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ANTECEDENTS OF IMPLEMENTATION OF E-LEARNING PROJECTS IN PUBLIC UNIVERSITIES IN KENYA

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ABSTRACT

New technologies, particularly Information Communication Technology (ICT) and eLearning, have become key enablers in transforming higher education globally. This study examined the antecedents influencing the implementation of E-Learning projects in public universities in Kenya. Recognizing that E-Learning is integral to educational reform, the study explored how organizational and managerial factors affect the success of such initiatives. Specifically, it investigated the influence of key antecedents: management commitment, and project management structures. These factors are critical in shaping the strategic direction, resource allocation, and institutional readiness for E-Learning implementation. The study employed a descriptive cross-sectional survey design. The target population consisted of 486 staff members in various managerial capacities across 22 public universities in Kenya actively involved in E-Learning projects. Using a stratified proportionate random sampling method, a sample of 219 respondents was selected. Data collection was primarily done through structured questionnaires, complemented by pilot testing to ensure validity. Primary was used. Quantitative data were analyzed using descriptive statistics and inferential techniques via the Statistical Package for Social Sciences (SPSS), while content analysis was applied to qualitative responses. Multiple regression analysis and correlation matrices were utilized to examine the strength and nature of relationships between the antecedent factors and E-Learning project implementation outcomes. Findings revealed that management commitment, and project management structure significantly influenced the effectiveness and sustainability of E-Learning implementation. The study recommends that public universities prioritize structured project management frameworks, and robust institutional support systems. Key strategies include expanding ICT infrastructure, enhancing staff capacity through training, establishing clear E-Learning policies, and ensuring sustainable financial investment. The study further suggests that E-Learning initiatives should center around learner needs and pedagogical value, rather than technology for its own sake. It also calls for comparative studies across various universities to assess differences in adoption and utilization, thereby informing more context-responsive implementation strategies.

Key Words: Antecedents of Implementation, Public Universities, E-Learning, Management Commitment, Project Management Structures

Background of the Study

E-Learning refers to learning facilitated and supported through the use of information and communications technology (Jenkins & Hanson, 2023). Garrison (2021) defines E-Learning as electronically mediated asynchronous and synchronous communication for the purpose of constructing and confirming knowledge. E-Learning can be considered a natural evolution of distance learning, which has always taken advantage of the latest tools to emerge in the context of technologies for structuring education (Sangrà *et al.,* 2022). E-Learning can be classified into two broad categories, synchronous and asynchronous (Cantoni, 2024). Synchronous learning uses a learning model that initiates a classroom course, lecture or meeting using Internet technologies. In synchronous learning, the interaction is live; it requires all the participants to be available at the same time. Asynchronous learning is described as a web-based version of computer-based training (CBT), which is typically offered on a CD-ROM or across an organization's local area network. The learner can access the course at any time at his or her own pace (Takalani, 2020).

New technologies including information communication technology (ICT) and E-Learning have become the driving forces in most institutions including universities today. However, Balci and Soran (2019) point out that when 'ICT' and 'e-learning' were almost all set to be acknowledged by most educators as a savior, its limitations have also started surfacing and now the call is for 'blended learning. Garrison and Vaughan (2020) define blended learning as "the thoughtful fusion of face-to-face and online learning experiences". Currently many institutions are opting for the blended learning delivery of courses (Stubbs, Martin, & Endlar, 2024). Research conducted in many public universities in Kenya has established that most of them are not effectively adopting and using ICT to support learning, teaching and management as intended (Manduku, Kosgey, & Sang, 2022). Though many universities have adopted blended learning as a starting point due to lack of adequate E-Learning skills and infrastructure, full implementation of E-Learning will offer numerous benefits to universities. This study sought to investigate the antecedent factors influencing the implementation of E-Learning projects in public universities in Kenya.

Statement of the Problem

The implementation of eLearning in public universities should be approached as a critical pillar of educational reform, aimed at enhancing access, flexibility, and quality of learning. However, despite the strategic importance of eLearning, implementation across Kenyan public universities remains limited and fragmented. While Kenya's Ministry of Education Policy Framework for Education and Training (2022) explicitly identifies Open and Distance Learning (ODL) and eLearning as priority areas, widespread institutional adoption is still at its nascent stages. Although universities such as the University of Nairobi, Kenyatta University, Moi University, and Jomo Kenyatta University of Agriculture and Technology have adopted blended learning approaches, recent statistics indicate slow uptake. According to the E-Readiness Survey of Kenyan Universities (2023), only 11% of students were enrolled in courses delivered through blended or fully online modes, underscoring a significant gap between policy and practice. The challenges are multi-dimensional. They include insufficient technological infrastructure, limited ICT literacy among faculty, low digital readiness, and inadequate budget allocations. Most universities depend heavily on government capitation, which has declined in real value due to inflation and rising student populations, making it difficult to invest in scalable eLearning systems.

