being completed within the designated timeframe. They indicated that the project faced delays and extended beyond the initially set timeline.

The delays in implementing the ERP system could have been a result of different factors, including technical difficulties, unexpected complexities, limitations in resources, or insufficient project management. The deviation from the planned timeline might have caused frustration among stakeholders and impacted the overall efficiency and effectiveness of the implementation process.

### 4.3 THE INTERVIEW DATA

During the interview session, the initial questions focused on gathering general information and demographics, establishing a foundation before moving into research-specific inquiries. The main emphasis was on the project itself. Throughout the interview, the researcher actively listened and took

notes on the participants' responses to ensure a comprehensive and detailed understanding. The interviewees included IT-project managers, top-level managers, Quality Assurance Consultants, and Implementation consultants.

The interview questions for ERP Change Management revolve around understanding the processes, strategies, and challenges related to implementing and managing change in an organization's ERP system. The following are some potential concepts that could be covered in the interview questions:

The questionnaire extracted to assess weaknesses from a perspective of the implementation includes the following types of questions:

**✚ Overall challenges: What were the major obstacles encountered during the change management process of implementing the ERP system? How were these challenges addressed or mitigated?**

Among the five organizations examined, Company 2 and company 3 experienced resistance to change when implementing the ERP system. In contrast, company 1, company 4 and company 5 did not face employee resistance. These three organizations effectively handled the change by implementing communication strategies, providing clear explanations for the change, highlighting the advantages of the ERP system, involving employees in decision-making, and offering training and support to enhance employee skills and confidence in using the new system. Notably, the two organizations that encountered resistance lacked a specific approach to change management during the ERP implementation process.

**✚ Communication challenges: Have there been any difficulties in effectively communicating and collaborating during the ERP implementation? In your view what strategies and tactics might help improve communication during implementation?**

During the ERP implementation process, effective communication and collaboration presented challenges in the Company 2 and Company 3. These challenges included a lack of clear and timely communication, leading to misunderstandings and resistance among employees, as well as inadequate stakeholder engagement, resulting in a lack of buy-in and commitment to the project. Additionally, limited communication channels between departments created silos, impeding cross-functional collaboration and causing fragmented information.

However, organizations like Company1, Company 4 , and Company 5 effectively addressed these challenges through specific strategies. They established clear communication plans that outlined objectives, target audiences, key messages, and channels for regular updates and feedback. Stakeholders were engaged from the beginning, involving them in planning and implementation through meetings, workshops, and training sessions. Open communication was encouraged at all levels, facilitated by intranets, collaborative tools, and team meetings. Communication was made clear, concise, and tailored to the audience, avoiding technical jargon. Employees received thorough training programs that improved their knowledge and confidence in using the new ERP system. Additionally, teamwork and problem-solving were encouraged through meetings, sessions to find solutions, and updates on progress. By using these approaches, these organizations were able to overcome difficulties in communication and collaboration during the ERP implementation, resulting in a more seamless and successful process.

**🚩 Leadership support: How would you rate the level of support and involvement from top management during the ERP implementation? Have there been any instances where top management did not provide sufficient support? If yes, what were the challenges and what in your view were the reasons and solution for leadership engagement**

When assessing the extent of support and involvement from top management during the ERP system implementation, I would assign a rating based on my observations and interactions. Overall, the top management has displayed a describe the level of support approach, actively engaging and allocating the required resources to ensure a prosperous ERP implementation.

However, there have been instances where top management did not offer adequate support, leading to challenges throughout the implementation process. These challenges may include:

**Insufficient clarity in communication:** In certain situations, top management failed to effectively communicate the significance and advantages of the ERP system to the entire organization. Consequently, employees at various levels lacked understanding and support.

**Limited participation in decision-making:** Top management may have shown less involvement in critical decision-making processes related to the ERP implementation. This could result in delays, inadequate allocation of resources, and a misalignment between organizational goals and the ERP project.

