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PROJECT SCOPE MANAGEMENT AND PERFORMANCE OF INFORMATION TECHNOLOGY PROJECTS AMONG COMMERCIAL BANKS NAIROBI CITY COUNTY, KENYA

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ABSTRACT

Commercial banks perform an important function in the economic development of the developing countries such as Kenya. However, Commercial banks in Kenya have been registering declined performance since late 2016 with pre-tax profit decreasing by 9.6%, total income decreasing by 3.1%, total expenses and a consistent decline in Return on equity and return on assets at an average rate of 0.6% and 3.8% respectively. This study therefore sought to establish the influence of project scope management on performance of information technology projects in commercial banks in Kenya. Specifically, the study sought to establish the influence of scope planning on performance of information technology projects in commercial banks in Kenya, to determine the influence of scope control on performance of information technology projects in commercial banks in Kenya. The descriptive research design was employed where data was collected one point in time. The unit of analysis for the study was 41 commercial banks in Kenya (CBK, 2021) while the unit of observation was management employees. The accessible population was 246 individuals comprising of 41 top managers, 82 middle level managers and 123 lower-level managers. Since the target population was small Census was carried out on this study. Quantitative data collected was analyzed using descriptive statistical techniques which are frequencies, mean, standard deviation. Inferential statistics which include Pearson correlation and the Regression Analysis Model were used to test the relationship between study variables. The significance of the model was tested at 5% level of significance. Data was analyzed using Statistical Package for Social Sciences (SPSS) software. The study results were presented through use of tables and figures. The regression analysis revealed significant and positive beta coefficients for all variables scope planning and scope control in predicting the performance of information technology projects within commercial banks in Nairobi County, Kenya. Specifically, effective scope planning demonstrated a substantial impact ($B = 0.411$, $p < 0.05$), emphasizing the critical role of comprehensive project planning in enhancing project success. Effective scope control ($B = 0.372$, $p < 0.05$) were also found to significantly contribute to better project outcomes. The study thus concludes that project scope management plays a pivotal role in determining the success of IT projects within commercial banks in Nairobi County, Kenya.

Key Words: Project Scope Management, Scope Planning, Scope Control, Performance, Information Technology Projects

Background of the Study

Project scope management involves making sure that the project incorporates everything required and omits any task that is not needed to complete a project. Some projects are started without suitable planning and preparation which always results to issues such as additional expenses and deferrals (Antvik and Sjöholm, 2017). The scope of the project must be understood by the project managers as well as all parties involved despite the procedures used to achieve the goal of project completion. Project scope refers to the part of project planning that involves determining and documenting a list of specific project goals and objectives, deliverables, tasks, costs, and deadlines (Atkinson, 2018). The documentation of a project scope can likewise be alluded to as a scope statement, terms of reference, or statement of work (SOW) which explains the limits of the projects and defines the role of every team member and sets up procedures on how to verify and approve the completed project. The documentation enables the project stakeholders and team members to stay focused on the project.

Project scope management entails; scope planning scope control (Horine, 2018). Scope planning refers to a project management process that defines boundaries and deliverables. The basic matrix of a scope planning analysis consists of three main categories: Initiation, planning, and definition, with two control categories. In project management, scope is the defined features and functions of a product, or the scope of work needed to finish a project. Scope involves getting information required to start a project, including the features the product needs to meet its stakeholders' requirements (Humaidan, 2016). Scope refers to the combined objectives and requirements needed to complete a project. The term is often used in project management as well as in consulting. Scope controls are a set of processes used to understand and influence the amount of time or money spent on a project. Each project control focuses on a distinct part of the project plan, like the schedule, resources, or potential risks. Project scope control entails scope validation, auditing as well as reporting and feedback (Atieno, 2015).

The main goal of project management practices is to realize consistency in project success. A project is said to be successful when all objectives are achieved. Project management success is evaluated during the project life cycle through classic performance measures (Assaf, & Hejji, 2018).). Kam and Müller (2019) contended that if the final result of the project fails to meet customer expectations, even though the project is delivered within set timeline and budget, the project is only successful according to the contractor but it eventually fails. Scope describes the boundaries of the project in terms of what it will or will not deliver. It defines all project work thus ensuring thus help project team set up control systems that could bring a better project outcome (PM4DEV, 2018). Further scope management are processes required to ensure the project includes all the work and only the work that is required to complete the project successfully, deliverables include: scope statement; work breakdown structure and formal acceptance (Horine, 2015). Humaidan, (2016) attributed project failure to inadequate pre−project planning and poor project definition of project elements. 70% of poor time performance of Saudi Arabia construction projects is due to changes in project scope (Assaf & Al−Hejji, 2016). Further lengthy project delays Saudi Arabia are caused by a number of issues such as unqualified contractors, changes in scope of work, rework in inappropriate parties involved in procurement methods.

Statement of the Problem

The banking business relies heavily on information technology (IT) to build relationships with its stakeholders. In a banking context, starting an IT project is a difficult process with a high failure rate. According to Arumugam (2021), major initiatives like replacing the core banking system are comparable to changing an airplane's engine while it is in the air. The problem in focus is the ineffective scope management in IT projects among commercial banks in Kenya. This issue is

resulting in project delays, cost overruns, and ultimately, a negative impact on project performance. According to a study by the Project Management Institute (PMI), scope creep is a pervasive problem in IT projects. The report indicates that approximately 52% of IT projects globally experience some degree of scope creep, leading to project delays and cost overruns (PMI, "Pulse of the Profession," 2019). This phenomenon is not exclusive to Kenya and is likely affecting IT projects in commercial banks in the country.