Moreover, the success of eLearning implementation is highly dependent on institutional-level factors such as project leadership, commitment of management, the organizational structure for managing digital projects. According to Touray, Salminen, and Mursu (2023), these antecedents—ranging from infrastructural and organizational to political and leadership-related factors—are critical in determining implementation success in low-resource settings like Sub-Saharan Africa. Research by Ssekakubo, Suleman, and Marsden (2021) further

revealed that over 60% of eLearning initiatives in developing countries fail partially or entirely due to inadequate planning, poor leadership engagement, and a lack of contextual adaptation of technology.

Despite this, limited empirical evidence exists that systematically evaluates how internal institutional factors—such as the top management commitment, and organizational structures—influence eLearning project outcomes in Kenya's public universities. This study, therefore, sought to address this gap by investigating these critical antecedents to implementation, with the goal of offering evidence-based recommendations for enhancing eLearning adoption and sustainability in public universities in Kenya.

Objectives of the Study

The general objective of this study was to investigate the antecedent factors influencing the implementation of E-Learning projects in public universities in Kenya.

The study was guided by the following specific objective

1. To evaluate the influence of management commitment on implementation of E-Learning projects in public universities in Kenya.
2. To examine the influence of project management structure on implementation of E-Learning projects in public universities in Kenya.

LITERATURE REVIEW

Theoretical Review

Contract Theory

Contract Theory, as advanced by Tirole (2022), emphasizes the formal and informal agreements between two key actors: the principal, who delegates tasks, and the agent, who performs them. In organizational contexts, this theory addresses the dynamics of accountability, trust, and control between the two parties. In the case of public universities, top management acts as the principal, while the project manager serves as the agent, tasked with implementing institutional projects such as eLearning initiatives on behalf of the management. According to this theory, successful project implementation depends on the clarity of communication and the alignment of interests between the principal and the agent. The principal must not only articulate institutional goals and expectations but also provide the necessary infrastructure, support systems, and policy frameworks. In turn, the agent is expected to exhibit professionalism, competence, and stewardship in managing the resources entrusted to them (Tirole, 2022).

A key aspect of Contract Theory is the concept of moral hazard, which arises when there is asymmetric information or misaligned incentives between the principal and the agent. For instance, if the top management lacks visibility into the project manager's actions or if the agent has inadequate resources or oversight, project outcomes may be compromised. Thus, the theory underlines the importance of trust, well-defined responsibilities, and performance-monitoring mechanisms to ensure mutual accountability. Within the context of this study, Contract Theory provides a useful lens through which to examine the influence of management commitment and project governance structures on eLearning project implementation. The vision and mission statements of public universities, as well as project goals, reflect a contract-like relationship that binds top management to ensure strategic alignment and resource availability, while holding project managers accountable for delivery. Therefore, Contract Theory supports the argument that clear delegation, shared understanding, and mutual accountability between top management and project implementers are essential antecedents for the successful implementation of eLearning projects in public universities.

System Theory

Systems Theory was first introduced in the 1940s by biologist Ludwig von Bertalanffy and later advanced by scholars such as W. Ross Ashby and Gregory Bateson. Bertalanffy proposed that systems—whether biological, social, or organizational—should be understood as cohesive wholes, composed of interdependent components whose collective behavior cannot be fully explained by analyzing the parts in isolation. This foundational idea became central to General Systems Theory and has since been widely applied to organizational analysis (Bertalanffy, 2022).

From an organizational perspective, Henry (2021) described a system as an entity with clearly defined boundaries that distinguish internal components from the external environment. These boundaries enable the identification of inputs (such as resources, policies, and personnel), internal processes, and outputs (such as services, outcomes, or innovations). Systems Theory emphasizes the importance of understanding how the various parts of an organization interact dynamically to sustain the whole. In public universities, these parts include academic faculties, ICT departments, administrative units, and external stakeholders such as government bodies and donors. As Yip (2022) observed, the effectiveness of a university depends not just on the performance of its individual units, but on how well those units are integrated and coordinated within the larger institutional system.

Katz and Kahn (2020) contributed to the theory by distinguishing between open systems and closed systems. Open systems engage in continuous interaction with their environment, exchanging resources, information, and feedback, whereas closed systems operate in isolation with minimal external influence. In the context of higher education, public universities in Kenya function as open systems—they are influenced by external policies, funding decisions, societal expectations, and technological developments. Golinelli (2020) emphasized that open systems must be responsive to environmental change, continually adjusting their internal structures and processes to remain effective.

Systems Theory is particularly relevant to this study in examining the influence of project management structure on the implementation of eLearning projects. Successful eLearning initiatives require seamless coordination among multiple functional units, including ICT services, academic leadership, technical staff, and support departments. The project management structure must enable effective communication, decision-making, resource sharing, and feedback mechanisms across these components. A fragmented or rigid structure may hinder project execution, while a well-integrated, adaptive structure supports implementation success.

Thus, Systems Theory highlights the critical role of institutional interconnectedness, adaptability, and holistic management. It provides a conceptual foundation for understanding how the internal organization of public universities—and specifically, their project management structures—can act as antecedents that significantly shape the outcomes of eLearning project implementation.