Resistance to change: Top management encountered resistance to change from within the organization, significantly impacting the success of the ERP implementation. This resistance could stem from a lack of a clear vision, concerns about job security, or apprehensions regarding the disruptive nature of the new system.

To address these challenges and enhance leadership engagement, the following solutions can be considered:

Clear and effective communication: The leaders at the top should clearly communicate the importance of the ERP system to all employees and explain how it will benefit the organization. They can provide regular updates, hold meetings where everyone can participate, and create opportunities for open discussions to address any concerns or questions.

Active participation in decision-making: The top management should actively take part in making important decisions about the ERP implementation. This ensures that the decisions made align with the organization's goals and that resources are used effectively.

By using these solutions, top management can effectively tackle challenges, enhance their support, and encourage greater involvement during the ERP implementation. This will result in a smoother integration of the system within the organization.

## **4.3 DATA ANALYSIS AND FINDINGS**

### **4.3.1 THE PROJECT MANAGEMENT**

Effective project management plays a crucial role in achieving success as it encompasses various components and involves prioritizing objectives, monitoring progress, and comprehensive planning (Doom & Milis, 2009; Reitsma & Hilletoft, 2018). Given the complexities and risks associated with ERP system implementation, project management becomes vital throughout the project's lifecycle (Somers & Nelson, 2004).

Project management analysis involves evaluating different project factors and components to gain insights for informed decision-making. It includes assessing requirements, objectives, stakeholders, resources, risks, timelines, and constraints to identify issues and develop effective plans (Smith et al., 2018; Jones, 2020).

Integrating project management and change management is critical for organizations facing continuous change. Project managers play a vital role in leading and supporting change initiatives to thrive in a dynamic business environment (Turner & Müller, 2019). Effective communication about the purpose and significance of change is crucial to ensure understanding and support from those affected (Turner, Muller, & Ralf, 2003).

The successful implementation of any change relies on the acceptance and active engagement of employees in the process. Providing clear information, explaining benefits, discussing goals, and welcoming suggestions create an environment where employees become advocates for the change (Grundy, 1998; PMI, 2013). Adequate preparation through communication, training, and a supportive environment is necessary to overcome resistance and achieve desired objectives (Hornstein, 2013; PMI, 2013).

The study titled "Avoiding Change Management Pitfalls during ERP Systems Implementation in Ethiopia: Lessons from Success and Failure Stories" sheds light on the connection between project management, change management, and managing change through ERP implementation. The key findings emphasize the crucial factors necessary for achieving successful ERP implementations. These factors include effective communication, comprehensive planning, training, employee engagement, addressing resistance, and strong leadership. By prioritizing these aspects, organizations can mitigate potential pitfalls and enhance the likelihood of successful change management during ERP implementations.

In summary, the study's findings underscore the significance of project management and change management practices in effectively managing change through ERP implementation. Organizations aiming for successful ERP implementations should focus on the importance of effective communication, comprehensive planning, training, employee engagement, addressing resistance, and strong leadership. By incorporating these factors into their strategies and approaches, organizations can navigate potential challenges and increase the probability of successful change management during ERP implementations.

#### **4.4 CHANGE MANAGEMENT MODELS**

Before Customizing change management model, it is crucial to examine existing models in order to gain valuable insights into effectively implementing change. These established change management models outline the essential activities and priorities at different stages of the change process. They also assist in identifying the necessary resources for a successful implementation of change (Parker, Charlton, 2013).