According to Project Management Institute (2021), 14% of IT projects fail, 25% of core banking system transformations end in failure with no results and 50% do not succeed in their transformational goals, resulting in cost and implementation time increases of up to 3 times. Mongare (2019) explained that 56% of bank projects in Kenya fail in the implementation phase. The failures are due to poor coordination of multiple projects, lack of commitment

poor portfolio planning, and poor project control. Onsogo (2018) discovered that 56% of the banks' IT project failed. He also demonstrated that small banks, which accounted for 41% of project failures, had higher failure rates than major banks, which accounted for 25% of project failures. In addition, survey conducted by KPMG in Kenya found that 68% of IT projects across various sectors in the country have reported performance issues (KPMG, "Project Management Survey 2020"). These issues can be linked to scope mismanagement and project changes that were not effectively controlled. Given the importance of IT projects in commercial banks, these statistics suggest a significant negative impact on their performance.

Research has shown that project scope management influences project performance. Although various studies have been conducted on project scope management and successful implementation of projects, none of these studies focused on the effect of project scope management on performance of information technology projects in commercial banks in Kenya. Further, most of the studies were not conducted in Kenya hence the study findings cannot be generalized. To fill the highlighted research gaps, the current study sought to assess the influence of project scope management on performance of information technology projects among commercial banks in Kenya.

Specific Objectives

i. To establish the influence of scope planning on performance of information technology projects among commercial banks in Nairobi County, Kenya.
ii. To determine the influence of scope control on performance of information technology projects among commercial banks in Nairobi County, Kenya.

LITERATURE REVIEW

Theoretical Review

Contingency Theory

The contingency theory was proposed by Scott in 1981. The theory asserts that is no most ideal approach to plan a project, to head scope change, or decide on project completion. The contingency theory presumes that project success depends on a fit or match between the kind of innovation, surrounding instability, project size and resource availability (Chen, Martha, and Altar, 2018). Project completion can be determined only if it fulfills the specific needs of a road project. The contingency theory has some weaknesses which include its complexity and unpredictability because it calls on project managers to do what they consider suitable for a situation. It is difficult to follow the activities of an individual manager. The theory is also receptive and not proactive since project managers can manipulate the environment so that they evade the unfavorable elements of the environment (Heravi, Coffey, & Trigunarsyah, 2019).

Contingency theory states that complex organizations use performance measurement to reduce uncertainty and for legitimacy. Historically, contingency theory has sought to formulate broad generalizations about the formal structures that are typically associated with or best fit the use of different technologies (Shobana & Ambika, 2019). The perspective originated with the work of Joan Woodward in 1958 who argued that technologies directly determine differences in such organizational attributes as span of control, centralization of authority, and the formalization of rules and procedures. Proponents of this theory argue that the best way to organize depends on the nature of the environment to which the organization must relate (Stolzer & Goglia, 2018).

The theory thus supports the view that organizations are open systems that need careful management to satisfy and balance their internal needs in light of prevailing environmental circumstances (Heldman, 2018). The theory espouses the notion that there is no one best way of managing an entity. The appropriate way depends on the kind of environment the firm is operating in. Management must therefore be concerned, above all else, with achieving appropriate alignments and good fit with the entity's operating environment (Bansal, 2019). Under contingency theory, in every project the company must identify the fit between the various project components and contingencies that may impact the project performance. In this case, the contingencies could be the critical elements or critical success factors that are highly critical to a project success that should be taken into consideration during the decision-making stage by project owners or managers (Hasler, 2016). This theory was used to establish the influence of scope planning on performance of information technology projects in commercial banks in Kenya.

Resource-Based View Theory (RBV)

This theory was initiated by Wernerfelt and Rumelt (1984). The theory lies in the applications of a bundle of valuable tangible and intangible resources at the firm`s disposal that gives the firm a competitive advantage over other firms. It explains the role of valuable tangible and intangible resources that enables the firm to complete its projects within budgeted cost, schedule and meets desired quality (Assaf, & Hejji, 2019). The RBV theory emphasizes that a firm with adequate resources is likely to have a competitive advantage and superior performance over other firms. It argues that every project manager wants to continuously improve the performance of projects undertaken. However, these firms experience limited resources and time available to invest in making the changes that are needed to improve the firm performance (Akhwaba, 2020).

Resource-based view theory suggests that a firm derives competencies, and consequently competitive advantage, and success by using its tangible and intangible resources to improve its performance (Chirchir, Ngeno, & Chepkwony, 2018) further categories these resources into: Physical resources Human capital resources and Organizational capital resources. Organizations can thus be seen, according to RBV, be seen to derive competitive advantage out of certain capabilities, competencies, and efficiencies from adoption of cold chain logistics, technology, such as cold chain transportation, which can be viewed as part of physical resources (Seshadri, 2018).

