Scholarly Journal of Science and Innovation

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

Analysing the Critical Success Factors in the Implementation of Enterprise Resource Planning (ERP) Project

David Ackah
Knutsford Business School, Knutsford University, Accra
ORCID: https://orcid.org/0000-0002-5709-4787
Email: drackah@ipmp.edu.gh / drdavidackah@gmail.com

**Correspondence: Ackah David, email: drdavidackah@gmail.com*

Abstract

Enterprise Resource Planning (ERP) is one of the most widely adopted technologies by organisations to streamline operations. ERP systems are comprehensive software packages composed of integrated modules—such as Human Resources, Sales, Finance, and Supply Chain—that enable cross-functional integration of transaction-based data across various business processes. Modern organisations rely on ERP to manage both internal and external information flows efficiently. However, implementing ERP systems is often complex, resource-intensive, and costly. Therefore, identifying and understanding the critical success factors for ERP implementation is essential. Several factors influence the successful deployment of ERP systems. This study focuses on seven widely recognised and relevant success factors, particularly from the perspective of MTN Telecom. These factors include: user Involvement, Teamwork and Composition, Effective Project Management, Top Management Support, Training and Education, Business Process Reengineering and Vendor Support.

The primary objectives of this study are to identify the key success factors influencing ERP implementation and to assess their relative significance. To achieve this, the research formulated hypotheses involving seven independent variables and one dependent variable, alongside corresponding research questions. A census approach was used to select participants from the MTN Telecom ERP implementation project team, consisting of 135 members. Given the manageable size of the population, all team members were included in the study. A total of 105 survey questionnaires were distributed via email, of which 102 completed responses were received and used for analysis.

Both descriptive and explanatory research designs were employed. Correlation and regression analyses were conducted to examine the relationships between the identified success variables and ERP implementation outcomes. The findings indicate that all seven factors—effective project management, top management support, training and education, vendor support, teamwork and composition, user involvement, and business process reengineering—positively and significantly contribute to the success of ERP implementation.

Moreover, regression analysis revealed that these independent variables collectively predict the success of ERP implementation, as indicated by an R-squared value of 0.769.

Keywords: *Enterprise Resource Planning (ERP), ERP Implementation, Critical Success Factors, Project Management, Top Management Support, User Involvement, Teamwork and Composition, Training and Education, Business Process Reengineering, Vendor Support, MTN Telecom, Regression Analysis, Implementation Success, Information Systems, Organizational Integration*

Citation: *Ackah, D. (2025). "Analysing the Critical Success Factors in the Implementation of Enterprise Resource Planning (ERP) Project", Scholarly Journal of Science & Innovations, 2025, 5(8): pp.21-47. DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4*

Submitted: 01 June, 2025 | Accepted: 20 August, 2025 | Published: 12 October, 2025

1.0 INTRODUCTION

In today's dynamic and highly competitive global business environment, organisations continually seek innovative ways to enhance efficiency, reduce operational costs, and improve

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

decision-making processes. One of the transformative technologies that has gained significant traction in the past two decades is Enterprise Resource Planning (ERP). ERP systems are integrated software platforms designed to consolidate and manage core business processes in real-time, utilising a centralised database and a suite of interconnected modules, including finance, human resources, procurement, supply chain, and sales (Monk & Wagner, 2012). These systems enable cross-functional integration, allowing organisations to streamline their operations, enhance data accuracy, and improve overall organisational performance.

The adoption of ERP systems has become a strategic priority for many large and medium-sized enterprises worldwide. By facilitating the seamless flow of information across departments, ERP systems enable organisations to gain a holistic view of their operations, improve resource allocation, and support data-driven decision-making (Bradford, 2015). For telecommunications companies like MTN Telecom, which operate in highly complex and rapidly evolving markets, implementing ERP systems is crucial for maintaining operational efficiency and achieving strategic objectives.

Despite the potential benefits, ERP implementation is often fraught with challenges. Numerous organisations have experienced partial or complete failure in ERP projects due to poor planning, lack of user involvement, inadequate training, and insufficient support from top management (Finney & Corbett, 2007). ERP implementation is not merely a technological upgrade but a comprehensive organisational transformation that requires careful alignment of people, processes, and technology (Akkermans & van Helden, 2002). As such, identifying and understanding the critical success factors (CSFs) that influence the success of ERP implementation projects has become a central concern for both researchers and practitioners.

Previous studies have proposed various frameworks and models to identify these CSFs. Among the most frequently cited are user involvement, teamwork and composition, effective project management, top management support, training and education, vendor support, and business process reengineering (Nah, Lau, & Kuang, 2001; Somers & Nelson, 2001). These factors play a pivotal role in determining the outcome of ERP projects by shaping the organisation's readiness, fostering stakeholder engagement, and ensuring alignment between the system's capabilities and business needs.

This study focuses on examining these seven critical success factors in the context of MTN Telecom's ERP implementation project. MTN Telecom, one of Africa's leading telecommunications providers, undertook a comprehensive ERP deployment to streamline its operations and enhance data visibility across its departments. Given the scale and complexity of the project, the company's experience provides a valuable case study for understanding the interplay between various success factors and ERP implementation outcomes.

To achieve the objectives of this study, a quantitative research approach was employed, involving a census of the ERP project team members at MTN Telecom. A total of 105 surveys were distributed via email, and 102 completed responses were analysed using both descriptive and explanatory statistical methods, including correlation and regression analysis. The research aims to: (1) identify the critical factors influencing ERP implementation success, and (2) assess their relative impact on implementation outcomes.

The findings of this study are expected to contribute to the existing body of knowledge on ERP implementation by providing empirical evidence from a real-world case. Additionally, the results will provide practical insights for organisations planning ERP projects, enabling them to prioritise resources and develop strategies that increase the likelihood of success.

2.0 MATERIALS AND METHODS

Enterprise Resource Planning (ERP) systems have become essential tools for organizations seeking to streamline their operations, improve data accuracy, and achieve strategic integration of core business processes. ERP systems function as comprehensive platforms that enable real-time data sharing and facilitate informed decision-making across various departments, including finance, human resources, procurement, and logistics (Ahmad & Cuenca, 2017). Despite the potential benefits, the successful implementation of ERP systems remains a significant challenge, often resulting in cost overruns, missed deadlines, or total project failure. As a result, understanding the critical success factors (CSFs) that influence ERP implementation has emerged as a priority area in both academic research and industry practice.

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

2.1 User Involvement

User involvement is a consistently identified factor in ERP implementation success. Active participation of end users throughout the implementation lifecycle—from system selection and customization to testing and training—ensures that the system is aligned with organizational needs and enhances user acceptance. According to Almajali, Masa'deh, and Tarhini (2017), user involvement significantly improves the system's usability and relevance, reducing resistance to change and facilitating smoother transitions. Moreover, increased user participation promotes ownership of the system, thereby improving overall satisfaction and utilization.

2.2 Teamwork and Composition

A well-composed, cross-functional project team is another critical factor. Effective ERP implementation demands collaboration among IT personnel, business analysts, functional experts, and end users. The diversity of the team facilitates comprehensive problem-solving and ensures that multiple perspectives are considered during decision-making. A study by Odoom, Kosiba, and Baidoo (2017) emphasized that diverse, skilled, and cooperative project teams significantly enhance implementation performance by improving communication and minimizing process misalignments.

2.3 Effective Project Management

Project management competence is essential for coordinating ERP implementation activities. Effective planning, scheduling, resource allocation, and risk management are vital to prevent scope creep and ensure timely project completion. Badewi, Shehab, Zeng, and Mohamad (2018) found that project management practices directly affect ERP project success by establishing clear goals, fostering accountability, and managing stakeholder expectations. The presence of a dedicated project manager who can navigate both technical and organizational challenges further contributes to success.

2.4 Top Management Support

The commitment and support of top management are widely regarded as one of the most influential factors in ERP success. Supportive leadership secures necessary resources, aligns the ERP project with the strategic goals of the organization, and fosters a culture conducive to change. Top executives also play a critical role in conflict resolution and decision-making. As stated by Shah et al. (2019), strong executive backing helps build confidence among stakeholders, encourages interdepartmental collaboration, and signals the strategic importance of the ERP project.

2.5 Training and Education

Adequate training and education prepare users to effectively engage with the new ERP system. Lack of system knowledge can result in underutilization or errors, diminishing the return on investment. According to Shaul and Tauber (2017), organizations that invest in continuous user training experience smoother transitions, lower resistance, and higher satisfaction rates. Training programs must be tailored to various user groups and include both technical and process-related content.

2.6 Business Process Reengineering

ERP systems often require organizations to modify their existing business processes to align with best practices embedded in the software. Business Process Reengineering (BPR) involves the fundamental redesign of workflows to achieve efficiency and effectiveness. Ibrahim, Idris, and Othman (2018) found that successful ERP projects often coincide with well-planned BPR initiatives that eliminate redundancies and clarify operational roles. However, BPR must be managed carefully to minimize disruption and ensure stakeholder buy-in.

