

**ROLE OF PROJECT MANAGEMENT SKILLS IN ENHANCING PERFORMANCE OF FINANCED
CONSTRUCTION PROJECTS IN KENYAN BANKS****SYLVIA INGUMBA LUGUSA****Jomo Kenyatta University of Agriculture and Technology.****DR. KARANJA NGUGI****Jomo Kenyatta University of Agriculture and Technology.**

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ABSTRACT

Banks are fundamental in the economic progress of any country as they are largely responsible for channeling and converting savings into investments through the provision of both long and short term loans. Over the past decade the construction industry in Kenya has drawn considerable attention from the banking industry with latest statistics from KNBS indicating that the construction sector had KSh81.1 billion in gross by the end of 2013 up from KSh71.7 billion in 2010. This development has seen most banks rely on project managers to oversee their construction assignments. This study sought to explore the influence of project cost management, project time management, project risk management and project quality management in enhancing the performance of financed construction projects in Kenyan banks. The study design employed was descriptive research. The target population was 133 and stratified random sampling was used to select 34 respondents. Data was collected from financial reports, personal interviews and questionnaires and analysed using content analysis and Statistical Package for Social Sciences (SPSS version 21). The information was presented using bar charts, graphs and pie charts and in prose-form. To determine the association between the dependent and independent variables the study used both correlation and multiple linear regression analysis. The study found that all four variables significantly influence the performance of financed construction projects in Kenyan banks. The study recommends that project managers working in Kenyan banks should improve their project cost management skills. Lastly, the study recommends that top management in Kenya banks should give the required support to project time management team so as to ensure the success of construction projects.

Introduction

Banks are fundamental in the economic progress of a country as they are largely responsible for channeling and converting savings into investments through the provision of both long and short term loans (Kiragu, Wanjau, Gekara & Kanali, 2013). The KNBS Annual report for 30 June 2013, indicated that the construction sector had KSh71.7 billion in gross loans and the Real Estate construction sector had loans in excess of KSh194.9 billion both accounting for 13% of the total loans disbursed by banks in 2013.

The banking industry heavily relies on the services of project managers to drive its lending in the construction sector. This means that it is paramount for these project managers to have the correct project management skills. One way in which poor project management skills usually manifests itself in the banking industry is through the emergence of non-performing loans brought about by stalled or delayed projects. The latest data from the Central Bank of Kenya shows that the stock of gross non-performing loans as at March 2013 was Ksh. 70.3 billion (Choge & Muturi, 2014).

This study sort to explore the role that project management skills plays in enhancing the performance of financed projects in Kenyan banks. The study was also motivated to establish the influence of project cost management, project time management; project risk management and project quality management have on ensuring excellent performance of financed projects in these banks.

Kenyan Perspective of project management Skill

Project Management is the overall planning, coordination, and control of a project from beginning to completion aimed at meeting a client's requirement in order to produce functionally and financially viable projects (Jackson, 2010). Project management skills are important in the Kenyan economy because People who have the relevant skills not only make capital equipment more productive but also make effective use of machines and equipment they work with (Mbeche, 2011).

The concept of project management is relatively new in Kenya. In general there is a lack of project management skills in virtually all areas of the Kenyan economy. Even though no research has been done to ascertain the level of project management skills in the Banking industry recent research undertaken by the Kenya ICT Board has revealed that companies operating in the ICT sector are having difficulty finding enough skilled project managers. According to the report, some 9 600 professionals will be needed to fill the Kenyan IT workforce by 2013, with project management roles expected to see the biggest increase in positions, at 57% growth (Mbeche, 2011).

Close to fifteen years ago construction project delay was a widespread phenomenon in Kenya and reflected poor project time management practices to date nothing much has changed and projects in the construction industry continue to experience delays. Njakwe, (2012) points that more than Kshs 100

billion is lost due to lack of project management skills and related technologies both in the private and public sector.

Problem of the statement

Over the past decade the construction industry in Kenya has drawn considerable attention from the banking industry with latest statistics from KNBS indicating that the construction sector had KSh81.1 billion in gross by the end of 2014 up from KSh71.7 billion in 2013. This development has seen most banks rely on the expertise of project managers to oversee their construction assignments. It is therefore important for the project managers handling these projects to have the correct project management skills.

One way in which poor project management skills usually manifests itself in the banking industry is through non-performing loans resulting from failed projects or delays in project implementation (Githenya and Ngugi, 2014). Poor project execution leads to delays in project implementation or stalled projects. In both cases scarce funds are tied in unfinished projects causing problems of mortgage servicing (Chin et al., 2011). The latest data from the Central Bank of Kenya shows that non-performing loans increased by 14% from Ksh. 61.6 billion in December 2012 to Ksh. 70.3 billion in March 2013. Nyamongo and Temesgen (2013), opine that the banking industry succumbed to more than KSh81 billion non-performing loans by the end of 2013. The real estate and construction sectors accounted for KSh 10.8 billion of the KSh 81 billion non-performing loans (CBK,2013).

The immediate consequence of large amount of non-performing loans in the banking system is bank failure. Many Financial institutions that collapsed in Kenya in the 80's did so due to non-performing loans (Rambo, 2013). Mbeche (2011) in his study on the causes of bank failure found that asset quality was a significant predictor of insolvency. This view is also shared with Nyamongo and Temesgen (2013) who argues that when left unsolved, non-performing loans can compound into financial crisis, the moment these loans exceed the bank capital.