The RBVT holds that theory a firm's outcome is based on the resources and capabilities it holds in control which may become a source of competitive advantage (Boermans & Roelfsema 2020). Hoffman (2012) observed that for many product types, refrigerated transportation is an absolute necessity and a source of advantage as many firm have not implemented it, he further noted that the benefits of refrigerated transportation are centered on safety, compliance and basic supply and demand. Shabani (2018) noted that refrigerated transportation allows products in need of temperature-controlled transportation to be moved from point A to point B more quickly and efficiently than alternative modes of transportation. Because of this, items in high-demand, such as fresh meat and seafood, rely on refrigerated transportation (Ashok, 2017). This theory was used

to influence of scope control on performance of information technology projects in commercial banks in Kenya.

Conceptual Framework

Conceptual framework is the graphical representation of variables, which are the dependent variable and the independent variables. The conceptual framework shown in Figure 2.1 describes the relationship between the variables in the study. The independent variables are; scope planning, scope control. On the other hand, the dependent variable was performance of information technology projects in commercial banks in Kenya.

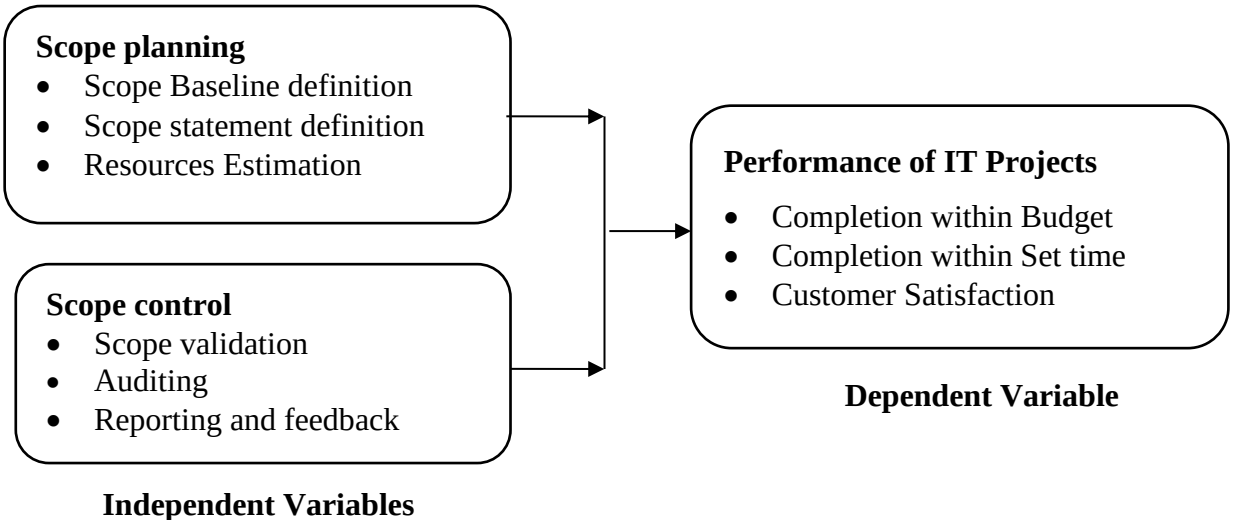

Figure 2. 1: Conceptual Framework

Scope Planning

Scope planning refers to a project management process that defines boundaries and deliverables. The basic matrix of a scope planning analysis consists of three main categories: Initiation, planning, and definition, with two control categories: Verification, and change control interspersed between the three main categories. Initiation inputs contain program deliverable description, strategic planning, program selection criteria, and historical information. Tools and techniques include program selection methods and expert judgment. The output of the initiation phase will include a program charter, the identification and assignment of a program director, and the identification of known constraints and assumptions (Novo, Landis & Haley 2017).

The planning category covers descriptions on deliverables, the program charter, constraints, and assumptions. Tools and techniques involved in this category include deliverable analysis, a benefit/cost analysis, the identification of alternatives. The final main category includes a statement of scope, a definition of assumptions and constraints, and other planning outputs and historical information. Tools and techniques involved include work breakdown structure templates and decomposition. The output of definition is work breakdown structure, and the defined scope section of the project management plan. According to Mwanza, Namusonge and Makokha (2020) project planning is at the heart of the project life cycle, and tells everyone involved where you're going and how you're going to get there. The planning phase is when the project plans are documented, the project deliverables and requirements are defined, and the project schedule is created. It involves creating a set of plans to help guide your team through the implementation and closure phases of the project. The plans created during this phase will help you manage time, cost, quality, changes, risk, and related issues.

Scope Control

Scope controls are a set of processes used to understand and influence the amount of time or money spent on a project. Each project control focuses on a distinct part of the project plan, like the schedule, resources, or potential risks. Project scope control entails scope validation, auditing as well as reporting and feedback (Atieno, 2019). According to Kariega (2021) validate Scope is the process of formalizing acceptance of the completed project deliverables. The key benefit of this process is that it brings objectivity to the acceptance process and increases the chance of final product, service, or result acceptance by validating each deliverable.