2.7 Vendor Support

ERP vendors play a crucial role in implementation through ongoing technical support, system customization, and knowledge transfer. Strong relationships with vendors enhance the ability of organizations to troubleshoot issues and adapt the system to changing needs. According to Al-Fawaz, Al-Salti, and Eldabi (2018), effective vendor support, including timely updates,

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

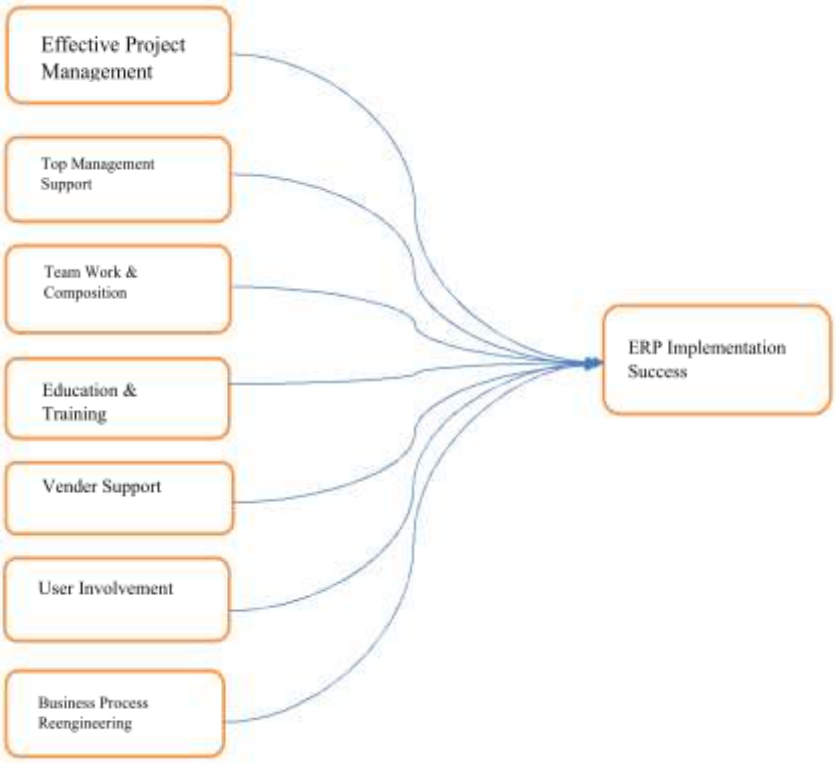
helpdesk services, and consultant expertise, significantly improves the chances of successful ERP deployment.

2.8 Integration of Success Factors

While individual factors are important, it is the integration and coordination among these success factors that often determines project outcomes. As evidenced by recent studies (e.g., Mabert, Soni, & Venkataramanan, 2017), ERP success is multidimensional and requires simultaneous attention to technical, organizational, and human factors. In practice, a holistic approach that considers all CSFs in the context of the organization's culture and strategic goals leads to higher success rates.

2.9 Conceptual Foundation

A conceptual framework is a diagram that shows how the research is organised. This conceptual framework was developed using guidelines found in the pertinent literature study. The dependent variable in this study, the success of the ERP deployment, is being influenced by the independent variables, or essential success determinants.



2.10 Conclusion of Literature Review

The literature consistently highlights several core factors—user involvement, teamwork, project management, executive support, training, vendor engagement, and process reengineering—as essential to ERP success. These variables interact in complex ways, and their relevance may vary by organizational context. This study aims to empirically test the significance and relative impact of these seven factors within the framework of MTN Telecom's ERP implementation project, contributing further insight into ERP success strategies in the telecommunications sector.

3.0 METHODOLOGY

The success criteria for ERP deployment are the subject of this research. This chapter outlines the research strategy used to carry out the study, along with the research design, sampling strategy, kind of data source, method of data collection, and method of data analysis.

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

4.2 Research Design

Research planning is a mapping technique. In essence, it describes the purpose of the investigation and the methods used to gather, examine, and report the evidence. According to Singh (2006), research designs provide precise directions for processes in a research study and are forms of inquiry within qualitative, quantitative, and mixed-methodology techniques. Explanatory research is conducted to determine the scope and nature of cause-and-effect linkages. Studies that explain specific issues or occurrences are known as descriptive studies (Saunders et al., 2007). Explanatory research seeks to identify any unexpected connections between the variables or components relevant to the study topic.

According to Kothari (2004), descriptive research designs focus on learning who, what, where, when, and how much. Additionally, it enables the researcher to gather data from a sample and use the results to generalise the inference, thereby supporting the study. A thorough literature review of success characteristics from a management perspective was necessary to identify success variables in an ERP system deployment, which recommended that this study employ a descriptive research design.

Furthermore, since it attempted to validate or reject a developed hypothesis, it also shared a confirmatory research characteristic. However, as the research study aimed to provide insightful management perspectives on identifying essential success elements through ERP implementation, empirical data were required to explore the influence of the determinants on the success of the ERP installation. As a result, the research's nature incorporated both descriptive and explanatory features, making it both descriptive and explanatory at its core.

4.3 Ethical Considerations

Ethics is consistent with the moral standards upheld in a particular profession or organisation (Kumer, 2005). Confidentiality, anonymity, voluntary consent, and informed consent are key ethical considerations for study subjects. To maintain anonymity, the researcher separates individual identities from the data gathered. To get authorization to conduct the survey using the company's email or Outlook, the researcher also spoke with MTN Ghana's human resource department. This made it possible to streamline the data-gathering procedure based on the organization that was the subject of the study's explicit rules, instructions, and ethical considerations.

4.4 Research Methods

In research, there are two primary approaches: quantitative and qualitative. While the qualitative approach employs the subjective evaluation of views, behaviour, factors, and attitudes, the quantitative process entails collecting quantitative data, which is subjected to rigorous quantitative analysis formally and strictly. In quantitative research, qualities, phenomena, and interactions are systematically and scientifically investigated. Both qualitative and quantitative data have been collected as part of the investigative research. To perform this study, a mixed research strategy has been considered acceptable. This study began with a hypothesis and concluded with the hypothesis being either confirmed or rejected, along with the identification of some fundamental research issues.

4.4.1 Samples

The parent group from which a sample is drawn is referred to as the population or universe. Population refers to a group's features while discussing research methods (Singh, 2006). In light of this, the target population is a group of components or objects containing the data the researcher is looking for and from which conclusions are drawn. Employees of MTN Ghana who participated in project teams for ERP installation projects are the topic or target group for this research. They consist of one project team supervisor (1), one project manager (1), and one hundred three (103) project team members. Therefore, one hundred five (105) people who participated in the ERP installation process and are still working for the organisation were utilised as primary data sources.

Because they are the only subject-matter experts with relevant exposure, the project team was the only group chosen. The entire one hundred five (105) personnel of Ethiopia Telecom, who are presently employed by the firm and are involved in an ERP implementation project at

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

various stages, were utilised as the study's target population due to the limited size of the potential target population.

4.4.2 Source of Data

According to Singh (2006), data is the collection of particular evidence that enables researchers to accurately analyse the outcomes of all activities using their study design and methods. Both primary and secondary sources of information were employed to perform this investigation. While secondary data were gathered by reviewing firm files, earlier research studies, and other international periodicals related to the study's subject matter, primary data were collected through questionnaires and observations.

4.4.3 Data Collection Instrument

To gather primary data for the research, questionnaires and observations were employed. All respondents received questionnaires via email. Employees of MTN, especially members of the project team for the ERP installation, were the target demographics, as previously described under population and sample approaches. The respondents emailed the firm to request that they attach the questionnaire and return the completed forms. Additionally, I reviewed project progress reports and project histories from business files, enabling secondary data collection.

Since the researcher works for MTN Ghana, observation helped gather qualitative data. The events during the project's implementation are explained using the researcher's observations. Additionally, the researcher used a questionnaire to assess the importance of success criteria and their impact on the success of implementation projects.

Two components make up the questionnaire. The first segment was the respondents' primary demographic data (age, gender, employment year, and educational background). The success criteria and implementation project success were the topics of the second section. It evaluates the influence of each critical success factor (independent variable). Responses to this part were scored on a 5-point Likert scale, with one representing "strongly disagree" and five representing "strongly agree."

The main critical success variables in ERP installation were identified using secondary sources, especially books on ERP implementation and essential factors of success, previous studies, and articles. In addition, several MTN Ghana internal project progress report documents and an ERP project assessment report were also utilised to get comprehensive data.

4.4.4. Techniques of Data Analysis

The information gathered via the questionnaire was thoroughly examined for correctness and completeness before being cleansed for uniformity. The information collected from the questionnaire was coded using numbers assigned to each response to create a coding frame, which was then entered into the computer's SPSS program. The data were analysed using descriptive statistics to determine the mean score, frequency, and standard deviation. Percentage and frequency were utilised to examine and analyse the gathered demographic-related data. The mean and standard deviation were used to determine how much each respondent agreed or disagreed with each question statement.

