

**A FRAMEWORK FOR USER INVOLVEMENT IN ENTERPRISE RESOURCE
PLANNING SYSTEM IMPLEMENTATION**

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DECLARATION

I declare that this thesis is my original work and has not been presented for a degree or any other award in any other University or examination body.

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ABSTRACT

The vast majority of firms adopt a complete collection of enterprise resource planning tools and tailor them to their specific operations practices. Despite all of this and ongoing evaluation of the embraced ERP suite, realizing an effective ERP deployment is challenging due to the system's size and complexity. Additionally, failures when it comes to the implementation of ERP have usually been attributed to lack of or inadequate user involvement in the entire process. Using a descriptive research design, the study took place at currently the United Nations Human Settlements Programme in Nairobi, and a sample size of 70 participants was chosen using stratified proportionate sampling. Primary sources with a focus on the drop and pick process provided the data for the study, which was ultimately given to participants via standardized questionnaires. Inferential analysis was used to approximate the predictive model after quantitative analysis provided descriptive statistics. Figures and tables were used to present the results, and narrative analysis from data analysed using SPSS tools. In accordance with the study's findings, it was concluded that there exists a positive and significant relationship between users' functional requirements activities and ERP implementation, as well as positive and significant relationships between users' presentation requirement activities and ERP implementation, significant moderate relationships between users' quality assurance activities and ERP implementation, and significant moderate relationships between users' project management activities and ERP implementation. The study suggests that these entities adopt an ERP framework through establishing users' functional requirements operations policy pronouncement of the role of top management involvement, looking over its business process regulations to take into account different system implementation procedures and related documents, evaluating its current quality assurance operations by Customers in order to meet the planned ERP system demand of the provider, and acquiring and retaining the ERP systems.

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ABBREVIATIONS AND ACRONYMS

APS- Advanced Planning and Scheduling

ASAP- Accelerated SAP

BPC- Business Process Change

CRM- Customer Relationship Management

CFC's- Critical Success Factors

COTS- Commercial off the Shelf Application

DBMS- Database Management System

ERP- Enterprise Resource Systems

IBM- International Business Machines Corporation

ICT-Information Communications Technology

IT- Information Technology

KM-Knowledge Management

KMS-Knowledge Management Systems

MRP II- Material Planning and Requirements II

ROI- Return on Investment

SAP- System Applications and Products

SCM- Users' functional requirements activities

UMOJA-The name given to the ERP system that is used by the United Nations Secretariat

UNEP- United Nations Environmental Programme

UN-Habitat- United Nations Human Settlements Programme

UNON- United Nations Office of Nairobi

UN- United Nations

PSC- Public Sector Company

CHAPTER ONE INTRODUCTION AND BACKGROUND OF THE STUDY

1.0 Background to the study

Owing to the demand for streamlining operations, Enterprise Resource Planning (ERP) systems have been developed worldwide for helping companies manage their businesses in supporting different functional areas (Chofreh et al., 2017). These systems are vital for implementing an integrated system since they guarantee and assure that different modules are transparently integrated and information flow easily between different functions and hence substituting the traditional incompatible legacy information systems (Hörlund & Åland, 2021). Owing to these benefits associated with ERPs, a majority of multinational companies are implementing ERP systems for ensuring readily available and accessible data as well as information at all its location in different countries and regions (Musili, 2016). Multinational companies are implanting these ERPs owing to the capability of enhancing automated and integrated real time solutions over a voluminous business processes and functions.

ERP implementation choosing a strategy is frequently crucial (Vu Dinh, 2021). By selecting the best strategy that helps determine how the ERP system should be implemented, one can increase the likelihood of a successful implementation of an ERP system while simultaneously controlling and minimizing the primary risks at the outset. A strategy's viability is based on a variety of factors, including the effect on the organization, the intricate nature of the entity, the length of time, risk, and the budget that is available. Big Bang, Phased Rollout, Parallel Adoption, and Hybrid are just a few of the various implementation strategies that exist (Wanjau, 2020).

The term "big bang ERP implementation" refers to a go-live scenario in which a company abruptly switches from its existing ERP system to a new one (Maheshwari, 2007). This results in the company's offices and modules going live all at once. The primary characteristic of big-

bang implementations is that they are designed to switch from the old system to the new one at a predetermined time, or at the go-live (Hsu, 2020). This frequently leads to a drawn-out, tedious pre-go-live time frame that focuses principally on the transfer of data.

A company that is hesitant to use the concept of a big project might choose a phased strategy, which enables you to get the same results at a slower, more deliberate pace (Wanjau, 2020). Organizations can set multiple smaller go-live originates for every stage of the project with an ERP implementation that is gradually phased rather than implemented simultaneously. As an example, it might launch for the warehouse management and inventory management processes on one occasion and for accounting functions the next. In this manner, rather than all at once, the outdated systems will be replaced. A company may decide to base these benchmarks on elements like a module, business unit, or geographic location.

With a parallel adoption strategy, the company uses both the new ERP and its legacy systems concurrently for a predetermined period of time (Yaşar & Gökhan, 2016). This is typically thought of as the least hazardous strategy since a company may revert back on the old infrastructure whenever issues arise. This strategy is used by certain organizations for critical activities that must inexorably continue to function because of this safety net. This method may make it easier for some users to gradually adjust to the new system. Parallel adoption can be an expensive strategy, though, as it requires more staff as well as finances in order to maintain two systems operational at once (Madkan, 2014). Furthermore, parallel adoption may come with additional risks: When data is entered twice into two different systems, the likelihood of an error is increased by twofold. Nevertheless, for firms with a two-tier ERP architecture, an arrangement that is frequently found in companies, this might be the best choice.

Combining elements of the previously mentioned tactics results in a hybrid strategy. An organization might, for instance, implement its core ERP modules all at once before

introducing more features gradually to various areas or divisions (Maheshwari, 2007). The hybrid strategy frequently results in the necessary agreement as the ERP team members investigate and evaluate the information at hand. The complexity of a hybrid strategy depends strongly on the state. Small organizations with a single site for their ERP implementations typically use simpler hybrid strategies compared to big enterprises with many different locations in various environments (Vu Dinh, 2021). Hybrid strategies are commonly employed in implementations due to the fact that they can be tailored to the unique requirements of the circumstance. The hybrid strategy allows industries to exclusively change implementations to suit their particular requirements.

Although, the ERP's have significant promising benefits to the multinationals that have substantially invested in these systems, the companies rarely produce successful outcomes from ERP implementation (Musili, 2016). That is, multinationals companies are facing myriad of problems and challenges on implementing ERP systems (Hörlund & Åland, 2021). Although ERP implementation is considerably regarded as a management improvement project, ERP systems are large, complex, costly, and difficult. Consequently, diverse challenges are facing the ERP implementation, negatively affecting their success (Mariga et al., 2019). However, user involvement is regarded in many circles as being among the most important success factors of ERP implementation (Eichhorn & Tükel, 2016).

Absence of poor user involvement has been identified as the major of most ERP implementation failure (Hörlund & Åland, 2021; Mariga et al., 2019). Furthermore, Rishi and Goyal (2008) postulate that there are little or low consumer engagement in ERPs, where staff and other users are frequently improperly trained for new procedures (Laudon & Laudon, 2006). Owing to the lack of or low customer participation, a comprehensive roadmap for the operation of the framework would not always be given for foreign corporations.

1.1.1 ERP Implementation

ERP software systems are constantly being implemented by businesses to enhance their activities. Selecting an ERP solution that meets a particular market criterion would allow a business to be introduced smoother (Donnel, 2016). In order to run the chosen system in a particular organisation, implementation includes all the activities required. Although the deployment process is the most investigated subject in the lifecycle of the ERP framework, the implementation and operation paper is scarce (Lech, 2016). The approach used for ERP implementation refers to the manner in which a business plans and manages the rollout of an ERP initiative. (Dunaway, 2015). The implementation technique of ERP is, on the other hand, where the organization states its strategic decisions on implementing and prefers an oriented route for the implementation of ERP (Dunaway, 2015). Company-driven deployment approach is where a company directs and controls the implementation of the ERP method. Dunaway (2015) describes the implementation of the ERP as a distribution for identified beneficiaries of the ERP scheme. The two words are different when designing the required delivery systems and implementation involves the ERP framework distribution depending on market requirements. As the main facets of ERP delivery approach, Dunaway (2015) presents the following.

The most common deployment strategies have been listed by most researchers as joint companies with industry, business driven, the ERP supplier managed, or a mix of companies driven, and the ERP supplier managed.

- (i) Collaborative execution methods with like firms in a given market shall be joint ventures. In general, companies engage in consortiums with other related organizations that operate in collaboration in order to resolve economic challenges, efficiency, infrastructure, outsourcing, added value, operations, etc.

- (ii) The area of most organizations within firm Influenced initiatives deals with software development, service, and management. Organizations typically have a system in place for controlling the creation, upkeep, and use of software applications. The strategy is centered on an organization's objectives and standards
- (iii) ERP Vendor led; several ERP vendors have developed their own proprietary methods of implementation. The methodology for the ERP deployment includes detailed models, roadmaps, schedules and tools. The methodologies used in ERP deployments have been built by ERP providers, such as Oracle, SAP and Microsoft. The SAP production ASAP approach includes an Implementation Assistant, for example. In order to satisfy implementation demands, a company should choose from a variety of roadmaps and varieties. Oracle blends the approach and deployment technique into a so-called methodology for technology implementation (AIM).

While the field of ERP is of significant significance with a vast amount of scientific literature, there has been little study of the consumer role in applying ERP (Chofreh et al., 2017). While this perception of user contribution as one crucial factor for the effective creation and execution of the information system has not allowed analytical research to conclusively correlate user involvement with the performance of systems (Matende, 2015). This research aims to examine the impact of the customer engagement of multi-national organizations in Kenya on the application of the business resource plan system. The research focuses on the involvement of users, activities related to functional requirements, activities related to presentation requirements, activities related to quality assurance, and activities related to project management ERP among multinational businesses in Kenya.

1.1.2 User Involvement

As stated by Matende et al. (2015), user involvement implies participation by representatives of the intended consumer groups in the system development and implementation process. It is yet another crucial element for an ERP implementation to succeed. By involving users, the new ERP's business processes are better able to meet the requirements of the firm (Chatzoglou et al., 2016). User participation enhances developer-user communication and fosters a better comprehension of organizational needs. User involvement increases user satisfaction, which is essential for the project's successful completion. Numerous academic studies list the backing of upper management as one of among the most important elements that go into a successful ERP implementation. As suggested by the literature and in light of the financial resources needed, Chatzoglou et al. (2016) list top management support as one of the six factors that contribute to a successful implementation. It is a significant factor, because it benefits end-user jobs. In the research of Stone and Zhang (2021), the perception of influence changed over time, starting with the belief that top management alone could direct an ERP implementation and ending with the recognition that business units (people) were also important drivers. Chatzoglou et al. (2016), shows the following six factors, should be the organization's main priorities: top management support, organizational culture, vendor support, training, user involvement, and reengineering business processes. Functional Requirements are the requirements which address the tactical business purpose of the information system and includes what data is to be used, the processes of collecting and validating the data, the data's security, the calculations that employ the data and the task and system complexity. Functional requirements are those that pertain to the tactical business purpose of the information system and include the data that will be used, the procedures for gathering and validating the data, its security, the calculations that will use the data, and the complexity of the task and system.

Users' Presentation Requirements Activities refers to focusing on the manner in which the user interacts with the ERP; addressing the human interfaces, report designs and user queries (Bradford, 2014). Thus, presentation Requirements are the requirements which focus on how the user interacts with the information system. These address the human interface to the information system including the input and output forms, specific screen formatting and layouts, report designs and user queries to provide a search capability to the user. As much of a risk for achievement or failure as insufficient project definition exists in the absence of sufficient education and staff engagement. Requirements for User Presentation By "activities," we mean concentrating on how the user interacts with the ERP, taking into account user queries, report designs, and human interfaces (Bradford, 2014). Consequently, presentation requirements are those that are concerned with how a user interacts with an information system. These focus on the information system's human interface, which includes the input and output forms, particular screen formatting and layouts, report designs, and user queries that give the user a search function.

Functional demands activities, presentation necessities activities, quality assurance activities, and project management activities are the indicators of user involvement (Eichhorn & Tukel, 2016). In order to address the tactical business objectives of the ERP implementation, including data definition collection, validation, security, and calculations as well as the tasks and system complexity, users must first complete their functional requirements endeavors (Bradford, 2014). In order to guarantee that the design of the interface(s) does not detract from or impair the user's efficiency, they place a strong emphasis on how a user should interact with the information system.

Users' quality assurance activities refer to the actual execution of individual test cases for the purpose of validating that quality standards are being used (Bradford, 2014). Therefore, quality assurance activities are the actual execution of each individual test case to confirm the

application of predefined quality standards. The use of quality assurance tools, the use of prototypes, and user participation in test design and execution are all manifest variables used to define quality assurance.

The term "users' project management activities" describes involving users in processes such as developing schedules, problem-solving, managing risks and conflicts, non-IS communication, and implementing ERP (Svensson & Thoss 2021). Users' participation in schedule improvement, problem solving, risk and conflict management, non-IS communication, and implementation are among the project management activities.

The achievement of ERP implementation is positively impacted by user involvement, according to numerous empirical studies. According to Bradford (2014), user participation in ERP deployment projects ensures user inputs to various technical decisions, which have a greater impact because they are more social-technical than absolutely technical. User participation is going to be particularly important in this context. Technical requirements, monitoring requirements, quality assurance activities, and project management activities are the four-customer engagement practices that is employed by (Hörnlund & Åland, 2021).

1.2 Statement of the problem

Like most organizations, multi-national organizations in Kenya have adopted ERP systems and customized them to fit their business processes. Researchers' agreement that human factors are essential to ERP project achievement seems to be expanding (Stone & Zhang, 2021). However, despite importance of ERP in the business process and the vital role user involvement in their implementation, there have been reports of massive failures of ERP implementation (Xu, 2019). In accordance with estimates, 75% of ERP implementations fail to thrive, which means that entities risk losing money as well as valuable time invested in ERP projects (Jordan, 2018). According to McLeod and MacDonell (2011) these failures could have a variety of human or

organizational causes. According to Chatzoudes et al. (2016), the organization should prioritize user involvement, organizational culture, vendor support, training, and reengineering of business processes. In the opinion of Chatzoglou et al. (2016), inadequate project definition poses a greater risk of failure than lack of employee participation and inadequate training. According to McLeod and MacDonell (2011), researchers appear to be coming to the conclusion that human factors are essential for ERP project achievement. As a result, failures in the implementation of ERP are frequently attributed to a lack of or inadequate user involvement in the process (Chofreh et al., 2017). According to research, ERP implementation research has not adequately acknowledged the importance of user participation as a key issue in the implementation of business processes (Matende et al., 2015). Despite the fact that researchers and practitioners have long been interested in the topic of user participation and involvement in the implementation of information systems, recent research on the client-side ERP implementation team occasionally mentions user participation (Matende et al., 2015). More so, most of the research had on user involvement and ERP implementation suffers from conceptual limitations (Matende et al., 2015; Stone & Zhang, 2021; Xu, 2019). In particular, due to current deficiencies and contradictions, evidently there is a dearth of research that informs multinational organizations in Kenya about the relationship between users' engagement and the implementation guidelines for ERP (Matende, 2015). As a result, there is a need for more research on ERP implementation from the viewpoint of user participation, and this could result in a significant research contribution. By examining the effects of user involvement factors, including users' functional requirement activities, users' presentation requirement activities, users' quality assurance activities, and users' project management activities, this study filled the gap by examining how Kenyan multinationals apply ERP guidelines.

1.3 Research Objectives

1.3.1 General Objective

The main objective of the study was to assess the effect of user involvement on enterprise resource planning system implementation among multi-national organizations in Kenya.

1.3.2 Specific Objectives

The study was guided by the following specific objectives.

- (a) To establish the effects of users' functional requirements activities on ERP implementation.
- (b) To assess the effects of users' presentation requirement activities on ERP Implementation.
- (c) To analyse the effects of users' quality assurance activities on ERP Implementation.
- (d) To determine the effects of users' project management activities on ERP Implementation.

1.4 Research Hypotheses

The study tested the following null hypotheses

H₀₁: Users' functional requirements activities do not significantly affect ERP Implementation

H₀₂: Users' presentation requirement does not significantly affect ERP Implementation

H₀₃: Users' quality assurance activities do not significantly affect ERP Implementation

H₀₄: Users' project management activities do not significantly affect ERP Implementation

1.5 Justification and significance

This study would be useful for implementation of ERP information systems among multinationals companies to; assist in providing information to the management of these

companies and help avoid problems arise out of involvement the user during ERP system implementation.

The outcome of the research may also help different stakeholders in the multinationals to establish good plans and policies about user engagement which could benefit ERP systems in various regions.

The results would be helpful for ERP providers who could use the usable knowledge in order to improve the desirable consumer features in favour of the international organizations introducing ERP programs.

The results of the study could allow various organizations to determine user processes, specifications for users, quality assurance practices for users and the user's project management activities, which will enhance the adoption of ERP programs by multinational corporations.

The research would enable academics and scholars to add to existing information on adoption of ERP systems as well as to propose a potential mechanism that would concentrate on the need for user participation to incorporate ERP systems in organizations. The thesis would support other researchers by the observations and recommendations reported in this area. It would then be a reference article.

1.6 Limitation of the study

Acquiring the respondents' trust was a challenge for the researcher, so the researcher made sure they understood that all the information they provided was solely for that specific reason. The researcher hoped that all target respondents will be able to respond giving all the required information and with honesty.

1.7 Delimitations of the study

Despite the limitations stated above the study will be conducted successfully, this is because the respondents will be within one specific geographical area, and within the same vicinity/proximity.