Conceptual Framework

A conceptual framework will be utilized to pictorially depict the concepts being researched and to illustrate the direction of the research content. A conceptual framework illustrates the concepts on which the methods are employed and the direction of the relationships between these concepts (Mintzberg, 2021). As such it illustrates the propositions/hypotheses on which the findings are compared and reported. Thus, the conceptual framework is an important part of the research conceptualization (Silverthorne, 2021).

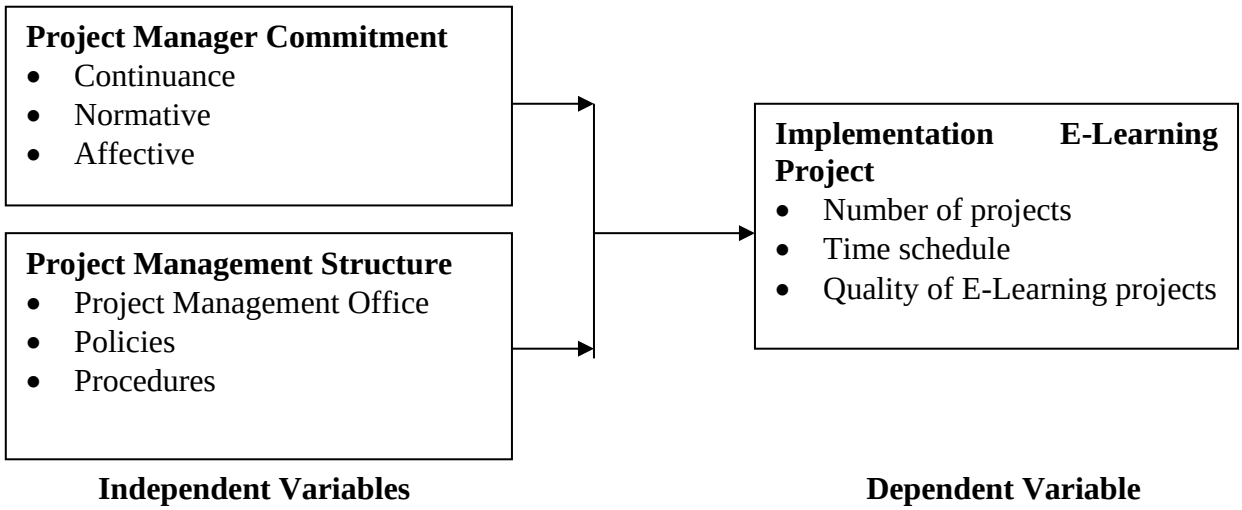

Figure 2.1: Conceptual Framework

Management Commitment

Under this variable study assessed three sub constructs; namely; human resource, financial resource and material resource required at every level of project cycle and the amount of top management support required to marshal their availability. There are five cycles in project management: Initiation, Planning, Execution, Monitoring and Control and Closure (PMBOK Guide, 2020). Accordingly knowing the type of resources needed during each of these processes helped channel the correct type of top management to support the resource delivery. While project managers must provide transparent and efficient planning, monitoring and controlling of resources in order to achieve the project goals, top management must have an overview of the company as a whole (Martinsuo & Lehtonen, 2022). The use of an integral information system that efficiently supports all aspects of multi-project-oriented organization is thus essential.

As with other information systems (Neumann, 2021), management commitment is critical to E-Learning implementation (Morison, 2022). Macpherson *et al.* (2024) mention top management's consistency and vocal support as a key to success. Masie (2021) notes that "The role of the manager as an overt champion of the learner's development must be extended to E-Learning offerings." Management commitment is one of the most important factors reported. The top management commitment was mentioned as important due to the organization wide change required. The direct management commitment importance is due to their ability to influence employees. Direct managers are more familiar with employees. They are able to guide and direct. They can assist employee in finding the right time to learn and by that support acceptance of the new technology and the process.

The functional organization is the classical organization and consists of purchasing, HRM, production, sales, finance department, etc. If a company starts such a project, this structure is unsuitable unless some changes are introduced. Employees from different departments are required to undertake additional project tasks, while the project's management is assigned to a person within the functional organization. All project activities, including management, represent additional tasks. The advantage of this solution is that nothing changes within the existing organizational structure by the introduction of such projects. The main disadvantage is that team members always give priority to their usual or functional duties. We can argue that this solution is appropriate in the case of starting a few projects.

The project manager has total responsibility and accountability for the project's success. The functional departments, on the other hand, have the functional responsibility to maintain

technical excellence in the project. A line manager whose prime responsibility is to ensure that a unified technical base is maintained and that all available information can be exchanged for each project heads each functional unit. Line managers must also keep their people aware of the latest technical developments in the industry (Kerzner, 2022).

Project managers negotiate with line managers for the accomplishment of deliverables rather than for specific talent. Project managers can request specific talent, but the final decision on staffing belongs to the line manager. Line managers trust their employees enough to empower those employees to make decisions related to their specific functional area without continuously having to run back to their line manager. If a line manager is unable to keep a promise he/she has made regarding a project, then the project manager must do everything possible to help the line manager develop alternative plans.