A project audit is a formal review of a project, often intended to assess the extent to which project management standards are being upheld. Audits are generally carried out by a specially designated audit department, the Project Management Office, an approved management committee or an external auditor (Mwangi, 2017). Mkutano (2018) indicates that feedback is a key element of the incremental process of ongoing learning and assessment. Providing frequent and ongoing feedback is a significant means of improving achievement in learning. It involves the provision of information about aspects of understanding and performance and can be given by practitioners, peers, oneself and from learners to practitioners. According to Mwangi (2017) effective feedback assists the learner to reflect on their learning and their learning strategies so they can make adjustments to make better progress in their learning.

Empirical Review

Scope Planning and Successful Project Performance

Mwanza, Namusonge and Makokha (2020) conducted a study on influence of project planning practice on performance of construction projects in Kenya. The study adopted a mixed research design which included descriptive survey, census and correlation. The target population was 1761 respondents with a sample size of 313 respondents comprised of 160 managers of Early Childhood Development Education, 11 managers of county polytechnics, 133 stall managers and 9 managers of county modern markets. The study is of significance to policy makers, county governments and academicians. The study found out that project planning practice and project stakeholders' practice had a negative significant influence on performance of construction projects. The study also found out that planning gives direction to the activities to be performed in time and reduces mistakes. The study therefore recommended that management of the construction projects should have competent managers to have plans in place to give direction to the activities to be performed on time and reduce mistakes also utilize the project resources adequately

Muute (2019) conducted a study on project scope planning and performance of construction projects in Nairobi city county, Kenya. The target population was one hundred and twenty-five construction projects within Nairobi City County. One hundred and twenty-five respondents were targeted who are the project managers. These were the key resource persons in the best position to answer on issues of project performance. Since the population was of manageable size, census was adopted in this research. Collection of primary data was done by use of semi structured questionnaire. The data was coded and entered for analysis using Statistical Package for the Social Sciences (SPSS). Pearson correlation analysis was used to relate the various study variables. The results of the study were presented using tables and figures. The study findings indicated that majority of the firm accord human resource management function as an important role and that majority of the firms conduct training to its project team members. The study also found that quality projects planning was being carried out effectively. It was also clear that that activity duration had been well estimated, time schedules were well developed, and that project scope had been well specified during planning phase. The study concluded that human resource planning,

time management, material resource planning and financial resource planning positively and significantly contributes to performance of the construction projects.

Novo, Landis and Haley (2017) study investigated on project planning and its role in the success of project management. The study was carried out to discover project manager skills together with its competency in leadership and how they can lead to project success. The study results revealed that planning process are directly related with the project manager competency. Similarly, the project managers leadership skills and project success is strongly correlated.

Buba and Tanko (2017) study examined the influence of project planning on quality performance of construction projects. A total of 43 questionnaires were distributed to 3 key groups of respondents who included Quantity Surveyors, Builders, and Architects who were project managers in Nigeria. It was established that the ability of a project manager in giving direction is the best leadership style and contributes to the best artistic quality of the project and also leads to better inter-functional relationships. Yang, Huang and Wu (2018) carried out a study on the association among project planning and project success. The study used questionnaires to measure the leadership style of the project manager, the success of the project in regard to scope, budget, quality and client satisfaction. The study findings shows that better project management leadership leads to better project team members relationships. The study also revealed that teamwork spirit has a statistical significance influence on project performance

Scope Control and Project Performance

Atieno (2019) conducted a study on the influence of monitoring and control on the performance of constituency development fund projects: a case of Kisumu town east and Kisumu rural constituencies in Kenya. The study adopted census method in which 140 respondents from the CDF committee members in the two constituencies were interviewed. The data was collected through a self-administered structured questionnaire. The research instrument was validated through content related method and reliability through half-split criterion. The data collected was analyzed by descriptive statistics. Correlational analysis was conducted to determine the influence of monitoring and control on the performance of CDF projects. Descriptive statistics such as frequencies and percentages were used to describe the data and presented in form of tables. The use of cost control tools had a correlation coefficient of 0.921. 88% of the respondents agreed that the cost change control systems help in cutting down unnecessary expenses. The study also showed that 84% of the respondents support that the cost variance helps in reconciling incurred cost and expected cost. The use of quality control had a correlation coefficient of 0.785. 90.4% of the respondents averred that quality training ensures good understanding of project procedures. Majority of respondents (94.4%) agreed that the use of charts helps in planning and scheduling of tasks.

Kariega (2021) conducted a study on the factors influencing the performance of projects in non-governmental organizations in Kenya: a case of Ujamaa Africa. This study adopted a descriptive design. The target population comprised of 80 respondents from Ujamaa Africa. Due to the small number of respondents, the census approach was used on all the 80 employees. Primary data was collected by administering a semi-structured questionnaire. This type of questionnaire used had both closed and open ended questions. Quantitative data collected was analyzed using SPSS and presented through percentages, means, standard deviation and frequencies. The data was presented through tables and figures. The study found that project scope control influences project performance.

Mwangi (2017) conducted a study on the factors influencing the effective implementation of non-governmental organization donor funded projects at the international livestock research institute

(Kenya). The study used qualitative approach to enable better interpretation of results. The target populations were the staffs who work in the research projects at ILRI. Questionnaires were used to collect data. It had both open and closed ended questions. Hard copies were issued to the target population. The data was analyzed using descriptive statistics. All the respondents indicated that clarity in scope to members of staff and communication influenced implementation of projects at ILRI. The results also indicated that project managers' competencies and management of project resources also influenced implementation of projects at ILRI.