1.8 Scope of the study

The research looked at how user involvement affected the implementation of an ERP system at UN-Habitat in Kenya. Its data was collected among the employees of the multinational and this data was analysed using quantitative technique while it was it was inferred using multiple regression.

1.9 Assumptions of the study

This research will be conducted under the assumption that each and every respondent will correspond to the questions asked with utmost honesty to the best of their knowledge, the study also assumed that the information obtained as well as the views expressed from and by UN-Habitat employees represented all the multinational companies in Kenya.

1.10 Definition of Terms

Enterprise resource planning refers to solutions that are enterprise administration software systems, covering a range of components serving functional fields such as planning, production, sales, marketing, selling and delivery. Accounting services and financial tools are included (Mohammad et al., 2002).

ERP Business functionality is defined as system usage at work in terms of timeliness, accuracy, quality, benefits, efficiency, simplicity, and decision making (Bradford, 2014).

ERP Technical functionality means reliability, repair, testability and stability of the ERP system are described(Widya et al., 2018).

Implementation refers to a clearly defined project, from the system collection through setup and testing, to the live execution of the system. The introduction of the company means an active learning loop in which the ERP system assisted operational framework is increasingly integrated with the priorities of the company. The company priorities are currently more followed, guided both by global conditions and by emerging internal prospects. (Widya et al., 2018)

User Involvement refers to the psychological subjective situation in which users are active in a mechanism that is both essential and personal.

User Satisfaction means is the reaction to using an information system's result to gauge how well an ERP implementation is working.

Users' Functional Requirements Activities refers to addressing the tactical business purpose of the ERP implementation including data definition collection, validation, security, and calculations as well as the tasks and system complexity (Bradford, 2014).

Users' Presentation Requirements Activities refers to focusing on the way the user interacts with the ERP; addressing the human interfaces, report designs and user queries (Bradford, 2014).

Users' Project Management Activities user interaction, non-IS connectivity and ERP execution in timetable development, problem solving, risk and dispute management (Bradford, 2014).

Users' quality Assurance Activities refers to the current performance of test cases for the validation of quality criteria (Bradford, 2014).

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The implementation of an enterprise resource planning framework and user engagement are analyzed using the literature. The chapter includes the literature examined on similar hypotheses (theoretical framework) and observational research (empirical literature review) (empirical literature review). The theoretical analysis describes the way user participation is associated to enterprise resource planning method implementation from which, the study demonstrates how the independent variables contribute to dependent variables by development of a logical structure from the theories that have been examined. The chapter also includes analytical analysis of past literature relevant as provided by numerous scholars and researchers. Numerous analytical and observational research have also been examined to determine the usefulness of these studies and the loopholes to be fulfilled as well as the contradictions. This chapter presents the application of multinational ERP systems, theoretical analysis, empirical research and methodological aspects, conceptual framework and summary of the research.

2.1 Theoretical Framework

A theoretical structure will be used to help explain ties between variables of concern through the underlying relationships and the guidance of the relationship. The spectrum will be oriented, the quantitative variables to be extracted will be defined and the synthesis of the study will be related directly. Certain theories are found useful in explaining the proposed ERP implementation and these include; Updated Theory of User Participation, ERP Orchestration Theory and the Critical success factors (CSF) Models.

2..1.1 Updated Theory of User Participation

Markus and Mao (2004) postulated the theory of participation a perhaps a theory that has to be strong enough to handle shifts in IS reality. The theory of participation, a revised user participation theory divides solution progress into successful solution creation and successful execution. It is founded on the assumption that the success of solution creation does not indicate a good solution; where enthusiastic user engagement may lead to a false loyalty to a low-quality solution (Markus & Mao 2004). So, even if the solution is implanted later, users might assess the solution to be very effective.

Markus and Maos (2004) suggest that the production and execution of strategies are more likely to work where socio-technically and technologically trained, customers are present, and management and organizational staff and external partners may give valuable information on functional and other specifications. This helps to effectively build ideas by engaging consumers. The effectiveness of the actions of reform managers to prepare and conduct engagement programs depends on the production and execution of the solutions. There should be a close link between involvement of solution creation and the consequence of the solution quality and involvement of solution execution and the outcome of adoption and usage.

Markus and Mao (2004) have built three builds for user involvement adaptation and synthetization. Markus and Mao (2004) are theoretically based on the idea of user-implication activities, solution design engagement activities, solution management (or change management) and project management activities. The revised user engagement theory is therefore important for this research, since it illustrates and builds important philosophical implications in the study. The three building blocks offer technical specifications, presentation requirements, quality improvement, and project management endeavors for the user activities listed by Hörnlund and Ålande (2021). As the key users' involvement practices leading to ERP

deployment progress, this research task included project management, technical specifications, presentation requirements, and quality assurance activities.

2.1.2 ERP Orchestration Theory

ERP orchestration theory will be developed to explain when an organization can extend its IT base within the ERP system (Badewi et al., 2018). Notably, ERP assets within the integrated technologies and IT department competences have been found to be insufficient for full realization of the potential benefits from ERP investments. However, complementing these ERP assets with organizational capabilities is the main enabler for realizing benefits. Based on these findings, the ERP orchestration theory shows that benefits can be realized based on the maturity scale. The benefits of creativity from ERP systems by means of the use of automation and planning are thus not understood by businesses. Moreover, the ERP automation assets plus ERP organizational automation capabilities enable organizations to realize ERP automation benefits (Mohamad, 2018). These organisational capabilities which are appropriate for the ERP implementation in multinational organizations in Kenya would include; organisation resources and user involvement (Badewi et al., 2018). However, in the present study, the main focus is on the user involvement activities.

The ERP Asset Orchestration Theory, that has been developed to help understand how organizations' ERP can be diffused by sufficient user involvement activities, is a part of the ERP Orchestration Theory (Badewi et al., 2018). This theory also assists in determining the justification for and timing of the acquisition of new technological assets and their integration with an existing system of ERP. There is also a theory about resource orchestration that gives general guidance for the role of management in orchestrating organizational resources (for example, designing, building) in order to improve their performance (Sirmon et al., 2011). The ERP Orchestration Hypothesis shows ample evidence that consumer engagement plays an

important role in the ERP, indicating that this operation in Kenya's multinational institutions would be crucial for the introduction of the ERP.

The basis of this principle is contingency theory (Sirmon & Hitt, 2009), where superior accomplishment occurs in the utilization of multiple corporate capital and/or capacities. With the same energy, fitness between the ERP and the organization feature has an effect on efficiency (Seddon et al., 2010) where a suit is required to be complex (Albu et al., 2015; Davenport et al., 2004). A new capability to create a new corporate climate that might require a new resource is provided by each user engagement orchestrated within an ERP deployment (Cui, Pan 2015). Specifically, the principle of resource orchestration suggests that using extra resources and activities involving users, leads to something (ability) (Davis-Sramek et al., 2015).

The stability of investing in ERP in these times is more effective while investment in activities involving users is more sustainable in a volatile climate (AlMuhayfith & Shaiti, 2020). Sirmon and Hitt (2009) claim that the alignment of the organization's capital allocation (which resources to invest in) and usage (which resources to deploy) decisions is more crucial to its success. Therefore, it can be inferred that creating intangible organizational assets (human resources capacity) is more crucial than simply rationalizing the procurement of ERP tools at a distance from the approach of ERP management. By extending the same logic to ERP advantages it is supposed to have a stronger effect than relying solely on either of these islands to synergize ERP tools and strategies to establish user engagement activities.

The ERP orchestration principle thus shows that advantages can be accomplished on the basis of a sophistication scale. Thus, without the use of customer involvement practices, companies cannot allow innovation advantages of ERP programs.

2.1.3 Critical success factors (CSF) Models for ERP

The various frameworks underpinning the current study and prominently CSF Models for ERP which include; Somers et al. (2000) framework, Myers framework, Ross and Vitale framework (2000), Delone McLean Model that was developed by Delone and McLean ,(2003) and the Priori model (2003). CSFs was developed as variables that can have a substantial effect on the performance of an enterprise competitor in a specific industry when properly controlled, operated or managed (Leidecker & Bruno, 1984). The CSFs are anticipated to significantly improve their performance. Knowing that more CSFs in a certain phase of innovation are essential to the progress of the process is therefore considered (Karim et al., 2007). It is therefore necessary for key areas to be established to achieve efficiency improvements (Ram & Pattinson, 2009). Cantu (1999) provide classification models as in Table 1.

Table 2.1***CSF model of Cantu (1999)***

Critical success factor	CSF attributes
Top Management	Commitment Education Involvement Project team selection Training Roles and responsibility
Process	Alignment Documentation Integration Process redesign
Technology	Hardware Software Systems management Interface
Data	Master files Transactional files Data structure Maintenance and integrity
People	Education Training kills development Knowledge management

The CSF of this theory can be categorized primarily as Top management, user management, procedures, and HIT, which has contributed significantly to the present study; user's operations for users, user needs, quality assurance practices of users and users' project management activities as factors influencing the ERP implementation theory.

This research would rely on the contextual considerations, such as industrial form, scale, and structure, that are implied as crucial for achieving positive results from EPR acquisitions, suggested by Somers et al. (2000). It notes that it may rely to the degree that the mechanism, circumstances and contingency variables fit that implementing entities receive from their ERP software. This thesis contends that Somers et al. (2000)'s concept is based on a method of considering contingencies that will direct the development of this framework of investigation.

The above-mentioned ERP models is based on research carried out in developing multinational countries. The system will also have a rich backdrop, which can be used to reference or create new ERP models that already exist. The widely described parameter in theory is the method and the business process is considered as affecting ERP execution.

Myers (1997), based on Saunders and Jones (1992) work, developed the basis for the IS evaluation contingency theory. Basically, in the sense of quality assessment and efficiency appraisal of IS feature, The model broadens the one proposed by Saunders and Jones in 1992. The system used by Myers (1997) acknowledges the significance of the two urgencies. Furthermore, unlike Saunders and Jones (1992), Myers (1997) explicitly distinguish external factors in the environment from those. Therefore, their methodology provides insights that would be helpful for developing an ERP model in this analysis by dividing context levels into two primary components. The Myers framework dwelt much quality and productivity, implying that in every IS, there is need of direct efforts in ensuring that the outcome is as perfect as spelt in the objectives. In this case, the ERP implementation in multinational organizations and UN-Habitat must achieve high quality and productivity. This could only be done by selecting and using the best available resource, which in the case of the current study are the independent variables that determine how well the framework works. failing which everything is going to be in vain.

The results of Ross and Vitale's (2000) study of 15 distinct companies that had been using one of the top ERP packages in 2000 to ascertain the impact of the bundled ERP schemes on organizations. Determine how businesses used their market-value-generating ERP ecosystem, specifically. Their system was compared by Ross and Vitale with the escape diver from insula prison. They also proposed that there should be a five-stage framework in ERP: plan, execute, stabilize, strengthen and transformed continuously. It is very clear in your report that there are significant obstacles to the execution. But it is very challenging to comprehend from the

descriptions what has gone wrong during "go live" or what the exact issue was or what the problems of "go live" were. Numerous literatures with general statements are written and their emphasis might be different. However, the present study aimed to determine the effect of user engagement on ERP's deployment in global organizations and UN-Habitat is to support further analysis.

Subsequent to reviewing IT papers from the years 1981 to 1988, the model architecture of Delone McLean was deemed useful in this study (Kronbichler et al., 2010). Information, device and service effectiveness, user-friendliness, and net benefits are the six interconnected dimensions of the model (Delone & McLean, 2003). Based on information structure, service effectiveness, and customer satisfaction specifications, the goal to use is determined. Customer satisfaction is measured in the ERP implementation's net benefits (Kronbichler et al., 2010). Therefore, the study took into account the users' project management techniques as independent variables that influenced how ERP was applied in UN-Habitats, international organizations, and UN-Habitats. Therefore, the research makes the assumption that users' ERP activities have a measurable effect. The Delone McLean model has supported the research specifically in relation to the management's role and the Delone McLean model's role in ERP implementation in international and UN-Habitat organizations.

Gable et al. (2003) support the priori model as a framework for assessing performance. (1999). Their background will be examined using the literature, survey, and a number of specialized workshops. the alternative a priori model to Delone et al. (2003). "Gable et al." Unlike the original model created by Delone and McLean (2003), the a priori model primarily serves as a measuring model to test a multi-dimensional phenomenon of effective ES in five distinct accomplishment dimensions.

This analysis' underlying framework is the one provided by Reitsma and Hilletoft (2017), which can be seen in Table 2. Reitsma and Hilletoft (2017) established 13 critical success factors (CSFs) for the implementation of ERP systems, with a focus on user sensing.

Table 2.2

Reitsma and Hilletoft (2017) framework 13 CSFs

Project team	The project team needs to consist of the best people and has to include a project champion, employees from different functions and levels, and external consultants when ERP expertise is missing internally
Top management involvement	Top management should reinforce the commitment of all employees in the organization and create policies that determine and approve new organizational structure, roles, and responsibilities
Strategic decision-making	A well-defined business plan and vision should define how the organization operates behind the implementation effort and has to outline proposed strategic and tangible benefits, resources, costs, risks and timeline
Communication	Effective communication should be established at every organizational level and has to include the formal promotion of the project and its teams and advertisement of project progress
Project management	Project management should include a clear definition of objectives, development of both a work and a resource plan has to focus on the identification of the equipment required to operate the system.
Project support	Project support should be established in the form of technical assistance, maintenance, and updates, which has to be facilitated by a committed partner that oversees the entire implementation's life cycle.
Minimum customization	Departments should not rearrange the chosen ERP system to prevent interdepartmental issues and should have access to the same data and system.
Organizational change management	The organization should utilize change management techniques and tools that must be defined and evaluated with the best practices in the industry.
Business process alignment	A catalog of best business processes should be selected and followed to stay on the right track and avoid conflicts with the procedural rigidity of an ERP system.
Software testing	The organization should establish rigorous and sophisticated testing of the software to simplify ERP system implementation
Performance measurement	Performance measurements should be identified to manage expectations, keep track of all occurrences and to measure the achievements against the milestones and targets.
Education and training	Education and sufficient training requires investment, promotes an effective and correct use of the ERP system, and should be provided for users from the beginning of the ERP system implementation project.
Technical possibilities	All kinds of differences in ERP systems offered in the marketplace should be evaluated based on its strategy, size, business field, its business processes, and its internal and external relationship structure.

Source: Reitsma and Hilletoft (2017)

The framework gives a synopsis of the CSFs and looks into their significance from the viewpoint of the users. This gives the study the necessary foundation because the user's perspective (users' project management operations) is the main focus. The study's consideration of users' project management activities as a factor influencing the implementation of ERP in multinational organizations and UN-Habitat will be aided by the study's frame of reference.

2.3 Empirical Review

Several empirical findings have been checked on ERP implementation, with a view to formulating the system structure. An academic literature analysis on the application of ERP will take place using a peer review process.

Based on the study by Heijblom (2015), even though there are already a large number of mobile enterprise applications that can be used on mobile devices and are integrated with back-end ERP systems, the field is still in its infancy and has not advanced very much. Apps are primarily used for routine HR-related tasks like recording expenses and hours worked, CRM-related tasks, and the occasional sales task. Although there are many opportunities for ERP mobility, adoption still seems to be dispersed. While some businesses have already embraced mobile solutions, others are completely against them. Since it is not financially feasible for them to set up such controls, many controls that are intended to reduce potential risks associated with mobility are frequently not yet applicable in organizations that use some form of mobility. Their level of M-ERP usage maturity is still in its early stages. The complexity, expense, and time required to implement mobile-related controls, such as those suggested in the control framework described in this thesis, are not greater than the benefit and value they offer, in other words. Thus, it would seem that ERP mobility is still in its infancy, at least in the Netherlands.

The research concluded that organizations need to enhance the social, climate and economic efficiency of their enterprises to promote sustainable growth at the same time. To incorporate

any sustainable process, knowledge and data in the expanded value chain, the introduction of an S-ERP framework is necessary. There are nevertheless limited studies detailing a master plan which demonstrates the steps, points of view and steps that can guide practitioners in implementing S-ERP systems. To complete the master plan and implement the S-ERP scheme, guidelines and frameworks should be developed and evaluated.

In line with Zarei and Naeli's (2010) research on the value of dividing CSFs into strategic and tactical categories with a PSC business case study, strategic CSFs include a business vision, an ERP strategy, call for upper management support, and have a project plan. Instead, tactical CSF groupings include operational elements like SC, business process change, and IT consultants. Zarei and Naeli discuss the significant part the top leadership plays in allocating the proper and necessary business resources, in supporting a potential organizational structure change, and in communicating corporate IT strategy for the implementation of ERP.

2.3.1 Users' functional requirements activities on ERP Implementation

Through the use of a descriptive empirical technique, the Hörnlund and Åland (2021) study examined the impact of user participation practices on users' satisfaction with the ERP system at UNRWA headquarters. The findings showed that users of the ERP system took part in the project and contributed significantly to the various programs. Users were also satisfied with the machine market effectiveness and technological functionality. According to the report, ERP system users have positively impacted the sector's operations and the ERP system's operational effectiveness.

Bradford's (2014) research explored the working and presentation component of the company specifications distinguishing these requirements to increase customer engagement awareness of information technology programs. The results from the analysis revealed that user

participation in requirements selection practices was supported as variables that influence user satisfaction.

Sridhar et al. (2009) discussed the influence of the use of an exploratory almost experimental approach on the efficiency of IS planning projects. The results demonstrate that consumer involvement in IS project outcomes is significantly beneficial.

Gollner's (2017) research concludes that motivational sources vary from other working environments on employee efficiency during ERP programs. It can be inferred that the temporal factor and heavy working load in ERP projects benefit employees with some encouraging features during this time. The analysis shows that the results cannot be extended internationally. In the context of ERP initiatives, the target internalization motivates individuals to attain better success compared to other study fields that implement incentive sources inventory. This illustrates the significance of milestones and the requirement for concurrent development in ERP projects. Internalization of the cause of the projects, readiness to fulfill the company's aims, and removal of self-interest make this sort of person especially useful in project scenarios.