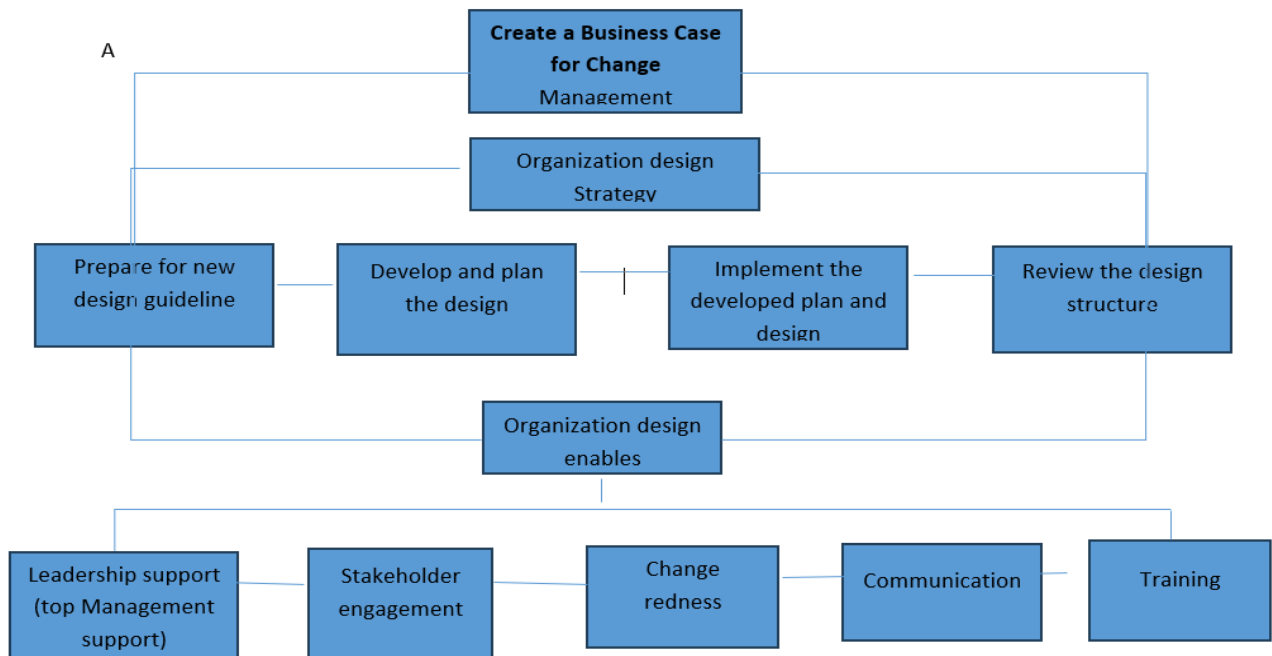
While the various change management models we have examined all aim to enhance the likelihood of success, certain practices within these models may have a greater influence than others. Typically, these models outline five key stages: initiation, analysis, design, planning, and implementation. To attain the desired results, it is crucial to carry out these stages sequentially. However, due to the potential overlap between these phases, it is possible to condense them into three major phases: initiation and analysis, design and planning, and development and implementation.

The design and planning phase of change management involves creating a detailed blueprint for the desired future state of the organization. It encompasses defining goals, formulating strategies, identifying resources, and selecting suitable change management techniques. This phase sets the stage for effective implementation and guides the organization towards achieving its desired outcomes.

In the third phase, the entire action plan, which was designed during the second phase, is now fully developed and implemented. Proper communication, with clear and correct information regarding the action plan, is needed with the employees. The implementation phase is where the actual change is executed. It involves putting the plans into action, communicating the change to employees, and providing necessary training and support. This phase requires strong leadership, effective communication, and continuous monitoring to address any challenges or resistance that may arise (Musaigwa, 2023).

#### **4.5 THE PROCESS AND ORGANIZATION DESIGN**

Before implementing the changes in the organization, it is important to create a detailed plan and organizational structure. This plan includes the entire process of implementing the changes. The organizational design plan can be represented visually using a sequential diagram, showing the different stages and steps of the change initiative.



**FIGURE 4.5 OVERVIEW OF ORGANIZATION DESIGN (SOURCE FREDRIK WARRINGER 2017)**

The provided diagram presents a visual representation of the complete organizational design plan and its sequence. The organization first identifies the need for change and determines the specific areas where the changes should be implemented. A comprehensive design program is then developed, incorporating strategies to facilitate the change process within the organization (Spalek, 2014).