Mkutano (2018) conducted a study on project management practices and performance of nongovernmental organizations projects in Nairobi city county, Kenya. This study used descriptive research design. The target population of the study was 201 NGOs operating in Nairobi County. Stratified and simple random sampling was used to select 50% of the target population thus 100 NGOs in Nairobi County. This study made use of primary data. The study collected primary data by use of questionnaires. The study findings indicated that there was improved project performance due to effective use of project management practices such as communication, planning, stakeholder participation and monitoring and evaluation of project activities. The study concluded that project communication significantly affects the project outcomes, therefore, clearly establishing and managing the structures of communication on project must always be on the agenda of team leaders and management before the commencement of every project

RESEARCH METHODOLOGY

The descriptive research design was employed where data was collected one point in time. The unit of analysis for the study was 41 commercial banks in Kenya (CBK, 2021) while the unit of observation was management employees. The accessible population was 246 individuals comprising of 41 top managers, 82 middle level managers and 123 lower-level managers. Since the target population in this study was small, a census method was used. This implies that all the 246 respondents participated in the study. This research used a questionnaire to collect primary data. Data obtained from the field was coded, cleaned, and entered into the computer for analysis using the SPSS version 28. Descriptive statistics included frequency, percentages, mean and standard deviation. Inferential statistical analysis used were multiple regression and correlation analysis. The significant of each independent variable was tested at a confidence level of 95%.

RESEARCH FINDING AND DISCUSSION

The sample size for the study was 246 individuals from 41 commercial banks in Kenya. Twenty-four respondents participated in pilot study leaving 222. These individuals were issued with questionnaires out of which 197 were filled and returned giving a response rate of 87.2%. Mugenda and Mugenda (2017) argued that for a sample size to be representative enough there should be a response rate of at least 50%.

Descriptive Analysis

In this section the study presents findings on questions related to study objectives. This includes the Likert scale questions where respondents were asked to indicate their level of agreement with various statements that relate with the influence of project scope management on performance of information technology projects among commercial banks in Nairobi County, Kenya. They used a 5-point Likert scale where 1-strongly disagree, 2-disagree, 3-moderate, 4-agree, 5-strongly agree. The means and standard deviations were used to interpret the findings where a mean value of 1-1.4 was strongly disagree, 1.5-2.4 disagree, 2.5-3.4 neutral, 3.5-4.4 agree and 4.5-5 strongly agree.

Scope Planning

The first objective of the study was to establish the influence of scope planning on performance of information technology projects among commercial banks in Nairobi County, Kenya. Respondents were requested to indicate their level of agreement with statements on scope planning and performance of information technology projects in commercial banks in Kenya. Table 4.3 presents summary of the findings obtained.

Table 1: Descriptive Statistics on Scope Planning

STATEMENT	Mean	Std. Dev.
The initial project scope is clearly defined and documented before the commencement of an information technology project.	3.747	1.585
Stakeholders are actively involved in the process of defining project scope requirements.	3.861	1.405
There is a documented scope management plan outlining how changes to the project scope will be handled.	3.908	1.38
The project team utilizes a Work Breakdown Structure (WBS) to break down the project into manageable components.	3.669	1.535
Changes to the project scope are systematically reviewed and approved through a formalized change control process.	3.964	1.313
The project scope takes into account potential risks and uncertainties that might impact the project.	3.922	1.854
The project team regularly reviews and updates the scope documentation throughout the project lifecycle.	3.654	0.957
Aggregate Score	**3.818**	**1.433**

The findings in table 1 show that the respondents agreed on average with the statements since the mean values were above 3.5. The findings specifically show that the respondents agreed that the initial project scope is clearly defined and documented before the commencement of an information technology project (M= 3.747, SD= 1.585); that stakeholders are actively involved in the process of defining project scope requirements (M= 3.861, SD= 1.405); and that there is a documented scope management plan outlining how changes to the project scope will be handled (M= 3.908, SD= 1.38). They also agreed that the project team utilizes a Work Breakdown Structure (WBS) to break down the project into manageable components (M= 3.669, SD= 1.535); that changes to the project scope are systematically reviewed and approved through a formalized change control process (M= 3.964, SD= 1.313); that the project scope takes into account potential risks and uncertainties that might impact the project (M= 3.922, SD= 1.854); and that the project team regularly reviews and updates the scope documentation throughout the project lifecycle (M= 3.654, SD= 0.957).

The findings above supported by an aggregate mean score of 3.818 (SD= 1.433) show that the respondents agreed that scope planning has some influence on performance of information technology projects among commercial banks in Nairobi County, Kenya. This agrees with Novo, Landis, and Haley (2017) highlight the direct correlation between planning processes and project success, emphasizing the significance of effective scope planning in achieving desired project outcomes. Similarly, Mwanza, Namusonge, and Makokha (2020) underscore the importance of project planning practices in providing direction, defining deliverables, and reducing errors, all of which align with the acknowledged influence of scope planning on IT project performance in commercial banks. These findings collectively emphasize the pivotal role of scope planning as a

foundational aspect of project management, influencing project success across diverse industries, including banking and information technology.