The study of how one or more variables impact changes in another variable is the focus of regression analysis. Thus, it examines the functional connections between two or more variables (Kothari, 2004). Correlation and regression analyses were performed to determine the relevance and degree of importance of each success element in adopting an ERP. To determine the degree of connection between variables, correlation analysis was used to assess the associations between them. A regression analysis was conducted to investigate the impact of each success element on the successful implementation of ERP deployment. Regression is used to investigate the relationships between many independent variables and the dependent variable. The narrative analysis approach evaluates information gathered from observation and the inspection of corporate documents. The data are sorted by the researcher, who then considers them.

4.4.5 Validity

A validity method is provided when a logical connection is made between the questions and the goals. The questionnaires were revised several times to minimise subjectivity following

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

extensive discussions with the adviser and other outside researchers. The adviser was then emailed the generated questionnaire, and corrections were made in response to suggestions. Various research specialists and experts assessed and commented on the questionnaire. The statements utilised in the questionnaire were given to the many research experts and classmates for their thoughts and opinions on their clarity and completeness. After conducting the pilot survey, unclear questions were revised to remove ambiguity. Before using the questionnaires for the large-scale survey, it is crucial to strengthen their validity.

4.4.5 Reliability

When multiple-item measurement ideas or constructs are used, it is standard practice to calculate Cronbach's alpha, as it is simpler to apply than other estimates (Willson, 2003). To assess the internal consistency of the measuring instrument, Cronbach's alphas were used in conjunction with inter-item correlations. Excellent and trustworthy measurements are indicated with a Cronbach alpha value of 0.70, while a Cronbach alpha close to 1 denotes more consistency. Cronbach's alpha was determined to investigate the validity of all the items (34) and each research variable. The seven independent factors in the research were effective project management, top management support, education and training, vendor support, collaboration and composition, user participation, and business process reengineering.

Dimensions	Cronbach's Alpha	N of Items
Effective project management	. 831	6
Top management support	.790	6
Education and Training	.776	4
Vendor support	.733	5
Teamwork and Composition	.696	5
User involvement	.719	5
Business process reengineering	.693	3
Overall scale Reliability	.826	34

Table 3.1 Reliability statistics result (Source: Survey Result, 2023)

4.5 Summary

The main critical success variables in ERP installation were identified using secondary sources, especially books on ERP implementation and essential factors of success, previous studies, and articles. In addition, several MTN Ghana internal project progress report documents and an ERP project assessment report were also utilised to get comprehensive data. Employees of MTN Ghana who participated in project teams for ERP installation projects are the topic or target group for this research. They consist of one project team supervisor (1), one project manager (1), and one hundred three (103) project team members. Therefore, one hundred five (105) people who participated in the ERP installation process and are still working for the organisation were utilised as primary data sources.

4.0 RESULTS AND DISCUSSIONS

4.1 Data and Information Description

This research aims to investigate success criteria for ERP installation projects. The study's target population received questionnaires. They were part of the ERP installation project team and worked for Ethiopian Telecom. One hundred two of the one hundred five total respondents completed and returned questionnaires. Thus, statistical analysis has been performed using the data. The questionnaire responses were organized into tables based on the primary factors under investigation. Demographic statistics were analyzed using descriptive analysis, such as percentage and frequency. In contrast, variables such as effective project management, support from top management, education and training, teamwork and composition, user involvement, vendor support, and business process reengineering were examined using the mean and standard deviation. Correlation and regression analysis were the inferential statistics used in the data analysis.

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

4.1.1 Gender of Respondents

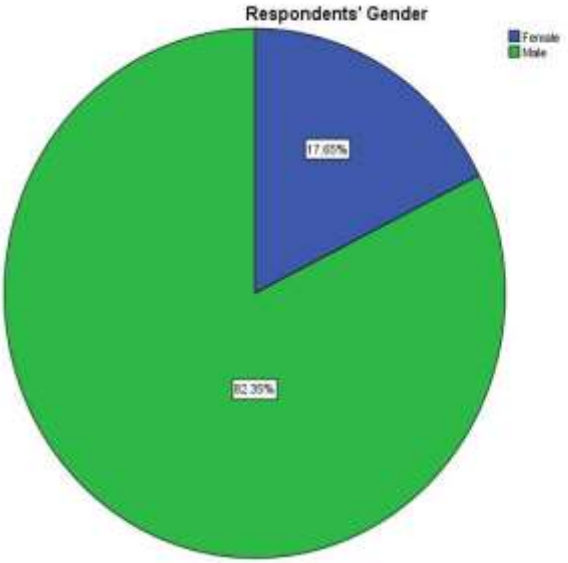


Figure 4.1 Respondents' Gender (Source: Survey Result, 2023)

Figure 4.1's descriptive analysis shows that 82.33 percent of the respondents were men and 17.65 percent were women. The graph showed that men made up the majority of the project crew.

4.1.2 Age of Respondents

	Frequency	Percent
Below 25 years	9	8.8
25-35 years	33	32.4
35-45 years	46	45.1
above 45 years	14	13.7
Total	102	100.0

Table 4.1 Respondents' Age (Source: Survey Result, 2023)

Figure 4.1 shows that over half (45.1%) of the respondents were between the ages of 35 and 45, followed by those between the ages of 25 and 35 (32.4%). In other words, the age range of 77.5 percent of responders was between 25 and 45. Only 8.8% of all responders are under 25 years old, which is the lowest age group.

4.1.3 Respondents' Educational Background

	Frequency	Percent
Degree	60	58.8
Postgraduate and above	42	41.2
Total	102	100.0

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

Table 4.2 Respondents' Educational Background (Source: Survey Result, 2023)

In terms of educational background, more respondents (41.2%) had a postgraduate or master's degree, followed by degree holders (58.8%), who made up the majority of the sample. All responders who possess a first degree or a graduate degree are represented. According to the statistics, only first-degree holders were chosen for the project team. According to the proportion of responders, workers with higher levels of education were chosen for ERP installation projects. The survey findings suggested that one need for include top performers in a project team was educational background.

4.1.4 Respondents' Years of Service

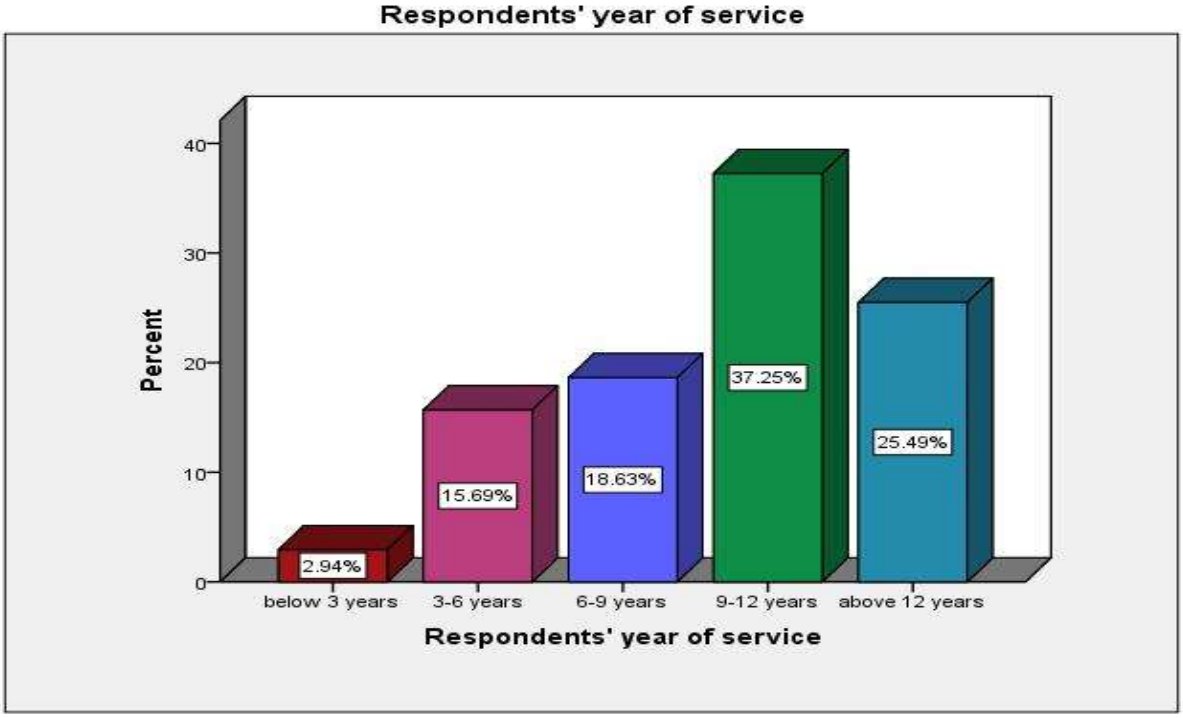


Figure 4.2 Respondents' years of service or experience (Source: Survey Result, 2023)

The majority of respondents 37.25% have between nine and twelve years of work experience, followed by more than twelve years of experience (25.49), while the respondents with the fewest years of service 2.94% have worked for less than three years. The proportion of responders with experience shows that people with significant corporate experience were chosen for the project team. The proportion shows that high exposure personnel were specifically chosen for their anticipated higher performance.