Testing employees on their motivating factors can improve the consistency of team selection in long-term projects. Open-minded individuals are better able to choose novel knowledge (inherent process inspiration) and internalize the objectives of their organizations. These people are the project management techniques of the research's users, who are tasked with passing knowledge down from one generation to the next. Results have shown that the five distinct dimensions, which reflect aspects of project success and product success, can be used to calculate the success of the ERP project. Additionally, it is possible to efficiently evaluate project performance using the project management dimensions, time and expense, standard of ERP, satisfaction, and economic benefit.

The investigation found that the most crucial factors for evaluating the success of an ERP project are covered by project management metrics such as managerial efficiency, adherence to requirements, stakeholder satisfaction, and service quality. The success of ERP sets in medium-sized businesses will be partially described by the fervor of key consumers. Based on data from multiple regression analyses, sources that support key users will describe more than 10% of the results in the dynamic implementation of an ERP.

We may assume that there is no constructive impact on the inspiration for an ERP long-term project. Inconvenient tasks left undone and grating failures can contribute to milestone and general unreliability problems, which have a detrimental effect on the performance of ERP projects. The motivational effects of an impending increase in ERP workload tend to offset the positive effects of working with fun on fresh endeavors.

The study concluded that the chance of a good ERP project is not improved by incentives such as more funding or a different place. After a good ERP deployment, the promise of improved work will inspire key users longer. However, disruption and envy sensed by other project team members neutralizes the instrumental inspiration. The primarily reward-motivated core users would also appear to do well when acknowledged publicly. It also saves resources, which tends to conflict with good background work. Many jobs related to ERP tasks take place on their own or in small groups, so workers who prefer to give their best in terms of pay cannot be inspired to get their way.

It has been shown that big users inspired more by better credibility with others (external encouragement of self-concept) do not improve the performance of ERP projects substantially. Even if they are strong team members, their lack of decisiveness and their propensity to extend execution will jeopardize the aims and priorities of an ERP. If key users are driven primarily by internal sources of self-concept, the odds of a good ERP project improve. It may be inferred

that a project team must be employed by staff whose talents and qualities always strive to meet obstacles and a willingness to use them. These primary users are also involved in consistently developing their skills and are critical for ERP's progress in its implementation.

Information of the project's priorities and value is mainly driven by key users who contribute to growing performance of an ERP execution. Their trust in the objectives of businesses and in the aim of the initiative lead to the elimination of insecurities of other members. The beneficial influence of the internalization goal on improved success tends to be unique feature of ERP projects relative to other studies. Apart from user activity, productive management of the project and ERP technological problems, this study shows that the morale of major users can be defined as an essential feature of performance of the ERP project. The formation of teams and the creation of project champions plays an important role.

The study proposed the implementation of the underlying management and project management approach as a viable instrument for supporting key user success. It proposed that managers struggling with ERP problems should figure out what incentive should be given to produce effective and successful team members. Key consumers can only function if management addresses the right incentive channels.

This work should provide a framework for more systematic use of the project performance assessment ERP in underlying empirically oriented research with its objects. The functional effect of the ERP project performance assessment results can be taken from the 11 to 5 dimensions. Therefore, a new questionnaire that consists of fewer items should be created. A study of 6 items per size will add up to a total of 30 items, which is better for prospective participants who traditionally only have little time to cope with external problems. Expert interviews will need to approve the new questionnaires' comprehensibility and fitness for each item.

In other models, the estimated performance of implementing ERP can be seen as a dependent variable because various other factors influence the project's output. The research and observations will aid in a clearer understanding of the factors that motivated employees while ERP was being implemented, and they may also lead to more suggestions for organizational, leadership, and project management practices.

In relation to the findings of Bindi's (2016) study, a system for implementing a cloud-based ERP system in Zimbabwe's transportation industry needs to be developed. It has been established that top management support is essential for the effective implementation of the ERP cloud system. Since management used to possess the ability to successfully implement the cloud-based ERP, it is crucial to win their trust and support. Data confidentiality is an important consideration when using the cloud-based ERP infrastructure. It is important to obtain confidence and assistance from management, since they once had the ability to carry out the cloud-based ERP successfully. In the application of the ERP cloud-based infrastructure, data confidentiality is also a core concern.

The suggested structure suggests that eight phases are involved: current situation analysis, challenge and identification of business processes, the implementation of new processes, integration of information systems, preparation for system organisations, application, process enhancement and distribution of ERP systems. Before transferring the data into the cloud there are still concerns that must be solved. These problems include issues of human, organizational, strategic and defense. In order for the implementation to proceed, these problems should be resolved at all levels. The ERP architecture focused on cloud facilitates the capacity of mobile devices to access information from anywhere. In addition to the cloud-based ERP implementation, potential studies can analyze the storage space and cloud data encryption.

Baha (2004) has argued that there is no generic, systematic ERP framework solution. As both organisations are distinct in nature, with the exception of any corporate work or industry-wise parallels, they face a unique and organizational situation where they need to select an ERP framework. To this purpose, companies should carry out the same screening practices, where only the conditions of assessment and appraisal vary in line with particular processes such as the market, business experience, supply or value chain networks, technical specifications and so on.

Therefore, organisations shall take practical, technological and operational demands unique to them at the very beginning of the selection process. In other words, the corporation creates a series of ERP device selection parameters that is unique as the enterprise behind it, as a result of its market needs review. This essentially brings critical emphasis to the process of market needs research and to the selection committee that leads it. The future direction of the business and evolving consumer patterns should also be taken into consideration during the review as well as the existing functionality and specifications of the organisation. If this process is complete, the companies will be able to continue with the remainder of their journey of selection of the ERP method by paying attention to the two of each selection phase. As a result, substantial expense, time and productivity reductions may be made in administrative procedures.

Discenza *et al.* (2008) explored the impact on device performance on partially smaller squares on user engagement and project manager skills. The results indicate that the performance of the method is significantly influenced by both customers and business partners. The customer is a full mediator of the project manager's needs analysis and device performance, but not the technology analysis experience of the project manager. The study suggests that consumer engagement contributes to a greater chance of success and that future studies should strive for an optimum level of participation.

2.3.2 Users' presentation requirement activities and ERP Implementation

The Hörnlund and Ålande (2021) research found that ERP implementation progress has been influenced by submission criteria practices. According to the analysis, both of the customer satisfaction indicators; ERP system's design and technological functionality had been positively influenced by the customers who use it. The tasks with the least impact on feature demands are the customer engagement tasks that have the greatest impact on how users interact with the technical framework features of the ERP, followed by presentation criteria tasks, quality improvement tasks, and finally the tasks with the least impact on feature demands.

The Bradford (2014) report, however, did not accept the engagement of the users with the selection of presentation criteria and quality assurance and project-management practices. In future study, the research proposed that a more advanced user model be used to define potential measurement variables based on the identity of the user.

The findings of the Desalegn and Pettersson (2018) analysis suggest that users conclude that new users are supposed to join. The businesses also felt that the introduction of the ERP was important for all 13 CSFs. Minimum adaptation, preparation and research is considered as necessary, including technological possibilities and evaluation of success for this analysis. The results from the cross-case study shows that some of the companies have a common understanding why CSFs are relevant in the particular phases. It was discovered that during the ERP framework deployment the Europe Assistance Organization encountered difficulties. To make sure that every other unit in the group can access details in one area of the market, ERP establishes several partnerships between different business processes and data flows. It is necessary to combine knowledge previously held by various divisions and make it accessible to the entire organization. Roles must be changed, business-wide processes must be developed, and business processes must be closely merged. Workers are frequently unprepared for new practices and positions because the entire adjustment phase is complicated.

Islam's (2017) thesis suggested Structure of ERP Implementation at the PPU, where it found the key principle of ERP to be honesty when using a single database to merge all the departmental software of the Palestine Polytechnic University (PPU). This university is subject to fragmented computer systems, with a separate system in each department. This has produced a variety of challenges, including multiple data detection, no centralized approach and redundancy. In order to boost the likelihood of achievement of the implementation of the ERP university system, case studies will be conducted to analyze and evaluate the technological performance factors. The research developed an architecture process for the PPU ERP method after investigating technological success factors.

In addition to highlighting the action points the technological success factors must be taken by the college before ERP implementation is initiated, the key two outcomes of the study are the development and enhancement of pre-implementation information about ERP systems. In order to lessen the likelihood of issues brought on by system changes, an ERP implementation was created, and a guideline clarifying the implementation process was taken into consideration.

The definition of a CSF), the context of a public sector company (PSC), and a measurement framework were all discovered by Bertolo (2015). The first conclusion from the applied project is that, in terms of the CSFs definition, private and public sector businesses are comparable in many ways. Despite these similarities, PSCs face additional social, legal, and public accountability restrictions. The additional restrictions have an impact on organizational structure and culture and are in opposition to the ERP philosophy of process optimization and increased profitability.

The second finding is information gathered about the PSC context as seen through the legacy IT system. The information shows how early ERP adoption obstacles in PSCs could be

identified. To remove particular PSC adoption barriers, it is necessary to create a customized, in-depth change management plan.

A good place to start when learning about the organizational culture, IT system, and organizational, political, and power structures of a PSC is by observing its legacy system. This will facilitate the early detection of the primary ERP adoption barriers and encourage the development of an elaborate change plan to remove these obstacles. The suggested method for measuring the results is a second drawback. Other PSCs carrying out ERP implementations in conjunction with or without an implementation framework need to be used to test and analyze the proposed method of measurement. Further study into each of the aforementioned limitations is necessary in order to support PSCs' efforts to modernize their IT systems and increase their operational effectiveness and customer service. Further study into each of the aforementioned limitations is necessary in order to support PSCs' efforts to modernize their IT systems and increase their operational effectiveness and customer service.

2.3.3 Users' quality assurance activities and ERP Implementation

In accordance to the Hörnlund and Åland (2021), presentation requirements activities, subsequent to quality assurance activities, and the practical requirements activities with the least its impact, have the greatest impact on customer satisfaction. The two customer satisfaction metrics related to the technical functionality of the ERP system and the market functionality of the ERP system were found to have a positive impact on the project management duties completed by ERP system users. Project management activities have a greater impact on user satisfaction with the technical functionality of the ERP system than they do on user satisfaction with the marketplace functionality of the system. In order to comprehend the context and effects of user co-production in information system construction projects, Hsu et al. (2013) conducted a study. They also examined the impact of user co-production on a number of project outcomes, including project efficiency, system quality, and

user satisfaction. The study's conclusions demonstrated that user co-production could increase project effectiveness, system output, and user satisfaction.

The observational research studies by Harris and Weistroffer (2009) examined the value of user involvement in the performance of device growth. According to the study's findings, involving customers in the development of a system is crucial to its effectiveness.

The study carried out by Mariga *et al.* (2019) examined the interest of users in the introduction of ERP programs in public universities using the research design of the survey. It emerged that, to a large degree, there was a clear positive association between the extent of user interaction and the adoption of the ERP framework. However, there have been numerous problems facing the introduction of ERP programs in public universities. Thus, even though consumers have been interested in the development of ERP programs, there are still a range of implementation issues that need to be resolved by management in order to be more effective in their implementation.

This research by Subramanian (2018) established a guide to help higher education institutions adopt risk management ERP programs and to participate and respond on the threats that would emerge during implementation. This method is also useful for defining threats at the critical stages of deployment of the ERP. The main emphasis is on risk detection, risk management and avoidance at the early stage of deployment to minimize or prevent implementation failures. The study by Taterh (2017) found that when enforcing the ERP, it is critical to have a well-structured perspective on risk management. Therefore, it is essential that industry-specific analysis be conducted given the unique context of the risks and challenges associated with the implementation and evaluation of the ERP.

According to the research by Musili (2016), the decision to implement the ERP framework was made for a number of reasons, including process change and better management, enhanced

procedure effectiveness, consistency of company and business procedures across the organization, improved transparency, and enhanced coordination of activities throughout divisions.

The investigation came to the conclusion that the ERP facilitates communication between different divisions with different needs by allowing them to share the same information in a common format. On this basis, ERP improves coordination and engagement between all business divisions within the company. The enterprise's best practices for data and procedures are also standardized by ERP. The organization further streamlines the transfer of data from various areas of a market by providing a centralized transaction framework.

The findings of the analysis by Cuppen (2016). Provide new perspectives into the application of ERP research and improvements for multinational companies (MC). In contrast to other comparable studies, the target of an ERP business was the analysis' primary focus. It is determined that, in addition to the literature review conducted, the distinction between the strategic and technological applications of the ERP framework may likely help to explain the discrepancies in these conflicting findings. ERP schemes do not have predefined features and consistent consequences, and this may be partially because the purpose of applying the ERP of businesses may be different. In comparison, data processing was not only carried out by administrators high in the hierarchy. Finally, this analysis revealed that many of the anticipated improvements to MC mentioned in the literature would not be accomplished due, among other factors, to the shortcomings and complexities of the ERP system.

Loo et al. (2013) analyzed the impact of ERP on compensation gained by Dutch organisations. One was the company that had implemented the ERP method and the other was not. During the three-year period 2007-2009, both organisations were surveyed to see if the implementation of the ERP method allowed the company to gain the operational gains found by Shang and

Seddon (2002). They noticed that the organisation that embraced the ERP was more capable of gaining operational gains than the organisations that did not embrace the ERP.

The research by Seo (2013) comes to the conclusion that, first, both universities and private sector organizations are pursuing the benefits of ERP programs as described in the literature, including much easier access to accurate knowledge through the fusion of dispersed legacy systems and revamped business processes. However, private sector companies have updated their business models faster than academic institutions. This can be explained by the observation that, when taking into account the time value of money, universities appear to have less urgency than the private sector. Moreover, the profits of universities appear to be specifically related to their scholarly prestige rather than to their effective administration. As a result, universities seldom change their organizational structures, which may pose threats to their activities, and even implement emerging technologies less easily than the business sector usually does. In the other hand, in a constantly evolving market climate, rivals are increasingly challenging businesses in the private sector. Companies are expected to lose their strategic edge or fall behind as they step slower than their rivals.

Second, consumer specific requirements practices were one of the most widely cited primary performance indicators during the introduction of the ERP. Thirdly, the introduction of the ERP has also had a major effect on corporate structure and community. All in all, both organisations thought that they had not reached their desired return on investment in the ERP method. The overall price of deploying the ERP system exceeded expectations, and the systems still required significant secondary capital and ongoing maintenance.

2.4 Research Gaps

Recent research on implementation of ERP have also been focused on developing models or framework to contextualize the CSFs.. Many CSFs related to the implementation must be

considered throughout the lifecycle of an ERP project. A good ERP framework ensures that the various CSFs are considered at a very early stage of the project so that IT professionals can mitigate the associated risks and prevent potential problems from occurring. It is imperative that the CSFs be identified and considered as part of a holistic approach to address needs of ERP implementation to reduce project failure risks. In general, this is an inadequacy of current existing ERP Frameworks

Ziemba and Oblac (2013) seem to be endorsing Matos and Alves (2011), as they claim that functions and duties must explicitly be specified, since they have consequences for PSC CSFs and for the application of ERPs, owing to the improvements to the current operative models. Addressing failures to incorporate the ERP requires a mix of technical and management experience to implement the ERP programs by following a process that has a role to play (Chofreh et al., 2017). The latest research and the user engagement tasks are from this point on, user technical criteria activities, user requirement introduction activities, user qualitative assurance activities for the application of the ERP in the UN Habitat. This study attempted to tackle the issue by suggesting a feasible mechanism that would fix the problem of lack of user participation in ERP deployment in global organizations and UN-Habitat. The study presented a conceptual structure indicating the key reasons for developing an ERP deployment by multinationals in Nairobi, including the functionality of users, user criteria presentation practices, quality assurance activities of users and user participation (people).