Scope Control

The second objective of the study was to determine the influence of scope control on performance of information technology projects among commercial banks in Nairobi County, Kenya. Respondents gave their level of agreement with the statements on scope control and performance of information technology projects in commercial banks in Kenya. Table 2 presents summary of the findings obtained.

Table 2: Descriptive Statistics on Scope Control

STATEMENT	Mean	Std. Dev.
Changes to the project scope undergo a formalized approval process involving key stakeholders in our commercial bank.	3.892	0.633
Our bank has established clear procedures for handling scope changes during the execution of information technology projects.	3.624	0.97
The project team actively uses change control mechanisms to prevent unauthorized alterations to the project scope.	3.797	1.204
Regular scope verification is conducted to ensure that project deliverables align with the agreed-upon scope.	3.857	0.894
The project team effectively communicates any approved changes to the project scope to relevant stakeholders.	3.74	0.564
Scope performance measurements, including progress on deliverables, are regularly monitored and reported.	3.851	0.558
The bank actively prevents scope creep by closely managing and controlling any deviations from the original project scope.	3.83	1.498
Aggregate Score	**3.799**	**0.903**

The findings show that the respondents agreed on average that changes to the project scope undergo a formalized approval process involving key stakeholders in our commercial bank (M= 3.892, SD= 0.633); that their bank has established clear procedures for handling scope changes during the execution of information technology projects (M= 3.624, SD= 0.97); and that the project team actively uses change control mechanisms to prevent unauthorized alterations to the project scope (M= 3.797, SD= 1.204). They further agreed that regular scope verification is conducted to ensure that project deliverables align with the agreed-upon scope (M= 3.857, SD= 0.894); that the project team effectively communicates any approved changes to the project scope to relevant stakeholders (M= 3.74, SD= 0.564); that scope performance measurements, including progress on deliverables, are regularly monitored and reported (M= 3.851, SD= 0.558); and that the bank actively prevents scope creep by closely managing and controlling any deviations from the original project scope (M= 3.83, SD= 1.498).

The findings above show that the respondents agreed that scope control influences performance of information technology projects among commercial banks in Nairobi County, Kenya and this was supported by an aggregate mean score of 3.799 (SD= 0.903). This finding resonates with Atieno (2019) who discusses the significance of scope control processes, such as validation, auditing, and feedback, in understanding and influencing project outcomes. Kariega (2021) further emphasizes the importance of validating project scope and conducting audits to ensure adherence to project management standards and enhance project performance. These studies highlight the role of scope control in managing project deliverables and resources effectively, aligning with the respondents' acknowledgment of its influence on IT project performance in commercial banks. The findings

reinforce the understanding that effective scope control processes are essential for ensuring project success and aligning project outcomes with stakeholders' expectations, as supported by the literature.

Performance of Information Technology Projects

The general objective of the study was to establish the influence of project scope management on performance of information technology projects among commercial banks in Nairobi County, Kenya. Respondents were therefore asked to indicate their level of agreement with the statements on performance of information technology projects in commercial banks in Kenya.

Table 3: Descriptive Statistics on Performance of Information Technology Projects

STATEMENT	Mean	Std. Dev.
The quality of project deliverables in information technology projects meets or exceeds the specified standards and requirements.	3.762	0.438
Information technology projects are typically completed within the scheduled timeline outlined during project initiation.	3.621	1.041
Financial expenditures for information technology projects are generally within the budget constraints established during project initiation.	3.589	0.841
Stakeholder satisfaction with the outcomes of information technology projects is actively assessed.	3.63	1.454
The project team actively monitors and addresses any deviations from the planned scope during project execution.	3.961	0.094
Risks related to project performance are systematically identified, assessed, and managed.	3.746	0.397
Lessons learned from previous information technology projects are used to enhance the performance of subsequent projects	3.897	0.397
Aggregate Score	**3.744**	**0.666**

The findings in Table 3 show that the respondents agreed on average that the quality of project deliverables in information technology projects meets or exceeds the specified standards and requirements (M= 3.762, SD= 0.438); that information technology projects are typically completed within the scheduled timeline outlined during project initiation (M= 3.621, SD= 1.041); that financial expenditures for information technology projects are generally within the budget constraints established during project initiation (M= 3.589, SD= 0.841); and that stakeholder satisfaction with the outcomes of information technology projects is actively assessed (M= 3.63, SD= 1.454). They further agreed that the project team actively monitors and addresses any deviations from the planned scope during project execution (M= 3.961, SD= 0.094); that risks related to project performance are systematically identified, assessed, and managed (M= 3.746, SD= 0.397); and that lessons learned from previous information technology projects are used to enhance the performance of subsequent projects (M= 3.897, SD= 0.397).

The findings align with existing literature on project management practices and project success factors. For instance, the consensus that the quality of project deliverables meets or exceeds specified standards and requirements corresponds with literature emphasizing the importance of delivering high-quality outputs to achieve project success (Magagan & Ngugi, 2021). Similarly, the agreement that projects are typically completed within scheduled timelines and budget constraints reflects the significance of effective project planning and control mechanisms in ensuring project success (Novo, Landis, & Haley, 2017). The acknowledgment of stakeholder satisfaction assessment and active monitoring of scope deviations aligns with literature advocating for stakeholder engagement and continuous monitoring to address project risks and deviations proactively (Atieno, 2019). Moreover, the recognition of using lessons learned from previous

projects to enhance subsequent project performance reflects the importance of organizational learning and continuous improvement in project management practices (Mwangi, 2017).