4.2 Success Factors for ERP Implementation

Seven elements effective project management, tom management support, education and training, collaboration and composition, vendor support, user participation, and business process reengineering were examined to determine the success criteria for ERP adoption. There were explicit statements and total figures for each variable. Results from the analysis of 34 questions that were given to 102 responders and received a replay are as follows: The descriptive statistics of mean and standard deviation were utilised to analyse the success elements for the ERP installation project. The mean shows how much, on average, the respondents agree or disagree with the various propositions.

More respondents agree with the statement when the mean is higher, whereas more respondents disagree with the statement when the mean is lower. Mean, a kind of descriptive statistics, was used to assess how successful ERP installation projects were affected by good

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

project management. Effective project management, as indicated in table 4.3, consists of six assertions, each of which is focused on a different variable. All statements are included in the study of the influence of successful project management on ERP installation success based on the response provided by respondents. With a mean of 4.14, the importance of excellent project management is seen as a relevant aspect.

Key account notification prior to system installation and project planning and scope control, with means of 3.84 and 3.74, respectively, are the most important factors in good project management. Scope control and module implementation in accordance with plan received mean scores of 3.64 and 3.44, respectively. The least favourable average score was 3.29 for ERP installation ease. The mean values of the items in Table 4.3 showed that respondents agreed that successful project management is essential for the success of ERP installation projects.

Effective Project Management

	Effective project management is the most significant factor in ERP implementation.	Project scope was effectively managed by project manager.	MTN Ghana has made effective project planning and control.	Key stakeholders in the organization were alerted when ERP was being implemented.	ERP system implementation was easy to implement and did not cause disruption.	Modules and functions were implemented as per the project scope.
N	102	102	102	102	102	102
Mean	4.14	3.44	3.74	3.84	3.29	3.64
Std. Deviation	.802	.743	.543	.443	.859	.643
Minimum	1	1	1	1	1	1
Maximum	5	5	5	5	5	5

Table 4.3 Mean analysis related to effective project management (Source: Survey Result, 2023)

Top management support factor represented by six statements. Based on the data collected from respondents that developed in Likert scale, they have placed their level of agreements. "Top management support is rated as very significant factor" scored the highest mean value (3.94), followed by MTN Ghana organizational culture compatibility with ERP implementation (3.82) and top management awareness recorded 3.59 mean value. Respondents less agreed about top management they gained during ERP implementation (3.02), which is the least mean value from the statement associated with top management support.

Top Management Support

	Top management is the most significant factor in ERP implementation.	Top management was familiar with ERP system functionalities.	Top management provided good leadership for ERP implementation	Our organizational culture supported ERP implementation success.	Our organization's management style was supportive for ERP implementation success.	Top Management created awareness on benefit of ERP implementing system.

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

N	102	102	102	102	102	102
Mean	3.94	3.65	3.02	3.82	3.59	3.42
Std. Deviation	1.43	.693	0.815	.755	1.005	1.013
Minimum	1	1	2	1	1	1
Maximum	5	5	5	5	5	5

Table 4.4 Mean analysis related to Top Management support (Source: Survey Result, 2023)

Education and Training

	Education & training is the most significant factor for ERP implementation success.	I acquired technical knowledge and skills which contributed to successful ERP implementation from training.	Training and education enhanced my proficiency and level of knowledge.	Continual training during implementation was more effective than training for limited period.
N	102	102	102	102
Mean	3.90	3.09	3.24	3.68
Std. Deviation	1.020	.947	.443	1.259
Minimum	1	1	1	1
Maximum	5	5	3	5

Table 4.5 Mean analysis related to Education and Training (Source: Survey Result, 2023)

There are four assertions in the factor for training and education. Respondents were asked to rate how much they agreed or disagreed with the stated criteria. Overall training and education relevance is rated at 3.90, while the technical knowledge and skills that are learned for effective implementation are rated at a mean of 3.68. With a mean value of 3.68, respondents' high degree of agreement with the impact of ongoing training throughout implementation is evident. The effects of education and training on the project team's competency and technique knowledge were 3.24 and 3.09, respectively. The survey findings revealed the importance of education and training for a successful ERP deployment.

Vendor Support

	Vendor support is the most significant factor in ERP implementation.	Major conflict was created between vendor and our company during ERP implementation.	ERP vendor (Oracle) was very supportive.	There was dedicated support team from vendor during ERP implementation.	I am satisfied with overall vendor support.
N	102	102	102	102	102

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

Mean	3.89	3.25	3.01	3.74	2.84
Std. Deviation	1.157	.443	1.125	1.173	.421
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5

Table 4.6 Mean analysis related to Vendor support (Source: Survey Result, 2023)

As indicated in table 4.6 the highest and lowest mean score were 3.89 (Significance of vendor support for ERP implementation success) and 2.84 (The overall satisfaction of respondents with vendor support) respectively. This shows respondents expressed their agreement to the statements of the significance of vendor support for implementation success and disagreed with support the gained from vendor.

Teamwork and Composition

	Teamwork & composition is the most significant factor in ERP implementation.	ERP implementation team consisted of all functional units of our company.	Project team composed of competent and capable staffs.	Our company has a work culture that favours teamwork and collaboration.	The composition of the implementation team highly helpful for ERP implementation success.
N	102	102	102	102	102
Mean	3.56	3.30	3.34	2.98	3.05
Std. Deviation	.755	.771	.970	.443	.443
Minimum	1	1	1	1	1
Maximum	5	5	5	3	3

Table 4.7 Mean analysis related to Teamwork and Composition (Source: Survey Result, 2023)

Teamwork and composition contain five statements. Respondents were asked to express their level of agreements with the given parameters. Significance of training and education for ERP implementation success with mean (3.56) followed by incorporation of competent employees to implementation team with mean value (3.34). Statements like benefits of team composition, incorporation of all functional units in project team and teamwork culture of MTN Ghana score a mean of 3.05, 3.30 and 2.98 respectively. Therefore, the survey result depicted that teamwork & composition is critical factor in ERP implementation in MTN Ghana.

User Involvement

	User involvement is the most significant factor in ERP implementation.	As a user all work units participated in ERP implementation process from early stage	MTN Ghana were given opportunity to test functionaries of Oracle before ERP implementation.	As a user feedbacks from MTN Ghana was considered by vendor.	I noticed resistance to the new system.
N	102	102	102	102	102

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

Mean	3.49	3.05	3.25	3.32	3.01
Std. Deviation	1.060	.443	.783	1.308	1.426
Minimum	1	1	1	1	1
Maximum	5	5	5	5	5

Table 4.8 Mean analysis related to User Involvement (Source: Survey Result, 2023)

The table above illustrates that user involvement is a critical factor in ERP implementation. From the mean value, it can be deduced that user involvement is considered a critical success factor for the implementation success of the ERP system, with a mean value of 3.49. The respondents also agreed with user feedback for the vendor, with a mean value of 3.32. The responses demonstrate the importance of user readiness and participation from all functional units from the beginning of the implementation process, as well as user testing of the vendor's ERP functionalities before implementation, with a mean value of 3.05 and 3.25, respectively. According to the table, the mean value indicates that users initially showed resistance to the new system. The mean value of the survey results indicated that involving users has a positive impact on the success of ERP implementation.

Business Process Reengineering

	BPR is the most significant factor in ERP implementation success.	Oracle ERP system is easily compatible with existing process of the organization.	Migration of data from older system to ERP was easy and accurate.
N	102	102	102
Mean	3.44	3.32	3.44
Std. Deviation	1.254	0.981	1.182
Minimum	1	1	1
Maximum	4	5	5

Table 4.9 Mean analysis related to Business Process Reengineering (Source: Survey Result, 2023)

The BPR factor constitutes of three statements. The respondents asked the significance of BPR on ERP implementation. It scores 3.44 mean value. The second and third questions, compatibility of ERP system and accuracy of data migration from old system to ERP system on implementation success score 3.32 and 3.41 mean value respectively. The mean value of survey result shows BPR is insignificant factor for ERP implementation success in MTN Ghana.

CSFs Summary

	Effective Project Management	Top Management Support	Education &Training	Vendor Support	Teamwork & composition	User Involvement	Business Process Reengineering
N	102	102	102	102	102	102	102
Mean	3.68	3.57	3.48	3.35	3.25	3.18	3.08

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

Std. Deviation	.559	.572	.705	.646	.798	.646	.675
Minimum	1	1	1	1	1	1	1
Maximum	5	5	5	5	5	5	5

Table 4.10 Mean values of variables (Source: Survey Result, 2023)

The summary of mean values of success factors; effective project management, top management support, education & training, vendor support, teamwork & composition, user involvement and business process reengineering were calculated and presented in Table 4.10. The table shows that, the mean value of all variables that are effective project management (M=3.68), top management support (M=3.57), education & training (M=3.48), vendor support (3.35), teamwork & composition (M=3.25) and user involvement (M=3.18) and Business process reengineering (M=3.08). All are above the borderline mean value (3). The highest mean score recorded is effective project management related factor (M=3.68) while the lowest score was recorded by business process reengineering related variable (M=3.08). The summary of mean showed all the success factors under study are factor for ERP implementation project success in MTN Ghana.