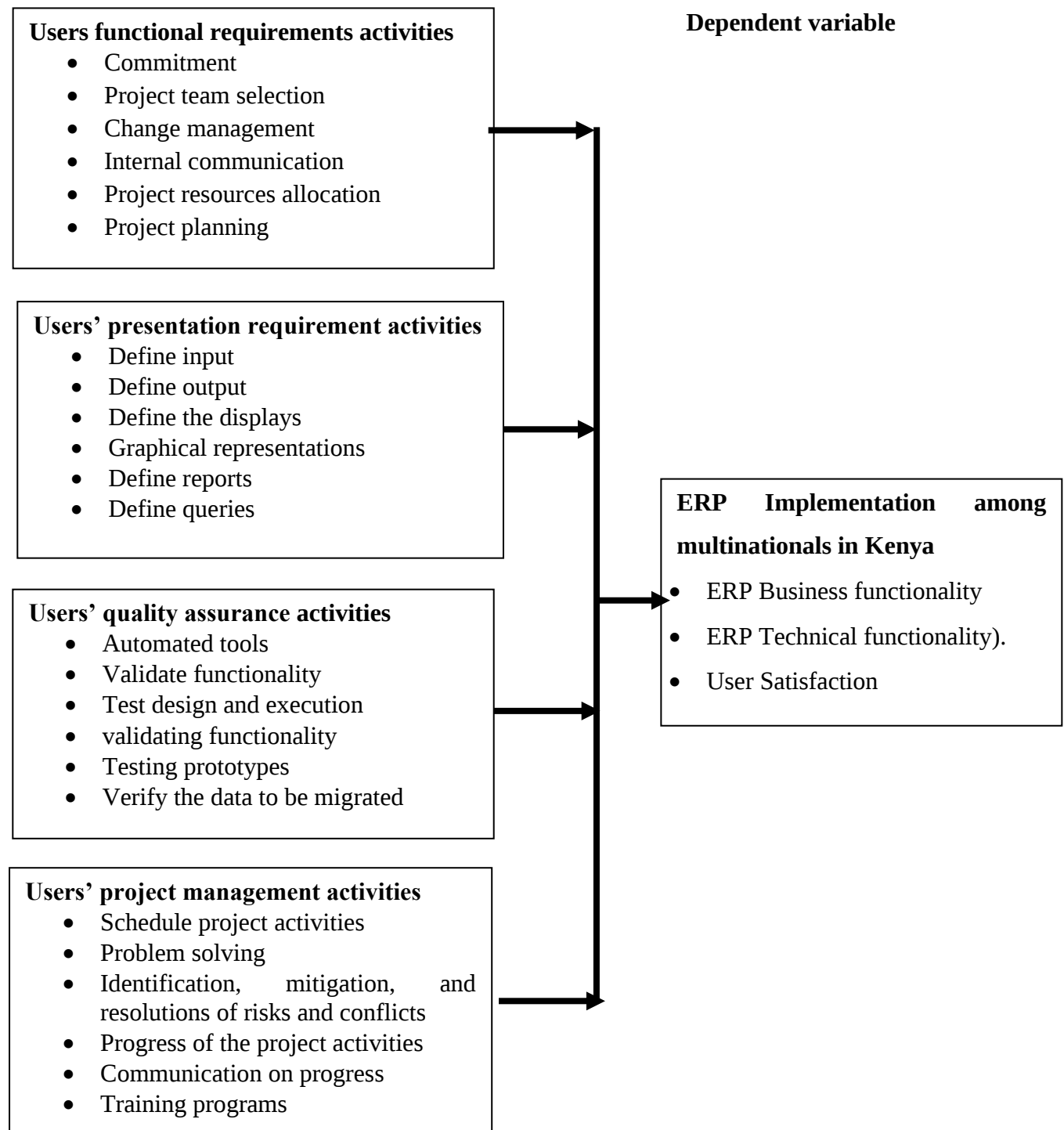
2.5 Conceptual Framework

The research suggested a conceptual structure that would imply user implication indicators; technical criteria operations, user requirement presentation, quality assurance activities and user project management behavior for the users, heavily borrowed from CSF models for ERP and Reitsma and Hilletoft (2017) 13 of the CSF and guided by the ERP Orchestration

principle. In specific, five key performance variables were included in Cantu's CSF model for the introduction of ERPs (1999) and 13 CSFs were considered by Reitsma and Hilletoft (2017). The philosophy of ERP Orchestration provided guidance for the practices of user technical specifications, presenter requests, user quality assurance actions, and user project management events. This analysis covers the technical needs of users, the necessity of users, the quality assurance practices of users and the user project management activities. The dependent variable was the ERP implementation for multinational corporations as seen in Figure 2.1.

Figure 2.1

Conceptual Framework



Source: Researcher (2022)

In the enterprise, ERP programs help to process organizational business operations, reduce the risks of inconsistencies and improve the chances of incorporation and are best suited for achieving the aims of the organisation. During the deployment of ERP programs, the company should submit customer participation practices (Al-Sabri & Al-Saleem, 2013). Indeed, in organisations, there are several causes for failure for ERP systems; transitions problems, connectivity and teamwork issues. Indeed, in organisations there are several explanations for deficiencies in ERP systems; transitions problems, collaboration and teamwork issues, spending issues, customizing problems, user engagement activities, user presentation demand activities, user quality assurance operation and user management activities user involvement.

The assessment of ERP performance implementation is; ERP corporation, ERP engineering feature and user satisfaction. The market aspect of ERP is a timeliness, precision, efficiency, advantages, efficacies, simplicity and decision-making framework, while ERP Technological features include system durability, repair, stability and testing.

The study proposes, by discussing the tactical business goals of the information system and including compilation, validation, stability, and measurements, as well as tasks and system complexity, that user behaviors will impact their progress in implementing the ERP.

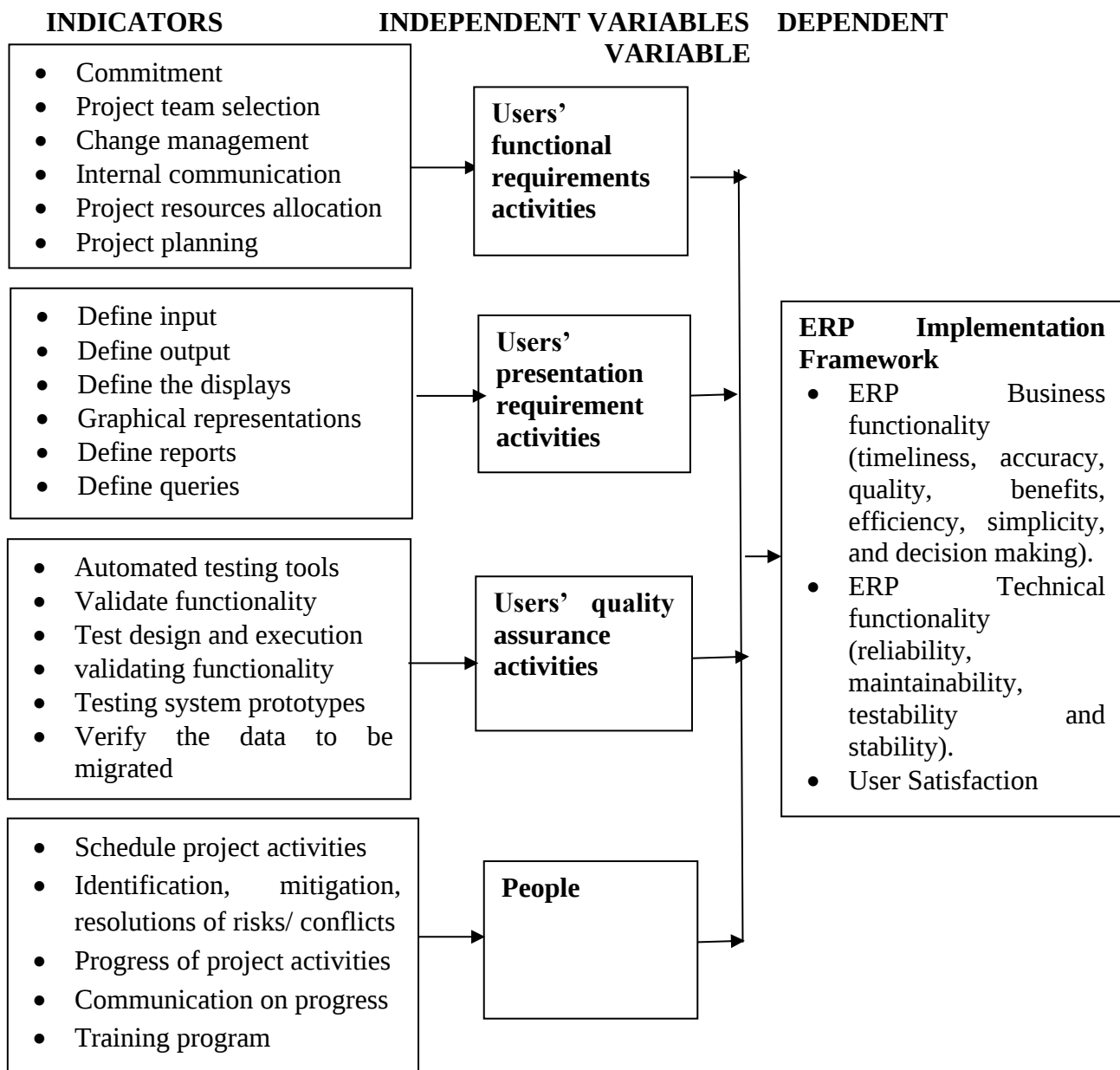
User specifications impact the performance of ERP deployment by offering requirements based on engaging users when addressing the human interface including input and output formats, screen formatting, report designs and user questions. User engagement concentrates heavily on the relationship between users and the ERP so that interface architecture does not interrupt or hinder user efficiency.

In order to determine quality assurance by consumers, which is the actual execution of specific test cases to verify whether predefined criteria are implemented, the thesis suggests that testing, implementation using quality assurance methods, and prototyping.

The research indicates that user monitoring practices influence the performance of ERP. The customer experience tasks arise during the production of the timetable, problem solving, risk control and confrontation, non-IS connectivity, and deployment.

Figure 2.2

Operationalization of Variables



Source: Researcher (2022)

2.7 Summary of Literature Review

The study reviewed various theories and empirical literature which was found useful in explain the study concept. The theories included ERP Orchestration Theory and the Information Systems Success Theory as well as the ERP's CSF Models. The others include Somers et al. (2000) framework, Myers framework, Ross and Vitale framework (2000), Delone McLean Model (Delone & McLean, 2003), and Priori model (2003) were found useful in explaining the user involvement and ERP implementation. Meanwhile the empirical review was related to the study objectives explaining the relationships; users' functional requirements activities and ERP Implementation, users' presentation requirement activities and ERP Implementation, Users' quality assurance activities and ERP Implementation and users' project management activities and ERP Implementation.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

The current section provides examples of the methods and procedures used in data collection. It also includes the research design, populations, sampling design, sampling techniques, data collection instruments, the reliability and durability of data collection tools, data sources, data collection methods, and data processing techniques.

3.1 Area of study

This thesis was done at UN-Habitat in Nairobi. This area was selected because unlike other agencies the headquarters is here in Nairobi, Kenya where most of the information resides and therefore formed a suitable ground for conducting research and collecting data on behalf of all multi-national organizations in Kenya.

3.2 Research design

Matters research, Gupta and Rangi (2014) clarify the need for a study strategy to lead the investigator in the creation of a roadmap for data processing, data measurement and data analysis. The study architecture, as a master plan, defines the necessary tools and technologies to increase the collection and efficient processing of such results. The present study defined descriptive research design as the most suitable ERP implementation research design among multi-national organizations and details all tasks involved in performing the research at hand. Descriptive architecture of research is highly competitive in defining and retrieving data and knowledge for current phenomena in most fields of research as expected by this report. The current study called for perspectives on the application of the ERP, which can be easily accomplished by describing, forecasting, anticipating and analyzing related relations. Six Ws

(whose, when, where and why) from research (Gupta & Rangi, 2014) are used for descriptive analysis and this is a major contribution in this review.

3.3 Population

In the current analysis, the population was drawn from UN-Habitat staffs who work on daily basis on the ERP, though a sample of five (5) departments which was used to represent the whole agency. The population under study was chosen based on the core functions and modules that are conducted through the ERP.

3.3.1 Target Population

In the present research, the target population comprised 85 staff of UN-Habitat in Nairobi.

Table 3.1

Target population

Respondents	Target population
Finance	21
Procurement	18
Human Resource	25
Knowledge Management	6
ICT	15
Total	85

Source: UNHABITAT (2019)

3.4 Sample and sampling methods

A research sample refers to any party that obtains information. Factors such as style of study design, method of data collection and open population size need to be taken into account in

order to reach a sample size. There are two factors in research study of this kind; the sample size and the amount of diversity in the sample which are taken into account under sample size determination and sampling procedure in this study. There are different methods of determining the sample size. In this study, the sample was determined from five (5) departments i.e., finance (10), procurement (8), human resource (11), knowledge management (4) and (6) ICT making using stratified proportionate sampling. Although, the target population was less than 100, which points to census, the study chode to obtain a sample using formula to reduce the number of respondents since these were very busy people and it would have been hard to involve all of them in this study. The sample size was determined using this formula

$$\text{Necessary Sample Size} = (Z\text{-score})^2 * \text{StdDev} * (1 - \text{StdDev}) / (\text{margin of error})^2$$

Confidence level being 95%

Population size 85

Margin of Error 5%

Giving us a sample size of 70.

In this study, the study used 70 respondents as the sample size as shown in Table 4.

Table 3.2

Sample size of respondents

Respondents	Target population	Sample Size
Finance	21	18
Procurement	18	17
Human Resource	25	20
Knowledge Management	6	4
ICT	15	11
Total	85	70

Source: Research Own computation (2019)

In selecting individual respondents from each stratum, the researcher used a basic random sampling procedure. Based on the acceptable number of respondents needed in each department a Sampling period was created for each department. The sampling period was reached by divisions in that department with the appropriate respondents from the respective department's total number of executive members. After this, the fixed sampling intervals were used to set up a random starting point. The respondents were chosen from the random point of departure and at the rate of sampling interval.

3.4.1 Sampling frame

The sample frame included finance, procurement, human resource, knowledge management and the information communication technology experts who work within the agency.

3.5 Data collection tools and procedures

Questionnaires were necessary in order to collect opinions on this phenomenon from many people. Questionnaires were used to gain general picture on what ways knowledge is shared within the organizations as well as to find out other challenges that are experienced in implementing the ERP system.

Questionnaires became relatively cheap and there were no mailing charges. The elements were extracted according to the goals of the analysis from the literature review. There were two sections of the questionnaire:

Section A: was designed to obtain background information of the respondents and broken down into gender, relationship with the institution, period/tenure of training, level of training, tenure of service, level of education.

Section B to Section F: aimed at investigating the extent to which the respondents are of the opinion that various reasons related to the research objectives. Likert Scales forms questionnaire were adopted for the study.

3.6 Pilot Testing

This research evaluated the validity and reliability of the instrument by performing a pilot test before the research began with the active collection of data. These tests were important for the recognition and validation of instruments developed for data collecting in science. These tests were necessary. In reality, pilot tests revealed the shortcomings of the tools and assured that the method was sufficient to gather the desired information and to enhance its respective assessment and editing over the anticipated time frame. In this time, the researcher identified potential tool-related problems (Kvale, 2007). The pilot experiments were then used to determine the importance of the goals of the research while evaluating the questionnaire's interpretation. The study administered 7 pieces of questionnaire, which was 10% of the sample population (Mugenda & Mugenda, 2008).

3.6.1 Tools' Validity

As stated by Kothari (2012), the efficacy and suitability of a test tool for processing study results can be determined by how thoroughly it tests the study's underlying assumptions. Based on these justifications, the current study used a material validity test to evaluate the questionnaire's reliability and consistency as well as its relevance. Checks for content validity determine how accurately the data from the questionnaire will reflect the core area of ERP implementation. Two impartial experts who were not involved in the validity checks were given the questionnaire to assess its content validity. These experts include a knowledge scientist and the thesis supervisor. The information scientist was asked to help the questioner decide whether the sets of elements in it were to correctly calculate the application of the ERP

in UN-Habitat, while the supervisor assesses the questionnaire and decides whether the definition to be calculated by the method is specified.

3.6.2 Tool's Reliability

Reliability, which is evaluated over time by stability or accuracy of ratings, tests the degree to which the whole tool is error-free, and the instruments' products can deliver accurate outcomes. As stated by Kothari and Garg (2014), the efficacy and suitability of a test tool for processing study results can be determined by how thoroughly it tests the study's underlying assumptions. Based on these justifications, the current study used a material validity test to evaluate the questionnaire's reliability and consistency as well as its relevance. Checks for content validity determine how accurately the data from the questionnaire will reflect the core area of ERP implementation. Two impartial experts who were not involved in the validity checks were given the questionnaire to assess its content valid. The reliability checks are completed in order to categorize the analysis's primary issues, such as the data sources, data collection procedures, data collection time, tool bias, and accuracy (Kvale, 2007). Seven respondents were given the questionnaire for the current analysis and given one (1) week to respond to the question. After compiling the responses, the researcher strengthened the questionnaire by revising the inconsistent parts.

The Cronbach alpha internal consistency methodology was used in the study to assess the questionnaire's dependability. The Cronbach's internal accuracy of the data obtained through correlating the questionnaire's components was calculated in order to achieve an association coefficient, this time denoted as alpha (Kothari, 2012). ty. These experts include a knowledge scientist and the thesis supervisor. The magnitude of α ranges from 0 to 1. If the magnitude of Cronbach's alpha is less than 0.7 in the social sciences, the instrument is graded as unsatisfactory or simply incompatible with internal consistencies. However, Cronbach alpha

values greater than or equal to 0.7 suggest greater accuracy, although otherwise reassessed for reliability testing was acknowledged.

3.7 Data analysis

Subsequent to gathering a solid set of data, the researchers examined it for omission and commission errors. The questionnaires that have irrelevant or incomplete responses have been left out, and the researcher will assess them later. Prior to coding the data, the researcher identified the data during the study. The researcher used a quantitative analysis method to analyze the coded data in order to obtain the related numbers. This research was conducted according to the study goals and the properties of the variable and relationship to strategic changes management were isolated from each study variable. Descriptive figures were prepared including; means, frequencies, ratios and standard deviations, describing the properties and goals of the respective sample variables. The data analyses is seen in tables and figures and then interpreted in reports

Second, inferential research was performed to provide inferential statistics to decide if the experiments contain Independent Variables (IVs) with the Dependent Variable (DV). For each IV a study of association was first performed to assess if there is an important relationship. The research attempted to develop the DV (response) model with multiple regressions on the basis of the model below, based on the predictor IVs;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \dots\dots\dots (i)$$

Where:

Y = ERP implementation at UN-Habitat

X₁ = Users' functional requirements activities

X₂ = Users' presentation requirement activities

X₃ = Users' quality assurance activities

X₄ = Users' project management activities

β₀ is a constant and is the value of Y dependent variable when X₁ = 0 and X₂ = 0 and X₃ = 0 and X₄ = 0).

β₁₋₄ is the regression coefficients or change induced by X₁, X₂, X₃, and X₄

e = error term

The study calculated indices for each study variable using the mean of the means. In order to evaluate the model's goodness of fit when using the variables users' functional requirement activities and users' presentation requirement activities, the study first conducted another ANOVA analysis. The mean for all analysis variables was used to generate indexes. The research initially administered a further ANOVA test to assess the model's fitness to use the variables; user's technical criteria operation, user requirement presentation practices, user quality improvement activities and project management activities as predictors of UN-Habitat ERP execution. The IVs are the research factors, technical needs of users, criteria of users, user quality improvement practices and users' project management activities.