Employee readiness is crucial, so effective communication of the change process is essential. The organization ensures that employees understand the reasons behind the changes in specific work processes or domains (Grundy, 1998).

Once prepared, the development phase begins, where an action plan is created to guide the implementation of the organizational change. The plan provides a clear overview of the implementation strategy (Crawford, 2014).

After proper design and development, the plan is executed following the same approach as formulated. Training sessions are conducted to familiarize employees with the new processes. A thorough evaluation of the implementation takes place, assessing both the overall functioning of the organization and individual performance (Dalcher, 2012). Challenges and issues encountered during the execution of the

plan are identified, and measures are taken to address them. Effective monitoring is necessary to ensure the successful adoption of the new work practices.

Engaging key stakeholders is another vital element of the overall process and organizational design, this includes strong leadership support, guiding the plan's execution, and engaging stakeholders throughout the process. Achieving organization-wide acceptance of the change requires the development of strategies focused on effective communication. Clear communication of the plan and design to employees is crucial to prevent confusion and fear regarding the new working design. Effective communication helps individuals embrace and actively participate in the implementation of change within the organization. Once employees are ready and prepared for the change, the organization should arrange training sessions to address the technical aspects of the project. Proper training enhances employees' skills and capabilities, fostering their motivation and interest in the new work approach.

#### **4.6 THE RESULT AND DISCUSSION**

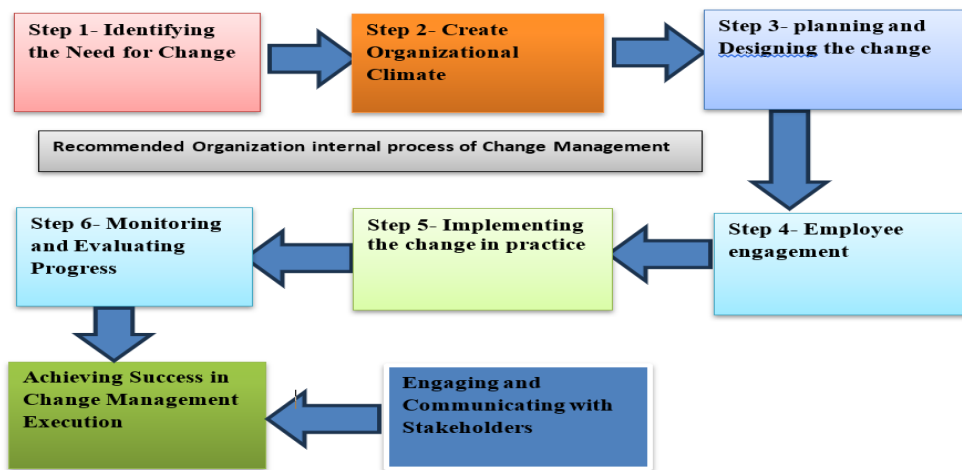
Existing models can be used as a basis to customize model that tackles the challenges encountered during change management implementation in Company 2 and Company 3. These companies faced difficulties when introducing an ERP solution as a new working approach, resulting in the failure to meet their objectives.

Several factors can be identified as potential causes for this failure. Firstly, the Company 2 and Company 3 initiated the change process without adequately communicating it to their employees, resulting in a lack of preparedness for the upcoming changes. Additionally, insufficient training was provided to the employees, impeding their ability to perform optimally during the transition. Technical challenges, such as compatibility issues, data migration problems, or system integration difficulties, can lead to ERP system change management failure. If these technical issues are not properly addressed and resolved, they can disrupt business operations and hinder the intended benefits of the new system.

Consequently, employees became demotivated due to their unpreparedness and the challenges of adapting to the Enterprise resource planning solutions, leading to a loss of confidence and reluctance to step out of their comfort zones. Moreover, there may have been structural flaws in the plan's design, and ineffective leadership could have contributed to the unsuccessful execution of the plan. It is evident that

the Company 2 and Company 3 did not fully adhere to the principles of change Management implementation.