4.2.1 Correlation Analysis

The value of the coefficient (r) ranges from -1 up to +1. The value of coefficient of correlation (r) indicates the strength and direction of the relationship. The implication of coefficient (r) value is as follows:

- Exactly –1. A perfect downhill (negative) linear relationship.
- –0.70. A strong downhill (negative) linear relationship.
- –0.50. A moderate downhill (negative) relationship.
- –0.30. A weak downhill (negative) linear relationship.
- No linear relationship.
- +0.30. A weak uphill (positive) linear relationship.
- +0.50. A moderate uphill (positive) relationship.
- +0.70. A strong uphill (positive) linear relationship.
- Exactly +1. A perfect uphill (positive) linear relationship

		ERP Implementation success	EPM	TMS	T & E	VS	T &C	UI	BPR
ERP Implementation Success	Pearson Correlation	1							
	Sig. (2-tailed)								
	N	102							
EPM	Pearson Correlation	.732**	1						
	Sig. (2-tailed)	.000							
	N	102	102						
TMS	Pearson Correlation	.635**	. 591**	1					
	Sig. (2-tailed)	.000	.000	.					
	N	102	102	102					

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

T & E	Pearson Correlation	.528**	.301**	.494**	1				
	Sig. (2-tailed)	.000	.002	.000					
	N	102	102	102	102				
VS	Pearson Correlation	.408**	.372**	.249**	.604**	1			
	Sig. (2-tailed)	.000	.000	.012	.000				
	N	102	102	102	102	102			
T & C	Pearson Correlation	.391**	.372**	.017**	.261**	.317**	1		
	Sig. (2-tailed)	.000	.003	.012	.003	.001			
	N	102	102	102	102	102	102		
UI	Pearson Correlation	.364**	.365**	.373	.330**	.365**	.374**	1	
	Sig. (2-tailed)	.000	.020	.000	.020	.000	.003		
	N	102	102	102	102	102	102	102	
BPR	Pearson Correlation	.350**	.298**	.141**	.182**	.213**	.109**	.103**	1
	Sig. (2-tailed)	.001	.025	.008	.027	.032	.034	.002	
	N	102	102	102	102	102	102	102	102

Table 4.12 Relationship among Variables (Source: Survey Result, 2023)

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

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

ERP= Enterprise Resource Planning, EMP=Effective Project Management, TMS=Top Management Support, T & E= Training & Education, VS= Vendor Support, T & C= Teamwork & Composition, UI=User Involvement, BPR= Business Process Reengineering.

Pearson correlation analysis was used to provide evidence of convergent validity. As per the correlation matrix indicated above, six of the independent variables associated positively with ERP implementation success as shown in table 4.12. The result depicted there is a positive and significant relationship between all independent variables and dependent variable at different degree of significance level for ERP implementation success. The result showed the strength and significance at (effective project management r= 0.733, p< 0.01, top management support r=0.635, p<0.01, education and training, r=0.528, p<0.01, vendor support r=0.408, p<0.01, teamwork and composition, r=0.391, p<0.01), user involvement, r=0.364, p<0.01 and business process reengineering, r=.350 at p<0.01).

Variables	Directions	Strength
Effective Project Management	+Ve	Strong near to high
Top Management Support	+Ve	Moderate near to high
Education and Training	+Ve	Moderate

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

Vendor Support	+Ve	Weak near to moderate
Teamwork and composition	+Ve	Weak
User Involvement	+Ve	Weak near to zero
Business Process Reengineering	+Ve	Weak near to zero

Table 4.13 Summary of correlation analysis

4.2.2 Multiple Linear Regression Analysis

Correlation between two variables does not imply that one event causes the second to occur. Multiple regression is a statistical technique through which one can analyze the relationship and effect between a dependent or criterion variable and a set of independent or predictor variable.

Assumptions Testing in Multiple Regression

Multicollinearity: Multicollinearity occurs when the independent variables are too highly correlated with each other.

Multicollinearity may be checked multiple ways:

- **Correlation matrix** – When computing a matrix of Pearson's bivariate correlations among all independent variables, the magnitude of the correlation coefficients should be less than 0.80. In this study this is satisfied condition since the maximum correlation magnitude is r=0.591.

- **Variance Inflation Factor (VIF)** – The VIFs of the linear regression indicate the degree that the variances in the regression estimates are increased due to multicollinearity. VIF values higher than 10 indicate that multicollinearity is a problem. This condition is also satisfied from table 4.14, the maximum VIF result is 1.893.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.387	.246		1.576	.118					
	Effective Project Management	.571	.062	.559	9.195	.000	.733	.688	.456	.664	1.505
	Top Management Support	.258	.067	.259	3.826	.000	.635	.367	.190	.537	1.861
	Training& Education	.144	.055	.178	2.613	.010	.538	.260	.129	.528	1.893
	Vendor Support	.057	.051	.165	2.132	.020	.408	.116	.056	.751	1.332
	Teamwork&	.098	.039	.137	2.551	.012	.391	.254	.126	.848	1.180

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

	Composition										
	User Involvement	.068	.051	.128	2.326	.018	.364	.136	.066	.671	1.491
	Business Process Reengineering	.059	.031	.105	2.831	.040	.025	1.186	.091	.743	1.347

Table 4.14 Coefficient of variables of regression analysis (Source: Survey Result, 2023)

Coefficient for the constant and independent variable helps to predict the dependent variable using independent variables. As shown in Table 4.14, five elements were positive significant independent variables in the regression model. They are: effective project management, top management support, education & training, vendor support and teamwork & composition, user involvement and business process reengineering with significance p value less than 0.05. All independent variables are statistically significant factors for ERP implementation success.

The results provide support for all; , , 3, 4, 5, 6 and 7 in this study.

It is demonstrated that the independent variables are strong predicators of ERP implementation success. It is confirmed by R square 0.769. This tells us that the independent variables estimate 76.9% of the variability of the dependent in the study or it is to mean that, effective project management, top management support, training and education, vendor support, teamwork & composition, user involvement and business process reengineering determines ERP implementation success by 76.9% and the remaining, 23.1% are other factors these didn't included in this study.

The model was;
Y = 0+ 1X1 + 2X2 + 3X3+ 4X4 + 5X5+ 6X6 + 7X7+ ε
Where,

- Y- Dependent Variable
- Constant (Coefficient of Intercept)
- X1 … X7 - Independent Variables
- 1… 7- Regression Coefficient of Independent Variables
- ε - Random Error

For this study the model was,
Y=0.387+0.559(EPM) + 0.259(TMS) + .0.178(E &T) + 0.165(VS) + 0.137(T & C) + 0.128(UI) + (0.105 (BPR)) + ε
Where, Y=ERP Implementation success EPM=Effective Project Management TMS= Top Management Support E &T=Training and Education VS=Vendor Support
T & C=Teamwork & Composition
UI= User Involvement
BPR= Business Process Reengineering

From the above regression model, unit increase in each independent variable would yield increase in ERP implementation success by their respective coefficients. For example, a unit increase in effective project management would yield 0.559 increase in ERP implementation success. At the same time unit increase in business process reengineering would yield 0.105 increase in ERP implementation success, which imply that all independent variables have positive and statistically significant impact on ERP implementation success.

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

5.0 CONCLUSIONS

5.1 Summary

As modern companies worldwide face an ever-increasing degree of globalization, the need for a constant flow of information is intensified. ERP systems have become vital to companies in their efforts to hasten and sharpen the flow of information. However, implementing an ERP system is complex and costly. Worldwide, much research has been done on what makes an ERP implementation successful, however, due to unfamiliarity of the system it is new subject area for our country in general and specifically to MTN Ghana.

Enterprise Resource Planning (ERP) systems have become one of the most important developments in the corporate use of information technology. ERP implementations are usually large, complex projects, involving large groups of people and other resources, working together under considerable time pressure and facing many unforeseen developments. For an organization to compete in rapidly expanding and integrated marketplace, ERP systems must be employed to ensure access to an efficient, effective, and highly reliable information infrastructure. They have almost become the de-facto option for replacing legacy systems.

Despite the benefits that can be achieved from a successful ERP system implementation, there is evidence of high failure in ERP implementation projects. There is evidence that most ERP implementations exceed their budget and their time allocations. Identifying the success factors as early as possible can provide valuable clues to help project managers improve their chances of success. This research focuses on seeking the most important success factors that influence the implementation success of an ERP system in MTN Ghana. Based on a literature review a list of seven success factors are identified as important in ERP system implementation success.