Through utilizing the variables users' functional requirement activities, users' presentation requirement activities, users' quality assurance activities, and users' project management activities as predictors of ERP implementation, the study tested its hypotheses using Analysis of Variance (ANOVA) analysis. The F-tests and the T-test were also used in the study. The 0.05 level of significance was used to test the hypothesis ($p\text{-value} = .05$). The regression results will be interpreted in different ways by the study in order to determine the model's significance at the 5% level of confidence (or 0.05 level of significance). With the help of SPSS (Statistical Package for Social Sciences) software version 21.0, the current study's data analysis was aided.

3.8 Ethical issues

The investigation made sure that the investigation was conducted ethically. Before the KEMU University Ethics Review Committee (ERC) approved the study, it was presented to the department of computer information systems at KEMU. The National Council of Science, Technology, and Innovations (NACOSTI) granted the researcher's request for a permit to conduct the study. Before being accepted to participate in this study, participants were asked to give their consent by signing an informed consent form. The study ensured the privacy and security of the information obtained from the respondents. In order to prevent it from being known who provided what information, the respondents were not required to write their names on the questionnaire. The respondents were given a consent form to review. It included information on consent, voluntarism, potential risks and benefits, and the participant's right to leave the study at any time without suffering repercussions, as discussed in the. The study was fully explained to the prospective participants in a language they could understand. The respondents were given the opportunity to clarify any details they did not fully understand by asking questions. Research ethics were upheld throughout the study by not plagiarizing other people's work, and the document was subsequently checked for plagiarism.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1 Introduction

In this portion, the conclusions drawn from the analyses, data collection, and results are covered. The conclusions and discussions of the conclusions were presented along with the findings. To make the results easier to understand, they were presented in tables and figures. The chapter gives an informative overview based on the study's objectives and shows the results of pilot testing, reaction time, context information, and results. Descriptive statistics were applied for the evaluation of quantitative data from closed queries. Discussions of the study's findings that were published also emphasized its objectives and previously reviewed literature.

4.2 Pre-testing

Prior to the collection of knowledge, pre-testing was performed to validate the analysis method before it was administered. This test guarantees that the analysis method is accurate and valid.

4.2.1 Outcomes on Reliability Testing

In this research, test was carried out by 7 participants from whom the analysis was not performed (Nunally, 1978). The findings were shown in Table 4.1.

Table 4.1***Reliability Statistics***

Variable	Cronbach's Alpha	N of Items
ERP implementation	.875	7
Users' functional requirements activities	.919	9
Users' presentation requirement activities	.853	11
Users' quality assurance activities	.966	10
Users' project management activities	.625	5
Overall Alpha (α)	.978	42

Source: Researcher (2019)

Outcomes on Table 4.1 reveals alpha of Cronbach obtained by SPSS was 0.978. Kothari (2010) suggests that the tool is accepted or the instrument would be checked by modifying or deleting objects from a value of as little as 0,7, and then the tool is accepted. This means that the tool was highly consistent, at $\alpha = 0.978$ which was greater than the threshold of 0.7. Since the Cronbach alpha was greater than the threshold 0.7, then tool was considered as reliable, and all the items were therefore retained and used for further analysis.

4.2.2 Validity Tests

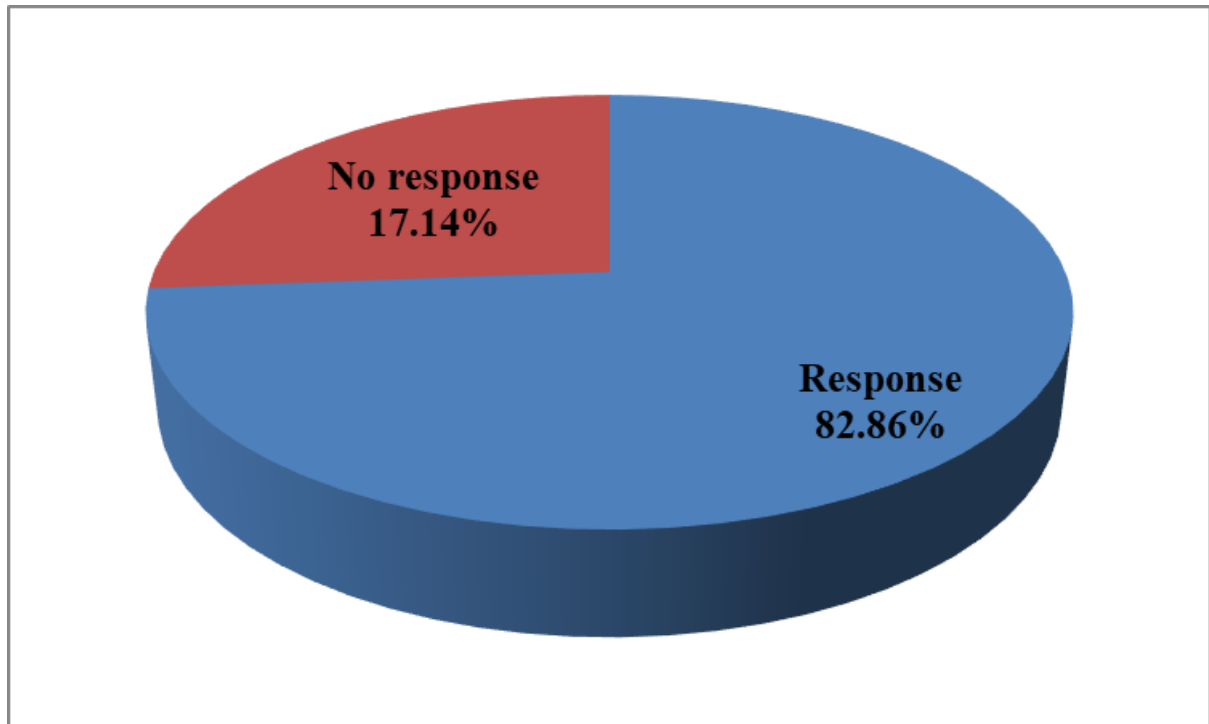
These checks were done by the supervisor and information science specialist using content analysis. They measured the instrument and made accordingly suggestions. Both decided to calculate the optimal goal and to use testing instruments (questionnaires) in the industry. However, they proposed improvements that had effectively been made to the questionnaire. Restructuring and elimination of the questions checked the questionnaire. Subsequent to review, the questionnaire was made available to management.

4.3 Response Rate

Seventy respondents who received questionnaires made up the sample size of the analysis. Figure 4.1 shows that the response rate was 58, or 82.86%.

Figure 4.1

Analysis by Response Rate



Source: Research Data (2022)

Based on the data in Figure 4.1, the response rate was 82.86%. According to Mugenda and Mugenda, 2003, a research response rate of 69% or higher is high and very strong and is sufficient to produce positive results. This is sufficient a proof of the accurate and useful findings of this analysis.

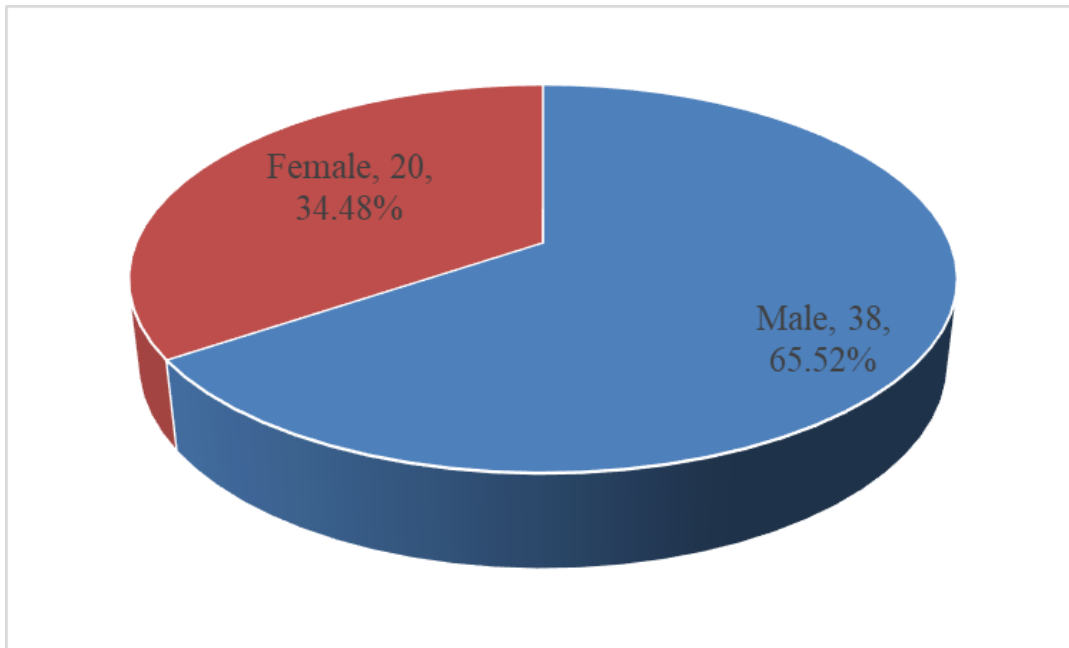
4.4 Background Information of Participants

In the case of sex, ages, highest standards of education achieved, highest technical standard of credentials, period of employment with UN-Habitat and their organizational roles, the research asked participants to provide information about their personal data. They are so helpful because a person's age, education level, and experience frequently determine how much they know and have experienced about a topic or subject (Czerwec & Kopańska, 2012).

Figure 4.2 indicates the effects on the sexuality of the participants.

Figure 4.2

Analysis by Respondents' Sex



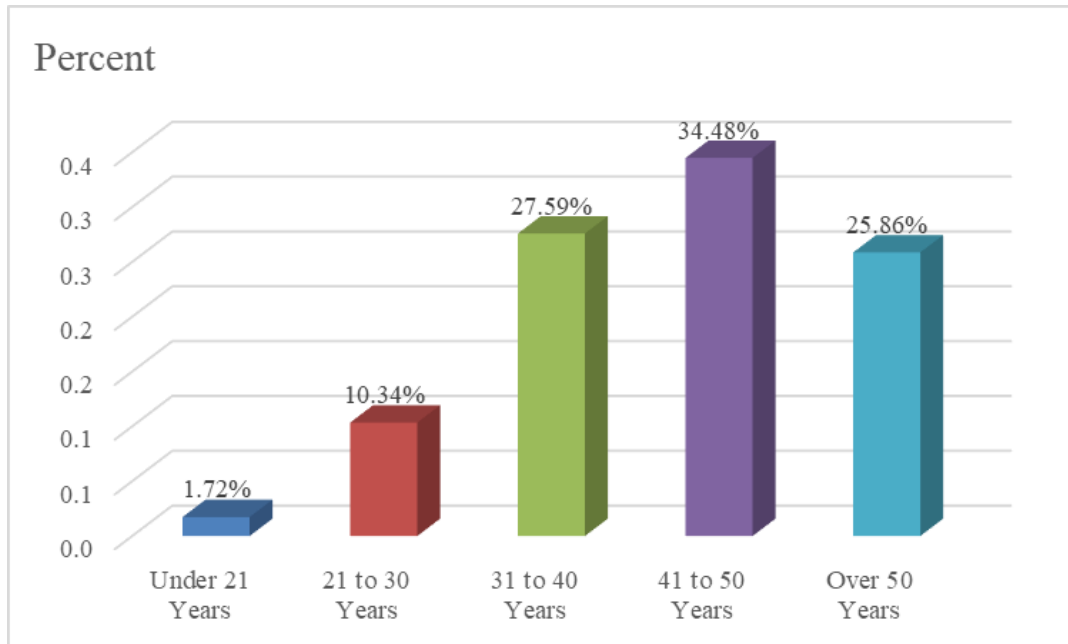
Source: Research Data (2022)

The results demonstrate that 38 respondents, or 65.52 percent, were men, while the remainder were female (20(34.48 percent)). This indicated that the bulk of workers in the company were male while the female employees constituted the minority. However, the average number of workers in the male sector did not exceed 2/3 and the female amount did not exceed 1/3.

Figure 4.3 displays the results for respondents' age brackets. Age brackets were: 21-30 years old, 31-40 years, 40-50, and more than 50 years old.

Figure 4.3

Analysis by Respondents 'Age



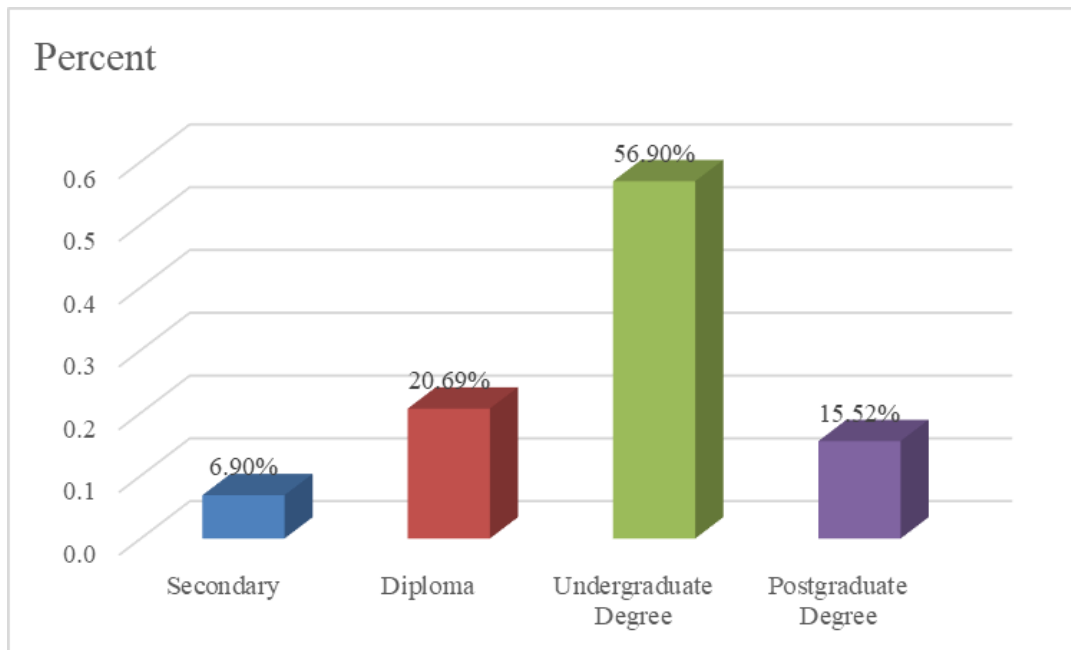
Source: Research Data (2022)

Figure 4.3's outcomes show that the majority of interviewees (34.48%) were between the ages of 41 and 50. When 27.59% showed they were 31 to 40 years old, 25.86% showed that they were over fifty years old. While 10,34% showed between the ages of 21 and 30 years, 1,72% showed under the age of 21 years. The overwhelming majority of the interview subjects were in active employment and ranged in age from 18 to 65.

In figure 4.4, the participants provided statistics on their highest level of education and the results.

Figure 4.4

Analysis by highest level of education attained



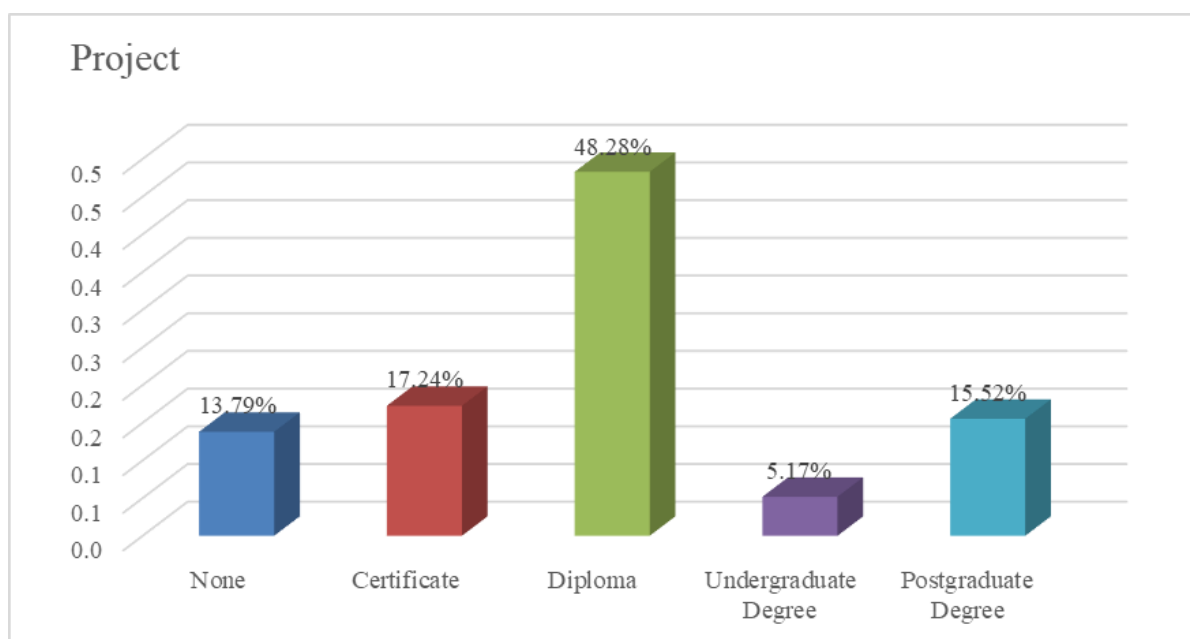
Source: Research Data (2022)

Respondents were to decide if they had reached their highest educational level, high school, graduation, bachelor's degree, degree or some other. The bulk of these findings showed that they were university students, with first university degrees, of which 56,90 percent had 56,90 per cent, while 20,69 per cent had college degrees and 15,52 percent had PhDs. However, 6.90% showed they were high school dropouts.