Project Management Structure

This variable assessed the effects of organization structure, as designed by top managers, and the position of project manager within the structure on project implementation. Mintzberg (2020) argued that the position of the top manager is expected to moderate the association between managerial roles and project success. In addition there are two types of top managers' orientation: external and internal. External managers tend to engage in work that needs looking beyond the organization, and are very high up in the organizational hierarchy. Internal managers are concerned about tasks within the organization, and are generally placed below the External managers in the organizational hierarchy. Thus, top level managers often falls within external managers and at the top of organisation hierarchy.

In project-based organization, the project is assigned to a group of employees who are organized within a new department. Members of the project team only work on project tasks; thus, being occupied with other regular activities is no excuse. The project manager, with the same authority as line managers, is responsible solely for the project and there is no need for cooperation with line managers. Strong team work exists in the department. The main disadvantages are team members who are not fully occupied, the reduced connection of team members with the business functions, and the problem of employment after the project finishes. The project matrix structure is a combination of the above-mentioned structures. Every employee can carry out their regular activities within the business function and, at the same time, be assigned to the project to conduct some unique project activities. The member is thus subordinated to the line manager (for their regular work) and to the project manager.

The matrix structure is characterized by the simultaneous presence of both project and functional components. These components are administratively independent, but interdependent in the execution of projects. This arrangement permits functional components to maintain an independent existence and to pursue their regular activities, while providing the specialized resources needed for the execution of projects. In general, the specialists remain permanently under the authority of the line managers, but their services are lent out to the projects on a temporary basis in line with project needs. The functional components thus become centralized reservoirs of specialized resources (Stare, 20211)

Implementation of E-Learning Project

According to Kloppenborg and Opfer (2022) cost, time, and performance are the basic measures of project success implementation. That is, a project is often considered successfully implemented if it finishes within its budget estimate, finishes within its scheduled time frame, and performs as designed (Scott-Young and Samson, 2020).Scholars in project management have developed project success measures and these includes; client's or intended user's satisfaction, employee development and satisfaction (Shenhar *et al.,* 2021); time, cost, quality, performance, safety, and operational benefit (Lim & Mohamed, 2020); profitability metrics (Scott-Young & Samson, 2021). However for the purpose of the study, implementation of E-

Learning projects will be evaluated in terms of percentage cost vis-a-vis budget, percentage schedule time frame and percentage beneficiary's acceptance.

Proper planning in regards to tasks, project leaders, cost and other implementation elements make up the basis for adequate execution and control. Collect and align all the objectives from the related departments with the project's objectives. Aligning these objectives and expectations is usually a highly strategic process, as each department would likely have its own specific objectives. For example, finance may be hoping to reach very specific objectives in terms of investment, return on investment, savings in training programs, etc. The functional areas or departments may have expectations about time investment and training schedules; reports from users trained on highly specific data or formats who may require a tailored report system; access from several devices or areas with access and bandwidth restrictions; shared equipment; users with special schedules; team separation into areas, roles, etc. Similarly, the human resources department may have objectives concerning program design, promotion or career plans, certifications, etc. The IT department may have objectives concerning the use of department resources, use of equipment, safety requirements, budget, licensing, hardware architecture, bandwidth consumption, etc. (Guiterrez, 2024).

Empirical Literature Review

Management Commitment and Implementation of E-Learning Project

Cardoso and Pedron (2023) did an investigation on Users' Commitment in Information System Implementation: The Role of Top-Management Commitment and Organizational Context. The improvement in quality of care is a primary concern and driving force in the use of Healthcare Information Technology (HIT). Notwithstanding high expectations for the value of IT (Information Technology) in healthcare, many attempts at HIT implementation have failed. Various studies of the implementation of change programs have demonstrated the importance of stakeholders' commitment as well as organizational context when Information Systems/Information Technology (IS/IT) is implemented. Here, two case studies following the implementation of a HIT in a hospital setting are analyzed, focusing on stakeholders' commitment to the IS/IT. An understanding is sought as to how top-management commitment and organizational context influence stakeholder's commitment to benefits achievement from HIT implementation. A qualitative, interpretative and case-based research was used employing semi-structured interviews and document analysis. Findings revealed that organizational context and top-management commitment can be particularly important to the commitment of users in achieving the expected IS/IT benefits.

Marble (2022) investigated on a system implementation study: management commitment to project management. This paper reports on one phase of a pluralistic investigation of systems implementation projects. A survey instrument, based on previously validated measurement items, is described; it was tested and validated. In the process, a method for appraising the significance of interaction effects was determined. The results of the analysis show that, for the data of this study, the organizational priority given to implementation projects by top management is only associated indirectly with improved user information satisfaction (UIS). Only when this priority occurs in the management of continuing development and enhancement, does top management support seem to be significant to users. It was also found that the efficiency and flexibility of the development process was significant in its own right, even without any effects of top management support.