They are; effective project management, top management support, vendor support, training & education, teamwork & composition, user involvement and business process reengineering. Based on the survey result effective project management, top management support, vendor support, training & education, teamwork & composition, user involvement and business process reengineering factors have significant influence on ERP implementation. However, a significant variation is seen on the degree of their effect.

Quantitative research approach and deductive type of reasoning were used for this study. The study used both description and explanatory research design, due to research's combined nature of both descriptive and explanatory attributes. As data collection methodology, administered questionnaires were distributed to the representative of the study via email. The collected responses were analyzed by using both descriptive and inferential statistics.

Regarding to the demographic information about the respondents, the findings indicated that majorities of the respondents were male and most percentage of the respondents possessed first degree as their highest academic qualification followed by post graduate/ master's degree holder. No, employee with below first-degree academic qualification was participated in project. In addition, majority of the respondents had worked in MTN Ghana for a period between 9 to 12 years. Regarding age, majority of the respondents found in the age range of 35-45 years old.

The regression analysis result demonstrated that there is a positive and significant relationship between all seven independent factors under study and ERP implementation success. An examination of the joint relationship portrayed that independent variables determine or predict ERP implementation success by 76.9%, which mean R square of the study is 0.769.

5.2 Findings and Discoveries

H1 There is a positive and significant relationship between effective project management and ERP implementation success. The first hypothesis tested impact of effective project management on ERP implementation success. Beta coefficient regression analysis scored 0.559 at a significance level of 0.000 when $p<0.05$ (See table 4.14), which means the hypothesis is proved with its positive effect and high significance on ERP implementation success according to ranking of survey result filled by MTN Ghana ERP implementation project team.

Effective project management has been emphasized to be essential by prior research to influence a successful ERP implementation project from a management perspective (Nah et al., 2003). As prior research has shown, an effective project management helps to coordinate activities across all stages of an ERP life cycle, from initiation to project closure (Somers & Nelson, 2004). The project management is expected to assign an individual or a group of employees to drive success, follow project progress and take corrective action in case there is symptom of

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

discrepancy between plan and progress in the project management (Nah et al., 2001). Based on this survey result, the study is consistent with what authors on the area have so far researched.

H2 There is a positive and significant relationship between Top Management support and ERP implementation success. The second hypothesis regarding top management support received from analysis result statistically shows top management support has positive effect on ERP implementation success and it has significant relationship with implementation success with positive coefficient value of =0.259 at 0.000 significance with P value $p < 0.05$ (See table 4.14). Top management support is rated as a major critical success factor by prior research. For an ERP implementation, a thorough and persistent involvement of high-level executives is discussed as paramount for an ERP implementation to be successful (Nah et al., 2003). This implies that many system users find top management commitment importantly when working with an ERP implementation. Handing the implementation over entirely to the technical departments of a company is a mistake. Legare (2002) further discuss the importance of recognizing the human factor while implementing the ERP system; being able to acknowledge the different needs of the system users and knowing when to step in and when just to observe is critical for the implementation to be successful. To conclude, there is statistically significant correlation between the success of an ERP implementation and the commitment of top management. Based on this, the study is consistent with what authors on the area have so far researched.

H3 There is a positive and significant relationship between education & training and ERP implementation project success. The third hypothesis tested whether training and education has positive and significant impact on successful implementation of ERP system. Regression analysis coefficient resulted in 0.178 at a significance level of 0.010 when $p < 0.05$ which means that the hypothesis is accepted (see table 4.14). The importance of proper education and training has been emphasized by prior research. They have suggested that training and education can mitigate a possible failure of the project since it involves the users accepting the project. Hence, nurturing a positive employee attitude and reaping the full benefits of the implemented system is vital (Finney & Corbett, 2007). To conclude, training and education showed a statistically significant and positive association with ERP success from according to data collected from MTN Ghana. Based on this, the study is consistent with what authors on the area have researched.

H4 There is positive and significant relationship between vendor support and ERP implementation success. The fourth hypothesis asked for the importance of the vendor support when implementing an ERP system. The results depicted coefficient of 0.165 at a significance level of 0.02 when $p < 0.05$ (see table 4.14). The hypothesis is hence accepted since the significance level yielded a value below the p-value stating that it is statistically significant to say that vendor support describes a successful ERP implementation. Hence, the vendor support is significantly important factor for smooth implementation project. Kremers and Van Dissel (2000) argues that if anything goes wrong, the need for a vendor support is badly important. It is also suggested to have a vendor support in place during the implementation phase and is mainly referred as maintenance and surveillance of the system. Another scenario could be due to the level of customization of the system, the more customization made, the larger need of a heavy vendor support is needed. Based on this, the study is consistent with what authors on the area have so far researched.

H5 There is a positive and significant relationship between Teamwork & Composition and ERP implementation success. The factor related to teamwork & composition in an ERP implementation success was the fifth hypothesis being tested. This hypothesis is accepted since the correlation coefficient depicted a coefficient value of 0.137 at a significance level of 0.01 when $p < 0.05$ (see table 4.14). Prior research argues that the implementation team should lead the way, carrying out the planning phase, building morale and motivation and highlighting the need for a project champion as a part of the implementation team (Nah et al., 2001; Summer, 1999). There might have been an implementation where the implementation team was involved with task forces to connect users cross-functionally and to build a sense of togetherness during the process. (Akkermans & van Helden, 2002) state that the implementation or project team should consist of system users in order for the team to understand any practical implications. With that said, and to conclude the remarks both this study and prior study findings, there is statistical significance between the variable and implementation success. Based on this, the study is consistent with what authors on the area have researched.

Scholarly Journal of Science and Innovation
SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

H6 There is a positive and significant relationship between user involvement and ERP implementation success. The sixth hypothesis tested if there is any relationship between ERP implementation success and user involvement. This hypothesis is accepted since regression analysis coefficient yielded a value of 0.128 which is positive but low and close to zero with significance level at 0.018 when $p < 0.05$ (see table 4.14). Hence, according to this survey result user involvement has also significant effect on ERP implementation success. It is evident that the respondents believed that the user involvement in the ERP implementation was moderately important factor, as showed in descriptive statistics (mean value) analysis of user involvement in table 4.10. Coefficient of regression analysis also (table 4.14) indicated user involvement is important factor for ERP implementation success. When we see prior research literatures, Bhatti (2005) and Francoise et al., (2009) argue for the importance to involve the users in the development of the system and to get a hold of existing knowledge in areas the implementation team lacks enough expertise. Esteves and Pastor (2000) further argue that involving the users enhances the system quality, use and acceptance of the system. Based on this, the study is consistent with what authors on the area have researched.

H7 There is a positive and significant relationship between business process reengineering and ERP implementation success. The seventh hypothesis investigated the impact of business process reengineering on ERP implementation success. The hypothesis is accepted on the result of regression coefficient of 0.105 at a significance level of 0.004 when $p < 0.05$ (see table 4.14). Prior research has emphasized that BPR plays a crucial role, both in the earliest stages and throughout the implementation phase (Somers & Nelson, 2004). Based on this, the study is consistent with what authors on the area have researched. To Summarize, effective project management (=0.559), top management support (=0.259), education & training (=0.178), vendor support (=0.165) and teamwork & composition (=0.137), user involvement have (=0.128) and business process reengineering (=0.105). All the success factor under study have a positive and significant impact on ERP implementation success at 95% confidence level ($p<0.05$)

Test of Hypotheses

Variables	Hypotheses Acceptance	Remark
Effective Project Management (H1)	Supported	
Top Management Support (H2)	Supported	
Training & Education (H3)	Supported	
Vendor Support (H4)	Supported	
Teamwork & Composition (H5)	Supported	
User Involvement (H6)	Supported	
Business Process Reengineering (H7)	Supported	

Table 4.15 Test of hypotheses based on correlation and regression analysis.

5.3 Recommendation and future research suggestions

The correlation analysis shows that there is a strong positive relationship between effective project management, top management support, training & education, vendor support, teamwork & composition, user involvement and business process reengineering and ERP implementation success at different degree of importance or effect level. Regression analysis tells us these factors predict the dependent variable (ERP implementation success) with a strong R-

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

squared (0.769). Therefore, based on these conclusions the following recommendation are given. The study finding idicated effective project management, top management support, vendor support, training & education and teamwork & composition, user involvement and are business process reengineering as success factors these are very helpful to ensure ERP implementation success.

Project manager should effectively manage project scope. Any scope creep cause project time delay and over budget. So, appropriate plan and project scope management should be the major focus area of project manager. As discussed in data analysis and interpretation part the major ERP implementation constraints MTN Ghana faced was time delay project schedule and over budget. These problems could be managed through effective project management.

Top management should comminute about importance and benefits of ERP to all the key stakeholders in the ERP implementation project. The involvement can enhance adoptability of the system and overcome resistance to change and prevent conflicts from emerging during the implementation process.