Information of the highest skills seen in Figure 4.5 were further supported by the respondents.

Figure 4.5

Analysis by highest professional qualifications Possessed



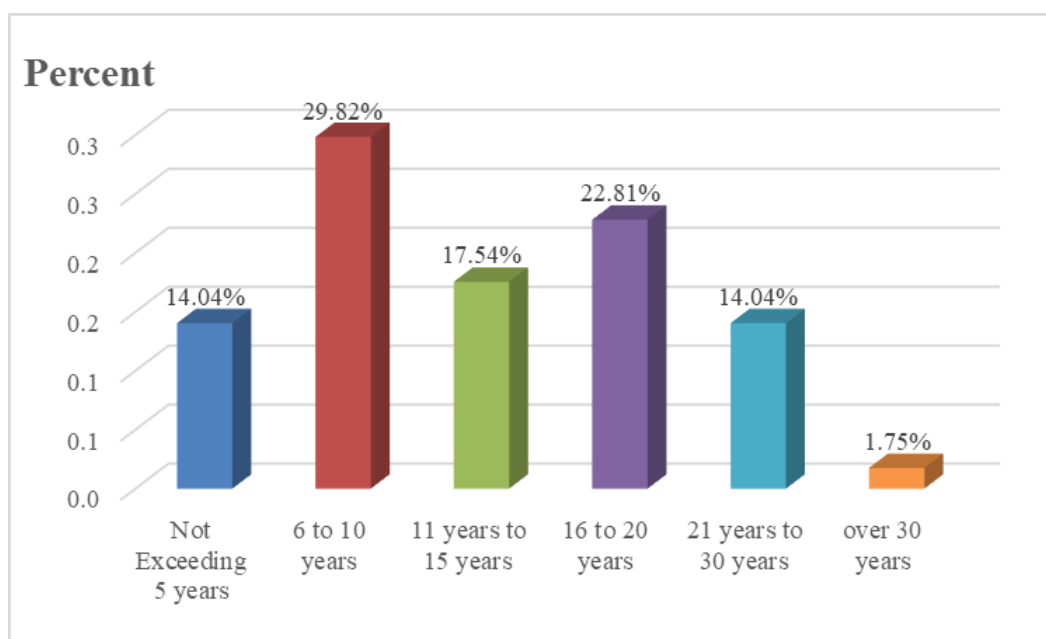
Source: Research Data (2022)

The findings of Figure 4.5 indicate that a majority of 48.28 percent showed that they had a highly qualified college diploma. As 17.24 percent demonstrated that their highest technical credentials were certified, 15.52 percent demonstrated that they had PhD qualifications. While 13.79% revealed they had no technical credentials, 5.17% showed that they had graduates. It can be concluded from these findings that most graduates have no technical credentials. Many qualified workers had college degrees, though. Most workers have demonstrated that they have technical experience.

Figure 4.6 gives the findings of the interview time in UN-Habitat.

Figure 4.6

Period at UN-Habitat

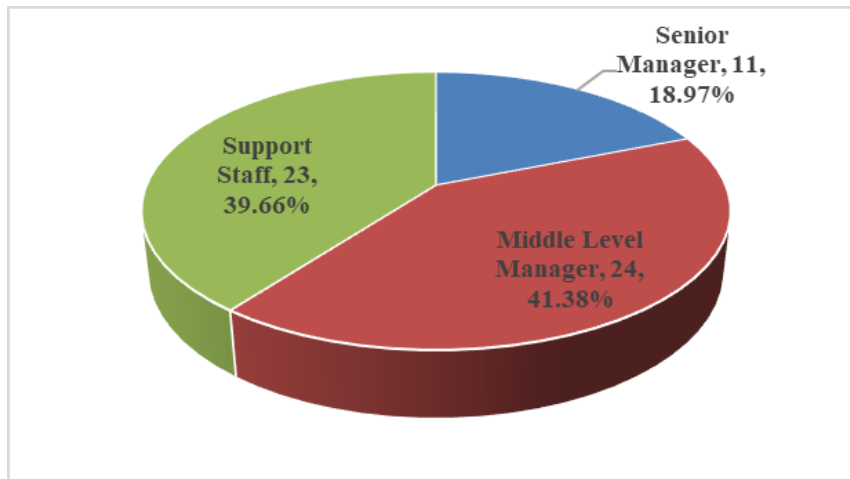


Source: Research Data (2022)

The highest proportion of participants (29.82%) revealed they worked with UN-Habitat between the ages of six and ten, while 22.81% (between 16 and 20 years), while 17.54% (between 11 and 15) showed that they had worked with industries. 14,04% have shown they have worked for UN-Habitat for less than 5 years while 14,04% have worked for 21 to 30 years and 1.75% have worked for over 30 years. Finally, in Figure 8, the interviewees displayed their role in UN-Habitat.

Figure 4.7

Role of Respondent at UN-Habitat



Source: Research Data (2018)

The findings show that most respondents are middle-level managers 24(41.38%), while 23 (39.66%) showed that support workers and 11 (18.97%) show that they are senior managers.

4.5 Descriptive Analysis

In order to use descriptive statistics to clarify the research's variables, the research examined extracted statistics to assist with identify the impact of independent variables on the dependent variables. The goals of the report served as the basis for the research. The questionnaire had five possible responses for each question. The study produced a medium and standard deviation of the e results for each indicator, as well as the corresponding variable and modulated it for a more straightforward and useful analysis.

4.5.1 ERP implementation

The study first evaluated the status of ERP implementation to established the far the organization had performed in relation to ERP implementation integration. The study relied

on result produce from analysis of data collected using a question ranked on 5 point Likert scale;

“1 = Strongly Disagree; above; 2 = Disagree; 3 = Neutral; 4.= Agree; and 5.= Strongly Agree”

The study obtained a mean (M) and standard deviation (M) for each indicators of ERP implementation. The means obtained for these indicators were used to obtain the overall mean for the ERP implementation (Mean of Means). The same applied to the SD. Since the M and SD were in ratios, the study moderated these using the statistics;

“1– 1.8 for Strongly Disagree; above 1.8 – 2.6 for Disagree; above 2.6 – 3.4 for Neutral; above 3.4 – 4.2 for Agree; and above 4.2 – 5.0 for Strongly Agree” during interpretation. These statistics were also considered to imply that; Strongly Disagree indicates not at all; Disagree is for low, Neutral indicated moderate, agree represents high and Strongly Agree means Very high. The results obtained for ERP implementation industry were recorded in Table 4.2.

Table 4.2

Analysis by y Status of ERP implementation

ERP implementation	M	SD
The ERP system was implemented within the stipulated timelines without any delays as per the project schedules	2.05	1.08
Cost of implementing the ERP was within the budget provisions of the projects (Cost effectiveness)	2.00	0.90
The ERP is free of integrity issues such as data redundancy	2.19	1.03
The ERP implementation has successfully integrated all the sustainable data and activities across different branches and divisions within the organization	2.51	1.24
The ERP system was implemented to user satisfaction	2.36	1.15
The evaluation of the implemented system indicated that the set objectives were achieved	2.44	0.95
The implemented ERP has been successfully customized to fit the business environment of the organization	2.50	1.17
Average ERP implementation	2.29	1.08

Source: Research Data (2022)

In line with Table 4.2, it was revealed that, on average, the respondents decided that current ERPs were not successful ($M = 2.29$; $SD = 1.08$). That's how the ERP device works below the user's standards. They disagreed to the asserting that the ERP system was implemented within the stipulated timelines without any delays as per the project schedules ($M = 2.05$; $SD = 1.08$) and also disagreed to the statement that the cost of implementing the ERP was within the budget provisions of the projects (Cost effectiveness) ($M = 2.00$; $SD = 0.90$). As they disagreed to the assertion that the ERP was free of integrity issues such as data redundancy ($M = 2.19$; $SD = 1.03$), they further disagreed to the statement that the ERP implementation had successfully integrated all the sustainable data and activities across different branches and divisions within the organization ($M = 2.51$; $SD = 1.24$). They further disagreed to the assertion that the ERP system was implemented to user satisfaction ($M = 2.36$; $SD = 1.15$) and disagreed to the assertion that evaluation of the implemented system indicated that the set objectives were achieved ($M = 2.44$; $SD = 0.95$). The findings indicate that the participants did not believe that the applied ERP was effectively tailored to suit the organization's market environment ($M = 2.50$; $SD = 1.17$).

In accordance with the study, the user's expectations might have rarely been met by the implementation, which was poor. The investigation conducted by Bradford (2014) examined the division of business requirements into functional and presentation aspects of these requirements, and it concluded that the current ERP system's implementation of ERP was ineffective in terms of both business functionality (reliability, maintainability, testability, and stability) and technical functionality (reliability, accuracy, quality, benefits, efficiency, and simplicity). However, Hörnlund and Ålande (2021) demonstrated that the practical requirements of ERP system users have a positive impact on the technology's functionality as well as how the ERP system is used.

In this study, ERP system efficacy was below the expectations of the user since it was not implemented within the stipulated timelines and there delays as per the project schedules. Further, the cost of implementing the ERP was not within the budget provisions of the projects, depicting cost ineffectiveness. Furthermore, this implementation had integrity issues such as data redundancy and as well could not successfully integrate all the sustainable data and activities across different branches and divisions within the organization. According the user was not satisfied since on evaluation of the implemented system, it was indicated that the set objectives were not achieved; a factor amplified by failure to successfully customized to fit the business environment of the organization.

The research conducted by Cuppen (2016) supports these findings, which state that the differences between those incompatible findings may likely be explained by the absence of differentiation within an ERP scheme's strategic and technological realization. ERP programs have no predefined features and consistent consequences, partially because the ERP deployment goal of organizations can be different. Cuppen (2016) notes that not only managers in the high hierarchy were interested in the collection of data from multinational companies (MC). Finally, this study shows, among other factors, the limits and complication of an ERP framework are the cause for many planned improvements on MC that are mentioned in the literature.

While Subramanian (2018) finds that implementation of the ERP is necessary to mitigate or eliminate errors in implementation at the early stage of implementation, the Taterh (2017) study found that In the process of implementing the ERP, it is crucial to maintain a structured emphasis on risk management. Consequently, it is crucial that the specific context of ERP deployment and assessment challenges and risks necessitate sector-specific research.

In sections 4.5.2, 4.5.3, 4.5.4, and 4.5.5 the data collected from the questionnaire ranked on the 5-point Likert scale; “1 = Not at all; above; 2 = Low; 3 = Moderate 4 = High; and 5.= Very High”. The result produced were in form of M and SD, moderated using the statistics; “1 – 1.8 for not at all; above 1.8 – 2.6 for Low; above 2.6 – 3.4 for Moderate; above 3.4 – 4.2 for High; and above 4.2 – 5.0 for Very High”

4.5.2 Influence of Users’ functional requirements activities

In assessing objective 1, the study sought to find out to find out influence of users’ functional requirements activities on ERP implementation. The research then explored the effect on the application of EPR in UN-Habitat by users of practical criteria practices. Table 4.3 displays these findings.

Table 4.3

Influence of users’ functional requirements activities

Users’ functional requirements activities	M	SD
Commitment to the implementation of the ERP system	3.61	1.01
Top management involvement and support	3.76	0.98
Appointing an ERP Project team from the beginning	3.40	0.95
Training of the staff, management and users of the ERP	3.62	1.02
Definition of roles and responsibility	3.48	0.96
Change management for managing risks and any changes (issues) arising during the implementation of the project	3.24	0.94
Managing internal communication among all relevant parties effectively	3.84	1.09
Allocation and provision of Project resources allocation such as finding, equipment, human capital, education	3.26	0.89
Project planning in terms of scope, objective, goals, budgets, contingent plans, time and completion schedule	3.40	1.12
Average Users’ functional requirements activities	3.51	1.00

Source: Research Data (2022)

On analysing the influence of indicators of influence of users’ functional requirements activities on ERP adoption, the results showed that respondents indicated that they were

commitment to the ERP system adoption would highly contribute to the framework ($M = 3.61$; $SD = 1.01$) and that top management involvement and support would also highly yield to success of the proposed framework ($M = 3.76$; $SD = 0.98$). They showed that appointing a ERP Project team from the beginning would also highly enhance the framework ($M = 3.40$; $SD = 0.95$) as well as training of the staff, management and users of the ERP which was shown to be a strong contributing factors to the proposed framework ($M = 3.62$; $SD = 1.02$). As the respondents showed that definition of roles and responsibility was a factors highly contributing to the success of the proposed framework ($M = 3.48$; $SD = 0.96$), they however showed that the accomplishment of the proposed ERP framework would be moderately influenced by managing change through change management practices for the purpose of controlling risks and modifications (issues) resulting during the project's deployment ($M = 3.24$; $SD = 0.94$). As they showed that managing internal communication among all relevant parties effectively highly enhance the ERP implementation ($M = 3.84$; $SD = 1.09$), the interviewees pointed to the essential factors of the progress of adoption of the ERP system ($M = 3.26$; $SD = 0.89$) in allocating and supplying Project services such as the findings, the facilities, human capital, and the education. The project preparation was also shown to greatly increase the performance of ERP ($M = 3.40$; $SD = 1.12$) with respect to scale, deadlines, budgets, contingent schedules, time and execution date. On average, the respondents showed that users' functional requirements activities were contributing highly to the success of implementation of ERP ($M = 3.51$; $SD = 1.00$).

Based on Bradford's (2014) analysis, factors that affect user satisfaction include the user's interest in requirements collection tasks. This study shows that ERP deployment has a tremendous impact on the organizational requirements of users. This verified the results of the research by Hörnlund and Ålande (2021) that ERP Device Users invested in the ERP project

and played an important role in the various projects. In addition, the device processes and technological features pleased customers.

In this report, consumers have been very dedicated to ERP implementation and it has also been found that ERP is vastly strengthened by appointing the ERP Project team from the very outset. It is also consistent with the findings of the Gollner's (2017) report, which discovered that the project management dimension, which includes the project manager's effectiveness, adherence to requirements, satisfaction of project stakeholders, and the quality of services, covers the most dimensions for assessing the success of the ERP project. Management assistance in the preparation of ERP personnel, management and consumers is a crucial factor in the performance of the proposed framework. The study showed that the selection of a project team (definition of responsibilities and responsibility) is crucial to incorporate an ERP scheme.

This study established that change management practices for the purpose of managing risks and any changes (issues) arising during the implementation of the project moderately contribute to ERP implementation while other factors contribute highly. The study by Bertolo (2015) found that project identification describes the need to create a customized, in-depth change management plan to get around particular PSC adoption roadblocks. A comprehensive plan for change management must be established. Furthermore, the Musili (2016) study came to the conclusion that ERP facilitates communication among multiple departments with various needs by allowing the exchange of the same information in a single structure, despite the fact that this study showed that managing internal contact significantly contributes to the implementation of ERP. ERP improves communication and interaction between all business units in an organization.

4.5.3 Users' presentation requirement activities

The study assessed the second objective which was to establish the influence of find out influence of users' presentation requirement activities on ERP implementation. The study assessed the find out influence of users' presentation requirement activities on ERP implementation using the data collected from the questionnaire and results are captured in Table 4.4.

Table 4.4

Influence of users' presentation requirement activities

Users' presentation requirement activities	M	SD
Defining input forms	3.43	0.90
Helping define output forms	3.24	1.03
Specifying screen layouts and displays of the system	3.69	0.98
Assisting define graphical representation of data	3.19	1.03
Helping define reports' formats	3.50	1.00
Involvement in defining queries	3.34	0.98
Participating in defining all items of the field	3.52	0.96
Average Users' presentation requirement activities	3.42	0.98

Source: Research Data (2022)

The findings of the user reporting requirement practices for ERP implementation in United Nations-Habitat in Table 8 reveal that respondents suggested the average impact of user reporting requirements ($M = 3.42$; $SD = 0.98$). The input types ($M = 3.43$; $SD = 0.90$) had a modest impact while it was possible to better describe outputs ($M = 3.24$; $SD = 1.03$). It was proposed. Based on these findings, the respondents claimed that it may have a significant effect on the execution of the ERP by determining the device formats and displays of a device ($M = 3.69$; $SD = 0.98$) while assisting in identifying graphical representation of the data ($M = 3.19$; $SD = 1.03$). Although it revealed that the use of report formats to better determine ERP execution would significantly affect ($M = 3.50$; $SD = 1.00$), it demonstrated a modest effect in the classification of queries ($M = 3.34$; $SD = 0.98$). The findings show that the participants

suggested that the ERP would significantly affect its execution if all elements of the ERP specifications are specified ($M = 3.52$; $SD = 0.96$).

The study established that users' presentation requirement activities highly influence the ERP implementation. These findings confirm those in the study by Musili (2016), which concluded that ERP creates many interconnections among various users' presentation requirement activities and data flows for ensuring one area of the market every other unit may access information. The organization should be consolidated and made open to the knowledge formerly held by numerous agencies. Users' criteria for presentation must be closely merged, employments redefined and new business-wide procedures established. The entire transition process is complex and workers are often unprepared for new processes and positions. In Hörnlund and Åland's (2021) study, the progress of ERP implementation was seen to be influenced by presentation criteria practices. The investigation demonstrates that ERP system consumers have had a positive impact on two measures of users' satisfaction with the technological features and functionalities of the ERP system as a whole.