Saeed and Hasan (2022) conducted a study on the effect of total quality management on construction project performance case study: construction firms in Yemen. This study empirically examines the extent to which Total Quality Management (TQM) and project performance are correlated and the effects of TQM on project performance. In this study, a TQM framework is developed according to a comprehensive literature review. This framework demonstrates the relationship between TQM and construction project performance through

examining the effects of nine TQM constructs on three element levels of project performance. The proposed model and hypotheses were tested by using data collected from Yemen construction firms. The survey covered 40 companies chosen from construction sector (30%of sample size). 29 questionnaires were returned. The response rate was 72.5 %, normal for such research). The results of this aforementioned model support the proposed hypothesis (TQM has positive effects on teamwork satisfaction, quality of construction project implementation, client satisfaction, and construction project performance. Finally, this research culminates with TQM process for improving construction project performance, a discussion and the general conclusions are extracted in the light of the survey findings. The results finding are expected to provide useful information for future research directions especially as an indicator for the development of a suitable TQM framework for the construction firms.

Project Management Structure and Implementation of E-Learning Project

Stare (2021) assessed the impact of the organizational structure and project organizational culture on project performance in Slovenian enterprises. The goal of the research presented in this article was to identify the level of project organizational culture in Slovenian enterprises. The study also analyzed the strength of the impact of the culture on project execution. The research was focused on the top and line management's attitudes and some other factors connected with managers' attitudes (following the internal regulations, respecting the project manager's formal authority). The study also investigated the most common project organization types and the correlations among the organization, culture and project performance. The research showed a high level of project organizational culture and a high impact level of measured culture factors on project performance. An increasing level of project manager authority in different organization types positively impacts on several cultural dimensions and also has a direct impact on the project's performance.

Schnetler, Steyn and Staden (2020) carried out a study on characteristics of matrix structures, and their effects on project success. This paper investigated the characteristics of matrix structures and their relationships with drivers of project success, such as communication, collaboration, and trust between project team members. Matrix characteristics that were expected to correlate positively with project success mostly did correlate with the success drivers. However, characteristics expected to impact negatively on project success did not show such significant correlations; some even correlated positively with success drivers. The success drivers investigated, in turn, correlated positively with perceived project success. A proposed model illustrates the effects of matrix characteristics on the drivers of success and their ultimate effect on project performance.

Jowah (2024) carried out a study on politics and project execution: how organizational politics impact the effectiveness of project managers: the government's dilemma. Politics, the grouping together of people for power in any structural entity is not discussed much in the field of project management. The survey sought to establish the extent to which political forces are used by senior management and can be used by the project manager in project execution to pre-empt the effects of the authority gap in project management. This paper establishes that there is tremendous interference during project executions to varying degrees as a result of political interests, the management styles of senior management, organizational structure and factors, and the extent of personal stakeholder interests in the project. The target population for the empirical research was operational and management staff of two large government construction projects, which employ approximately 800 people per site, including 46 subcontractors and their staff. Questionnaires were administered through personal interviews giving a 100% questionnaire return rate. The results point to constant political interference from external and internal stakeholders.

RESEARCH METHODOLOGY

The study adopted a descriptive cross-sectional survey. According to Cooper and Schindler (2022), cross sectional studies are carried out once. The target population for this study was employee of 30 public universities in Kenya, who are involved in the implementation of E-Learning projects. For purpose of this study the target population was stratified through top management level, middle level managers and low level management. The study population for this study was employee of 30 public universities in Kenya. The study population composed of 486 members of staff in different managerial levels currently working at the 30 public universities in Kenya, involved in the implementation of E-Learning projects. The sample size of the study was arrived at using the below scientific formula.

$$n=\frac{N}{1+N(e)^2}$$

Where N is the target population 486 employees

e is the error term which is 0.05

$$n=\frac{486}{1+486(0.05)^2}$$

$$n=\frac{486}{1+1.215}$$

$$n=\frac{486}{2.215}$$

n=219.4

n=219

Stratified random sampling technique was used to select the sample. From each stratum, the study used simple random sampling to select a sample 100, which represent 45.61%. According to Mugenda and Mugenda, (2022) a sample of 30% is appropriate. Ngechu (2024) underscores the importance of selecting a representative sample through making a sampling frame. According to Cooper and Schindler (2022), random sampling frequently minimizes the sampling error in the population. This in turn increases the precision of any estimation methods used.

Table 1: Sample Size

Level	Frequency	Proportion	Sample Size
Top Management	50	45.06%	15
Middle Level Management	130	45.06%	30
Low-Level Management	200	45.06%	55
Total	**380**	45.06%	100

Primary data was collected using questionnaires. Both open and closed ended questions were used to collect primary data. Quantitative data collected was analysed by the use of descriptive statistics using Statistical Package for Social Sciences (SPSS) computer software version 29 which allows the researcher to follow clear set of quantitative data analysis procedures that lead to increased data validity and reliability and demonstrates the relationship between the research variables. SPSS also assist in producing frequency tables for descriptive analysis (Nachmias & Nachmias, 2020) and presented through percentages, means, standard deviations and frequencies. Content analysis was used to test data that is qualitative in nature or aspect of the data collected from the open ended questions. Inferential statistics through multiple regression analysis was also used. A correlation matrix was developed to analyze the relationships between the independent variables as this would assist in developing a prediction multiple models.