Correlation Analysis

The study computed Correlation analysis to determine the strength and the direction of the relationship between the variables being studied. If the correlation values are r = ±0.1 to ±0.29 then the relationship between the two variables is small, if it is r = ±0.3 to ±0.49 the relationship is medium, and when r= ±0.5 and above there is a strong relationship between the two variables under consideration. Table 4 presents the findings obtained.

Table 4: Correlation Analysis

		Performance of IT Projects	Scope planning	Scope control
Performance of IT Projects	Pearson Correlation	1		
	Sig. (1-tailed)			
	N	197		
Scope planning	Pearson Correlation	.796**	1	
	Sig. (1-tailed)	.000		
	N	197	197	
Scope control	Pearson Correlation	.770**	.185	1
	Sig. (1-tailed)	.000	.312	
	N	197	197	197

The correlation analysis reveals a strong positive relationship between the performance of information technology (IT) projects and scope planning ($r = 0.796$, $p < 0.05$). This suggests that effective planning of project scope significantly influences the success of IT projects. This finding is consistent with existing literature emphasizing the critical role of comprehensive project planning in achieving project objectives and delivering successful outcomes (Novo, Landis, & Haley, 2017). Project planning, particularly in the context of scope, provides a roadmap for project implementation, helping to define project goals, deliverables, and timelines.

Furthermore, the correlation analysis reveals a moderate positive relationship between the performance of IT projects and scope control ($r = 0.770$, $p < 0.05$). This indicates that effective control of project scope contributes to the success of IT projects. Scope control involves monitoring and managing changes to project scope to ensure that project objectives are met within the defined constraints (Atieno, 2019). Literature suggests that proactive scope control helps to identify and address deviations from the planned scope, minimizing risks and maximizing project efficiency.

Regression Analysis

The nature of relationship between independent variables and dependent variable was assessed through a multiple regression analysis. The summary of results is presented in sub-sections below.

Model Summary

The model summary was used to determine the variation performance of information technology projects among commercial banks in Nairobi County, Kenya due to changes in scope planning, scope definition, scope control, and scope change. The results were as presented in Table 5.

Table 5: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825[a]	.681	.674	.36425

a. Predictors: (Constant), scope planning, scope control,

The R value, which represents the correlation coefficient between the observed and predicted values, is 0.825. This indicates a strong positive correlation between the predictors and the performance of IT projects. The R square value, which measures the proportion of variance in the dependent variable explained by the independent variables, is 0.681. This means that approximately 68.1% of the variance in IT project performance can be accounted for by the predictors included in the model. That is scope planning, scope control, collectively have a significant impact on the performance of IT projects within the context of commercial banks in Nairobi County, Kenya.

However, the remaining 31.9% of the variance in IT project performance that is not explained by the predictors included in the model indicates that there are other factors beyond scope planning, scope control, that also influence IT project performance within commercial banks in Nairobi County, Kenya.

Analysis of Variance

ANOVA is used to test the significance of the model. In this study, significance of the model was tested at 95% confidence interval. In this study, it provides information about the significance of the regression model in predicting the performance of information technology (IT) projects based on the included predictors: scope planning, scope control,. The results of the analysis are presented in Table 6.

Table 6: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.270	4	13.567	102.256	.000[b]
	Residual	25.475	192	.133		
	Total	79.744	196			

a. Dependent Variable: Performance of IT Projects

b. Predictors: (Constant), scope planning, scope control

The table shows that the regression model is highly significant, with an F-statistic of 102.256 and a corresponding p-value of .000. This indicates that the overall regression model explains a significant amount of variance in IT project performance. The significance level (Sig.) of .000 suggests that the regression model's results are statistically significant. Overall, the ANOVA results suggest that the regression model, including scope planning, scope control, effectively predicts the performance of IT projects within commercial banks in Nairobi County, Kenya.

Beta Coefficients of the Study Variables

From the coefficients table, the regression model was fitted.

Table 7: Beta Coefficients of Study Variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.251	.176		7.108	.001
	scope planning	.411	.106	.377	3.883	.000
	scope control	.372	.066	.393	5.679	.000

a. Dependent Variable: Performance of IT Projects

From the coefficients table, the following regression model was fitted;

$$Y = 1.251 + 0.411\ X_1 + 0.372\ X_2$$

Starting with scope planning, the coefficient ($B = 0.411$, $p < 0.05$) suggests that effective planning of project scope positively influences IT project performance. This finding resonates with previous literature by Novo, Landis, and Haley (2017), highlighting the importance of comprehensive project planning in providing direction and resource allocation strategies to enhance project success.

Moving on to scope control, the coefficient ($B = 0.372$, $p < 0.05$) demonstrates that effective management and monitoring of project scope throughout its lifecycle positively influence IT project performance. This finding is consistent with the research of Atieno (2019), which emphasizes the importance of implementing robust scope validation, auditing, and feedback mechanisms to ensure project deliverables adhere to quality standards and stakeholder requirements.