To overcome the challenges faced during the change implementation process, it's important to adopt a new model that specifically addresses these issues. The new model focuses on improving communication, providing thorough training, and carefully planning the change process. By implementing this model, it increases the chances of successfully managing change in Company 2 and Company 3



**FIGURE 4.1 CHANGE MANAGEMENT MODEL FOR COMPANY 2 AND COMPANY 3**

**5.6.1 CHANGE MANAGEMENT MODEL DESCRIPTION**

**Step 1: Identifying Need for Change**

the initial phase of the model involves the identification of areas and the need for change, focusing on the exploration of implementing Enterprise Resource planning solutions within the organization. Understanding the significance of Enterprise Resource planning solutions is essential to determine how they can contribute to increased productivity within shorter timeframes. Enterprise Resource planning solutions offer several advantages that attract entrepreneurs towards their adoption.

**Step 2: Creating an Organizational Climate**

Creating an environment within the organization involves engaging in discussions with employees about the Enterprise Resource planning solution. Employees should be made aware of the importance of Enterprise Resource planning and the need to adopt Enterprise Resource planning solutions within the

organization. The discussion should be conducted in a way that allows employees to realize the benefits themselves, motivating them to learn and embrace the change. Emphasizing the learning aspect is crucial, highlighting how ERP can enhance their knowledge and efficiency. Drawing comparisons between the current working system and working with Enterprise Resource planning software can help motivate employees towards embracing ERP.

### **Step 3: Planning and Designing the Change**

Once the organizational climate is ready to adopt Enterprise Resource planning solutions, a clear action plan should be developed. Strategies and designs for implementing Enterprise Resource planning should be formulated and communicated to employees. Employees should be encouraged to provide their recommendations for implementing Enterprise Resource planning in a different and more effective manner, fostering employee engagement.

### **Step 4: Employee Engagement through Communication and Training**

Training should be provided to employees to familiarize them with the functioning of Enterprise Resource planning solutions. Subject matter experts should be invited to deliver training sessions, boosting employees' confidence, motivation, and enthusiasm towards working with Enterprise Resource planning solutions. Effective communication and training are essential for inducing employee engagement throughout the change management program.

### **Step 5: Implementing the change in practice**

this step involves putting the action plan into action, executing the implementation of ERP solutions within the organization.

### **Step 6: Evaluation**

The entire change process should be evaluated to assess whether the intended goals have been achieved. This evaluation should consider whether the change process is delivering value to the business and if employees are satisfied with working with Enterprise Resource planning. Identified problems that hindered the plan should be addressed, and corrective actions should be designed to ensure the sustainability of the change within the organization.

Efficient leadership is crucial for successful change management in any organization. Strong leadership facilitates smoother restructuring processes and enhances the overall outcomes, increasing business value and goodwill. Additionally, stakeholder engagement plays a vital role in the initial stages of the

change process, necessitating effective communication of the change plans as employees serve as a critical support system.

All the stages mentioned above should be followed sequentially, taking into account the associated crucial aspects. Any discrepancies discovered should be addressed promptly. Employee engagement is a significant process as employees are the ones who execute the change process. Therefore, they need to be prepared and enhance their capabilities through training sessions organized by the organization. Company 2 and Company 3, similarly, should adopt all these stages to address the challenges that may arise during the change implementation process. Strong leadership is essential in managing change effectively, and Company 2 and Company 3 should undergo these processes under the guidance of a strong leader. By utilizing project management practices, Company 2 and Company 3, can successfully introduce ERP solutions and drive change within the organization.

## **CHAPTER FIVE**

### **CONCULATION AND RECOMMENDATION**

#### **5.1 INTRODUACTION**

This chapter presents a detailed summary of the main findings, conclusions, limitations, and recommendations of the study. It effectively summarizes the key points discussed in the research. Additionally, the chapter proposes potential directions for future research, encouraging other researchers to further explore this study's topic in related or different areas.