RESEARCH FINDINGS AND DISCUSSION

The study targeted a sample of 219 respondents drawn from various managerial and project implementation departments across 22 public universities in Kenya. As presented in Table 4.1, 197 respondents successfully filled and returned the questionnaires, representing a response rate of 90%. According to Mugenda and Mugenda (2020), a response rate of 50% is considered adequate, 60% is good, and 70% and above is rated as excellent. Therefore, the response rate achieved in this study is excellent and deemed sufficient for statistical analysis and interpretation.

Descriptive Analysis of Study Variables

This section presents descriptive statistics of the study variables based on respondents' ratings using a five-point Likert scale, where 1 = Strongly Disagree and 5 = Strongly Agree. The analysis focused on the four independent variables, Management Commitment and Project Management Structure and the dependent variable, Implementation of eLearning Projects. The results are summarized using means and standard deviations to show central tendencies and variation across responses.

Management Commitment

Respondents were requested to provide their opinion on the on the management commitment based on a scale of 1 to 5 where: 1 - Strongly Disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; and 5 - Strongly Agree.

Table 2: Management commitment

	Mean	Std. Dev.
Am happy to implement the E-Learning due to the values attached to it	4.664	1.510
Implementation of this project provides a sense of identification	4.721	1.590
I enjoy implementation of the E-Learning project in this organization	4.702	1.551
I feel positive about working on E-Learning project in this organization	4.650	1.478
Am willing to put a lot of effort in the implementation of E-Learning project in this organization	4.631	1.461
I belief in the implementation of E-Learning project in this organization.	4.694	1.560
Am obliged to implement E-Learning project in this organization	4.640	1.472
I care about the successful implementation of E-Learning projects	4.610	1.405

From the findings as shown in Table 2, the respondents agreed that implementation of this project provides a sense of identification as shown by a mean of 4.721, they enjoy implementation of the E-Learning project in this organization as shown by a mean of 4.702, they believe in the implementation of E-Learning project in this organization as shown by a mean of 4.694, they are happy to implement the E-Learning due to the values attached to it as shown by a mean of 4.664, they are willing to put a lot of effort in the implementation of E-Learning project in this organization as shown by a mean of 4.631, they feel positive about working on E-Learning project in this organization as shown by a mean of 4.650, they are obliged to implement E-Learning project in this organization as shown by a mean of 4.640, and they care about the successful implementation of E-Learning projects as shown by a mean of 4.610.

These findings concur with (Kerzner, 2022) who stated that the project manager has total responsibility and accountability for the project's success. The functional departments, on the other hand, have the functional responsibility to maintain technical excellence in the project. A line manager, whose prime responsibility is to ensure that a unified technical base is maintained, and that all available information can be exchanged for each project, heads each

functional unit. Line managers must also keep their people aware of the latest technical developments in the industry.

Project Management Structure

Respondents were requested to provide their opinion on the project management structure based on a scale of 1 to 5 where: 1 - Strongly Disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; and 5 - Strongly Agree. The results are shown in Table 3.

Table 3: Project Management Structure

Statement	Mean	Std. Dev.
Top management level influences project success	4.640	1.483
Middle level management level influences project success	4.718	1.584
Bottom level management level influences project success	4.691	1.529
Project management structure is key to the success of a project	4.290	1.185
Project management structure should be well organized to facilitate faster implementation of the project.	4.623	1.446
The project management office exists	4.724	1.623
The project management office structure exists	4.650	1.493
The project management office awareness exists	4.209	1.234
The project manager is appointed competitively	4.776	1,532
There are clear policies to guide project managers	4.618	1.422
There are clear procedures to guide project managers	4.580	1.375
The project management policies are communicated	4.572	1.362
The project management procedures are communicated	4.715	1.567
Project management policies are followed	4.550	1.369
Project management procedures are followed	4.659	1.499

The findings showed that the respondents agreed that the project manager is appointed competitively as shown by a mean of 4.776, the project management office exists as shown by a mean of 4.724, middle level management level influences project success as shown by a mean of 4.718, the project management procedures are communicated as shown by a mean of 4.715, bottom level management level influences project success as shown by a mean of 4.691, project management procedures are followed as shown by a mean of 4.659, the project management office structure exists as shown by a mean of 4.650, top management level influences project success as shown by a mean of 4.640, project management structure should be well organized to facilitate faster implementation of the project as shown by a mean of 4.623, there are clear policies to guide project managers as shown by a mean of 4.618, there are clear procedures to guide project managers as shown by a mean of 4.580, the project management policies are communicated as shown by a mean of 4.572, project management policies are followed as shown by a mean of 4.550, project management structure is key to the success of a project as shown by a mean of 4.290 and the project management office awareness exists as shown by a mean of 4.209.