Conclusions

The study reveals that effective scope planning significantly influences the success of IT projects within commercial banks. Stakeholders acknowledged the importance of defining project scope, involving stakeholders in planning, and establishing formalized procedures for managing scope changes. Thus, it can be concluded that scope planning practices positively and significantly affects performance of information technology projects among commercial banks in Nairobi County, Kenya.

Effective scope control was identified as a key determinant of IT project success. Stakeholders agreed on the importance of establishing procedures for managing scope changes, monitoring project scope, and communicating changes to stakeholders. This aligns with literature emphasizing the role of proactive scope control in identifying and addressing deviations from the planned scope. Thus, it was observed that implementing robust scope control mechanisms is essential for ensuring the successful completion of IT projects in commercial banks. The study thus concluded that scope control positively and significantly influences performance of information technology projects among commercial banks in Nairobi County, Kenya

Recommendations

To improve scope planning practices, it is recommended that commercial banks invest in comprehensive planning methodologies and tools. This includes the adoption of structured approaches such as Work Breakdown Structure (WBS) to break down projects into manageable components. Moreover, stakeholders should be actively engaged in the planning process to ensure alignment with organizational goals and stakeholder expectations. Regular training and workshops on effective scope planning techniques can also empower project teams to develop robust plans that mitigate risks and optimize project outcomes.

To strengthen scope control mechanisms, commercial banks should implement proactive monitoring and feedback systems to track project scope throughout its lifecycle. This includes regular scope verification activities to ensure alignment with project objectives and stakeholder requirements. Furthermore, establishing clear procedures for handling scope changes and communicating changes to relevant stakeholders is essential. Training sessions on scope control best practices can empower project teams to identify and address deviations from the planned scope promptly, thereby minimizing risks and maximizing project efficiency.

Suggestions for Further Studies

For further studies, it's crucial to address the remaining 31.9% of unexplained variance in the model summary. Exploring other potential variables such as organizational culture, leadership styles, or project team dynamics may play significant roles in influencing IT project performance and could be considered in future research endeavors. Additionally, examining the interaction

effects between scope management practices and other project management factors could provide a more comprehensive understanding of their combined impact on project outcomes. Moreover, investigating the role of external stakeholders, such as clients or regulatory bodies, in shaping project scope and performance could offer valuable insights into the broader project ecosystem. By addressing these aspects, future studies can enhance the explanatory power of models assessing the influence of scope management on IT project performance.

REFERENCES

Akhwaba, K. (2020). The Moderating Influence of Project Scope on Leadership Skills, Stakeholder Management, and Execution of Fibre Optic Infrastructure", *Advances in Civil Engineering*, 1-13

Assaf, A., & Hejji, C. (2018). *Poor Scope Management Practices Could Precipitate Project Failure.* Retrieved from http://www.techrepublic.com/article.

Atieno, O. K. (2015). *Influence of monitoring and control on the performance of constituency development fund projects: a case of Kisumu town east and Kisumu rural constituencies in Kenya*. Retrieved from http://erepository.uonbi.ac.ke/bitstream/handle/11295/92914/

Atkinson, R. (2014). Project Management: Cost, Time and Quality, Two Best Guesses and a Phenomenon, *Its Time to Accept Other Success Criteria*. 17(6), 337–342.

Heravi, A., Coffey, V. & Trigunarsyah, B. (2015) Evaluating the Level of Stakeholder Involvement during the Project Design Processes of Building Projects. *International Journal of Project Management*, 33, 985-997.

Kariega, A. K. (2021). Factors influencing the performance of projects in non-governmental organizations in Kenya: a case of Ujamaa Africa. Retrieved from http://repository.anu.ac.ke/bitstream/handle/123456789/549/

Mkutano, S. M., & Sang, P. (2018). Project management practices and performance of non-governmental organizations projects in Nairobi city county, Kenya. *International Academic Journal of Information Sciences and Project Management, 3*(3), 1-22.

Muute, N. C. (2019). *Project planning practices and performance of construction projects in Nairobi city county, Kenya*. Retrieved from https://ir-library.ku.ac.ke/bitstream/handle/123456789/19796/

Mwangi, R. M. (2017). *Factors influencing the effective implementation of non-governmental organization donor funded projects at the international livestock research institute (Kenya).* Retrieved from http://erepository.uonbi.ac.ke/bitstream/handle/11295/8134/Abstract.pdf?sequence=1

Mwanza, P. W., Namusonge, G. S., & Makokha, E. N. (2020). Influence of project planning practice on performance of construction projects in Kenya. *International Journal of Social Sciences and Information Technology, 5*(5), 23-30.

Wang, Y. & Edward, G. (2008). *A study of pre-project planning and project success using ANN and regression models*. Retrieved from http://leidykla.vgtu.lt/conferences.pdf

Wideman, M. (2011). *Project Management of Capital Projects: An Overview*. Retrieved from http://www.maxwideman.com/papers/capitalprojects World Bank's private arm and the International Finance Corporation. (2013). Africa's projects success

Yang, L. R., Huang, C. F., & Wu, K. S. (2011). The association among project manager's leadership style, teamwork and project success. *International journal of project management, 29*(3), 258-267.

Zhang, H. (2010). Factors Affecting Performance of Non-profit Organizations in the Participatory Working Methods. *Journal of Agricultural Science. 2*(3) pp 174- 182.