#### **5.2 OVERVIEW OF KEY FINDINGS**

This research explores the concept of change and how to manage it effectively within an organization. Specifically, the study focuses on implementing Enterprise Resource Planning (ERP) solutions, such as SAP ERP ECC SAP ERP S/4HANA, and aims to identify techniques that can help organizations adapt to the changes brought about by the implementation of ERP systems. The main goal is to propose a change management model that enables a smooth integration of ERP within the organization.

Change is a natural and dynamic part of life that requires adjustments in established practices. In today's business world, organizations face significant pressure to embrace and respond to change. Change can take various forms, from simple modifications to complex transformations that impact the entire organization.

Organization's attempt to implement change management has been deemed a failure. Despite recognizing the need for change and its potential benefits, the organization struggled to execute the process effectively, resulting in wasted resources, time, and employee dissatisfaction. This failure has created significant obstacles in achieving the organization's vision and mission.

One of the main reasons for the failure was the inadequacy of the change management process itself. The organization lacked a well-defined and clearly communicated plan for change, leading to confusion and resistance among employees. Without clear guidelines and expectations, employees were unsure about the purpose and implications of the change, which resulted in a lack of support and commitment.

Communication played a crucial role in the failure of change management. Top management failed to effectively communicate the reasons and benefits of the change to all levels of employees. This lack of proper communication created a sense of disconnection and mistrust, hindering the organization's ability to rally its workforce behind the change initiative. Additionally, the absence of a sense of urgency and necessity among employees further weakened their motivation and engagement in the change process.

Furthermore, the organization failed to provide the necessary support and training for employees during the change implementation. Managers did not adequately guide and mentor employees through the transition, leaving them ill-equipped to adapt to the new processes and systems. The lack of proper training programs worsened the situation, hindering employees' ability to understand and embrace the change.

The complexity of implementing an ERP system also contributed to the failure of change management. The organization did not invest enough time and effort in preparing employees for the cultural changes required by the implementation. As a result, resistance and low levels of commitment arose. The high costs and time-consuming nature of implementing the ERP system further intensified the risks associated with its failure.

To ensure successful change management implementation, organizations should follow a systematic and well-structured approach. This includes identifying areas and needs for change, clearly communicating the reasons and benefits of the change to all employees, designing and implementing a comprehensive plan, and regularly evaluating the progress and impact of the change initiative. Additionally, organizations should prioritize effective leadership, open and transparent communication, and employee engagement throughout the change process.

In this research, I used various change management models and approaches are used to help organizations understand the change process and its implications. These models assist in the efficient implementation and management of introduced changes. Effective leadership qualities, communication, and employee interaction are emphasized in these models and approaches. The effectiveness of these models depends on the specific situation. Prominent change management models include Kurt Lewin's model of change, Kotter's model of change, and the ADKAR model of change. These models prepare individuals within organizations for the change process.

Based on the findings from the study conducted Company 2 and Company 3, it is evident that the organization lacked a sense of urgency and failed to effectively communicate the need for change to its employees. The absence of proper support and training further contributed to the failure of change management. These findings highlight the importance of addressing these critical areas to enhance the chances of successful change management implementation. However, there are examples of organizations such as Company1, Company 4, and Company 5 who have successfully implemented change management. These organizations can provide valuable insights into how to effectively implement change management, particularly in the context of implementing ERP solutions.

In conclusion, the failure of change management implementation at the organization serves as a valuable lesson for future endeavors. It emphasizes the significance of having a well-designed change management process, effective communication, employee involvement, and adequate support and training. By learning from these mistakes and adopting a more strategic and comprehensive approach, organizations can increase their chances of achieving successful and sustainable change management.