These findings concur with Jowah (2024) who carried out a study on politics and project execution: how organizational politics impact the effectiveness of project managers: the government's dilemma. Politics, the grouping together of people for power in any structural entity is not discussed much in the field of project management. The survey sought to establish the extent to which political forces are used by senior management and can be used by the project manager in project execution to pre-empt the effects of the authority gap in project management. This paper establishes that there is tremendous interference during project executions to varying degrees as a result of political interests, the management styles of senior management, organizational structure and factors, and the extent of personal stakeholder interests in the project. The target population for the empirical research was operational and

management staff of two large government construction projects, which employ approximately 800 people per site, including 46 subcontractors and their staff. Questionnaires were administered through personal interviews giving a 100% questionnaire return rate. The results point to constant political interference from external and internal stakeholders.

Implementation of E-Learning projects

Respondents were asked to indicate their level of agreement on various statements related to the implementation of eLearning projects, based on a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The results are presented in Table 4.

Table 4: Implementation of E-Learning Projects

Statement	Mean	Std. Dev.
Cost is used to measure project success implementation.	4.632	1.458
Time is used to measure project success implementation.	4.689	1.511
Quality is used to measure project success implementation.	4.714	1.523
A project is considered successful if completed within budget estimate.	4.721	1.546
A project is considered successful if completed within scheduled timeframe.	4.742	1.560
A project is considered successful if it performs as designed.	4.768	1.577

The findings, as illustrated in Table 4, reveal that respondents strongly agreed that project implementation is best assessed by performance outcomes such as cost, time, and quality. The highest-rated statement was that a project is considered successful if it performs as designed (mean = 4.768), followed by completion within the scheduled timeframe (mean = 4.742), and within budget estimates (mean = 4.721). Similarly, quality and time were emphasized as essential indicators (means of 4.714 and 4.689, respectively). The lowest but still strongly agreed statement was the use of cost as a measure (mean = 4.632).

These findings are consistent with the Project Management Body of Knowledge (PMBOK Guide, 7th Ed.), which identifies time, cost, and quality as the core constraints in assessing project performance. The results also align with Turner and Müller (2022) who emphasized that implementation success in digital transformation projects, such as eLearning, hinges on the alignment of outcomes with predefined goals, timely execution, and resource efficiency.

Correlation Analysis

Correlation analysis was conducted to examine the strength and direction of relationships between the independent variables Management Commitment and Project Management Structure and the dependent variable, Implementation of eLearning Projects. Using the Pearson correlation coefficient (r), the analysis measured associations on a scale from -1 to +1, where values above 0.7 indicate strong correlations, values between 0.5 and 0.7 are moderate, and values between 0.3 and 0.5 are weak (Cohen, 1988).

Table 5: Correlations

		Implementation	Management Commitment	Management Structure
Project Implementation	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	197		
Management Commitment	Pearson Correlation	.891**	1	
	Sig. (2-tailed)	.000		
	N	197	197	
Project Management Structure	Pearson Correlation	.898**	.336	1
	Sig. (2-tailed)	.000	.574	
	N	197	197	197

For Management Commitment, the correlation with eLearning implementation was r = 0.891, also with a p-value of 0.000, denoting a strong and significant positive relationship. This implies that the more committed the university management is—through belief in the project, emotional engagement, and sustained support—the higher the likelihood of successful implementation. These findings support Kerzner (2022), who argued that organizational commitment from top leadership is a critical enabler of project success across sectors.

The strongest correlation was observed between Project Management Structure and Implementation of eLearning Projects, with r = 0.898 and p = 0.000, suggesting a very strong, positive, and statistically significant relationship. This underscores the importance of well-established project management offices, clear policies, and standardized procedures in ensuring the effective rollout and monitoring of eLearning projects. This result resonates with the findings of Jowah (2024), who established that structured project environments enhance coordination and reduce the impact of organizational politics.

Simple Linear Regression Analysis

This section presents the results of simple linear regression analyses conducted to examine the individual effect of each independent variable on the dependent variable—Implementation of eLearning Projects. Simple linear regression allows for determining the strength, direction, and significance of the relationship between a single predictor and the outcome variable. For each analysis, the coefficient of determination (R^2), regression coefficients (β), standard error, and p-values are reported. These outputs provide insights into the extent to which each antecedent (management commitment and project management structure) independently contributes to the successful implementation of eLearning initiatives in public universities in Kenya. The analysis forms the basis for the subsequent multiple regression model.

Regression between Management Commitment and Implementation

This subsection presents the results of a simple linear regression analysis to determine the effect of Management Commitment on the Implementation of eLearning Projects in public universities. The analysis investigates how the level of dedication, involvement, and support from top management contributes to the success of eLearning initiatives. Key regression metrics such as the coefficient of determination (R^2), beta coefficient (β), and significance level (p-value) are reported to assess the predictive strength and statistical relevance of the relationship.