Top management should also provide leadership during the implementation. Top management should communicate benefits of ERP implementation to project team and another all stakeholders. Decision bureaucracy should be also shortened. Top management should allocate resource needed for smooth mproject progression. Since, the attendance of the top management during the ERP implementation could also strength the employees' confidence in the whole project it should not be underestimated.

The organization's management must strive to improve employees' knowledge and skills to ensure successful ERP implementation. This can be done through intensive training and education. Education and training should not be given attention at the time of project failure, rather it should be preplanned.

The project team must be properly selected to ensure all the departments and functional units are represented based on their potential usage of ERP system in their future daily operations. Teamwork and composition of ERP implementation project team should be balanced, or cross functional and comprise a mix of functional units' staff. So that the internal staff can develop the necessary technical skills which help ERP implementation success and post implementation operation.

Vendor should provide unreserved support during ERP implementation project. Intensive communication should be there in between project manager and vendor. In case of conflict of process and misunderstanding, it should be managed wisely. Vendor should ensure the delivery of project with in scope, time and budget to avoid cost overrun as much as possible.

5.4 Further Study and Research

Regarding to recommendation for future researchers, the researcher would like to forward these two points; Since this study conducted within single company as a case study, the result is only partly generalizable. To reach on more generalized finding the future researchers should take two or more companies from different industries as a case and broaden target population base. There might be important critical factors like consultant didn't included in this study, so it is recommended if such factors and the other success factors are included in factors list and analyzed

5.5 Conclusions

The study is all about "Analysis of success factors for enterprise resource planning implementation". There are different factors these influence ERP implementation successes. By considering different theoretical and empirical (research conducted by different authors), seven variables those are important from MTN Ghana context, were sorted and discussed. They are; effective project management, top management support, vendor support, training & education, teamwork & composition, user involvement and business process reengineering. Each factor contains different statements which is a minimum of three statements and a maximum of six statements. The respondents were asked to give their agreement or disagreement level for Likert scale type questions. Their responses were investigated through mean, standard deviation, correlation and regression analysis tools.

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

The findings showed positive and relevant relationship between effective project management and ERP implementation success. The finding of regression analysis indicated that effective project management highly determine the chance of successful ERP implementation. But there was a gap of project management during ERP implementation project in MTN Ghana. There was project creep which mean unplanned modules had been added at the middle of project and affect project time and cost.

Similarly, there is a positive and significant association between top management supports and ERP implementation success. This shows, top management is a key factor in the ERP implementation project. Top management therefore needs to spearhead the ERP implementation project and provide resources needed overall guidance to ensure successful implementation. When we discuss the top management practice in case of MTN Ghana, the finding of the study depicted, there is knowledge gap of top management about functionalities of ERP. There was length decision bureaucracy and resource shortage.

Education and Training is also a very important factor in the ERP implementation project. According to survey result it indicates that intensive project team's training and education raise the chance of successful ERP implementation. But it didn't give enough attention in MTN Ghana. One-time training was given which is not effective due to complicity of the software.

Teamwork & composition has also significant relationship with the ERP implementation. It can therefore be concluded that putting together good teamwork and composition of project team is a critical step in successful ERP implementation. In case of MTN Ghana there was good teamwork among project team members, but representation of all work unit was not fair, more project team represent technical work units like IS department. Since the software would have used through all functional units' proportionate representation is necessary.

The findings of the study also show that vendor support is another significant critical success factor in ERP implementation. This implies, for an ERP implementation project to be successful there must be vendor support. Along consultant the support from Vendor Company was very helpful. Without oracle company or vendor, the project was unlikely successful.

Regarding to user involvement, survey result shows, it has positive relationship and significant effect on ERP implementation success. in this case study of MTN Ghana, users have been participated through ERP implementation but at early stage of the project there was less user's participation, it was only involvement of top management at early stage of project.

Another variable under study was business process reengineering. Statistically it has positive and significant impact on ERP implementation success as survey result of under case study. The regression analysis for this study indicated that the independent variables are strong predictors of ERP implementation success which is confirmed by R Square 0.769. In other words, those seven critical success factors account for 76.9% of ERP implementation success.

REFERENCES

1. *Aamir Ijaz (2014) A Qualitative Study of the Critical Success Factors of ERP System University of the Punjab Lahore, Pakistan. pp. 105-109.*

2. *Abiy et al, (2009), Introduction to Research Method: Preparatory Module for Addis Ababa University graduate programs. Ethiopia, Addis Ababa. PP. 26*

3. *Al-Mashari M. (2000), Enterprise resource planning (ERP) systems: A Research agenda, Industrial Management and Data Systems, Oman. Vol. 103 No. 3, pp. 22-27.*

4. *Al-Mudimigh A., Zairi1 M., Al-Mashari M. (2001). "ERP software implementation: an integrative framework", European Journal of Information Systems, Vol. 10, pp. 216–226.*

5. *Anderegg, T. (2000). ERP: A-Z Implementer's guide for success, USA. Resource Publishing.*

6. *Ang, J.S.K., Sum, C.C., Yeo, L.N. (2002). A multiple-case design methodology for studying MRP success and CSFs. Spain. Information and Management vol. 39, 271–281. Appleton, E." (1997), "How to Survive ERP. ACIS. pp.50-53.*

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

7. *Bendoly, E., and Schoenherr, T. (2005). ERP system and implementation -process benefits Implications for B2B e- procurement. International Journal of Operations & Production Management, Vol. 25, No. 4, pp. 304-319.*

8. *Bhatti, T. R. (2005, September). Critical success factors for the implementation of enterprise resource planning (ERP): empirical validation. In the second international conference on innovation in information technology (p. 110).*

9. *Bond, B., Genovese, Y., Miklovic, D., Wood, N., Zri msek, B., and Rayner, N. (2000.) "ERP is Dead - Long Live ERP II," Gartner Group, New York.*

10. *Carlino, J., Nelson, S., and Smith, N. (2000). ''Critical success factors affecting ERP implenetation'' AMR. Vol. 36. pp 10-16.*

11. *Chen, I. J. (2001), planning for ERP systems: analysis and future trend. Business Process Management Journal, Vol. 7, No. 5.*

12. *Cliffe, S. (1999), "ERP implementation", Harvard Business Review, 77(1), 16-17.*

13. *Dadashzadeh M. 1989. "Teaching MIS Concepts to MBA students: A Critical Success Factor Approach", Journal of Information Systems Education, vol1 pp 4.*

14. *Daniel 1961. "Management Information Crisis", Harvard business review, pp. 111-116.*

15. *Daniel E. O'Leary, 2000) Enterprise Resource Planning Systems: Systems, Life Cycle, and Electronics Cambridge University Press.*

16. *Davenport T. 1998. "Putting the Enterprise into the Enterprise System". Harvard Business Review, Jul- Aug, pp. 121-131.*

17. *Dezdar, S., & Ainin, S. (2011). The influence of organizational factors on successful ERP implementation. Management Decision, 49(6), 911-926.*

18. *De Wit A. 1988. "Measurement of Project Success", International journal of project management.*

19. *Ekman, P. and Thilenius, P. (2011) 'ERP selection through business relationships – adaptations or connections', Int. J. ofEntrepreneurial Venturing, Vol. 3, No. 1, pp.63 83.*

20. *Ettlie, J.E. (1998), The ERP challenge. Automotive Design & Production, Vol. 110, No. 6, pp.16.*

21. *Farmer, M.A., and Luening, E. (2001), i2-Nike fallout: a cautionary tale. CNET News.com, 9*

22. *March, available at:*

23. *Finney, S., & Corbett, M. (2007). ERP implementation: a compilation and analysis of critical success factors. Business Process Management Journal, 13(3), 329-347.*

24. *Francoise, O., Bourgault, M., & Pellerin, R. (2009). ERP implementation through critical success factors' management. Business Process Management Journal, 15(3), 371-394.*

25. *Ginzberg M. (1979.) "A Study of the Implementation Process", TIMS Studies in the Management Sciences, 13, North-Holland Publishing Company, pp. 85-102.*

26. *Grunert K., Ellegard C. (1993.)" "The Concept of Key Success Factors: theory and method, in*

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

27. *Perspectives on marketing management, Chichester: Wiley pp. 245-274.*

28. *Harrison, J. L. (2004). Motivations for enterprise resource planning (ERP) system implementation in public versus private sector organizations (Doctoral dissertation, University of Central Florida Orlando, Florida).*

29. *Harwood S. (2003.) "ERP: The Implementation Cycle", Butterwoth-Heinemann publishing, Burlington (MA).*

30. *Hendrickson A. 2000. "ERP: Enabling Technology for the 21st Century's Supply Chain", Transportation Trends, vol. 2, pp. 1-7.*

31. *Holland C., Light B., Gibson N. (1999c.) "A Critical Success Factors Model for Enterprise Resource Planning Implementation", European Conference on Information Systems (ECIS), Copenhagen (Denmark).*

32. *Hong, K.K., Kim, Y.G. (2002). The CSFs for ERP implementation: An organizational fit perspective. Information and Management 40, 25–40.*