### **5.3 LIMITATIONS OF STUDING**

While studying the avoidance of change management pitfalls during Enterprise resource planning system implementation in Ethiopia and drawing lessons from success and failure stories, there are several limitations that should be considered:

- ✚ The number of participants in the study was small, as it focused on only a few organizations or industries. This might limit how applicable the findings are to other situations in Ethiopia or other countries.
- ✚ This study exclusively concentrates on examining the SAP ERP ECC and SAP S/4 Hana package during ERP system implementation.
- ✚ **Data Availability:** Access to comprehensive and reliable data might be limited. Some organizations may not be willing to share their experiences openly, which could impact the depth and accuracy of the information gathered.
- ✚ **Time Constraints:** Conducting a thorough study on change management pitfalls during ERP system implementation requires a significant amount of time and resources. Limitations in time and resources could restrict the scope and depth of the research.

Despite these limitations, the study can still provide valuable insights and lessons learned from ERP system implementation in Ethiopia. Researchers should acknowledge these limitations and consider them when interpreting the findings and applying them to other contexts. Future studies can build upon these limitations to further explore and enhance the understanding of change management during ERP system implementation

#### **5.4 RECOMMENDATION**

To achieve successful and sustainable change management processes in Company 2 and Company 3, it is advisable to consider the following suggestions:

- ✚ Maintain clear and effective communication throughout the change management process. Make sure to be transparent and open in conveying the reasons for the change, the expected advantages, and how it will affect employees. Encourage open discussions to address any concerns and provide regular updates.
- ✚ Leadership Dedication: Secure unwavering commitment and active involvement from organizational leaders in the change management process. Leaders should serve as advocates for the change, demonstrating their dedication through their actions and decisions.
- ✚ Get employees from all levels of the organization involved in the change management process. Ask for their opinions, address their worries, and actively include them in making decisions. Encourage a feeling of ownership and shared responsibility in order to ensure the success of the change effort.
- ✚ Offer extensive training programs to give employees the necessary skills and knowledge to adjust to the changes. Provide continuous support during the implementation phase to help them overcome any difficulties or obstacles that may come up.
- ✚ Find people within the organization who can be change leaders and supporters. These individuals should believe in the change and help their colleagues. Give them the authority to lead and assist others during the change.
- ✚ Phased Implementation: Consider a phased approach to implementation rather than attempting a sudden and complete transformation. This approach allows for better resource management, minimizes disruption, and provides opportunities for learning and adjustment.

- ✚ Continuous Evaluation and Adaptation: Regularly assess the progress and impact of the change initiative. Gather feedback from employees and stakeholders to identify areas for improvement and make necessary adjustments to the change management strategy.

By considering these recommendations, Company 2 and Company 3 can enhance their change management processes, leading to successful and sustainable outcomes in their implementation efforts.

## **5.5 FUTURE WORKS**

- ✚ By studying other ERP packages like Microsoft Dynamics, Oracle, Accpac, and Sage 300, the research can expand the applicability of the findings beyond just the specific SAP ERP solution examined in this study.
- ✚ This study can be a helpful resource for researchers who want to study how to avoid problems during the implementation of ERP systems in Ethiopia. It provides insights from both successful and unsuccessful experiences in this area.
- ✚ The results of this research can be used as a starting point for future studies to create ideas based on these findings and test them using numbers and data. This will help us gain a better understanding of the topic.

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## APPENDICES

### APPENDIX A: QUESTIONNAIRE



### ADDIS ABABA UNIVERSITY

### COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES

### SCHOOL OF INFORMATION SCIENCE

#### QUESTIONNAIRE ON “AVOIDING CHANGE MANAGEMENT PITFALLS DURING ERP SYSTEMS IN ETHIOPIA: LESSONS FROM SUCCESS AND FAILURE STORIES”

Dear Participants,

I am a postgraduate student at Addis Ababa University, conducting research titled "**Avoiding Change Management Pitfalls During ERP Systems in Ethiopia: Lessons from Success and Failure Stories.**" This research is being conducted as part of the requirements for the Masters of Information Science degree. Your organization has been identified as a potential sample for this study, as you have recently implemented an ERP system.

The purpose of this questionnaire is to gather data for the proposed study. Your participation in this research is entirely voluntary, and the questionnaire responses will remain anonymous. I assure you that any information you share will be kept confidential and used solely for academic purposes.