Table 6: Regression between Management Commitment and Implementation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.639[a]	0.408	0.402	0.04701

a. Predictors: (Constant), Management Commitment

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.977	1	0.977	14.744	.001[b]
	Residual	12.87	195	0.066		
	Total	13.847	196			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.798	.198		8.082	.000
	Management commitment	0.642	0.253	0.597	1.982	0.00

The Model Summary Table 7 presents an R square result of .408 or 40.8% an indication that there was variation of 40.8% on implementation of e learning projects due to changes in management commitment. The remaining 59.2% of the variation in the dependent variable is unexplained by this one predictor model but by other factors not included in the model.

The F calculated was greater than F critical (14.744 > 3.941). This shows that management commitment significantly influences the implementation of E-Learning projects in public universities in Kenya.

$Y = 2.798 + 0.642X_1$ ……. ***Equation 1***

From the regression equation, it was revealed that holding management commitment to a constant zero, effects of implementation would be 2.798.

Management commitment is statistically significant to implementation of E-Learning projects as shown by ($\beta = 0.642$, $P = 0.00$). This shows that management commitment had significant positive relationship with implementation of E-Learning projects in public universities in Kenya. This implies that a unit increase in management commitment will result to increase in implementation of E-Learning projects in public universities in Kenya.

Regression between Project Management Structure and Implementation

This subsection presents the results of a simple linear regression analysis aimed at determining the effect of Project Management Structure on the Implementation of eLearning Projects in public universities. The analysis examines how the existence and organization of project management offices, policies, and procedures contribute to the success of eLearning initiatives. Key regression indicators—including the coefficient of determination (R^2), standardized beta coefficient (β), and significance value (p-value)—are used to interpret the predictive power and statistical significance of the relationship.

Table 7: Regression between Project Structure and Implementation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.650[a]	0.423	0.419	0.039405

a. Predictors: (Constant), Project Management Structure

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.199	1	1.199	22.754	.001[b]
	Residual	10.335	195	0.053		
	Total	11.534	196			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.798	.198		8.082	.000
	Project Management Structure	0.445	0.260	0.501	2.079	0.00

The Model Summary Table 7 presents an R square result of .423 or 42.3% an indication that there was variation of 42.3% on implementation of e learning projects due to changes in project management structure. The remaining 57.7% of the variation in the dependent variable is unexplained by this one predictor model but by other factors not included in the model.

The F calculated was greater than F critical (22.754 > 3.941). This shows that project management structure significantly influences the implementation of E-Learning projects in public universities in Kenya.

$Y = 2.798 + 0.445X_1$ …… ***Equation 2***

From the regression equation, it was revealed that holding project management structure to a constant zero, effects of implementation would be 2.798. Project management structure is statistically significant to implementation of E-Learning projects as shown by ($\beta = 0.445$, $P = 0.00$). This shows that project management structure had significant positive relationship with implementation of E-Learning projects of donor funded organization. This implies that a unit increase in project management structure will result to increase in implementation of E-Learning projects in public universities in Kenya.

Conclusions

The study found that management commitment is statistically significant to implementation of E-Learning projects in public universities in Kenya. The study further revealed that management commitment had significant positive relationship with implementation of E-Learning projects in public universities in Kenya. The study concludes that Management Commitment is positively related to implementation of E-Learning projects in public universities in Kenya.

The study revealed that Project management structure style is statistically significant to implementation of E-Learning projects in public universities in Kenya. The study further found out that project management structure had significant positive relationship with implementation of E-Learning projects in public universities in Kenya. The study concludes that project management structure is positively influence implementation of E-Learning projects in public universities

Recommendations

Findings revealed that strong commitment from university management is critical to the success of eLearning implementation. Based on this, it is recommended that top management actively champion and support eLearning initiatives. This includes allocating adequate resources, integrating eLearning into institutional strategies, and regularly engaging with project teams to monitor progress. Managers should also motivate and support staff by promoting a culture of innovation, recognizing contributions to digital learning, and providing the necessary time and tools for effective participation. Such actions will not only drive adoption but also sustain long-term commitment to digital transformation in public universities.

The findings highlighted that a well-established project management structure greatly facilitates the successful implementation of eLearning initiatives. As such, public universities are advised to strengthen their organizational frameworks for managing projects, including setting up dedicated Project Management Offices (PMOs) where they do not exist. Clear policies, procedures, and reporting systems should be put in place to guide project execution. Moreover, communication of these structures should be institutionalized to ensure clarity across departments. Establishing such formal structures ensures coordination, accountability, and alignment between institutional goals and project execution processes.

Suggestion for Further Research

This study focused on investigating the antecedent factors influencing the implementation of E-Learning projects in public universities in Kenya—through management commitment and project management structure. While the findings provide valuable insights, further research is recommended to broaden the scope and deepen understanding in this area. A comparative study could be conducted to examine the adoption and utilization of eLearning in both public and private universities across Kenya. Such a study would help identify institutional differences in leadership approaches, resource allocation, infrastructure readiness, and staff capacity, which may influence the success of eLearning initiatives. Additionally, future research could explore the role of organizational culture, digital literacy among faculty, and student engagement as mediating or moderating factors in the implementation process. Exploring these dimensions

would provide a more holistic understanding of the dynamics influencing eLearning success across diverse institutional contexts and inform more tailored policy interventions.

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