In this study, defining input forms were found to be effective ERP implementation. Helping define output forms of the ERP system in advance before its acquisition and specifying screen layouts and displays of the system were found to be useful factors the proposed ERP implementation. Assisting define graphical representation of data were found necessary in the development of ERP implementation. Other important factors of ERP implementation included; helping define reports' formats, constructing and testing for ensuring success of the ERP implementation, However, involvement in defining queries was found have had moderate influence on the implementation of the ERP. These findings were appropriate to the results of Bindi's (2016) research that showed that the highest management engagement is the secret to an effective ERP system implementation. It is incredibly necessary to win confidence and support from management, since if they have capital for the effective implementation of the

ERP. In order to overcome specific PSC adoption barriers, Bertolo (2015) observed that the potential to foster early identification of ERP adoption barriers describes the need to develop a tailored, detailed change management plan. Study by Musili (2016) found that users' presentation requirement activities would play a significant role in the ERP implementation.

4.5.4 Users' quality assurance activities

The third objective was to establish the influence of Users' quality assurance activities on ERP implementation. The report, which is based on data collected from the questionnaire and results in Table 4.5, assesses the effect of the quality assurance practices on ERP implementation in UN-Habitat.

Table 4.5

Analysis by Users' quality assurance activities

Users' quality assurance activities	M	SD
Enabling the use of automatic research equipment	2.88	1.17
Helps to verify the functionality of test scripts	3.29	1.09
Plan and deployment verification	2.76	1.13
To support run scripts for feature validation	3.36	1.18
Check system capabilities by evaluating system prototypes	3.41	1.04
Support reviews the data that will be passed to the system	2.67	1.08
Average Users' quality assurance activities	3.06	1.11

Source: Research Data (2022)

Grounded on in table 4.5, the findings show that the participants indicated that on average users' quality assurance activities would have a moderate influence of the ERP implementation (M = 3.06; SD = 1.11). As they showed that facilitating the use of automated testing tools would have a moderate influence (M = 2.88; SD = 1.17), they also showed that each of; helping design the test scripts to validate functionality (M = 3.29; SD = 1.09) and testing design and execution (M = 2.76; SD = 1.13) would also have moderate effect on implementation of ERP.

While the respondents showed that the helping execute the tests scripts to validate functionality would moderately influence the ERP implementation ($M = 3.36$; $SD = 1.18$), as findings show that system verification features can have a high effect on ERP execution by evaluating system prototypes ($M = 3.41$; $SD = 1.04$). and to review the data to be transferred into the system ($M = 2.67$; $SD = 1.08$) moderately influenced the ERP implementation.

This study established that the users' quality assurance activities have a moderate influence of the ERP implementation. Although the study by Hörnlund and Åland (2021) discovered that the implementation of the ERP framework benefited from quality improvement practices. Nevertheless, the Bradford report (2014) did not confirm this as a factor affecting customer retention.

This study shows that the ERP implementation has a modest influence: making it easy to use automatic test tools, helping to create test scripts to verify features, test design and execution and helping to execute test scripts to validate functionality. In the design of ERP, the device reliability is tested by checking system prototypes. To help validate the conversion to the framework of the data, the implementation of the ERP is badly contributed. These results correspond with studies by Hsu et al. (2008), which indicate that consumers must serve as gatekeepers of product quality and monitor improvement during the IS production progression. In accordance to the research's findings, in order to make sure that their needs are met, consumers should serve as both specification suppliers and active participants in the subsequent implementation phase. The Hsu et al. (2013) study also demonstrated that the expansion of user co-production will lead to improvements in project effectiveness, system quality, and user satisfaction.

This is in keeping with the findings of the research conducted by Chofreh *et al.* (2017) which came to the conclusion that a master plan is presented, outlining stages, points of view, and

phases that can aid practitioners in the implementation of S-ERP systems. Islam study (2017) reveals that dignity is the primary ERP principle when integrating the applications of all departments by using a single database. Additionally, in the early stages of implementation, Subramanian's (2018) analysis's primary goals are risk detection, risk management, and risk avoidance in order to reduce or eradicate implementation failures. According to Taterh (2017), a well-structured approach to risk assessment is critical for the introduction of ERP. It is therefore significant, the unique context of ERP deployment and assessment challenges and risks requiring sector-specific research.

4.5.5 Influence of users' project management activities

The fourth objective was to establish the influence of users' project management activities on ERP implementation. The analysis then discusses the impact on ERP execution of project management practices in UN-Habitat based on the data gathered and the findings have been reported in Table 4.6.

Table 4.6

Influence of users' project management activities

Influence of users' project management activities	M	SD
Scheduling project activities	3.69	1.00
Management (identification, mitigation, and resolutions) of risks and conflicts	3.26	0.89
Monitoring progress of the project activities	3.79	1.02
Communicating on ERP project progress	3.24	0.90
Training program and training others	3.34	0.97
Average Influence of users' project management activities	3.46	0.96

Source: Research Data (2022)

In this case, Table 4.6 suggest a clear high impact on the introduction of ERP through project management practices of the users ($M = 3.46$; $SD = 0.96$). These results show the respondents indicating that scheduling project activities would highly influence its implementation ($M = 3.69$; $SD = 1.00$). Danger and dispute management (identification, prevention and resolution) has shown modest influence ($M = 3.26$; $SD = 0.89$), they showed that monitoring progress of the project activities would highly influence its implementation ($M = 3.79$; $SD = 1.02$). They showed that communicating ERP project progress ($M = 3.24$; $SD = 0.90$) would moderately influence the ERP implementation and as well training program and training others have a moderate effect ($M = 3.34$; $SD = 0.97$).

In line with findings from project management operations for users, the project management techniques required by users to implement the ERP are crucial to the development of the EU-UN project's implementation. Results from Bradford's (2014) study show that project management was not considered as a factor in user satisfaction.

The study demonstrated the significance of risk and dispute management (identification, prevention, and resolution) as well as monitoring project operations progress for the successful implementation of the ERP. The use of project management, according to Ram, Corkindale, and Ming-Lu's (2015) research, enables an organization to forecast ongoing ERP and realign its processes with industry-recognized ERP best practices, The correlation between ERP adoption barriers and monitoring and planning is a development that will help ERP implementations achieve achievement.

In this study communicating ERP project progress was found very essential for success of ERP implementation which agrees to the study by Musili (2016) which concluded ERP helps multiple organizations with varying requirements to connect with each other in a common structure by exchanging the same knowledge. ERP thus promotes collaboration and interaction among all organizational units of an organisation.

Training program and training other were also found critical in effectiveness of ERP implementations conforming to the study by Desalegn and Pettersson (2018) which indicates that education and training are essential while this study found that scheduling project activities is vital to the success of ERP implementation. ERP implementation and administration are important for ongoing personnel training and training for project stakeholders. The effectiveness of the introduction of ERP depends on the execution and management by workers of broad know-how, knowledge and competence. The workers involved in executing the ERP should have a thorough understanding of ERP concepts by experience of information management. The user participation and inputs beginning with are perfect for the implementation of ERP. Research by Qutaishat et al., (2012) concludes that incentive sources affect employee efficiency in ERP ventures relative to other working environments. This indicates the positive effects of preparation and education on the progress of effectively enforcing the ERP.

4.6 Inferential Analysis

The research performed inferential analysis to determine the connection between the study variables used to forecast the study model by evaluating correlations and in many regressions.

4.6.1 Correlation Analysis

The research variables, independent variables (IV) and dependent variable (DV) were analysed to determine whether there was any important link between IVs and DV. The analysis of the association between variables was done. The correlation used the Pearson correlation of the period of the commodity at 0.05 and data from Table 4.7.

Table 4.7**Correlation Results**

		Correlations				
		ERP implementation	Users' functional requirements activities	Users' presentation requirement activities	Users' quality assurance activities	Users' project management activities
ERP implementation	Pearson	1	.657**	.623**	.488**	.487**
	Correlation					
	Sig. (2-tailed)		.000	.000	.000	.000
Users' functional requirements activities	N	58	58	58	58	58
	Pearson	.657**	1	.734**	.378**	.309*
	Correlation					
Users' presentation requirement activities	Sig. (2-tailed)	.000		.000	.003	.018
	N	58	58	58	58	58
	Pearson	.623**	.734**	1	.233	.298*
Users' quality assurance activities	Correlation					
	Sig. (2-tailed)	.000	.000		.078	.023
	N	58	58	58	58	58
Users' project management activities	Pearson	.488**	.378**	.233	1	.309*
	Correlation					
	Sig. (2-tailed)	.000	.003	.078		.018
	N	58	58	58	58	58
	Pearson	.487**	.309*	.298*	.309*	1
	Correlation					
	Sig. (2-tailed)	.000	.018	.023	.018	
	N	58	58	58	58	58

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Research Data (2022)

In accordance with Table 4.7, correlation analysis results, each of the IVs is significant at 5%; users' functional requirements activities (p-value = .000), users' presentation requirement activities (p-value = .000), Users' quality assurance activities (p-value = .000), and users' project management activities (p-value = .000) was significantly related to the DV, ERP implementation. This was because the p-value for each relationship did not exceed 0.05. Grounded on these results; users' functional requirements activities ($r = 0.657$; p-value = .000), followed by users' presentation requirement activities ($r = 0.623$, p-value = 0.000), Users'

quality assurance activities ($r = 0.488$, $p\text{-value} = 0.000$) and users' project management activities ($r = 0.487$, $p = 0.000$). It was shown that the relationship between each of users' functional requirements activities ($r = .657$) and users' presentation requirement activities ($r = .623$) and DV (ERP implementation) was high since the correlation of coefficient (r) was greater than 0.6. Nevertheless, there was a moderate correlation between ERP implementation and each user's quality assurance activity ($r = 0.488$) and user's project management activity ($r = 0.487$), with the correlation coefficient lying between 0.3 and 0.6.

4.6.2 Regression Analysis

Following the study having identified that all IVs were strongly associated with DV, the objective was to determine that IVs were an indicator of DV (implementation of the ERP), through multiple regressions (user functional criteria, presentation requirements, user quality assurance practices, and user project management activities). In estimating a formula to describe DV in IV terms the multiple regressions have also been used.

4.6.2.1 Diagnostic tests on study variables

The analysis first showed that such inconsistencies and contradictions were present or not. This led to a model estimation based on correct data being done in the analysis. Multicollinearity tests were the primary screening tests. The study tested a multicollinearity in the independent variables such that no variable in a formula measuring the same ratio as other variables or classes of variables was measured. When the Inflation Factor (VIF) varying reaches 10% and tolerances are less than 0,1, there is a multi-linearity. Table 4.8 displays the results reached.

Table 4.8***Multicollinearity Tests for the Independent variables***

	Tolerance	VIF
Users' functional requirements activities	0.414	2.415
Users' presentation requirement activities	0.451	2.217
Users' quality assurance activities	0.809	1.237
Users' project management activities	0.847	1.181

Source: Research Data (2022)

The analysis interpreted the tolerance and findings in Table 4.8 revealed that there were 0.414 for user presentation, 0.451 for user criteria, 0.809 for user quality assurance, and 0.847 for project management. 0.847 for user experience. The tolerance for all predictor variables was greater than 0.1 or 10%, so the analysis found no multi-collinearity. This suggested that the measured estimators were accurate for the model to be estimated.

In addition, the analysis checked the statement that the error terms are not covariant with time. That implies that errors in one connection are not associated with errors in the other connection (Turner et al., 2021) The lack of autocorrelation means that the error terms for separate observations are not correlated with each other. The research employed the best-known Durbin Watson test to detect serial correlation.

Table 4.9***Results on Durbin Watson test***

Model Summary^b				
R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.773 ^a	.598	.568	.43419	1.747

a. Predictors: (Constant), Users' project management activities, Users' presentation requirement activities, Users' quality assurance activities, Top Management Support

b. Dependent Variable: ERP implementation

Source: Research Data (2022)

The data indicates that there were no autocorrelations between the data products at 1.747 Durbin-Watson between 1.5 and 2.5

4.6.2.2 *Fitting the study model.*

The thesis conducted a further ANOVA analysis to assess the fitness of the model for the usage of the variables; user operations for practical criteria, user presentations, quality assurance activities of users and users' project management activities as UN Habitat predictors of ERP implementation and the findings obtained were depicted in Table 4.10.

Table 4.10

Analysis of Variance for all Variable

ANOVA ^a					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	14.863	4	3.716	19.710	.000 ^b
Residual	9.992	53	.189		
Total	24.855	57			

a. Dependent Variable: ERP implementation

b. Predictors: (Constant), Users' project management activities, Users' presentation requirement activities, Users' quality assurance activities, Top Management Support

Source: Research Data (2022)

The research analyzed model fitness using the model coefficients by evaluating whether $\beta_1 = \beta_2 = \beta_3 = 0$, (op management support coefficients, user presentation requirement activities, user quality assurance and project management activities are all zero) or at least one $\beta_i \neq 0$. If at least one $\beta_i \neq 0$ the model will suit.

Table 14 reveals the p-value is equal to 0.000. For a value of $p < .05$ ($F=19.710$, $p\text{-value} = .000$), there was a minimum $\beta_i < .05$ for a value of p . There are also enough data at 5% of the significance stage (i.e., $\alpha=0.05$) to infer that at least one of the predictors is present; assistance to the management of alternatives, user criteria practices, user quality assurance and project management activities are useful to predict the application of ERP at UN Habitat. The model is also useful for UN-Habitat clarification of ERP implementation.

Since these IVs forecast the implementation of ERP in UN-Habitat, the research models and the findings shown in Table 4.11 have been retrenched.

Table 4.11

Results of Regression ERP implementation

	Coefficients^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-1.099	.403		-2.724	.009
Users' functional requirements activities	.264	.129	.278	2.052	.045
Users' presentation requirement activities	.264	.117	.292	2.248	.029
Users' quality assurance activities	.214	.086	.241	2.488	.016
Users' project management activities	.262	.104	.239	2.530	.014

a. Dependent Variable: ERP implementation

Source: Research Data (2022)

The findings from table 4.11 made it possible to interpret the value of IVs in the decision of the DV. First of all, the analysis hypothesized (believed) this.

H_{1a}: Users' functional requirements activities do not significantly affect ERP

Implementation

H_{1b}: Users' functional requirements activities significantly affect ERP

Implementation

T = 2.052 and p-value = .045 are the products of these results. The null hypothesis has been denied from $p < .05$ and the alternative hypothesis has been approved. There are ample data on $\alpha = 0,05$ that the operational requirements of users are not zero and that, as a projection to the implementation of ERP, the related operational requirements of users are therefore useful.

Secondly the study hypothesized that.

H_{2a}: Users' presentation requirement does not significantly affect ERP Implementation

H_{2b}: Users' presentation requirement significantly affects ERP Implementation

T=2,248 and p-value=0,029 have been derived from these results. The null hypothesis has been denied from $p < .05$ and the alternative hypothesis has been approved. There is ample proof at the $\alpha = 0.05$ stage that the user's presentation criteria are not zero and, hence, that appropriate users' presentation requirement activities are useful as a predictor of ERP implementation.

Next, Users' quality assurance was tested using hypotheses.

H_{3a}: Users' quality assurance activities do not significantly affect ERP Implementation

H_{3b}: Users' quality assurance activities significantly affect ERP Implementation

T=2.488 and p-value=.016 are the products of these results. The null hypothesis has been denied from $p < .05$ and the alternative hypothesis has been approved. There is enough proof at $\alpha = 0.05$ that the quality assurance practices of users are not negligible, and therefore that quality assurance activities are of benefit to users as an indicator for the application of ERP.

Lastly, users' project management activities were tested using the hypotheses.

H_{3a}: Users' project management activities do not significantly affect ERP Implementation

H_{3b}: Users' project management activities significantly affect ERP Implementation

These findings lead to the values T= 2.530 and p=.014. Since $p < .05$, the alternative hypothesis is accepted and the null hypothesis is rejected. There is sufficient data to conclude that users' project management activities are useful as a predictor of ERP implementation at the $\alpha = 0.05$ level of significance because they are not zero.

The estimated equation, derived from Table 16, is.

$$Y = 1.099 + .267X_1 + .264X_2 + .214X_3 + .262X_4 \dots\dots\dots (iii)$$

According to these results, an increase of one unit in users' functional requirements activities causes a 0.267 increase rate in ERP implementation and vice versa. A unit increase in users' presentation requirement activities causes an increase rate of .264 in ERP implementation while a unit decrease in users' presentation requirement activities causes a decrease rate of .264 ERP implementation. Based on the equation, any one unit increase in Users' quality assurance activities causes a decrease rate of 0.214 in growth of ERP implementation and one unit decrease in Users' quality assurance activities causes a decrease rate of 0.214 in growth of ERP implementation. Any improvement in project management practices by one unit leads to an increase of 0.262 in ERP implementation development in the United Nations-Habitat, and a reduction in internal controls by one unit leads to an increase of 0.262 in ERP implementation in UN-Habitat.

Table 16 indicates that the operations of the users' technical specifications, users' requirements for presentation, user quality assurance and project management tasks have optimistic coefficients that indicate that they are directly proportional to the application of ERPs by UN-Habitat. Increased user requires operations, user requirement presentation practices, user quality assurance operations, and user project management operations could result in better ERP implementation in United Nations Habitats and vice versa.

Finally, the model description seen in Table 4.12 was obtained.

Table 4.12***Model Summary for ERP implementation***

Model Summary^b				
R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.773 ^a	.5980	.5677	.43419	1.747

a. Predictors: (Constant), Users' project management activities, Users' presentation requirement activities, Users' quality assurance activities, Top Management Support

b. Dependent Variable: ERP implementation

Source: Research Data (2022)

Findings in Table 4.12 indicate that the determination coefficient was .5677, suggesting that the users' practices on technical criteria, users' requirement submissions, users' quality improvement activities and users' project management activities account for 56.77% of the variance in ERP implementation. There are, thus, clear determinants for ERP deployment in the UN habitat for all the variable, user's practical needs activities, user criteria presentation operation, user Consistency Assurance activities and user project management activity. In conclusion, there was a substantial positive and positive clarification of the ERP deployment, through user IVs.