Your honest and timely response is crucial for the successful completion of this study. Your valuable insights and experiences will contribute significantly to the research findings. I would like to express my gratitude in advance for your kind cooperation and for taking the time to complete this questionnaire.

Please note:

- There is no need to provide your name or any identifying information.

- Please answer the survey questions based on your organization's experience with ERP system implementation change management.

Once you have completed the survey, please submit it as instructed.

If you have any questions or concerns regarding this survey or the research project, please feel free to contact [Adane Haile 0911998476 or adanehg@gmail.com].

## **A. Personal Information**

1.1. Organization Name

1.1 Gender:

1.2 Your age group: Below 20 21-25 26-30 31-35 36-40 41 and above

Here are the survey questions utilizing a Likert scale (A, B, C, D, E) to gather insights on the weaknesses and challenges encountered during the change management of the ERP system implementation. The survey questions are tailored for different groups of respondents who participated in the ERP system **implementation: Employees, IT Managers, Business Users (Core Users), and End Users.**

- 1- There was a lack of clear communication regarding the goals and objectives of the ERP implementation.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 2- The ERP system did not align well with our existing business processes and required significant customizations.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 3- Top management provided sufficient support and guidance during the ERP implementation.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 4- The change management process for the ERP implementation was well-planned and effectively executed.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 5- The ERP system implementation caused disruptions in our organization's daily operations.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 6- Employees received adequate training and support to adapt to the new ERP system.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 7- The ERP implementation project experienced delays or exceeded the planned timeline.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 8- The organization faced resistance or reluctance from employees in accepting and using the new ERP system.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 9- There were challenges in integrating the ERP system with other existing systems or applications.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree

- 10- The ERP system implementation resulted in cost overruns or budgetary issues.  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree
- 11- The ERP system implementation was successfully completed within the allocated resources (budget, staff, etc.).  
A) Highly agree B) Agree C) Neutral D) Disagree E) Highly disagree

Please rate your level of agreement with each statement using the provided Likert scale. Your feedback will help us understand the weaknesses and challenges faced during the change management of the ERP system implementation

**APPENDIX B: INTERVIEW QUESTIONS**

**PART TWO**

The survey questions are tailored for different groups of respondents who participated in the ERP system implementation specifically **Project Managers/ERP project Managers, ERP Implementation Consultants, IT Managers, and ERP Quality Assurance and Change Management Consultants.**

**Please respond to all the questions by following the instructions.**

**A. Personal Information**

1.1. Organization Name

1.1 Gender:

1.2 Your age group: Below 20 21-25 26-30 31-35 36-40 41 and above

In the thesis document titled "**“AVOIDING CHANGE MANAGEMENT PITFALLS DURING ERP SYSTEMS IMPLEMETATION IN ETHIOPIA: LESSONS FROM SUCCESS AND FAILURE STORIES** “," the questionnaire extracted to assess weaknesses from a perspective of the implementation includes the following types of questions:

- 1- Overall challenges: What were the major hurdles or obstacles encountered during the change management process of implementing the ERP system? How were these challenges addressed or mitigated?.....
- 2- Communication challenges: Have there been any difficulties in effectively communicating and collaborating during the ERP implementation? In your view what strategies and tactics might help improve communication during implementation?  
.....

3- Leadership support: How would you rate the level of support and involvement from top management during the ERP implementation? Have there been any instances where top management did not provide sufficient support? If yes, what were the challenges and what in your view were the reasons and solution for leadership engagement

.....

4- Business value: Were there any difficulties faced in aligning business processes with the ERP system? How was the customization of the ERP system handled, and were there any challenges in this regard?

.....

5- project management: Were there any issues related to the composition or performance of the project team during the ERP implementation? Can you provide examples of project management challenges faced?

.....

6- Misfit: Are there any areas where the ERP system does not align with the existing business practices and processes of the organization? If yes, please provide specific examples.

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