33. *Huang, Z., and Palvia, P. (2001), ERP implementation issues in advanced and developing countries. Business Process journal…china. Vol 89 pp189-196.*

34. *Jarvenpaa S., Dickson G., DeSanctis G. 1985. "Methodological Issues in Experimental IS Research: Experiences and Recommendations", MIS Quarterly, 9(2), pp. 141-156.*

35. *KOTHARI, C. R. 2004. Research Methodology: Methods and Techniques, Ansari Road, Daryaganj, New Delhi - 110002, New Age International (P) Ltd. PP. 188.*

36. *Krammergaard P., Moller C. 2000. "A Research Framework for Studying the Implementation of enterprise resource planning systems", 23rd information systems Research seminar in Scandinavia, Sweden, pp. 139-162.*

37. *Kremzar, M. H., and Wallace, T. F. (2001), ERP: Making It Happen: The Implementers' Guide to*
38. *Success with Enterprise Resource Planning. New York: John Wiley & Sons,Inc.*

39. *Kwon T., Zmud R. 1987. "Unifying the fragmented models of Information Systems Implementation", in Critical Issues in Information Systems Research, Boland R.J. and Hirschheim RA. (eds.), John Willey & Sons Ltd., pp. 227-251.*

40. *Leidecker J., Bruno A. (1984.) "Identifying and Using Critical Success Factors", Long Range Planning, 17(1), pp. 23-32.*

41. *Loonam, J., and McDonagh, J. (2005), Principles, Foundations, & Issues in Enterprise Systems.*

42. *Ideal Group Inc., Ireland.*

43. *Lucas H. 1975. "Why Information Systems Fail", New York: Columbia University press.*

44. *Malbert, V.A., Soni, A., Venkataramanan, M.A. (2003). Enterprise resource planning: Managing the implementation process. European Journal of Operational Research 146, 302–314.*

45. *Mandal, P., & Gunasekaran, A. (2003). Issues in implementing ERP: A case study. European Journal of Operational Research, 146(2), 274-283.*

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

46. *Markus M., Axline S., Petrie D., Tanis C. 2000. "Learning from Adopters' Experiences with ERP: problems encountered, and success achieved". Journal of Information Technology, 15(4), pp. 245-266.*

47. *McNurlin, B. (2001). Will users of ERP stay satisfied? MIT Sloan Management Review, Vol. 42, No. 2, pp. 14-21.*

48. *M. Garg, (2010), "Impact of Enterprise Resource Planning on Organizational Productivity in an Information Technology Organization," ProQuest LLC. Michigan, USA.*

49. *Moon, Y. B. (2007). Enterprise Resource Planning (ERP): a review of the literature. Int. J.*
50. *Management and Enterprise Development, Vol. 4, No. 3.*

51. *Motwani, J., Subramanian, R., & Gopalakrishna, P. (2005). Critical factors for successful ERP implementation: Exploratory findings from four case studies. Computers in Industry, 56(6), 529-544.*

52. *Nah F., Lau L., Kuang J. 2001. "Critical Factors for Successful Implementation of Enterprise Systems", Business Process Management Journal, 7(3), pp. 285-296.*

53. *Nicolaou, A.I. (2004). "Firm performance effects in relation to the implementation and use of enterprise resource planning systems". Journal of Information Systems, Vol.18, No. 2, pp79-105.*

54. *Nah, F., Zuckweiler, K. and Lee-Shang Lau, J. (2003). ERP Implementation: Chief Information Officers' Perceptions of Critical Success Factors. International Journal of Human-Computer Interaction, 16(1), 5-22.*

55. *Nyagah, E. (2006). An investigation of critical success factors for successful implementation of enterprise resource planning systems in Kenya. Master thesis. University of Nairobi.*

56. *O'Leary D. 2000. "Enterprise Resource Planning Systems: systems, lifecycle, electronic commerce, and risk", Cambridge University Press, 2000.*

57. *Otieno, J. (2010). Enterprise Resource Planning Systems Implementation and Upgrade:*

58. *A Kenyan Study. PhD Thesis.Middlesex University.*

59. *Parr A., Shanks G. 2000a. "A Taxonomy of ERP Implementation Approaches", Hawaii International Conference on Science Systems (HICSS), Maui (USA).*

60. *Peffers K., Gengler C., Tuunanen T. 2003. "Extending Critical Success Factors Methodology to Facilitate Broadly Participative Information Systems Planning", Journal of Management Information Systems, 20(1), pp. 51-85.*

61. *Pinto J., Slevin D. 1987. "Critical Factors in Successful Project Implementation", IEEE Transactions on Engineering Management, 34(1), pp. 22-27.*

62. *Rajagopal, P. (2002). An innovation-diffusion view of implementation of enterprise resource planning (ERP) systems and development of a research model. Information & Management, Vol. 40, pp. 87–114.*

63. *Rashid, M. A., Hossain, L., and Patrick, J. D. (2002). The Evolution of ERP Systems: A Historical Perspective. Idea Group Publishing. Ireland*

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

64. *Rockart J., DeLong D. 1988. "Executive Support Systems", Homewood, IL: Business One Irwin.*

65. *Sandoe K., Corbitt G., Boykin R. 2001. "Enterprise Integration", John Wiley & Sons, New York.*

66. *Sarker S., Lee A. 2000. "Using a Case Study to Test the Role of Three Key Social Enablers in ERP Implementations". International Conference on Information Systems, Brisbane (Australia).*

67. *Saunders, M.P., Lewis, P. & ThornhilL, A. (2007). Research methods for business students:*

68. *England: Financial Times Prentice Hall. 4*

69. *Scott and Kaindl, L. (2000). Enhancing functionality in an enterprise package. Information and Management, Misalignments in ERP Implementation: A Dialectic Perspective. International Journal of Human-Computer Interaction, 16(1), pp. 81-100.*

70. *Shanks, G., Parr, A. (2000). A model of ERP project implementation, Journal of Information Technology, no. 15, pp. 289-303.*

71. *Shang, S., & Seddon, P. B. (2000). Assessing and managing the benefits of enterprise systems:*

72. *The business manager's perspective. Information Systems Journal, 12(4), 271–299.*

73. *Shang S., Seddon P. (2000.) "A Comprehensive Framework for Classifying the Benefits of ERP Systems", Americas Conference on Information Systems (AMCIS), 2000.*

74. *Singah, Y. K. 2006. fundamental of research methodology and statistics, New Delhi, New Age International (P) Ltd.*

75. *Skok W., Legge M. 2001. "Evaluating Enterprise Resource planning (ERP) Systems using an Interpretive Approach", SIGCPR2001 Conference on 'The IT Personnel Crisis: Finding and Retaining the Skilled Workforce'. San Diego (USA).*

76. *Somers T., Nelson K. 2001. "The Impact of Critical Success Factors across the Stages of Enterprise Resource Planning Implementations". Hawaii International Conference on System Sciences.*

77. *Sumner M. 1999a. "Critical Success Factors in Enterprise Wide Information Management Systems Projects". Americas Conference on Information Systems (AMCIS), Milwaukee (USA).*

78. *Themistocleous M., Irani Z., O'Keefe R. 2001. "ERP and applications integration, exploratory survey", Business Process Management Journal 7, pp. 195–204.*

79. *Thierauf R. 1982. "Decision Support Systems for Effective Planning and Control: A Case study Approach". Prentice-Hall, Englewood Cliffs USA).*

80. *Trunick, P. A. (1999). ERP: promise or pipe dream. Transportation & Distribution, Vol. 40, No.1, pp. 23-6.*

81. *Umble, E., Haft, R., & Umble, M. (2003). Enterprise resource planning: Implementation procedures and critical success factors. European Journal of Operational Research, 146(2), 241-257*

SJSI 2025, Volume 5, Issue 8, Page 21-47
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]
Journal Impact Factor (JIF): 8.871

ISSN: 2676-2714
DOI: https://dx.doi.org/10.64839/sjsi.v5i8.4
web: https://damaacademia.com/index.php/sjsi/

82. *Walsham G. 1995. "The Emergence of Interpretivism in IS Research", Information Systems Research, 6(4), pp. 376-394.*

83. *Williams J., Ramaprasad 1998. "The Utilization of Critical Success Factors: A Profile", Decision Sciences Institute, 29th Annual Meeting, Las Vegas, Nevada.*

84. *Yu, C. S. (2005). Causes influencing the effectiveness of the post-implementation ERP system.*

85. *Industrial Management & Data Systems, Vol. 105, No. 1, pp. 115-132.*

86. *Zhang, L., Lee, M. K.O., Zhang, Z., and Banerjee, P. (2002). CSFs of Enterprise Resource Planning Systems Implementation Success in China. Proceedings of the 36th Hawaii International Conference on System Sciences, Vol.5, No.3, pp. 7695 1874, IEEE.*

87. *Zrimsek and Geishecker. (2002, March 27, 2002). Justifying an ERP Upgrade? Take a Longer View. Gartner Group, TG-15-3809.*