The study showed that each degree of priority has a positive impact on the introduction of ERP at 0,05; users' technical criteria behavior, user requires presentation practices, user quality improvement activities and user project management activities. This means that the operations of users' technical specifications, users' requirement introduction, users' quality assurance practices and project management operations are essential determinants of the implementation of the ERP. The study explains that, in terms of technical specifications of users' processes, presentation requirements of users, quality assurance of users' and project management activities, 56.77 percent of differences in ERP implementation are protected. Based on the results, the relationship between each of users' functional requirements activities ($r = .657$) and users' presentation requirement activities ($r = .623$) and DV (ERP implementation) is high

while the relationship between each of Users' quality assurance activities ($r = 0.488$) and users' project management activities ($r = 0.487$) and ERP implementation at is moderate. This capture in Table 4.13.

Table 4.13

Hypotheses Testing

Hypotheses	Statistical Approach	Interpretation	Results
H ₀₁ : Users' functional requirements activities do not significantly affect ERP Implementation	T-test Probability value (p-value) at 5% significance level	Accept null hypothesis when $T_{critical} > T_{value}$ else reject it Accept null hypothesis when p-value > 0.05 else reject it	P<0.05. Null Hypothesis rejected
H ₀₂ : Users' presentation requirement does not significantly affect ERP Implementation	Analysis of Variance (ANOVA) F-statistics	Accept null hypothesis when p-value > 0.05 else reject it. Accept null hypothesis when $F_{critical} > F_{value}$ else reject it	P<0.05. Null Hypothesis rejected
H ₀₃ : Users' quality assurance activities do not significantly affect ERP Implementation	ANOVA F-statistics	Accept null hypothesis when p-value > 0.05 else reject it. Accept null hypothesis when $F_{critical} > F_{value}$ else reject it	P<0.05. Null Hypothesis rejected
H ₀₄ : Users' project management activities do not significantly affect ERP Implementation	ANOVA F-statistics	Accept null hypothesis when p-value > 0.05 else reject it. Accept null hypothesis when $F_{critical} > F_{value}$ else reject it	P<0.05. Null Hypothesis rejected

Source: Researcher Own Computation (2022)

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The conclusions of the research findings and recommendations based on these results are discussed in this chapter. It stresses the research gaps that further research and the boundaries of the thesis can satisfy in the researchers' view.

5.2 Summary of Study Findings

The results were summarized based on the study objectives. These included to; find out the influence of users' functional requirements activities on ERP implementation, find out the influence of users' presentation requirement activities on ERP implementation, establish the influence of Users' quality assurance activities on ERP implementation, and establish the influence of users' project management activities on ERP implementation.

5.2.1 Findings on Users' functional requirements activities and ERP implementation

This study showed that important consumer functional demand practices are incredibly important to contribute to the progress of ERP adoption in these organisations. Since the top management is wholly dedicated to the implementation of the ERP structure, the ERP architecture will be introduced effectively. Senior management must be involved and encouraged in order for this contribution to have a significant impact on the new system's implementation. Additionally, choosing an ERP Project committee will greatly improve how the ERP is implemented from the start. Management support for preparation of ERP personnel, management and consumers is a significant contributor to the progress of the precise system.

It was found that definition of roles and responsibility, by the top management, high contributes to the success of the proposed framework as introduction of change management practices for

purpose of managing risks and any changes (issues) arising during the implementation of the project would have a moderate influence on the success of the proposed ERP framework. The management of internal interactions between all pertinent parties significantly improves the achievement of the ERP implementation, whereas the allocation and the provision of project-related resources, such as finding, equipment, human capital, and education, only slightly improves the success of the ERP framework implementation. The users' functional requirements activities in project planning in terms of scope, objective, goals, budgets, contingent plans, time and completion schedule highly contributes to the success of the ERP framework.

5.2.2 Findings on Users' presentation requirement activities and ERP implementation

In accordance to the research's findings, users' activities related to presentation requirements play an integral part in the implementation of ERP. The users' presentation requirement activities defining input forms for an effective ERP implementation. Importantly, there is need of effectively helping define output forms of the ERP system in advance before its acquisition. There is an important requirement of ensuring synchronized specifying screen layouts and displays of the system for the proposed ERP implementation. Assisting define graphical representation of data is necessary in the development of **ERP** implementation. The study found that helping define reports' formats high influence the ERP implementation as involvement in defining queries has a moderate influence. An ERP system has to actively participate in defining every aspect of the ERP requirements during implementation, and this necessitates a high level of application customization.

5.2.3 Findings on Users' quality assurance activities and ERP implementation

It was established that the users' quality assurance activities have a moderate influence of the ERP implementation. The facilitating the use of automated testing tools moderately influences

the ERP implementation. Based on this study, testing design and execution, as well as helping to execute the test scripts to validate functionality, have a moderate impact on the implementation of ERP. It's crucial for ERP implementation to test system prototypes to ensure the system's functionality. The testing of migration to the device data is poor in the implementation of ERP.

5.2.4 Findings on Users' project management activities and ERP implementation

The outcomes of the study on the users' project management activities show how crucial their project management efforts are to the creation of ERP. In order for the ERP implementation to proceed smoothly, project tasks must be prepared. The identification, prevention, and resolution of risks, along with tracking project operations progress and sharing that progress with the ERP project, served as the foundation for the successful application of the ERP framework. In addition, personnel preparation and training on the related topics in ERP deployment and management can continue to be provided by stakeholders participating in the projects. The effectiveness of the application of the ERP depends on its being handled and managed by workers of differing experience, qualifications and skills. The ERP workers should have an extensive grasp of the ERP values by way of information management methods. The user engagement and beginning inputs are perfect for ERP implementation.

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5.3 Conclusions

This research disclosed how user operations of technical specifications, user quality assurance, and developer project management practices all have a significant impact on the success and efficacy of ERP implementation. The ERP then integrates sustainable information and methods across the enterprise's various departments and sections. This would ensure that cost of ERP

implementation is within the budget but not exaggeration, the implementation is done within the scheduled timelines and the ERP achieves the set objective.

The study concludes that users' functional requirements activities positively and significantly influence the ERP implementation, positively improving the ERP implementation activity. Thus, the user's technical specifications tasks and ERP deployment are constructive and important. Activities of functional needs by consumers relate greatly and marginally to the introduction of ERP. Commitment to ERP system implementation, top management engagement, project team, preparation (of staff, management and users of the ERP), definition of roles and responsibility, internal communication, and project planning highly contribute to the ERP implementation. However, change management, and allocation and provision of project resources moderately contribute to the ERP implementation.

The study concludes that users' presentation requirement activities positively significantly influences ERP implementation. Thus, user design criteria contribute to the application of ERP favorably. Input types are specified, output forms defined by users, device displays and screen templates are set, report formats may be defined, the most relevant variables in users' presentation practices are ERP execution. The most important elements are, participating in defining all items of the ERP requirements, high degree of customization in ERP application, and participating in defining all items of the ERP requirements. Meanwhile assisting define graphical representation of data, helping define output forms, actual implementation of the new ERP, stabilization of the ERP moderately contribute to ERP implementation.

The research investigation comes to the conclusion that the implementation of the ERP is significantly moderately influenced by the users' quality assurance activities. As a result, there is a significant but moderate relationship between user quality assurance activities and the implementation of ERP. When an organization manages an effective Users' quality assurance

activities then there is assured establishment of an effective ERP implementation that ensures success in ERP implementation. The main considerations when developing the users' quality assurance activities for ERP implementation are; facilitating the usage of automatic testing software, support to design the functionality test scripts, test design and run, help to run the functionality validation test scripts, check system functionality by testing system prototypes, help to track data to be transferred into the system.

The research comes to the conclusion that users' project management activities have a moderately significant impact on ERP implementation. The best users' project management activities are necessary for development of ERP implementation as informed by; scheduling project activities, management of risks and conflicts, monitoring progress of the project activities, communicating ERP project progress, and skills development (for ensuring ERP projects are run and accomplished by a team of employees with a variety of knowledge, skills, and experience).

The analysis concludes by showing that, at a level of 5% (0.05), the user's technical criteria activities, user presentation requirements, user quality assurance activities, and user project management activities are having a significant positive impact on the ERP application. User behaviors, user specifications and project management activities are also predictors of the ERP implementation and that 56,77 percent of variance in ERP implementation is clarified by users operations for technical requirements, user requirements and user behavior for quality control activities.

5.4 Recommendations

5.4.1 Policy and practical implications

Based on the outcomes and priorities, the report made a policy recommendation. Firstly, the analysis suggests that organizations need to establish an ERP implementation founded on users' functional requirements activities through development of a policy for top management involvement. The framework should have an allowance for participation of the top management by spelling out that the Users' functional requirements activities should be actively involved in the ERP implementation. This would be enhanced by clearly documenting the role of the users' functional requirements activities. The primary factors to be taken into account in the policy on users' functional requirements activities should be dedication to the implementation process, provision of education and training, participation in the project, project team selection, definition of roles and responsibilities, ensuring clear internal communication, managing change, ensuring the presence of an influential champion and change agent, project planning, and allocation of sufficient resources to the implementation. All this should be documented in advanced and assurance provided by the top management on adherence.

Secondly, the study recommends that on agreeing to acquire new ERP system, the project team should define input, output, screen layouts, graphical representation, reports and queries and user should participate in defining all items of the ERP. Thus, the user should play a key role in defining all the input and out forms. It is going to make it possible to develop the requirement specifications for the ERP system that will be used. It's crucial that the project team include the user in the requirement specification process.

Thirdly, this research suggests that companies evaluate the quality assurance practices of their actual customers by contrasting them to the vendor's suggested ERP framework requirement.

The use of automated testing software is important; Support the creation and implementation of ERP programs, the checking of the software validation scripts, testing system functionality by testing system prototype, as well as the validation of testing scripts for the application, verification of data migration through the system. system functionality The ERP framework can then be designed and implemented by organisation to build ERP systems to reproduce the previous model. This is combined with the relocation of the data, which plans for movements or migration in the current ERP setting the legacy masters data of the original system. Any problems found in this process should be reported promptly and rectified by daily notifications of occurrence. To provide maintenance and honesty and accessibility of data, the ERP should be checked.

Lastly, the study recommends that multi-national organizations should acquire and retain the appropriate users' project management activities for ERP implementation through scheduling project activities, scheduling project activities, management of risks and conflicts, monitoring progress of the project activities, communicating ERP project progress as well as skills development. Additionally, there is an imperative need for sufficient training, and the business should promote effective and precise use of the ERP framework from the start of the ERP project.

5.4.2 Recommendations for further study

In the study, data from UN-Habitat were gathered for analysis which made the scope restricted and the study's applicability limited to that organization since other international entities are not included. Given that of the variations in the challenges that multinational organizations encounter across regions, additional research should be done to ascertain the impact of the customer's technical needs, user behavior in presenting requirements, user activities in quality

assurance, and user management of ERP projects between multinational organizations throughout Kenya.

Based on the study, user processes, user specifications, user quality assurance activities, and user project management activities explained 56,77% of the difference in UN-Habitat ERP deployment. This indicates that there were additional causes for the remaining 43.23 percent. In order to assess the effects of the improvements in the implementation of ERP in the United Nations' habitat, the report proposes additional research (43.23%).

5.5 Contribution to Knowledge

The research for the successful introduction of ERP was undertaken at United Nations Habitat. It will first ensure efficient ERP deployment by the use of the ERP. This would be enforced through ERPs between multinationals. The study will also contribute to overcoming the current obstacles which prevent multi-national organizations from implementing the ERP. Consequently, credible research carried out will improve managers' ability to take decisions that contribute to the execution of ERPs amongst multi-national firms.

This research would provide an impetus for an example that can be placed into action or followed by organisations in the attempts of other multinationals to carry out outstanding sustainability initiatives.

Finally, the research is a significant resource in the area of ERP deployment by adding new information about the implementation of ERP. The latest ERP contribution will help both researchers and academics finding similar knowledge tremendously. Thesis work will provide insight into the applications of ERP deployment, which will encourage and motivate additional research on ERP deployment. This will help researchers better understand the relationship between ERP deployment and performance.

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APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

TOWARDS A FRAMEWORK FOR IMPLEMENTING ERP SYSTEMS IN MULTINATIONAL ORGANIZATIONS

This Questionnaire is meant to collect data among the employees of UN-HABITAT.

Any information provided in this Questionnaire will be used for purposes of research only and will not be divulged or availed to unauthorized persons.

Please take a few minutes to complete this questionnaire.

Please answer the questions correctly and as accurate as possible

Tick the correct answer in the boxes provided against the questions where provided

SECTION A: BACKGROUND INFORMATION

1. What is your sex? Please tick (✓) the appropriate box

Male () Female ()

2. What is your age? Please tick (✓) the appropriate box

Under 21 Years () 21 to 30 Years () 31 to 40 Years ()

41 to 50 Years () Over 50 Years ()

3. Please indicate your highest level of Education by ticking (✓) the appropriate box

Secondary () Diploma () Undergraduate Degree ()

Postgraduate Degree () Others ()

Specify.....

4. Please indicate your highest professional qualifications by ticking (✓) the appropriate box

None () Certificate () Diploma ()

Undergraduate Degree () Postgraduate Degree ()

Others () Specify.....

5. How long have been in at UN-Habitat?

Not Exceeding years () 6 to 10 years ()

11 years to 15 years () 16 to 20 years ()

21 years to 30 years () over 30 years ()

6. Which of the following best describes your role?

Senior Manager () Middle Level Manager () Support Staff ()

Section B: EPR IMPEMANTATOION

7. Please indicate your level of agreement or disagreement with the following statements regarding the outcome of implementation of ERP Systems to replace legacy systems. Please tick (✓) the space corresponding to the correct answer in each question below

Scale: Strongly Disagree = 1: Disagree= 2: Neutral = 3: Agree = 4: Strongly Agree = 5

	Statement	1	2	3	4	5
(a)	Commitment to the implementation of the ERP system					
(b)	Top management involvement and support					
(c)	Appointing an ERP Project team from the beginning					
(d)	Training of the staff, management and users of the ERP					
(e)	Definition of roles and responsibility					
(f)	Change management for managing risks and any changes (issues) arising during the implementation of the project					
(g)	Managing internal communication among all relevant parties effectively					
(h)	Allocation and provision of Project resources allocation such as finding, equipment, human capital, education					
(i)	Project planning in terms of scope, objective, goals, budgets, contingent plans, time and completion schedule					

Section C: Influence of Users' functional requirements activities

8. In your own opinion please indicate the level to which each of the following indicators of users' functional requirements activities influence the success of ERP implementation. Please tick (✓) the space corresponding to the correct answer in each question below.

Scale: Not at All = 1: Low = 2: Moderate = 3: High = 4: Very High = 5

	Users' functional requirements activities Indicator	5	4	3	2	1
(a)	Processes and work requirements					
(b).	Information requirement (the user needs)					
(c)	System computations					
(d).	Data storage requirements					
(e)	System security					
(f)	User security					
(g)	Clarify the task complexity					

Section E: Influence of Users' presentation requirement activities

9. In your own opinion please indicate the level to which each of the following indicators of users' presentation requirement activities influence the success of ERP implementation. Please tick (✓) the space corresponding to the correct answer in each question below.

Scale: Not at All = 1: Low = 2: Moderate = 3: High = 4: Very High = 5

	Users' presentation requirement activities Indicator	5	4	3	2	1
(a)	Defining input forms					
(b).	Helping define output forms					
(c)	Specifying screen layouts and displays of the system					
(d).	Assisting define graphical representation of data					
(e)	Helping define reports' formats					
(f)	Involvement in defining queries					
(g)	Participating in defining all items of the ERP requirements					

Section E: Influence of Users' quality assurance activities

10. In your own opinion please indicate the level to which each of the following indicators of users' quality assurance activities influence the success of ERP implementation. Please tick (✓) the space corresponding to the correct answer in each question below.

Scale: Not at All = 1: Low = 2: Moderate = 3: High = 4: Very High = 5

	Users' quality assurance activities Indicator	5	4	3	2	1
(a)	Facilitating the use of automated testing tools					
(b).	Helping design the test scripts to validate functionality					
(c)	Testing design and execution					
(d).	Helping execute the tests scripts to validate functionality					
(e)	Verified system functionality by testing prototypes of the system					
(f)	Helping verify the data to be migrated to the system					

Section F: Influence of Users' project management activities on ERP Implementation

11. In your own opinion please indicate the level to which each of the following indicators of users' project management activities involved in use of the ERP influence the success of ERP implementation. Please tick (✓) the space corresponding to the correct answer in each question below.

Scale: Not at All = 1: Low = 2: Moderate = 3: High = 4: Very High = 5

	Stakeholder Indicator	1	2	3	4	5
(a)	Scheduling project activities					
(b).	Management (identification, mitigation, and resolutions) of risks and conflicts					
(c)	Monitoring progress of the project activities					
(d).	Communicating ERP project progress					
(e)	Training program and training others					

Thank you for your cooperation.

APPENDIX II: INTRODUCTION LETTER

DERRICK NGALA
REG No: MIS-3-2520-2/2015
KENYA METHODIST UNIVERSITY

Dear Respondent

I am a student at Kenya Methodist University undertaking a master's degree of science in management information systems and have chosen you to participate in this study on towards a framework for implementing ERP systems in multi-national organizations. Your responses will only be used for the purpose of the study. All information received from the respondents will be held confidentially. Kindly respond sincerely to the issues in the questionnaire. Please read and answer the questions by ticking the correct answer (choice) to the questions given.

Where required, write brief answer in the spaces provided.

Thanking you in advance for your cooperation and participation.
Yours truly,

DERRICK NGALA
REG No: MIS-3-2520-2/2015
KENYA METHODIST UNIVERSITY

APPENDIX III: MAP OF AREA OF STUDY



(Goole Maps, 2018)