The study was conducted with the aim of finding out the role that project management skills play in enhancing the performance of financed construction projects in banks in order to alleviate the issue of non-performing loans as a result of poorly implemented projects

Research objectives

Main Objective

The study was conducted with the aim of finding out the role of project management skills in enhancing the performance of financed construction projects in Kenyan banks.

Specific Objectives

- I. To find out how project cost management affects the performance of financed construction projects in Kenyan banks.
- II. To examine if project time management influences the performance of financed construction projects in Kenyan banks.
- III. To analyze the influence of project risk management on the performance of financed construction projects in Kenyan banks.
- IV. To examine the effect of project quality management on the performance of financed construction projects in Kenyan banks.

Literature review

According to Müller and Jugdev (2012) recent research has begun to focus on how managerial incentives affect the tradeoff between fixed and variable costs.

The starting point of the sticky costs theory is that many (but, not necessarily, all) costs arise as a result of deliberate resource commitment decisions made by managers (Shahu, Pundir and Ganapathy, 2012). Sudhakar (2012) opined that the concept of cost stickiness is consistent with the thought that costs arise as a result of deliberate resource commitment decisions made by managers. This means that the absolute change in selling, general, and administrative cost associated with decreased sales activity is systematically less than those associated with increased sales activity and they interpret this as evidence of overt cost management (Tabish and Jha, 2012). Verschuren et al. (2010) argue that when sales decrease, managers choose to retain slack resources to avoid resource adjustment costs such as severance payments to dismissed workers or disposal losses on equipment. When demand increases beyond available resource capacity, managers can meet the demand only if they add the required resources.

The main obligations of a project team towards a client are usually reduced to concerns around functional requirements, specific quality, and delivery within acceptable budget and time-frame. Usually for most clients, the cost aspects seem to rank highest (Ward and Daniel, 2013). A project manager needs to have a clear understanding of cost behavior since this forms the basis for many decisions such as budgeting, controlling, and compensation. The concept of cost stickiness is thus important in this study as it portrays a clear connection on how managerial incentives affect the tradeoff between fixed and variable costs. The foregoing instigated the following research hypothesis

H₀: Project cost management does not influence the performance of financed construction projects in Kenyan banks.

The Pareto Principle of Time Management

In 1895, Vilfredo Pareto, an Italian economist, noted that about 80% of the land in Italy was owned by about 20% of the people. As he examined his ideas he noticed that this 80/20 rule was equally valid in other ways (Wells, 2012). The idea, which is now called the Pareto principle, relates to time management because 20% of work usually generates about 80% of positive results.

Zwikael and Globerson (2006) define time management as the process of determining needs, setting goals to achieve these needs, prioritising and planning tasks required to achieve these goals. Wells (2012) defines time management as behaviours that aim at achieving an effective use of time while performing certain goal-directed activities. This definition highlights the fact that the use of time is not an aim in itself but more of focusing on some goal-directed activity, such as performing a work task which is carried out in a manner that implies an effective use of time (Zwikael and Globerson, 2006).

Time management is not controlling every seconds of life, but it is showing new ways through which people can use the time properly to improve their lives (Wells, 2012). Thus, by focusing on the vital few (the critical 20%) rather than the trivial many (the remaining 80%), one can get far more accomplished. The 80/20 Rule is therefore a shortcut that helps to manage our affairs and focus our energies since the ability to choose the important tasks is the key to success (Ward and Daniel, 2013).

The Pareto principle of time management differs with the 100% rule states that 100% of the work needed to accomplish the project objective must be included in the work breakdown structure. In large, complex projects, there are typically multiple phases and multiple levels of work that must be done to achieve the project objective.

H₀: Time management does not influence the performance of financed construction projects in Kenyan banks.

Project Cost Management

Chowdhury (2013) recognize profitability and cost management to be at the core of enterprise performance management as it represents the bottom line for every company. Hwang and Ng (2013) see project cost management as a series of activities for estimating allocating and controlling costs within a project. Project cost management includes the processes involved in planning, estimating, budgeting, and controlling costs so that the project can be completed within the approved budget (Botha, 2013).

Project Cost Control

Cost control consists of projecting company operations into the future and then using that projection to manage the operations that actually develop (Hewage et al., 2011). Project cost control is important because the project manager must regularly ensure that the money spent is according to budget (Chou, Irawan and Pham, 2013). One major component of the cost control process is project performance reviews. These reviews compare cost performance over time, schedule activities or work packages overrunning and under-running budget, milestones due, and milestones met.

The three most common performance-reporting techniques are variance analysis, trend analysis and earned value analysis. Variance analysis involves comparing actual project performance to planned or expected performance (Dainty, Mei-I and Moore, 2005). Trend analysis involves examining project performance over time to determine if performance is improving or deteriorating Lehtiranta et al., (2012). The earned value technique compares planned performance to actual performance. (Tam, Shen and Kong, 2011) are of the opinion that the purpose of Earned Value Management is to ensure that value and expenditure stay approximately the same during the project execution .

Project Cost Estimation

This is the process of developing an approximation of the monetary resources needed to complete project activities based on the information known at a given point in time. The United States Government Accountability Office defines a cost estimate as the summation of individual cost elements, using established methods and valid data, to estimate the future costs of a program, based on what is known today. Costs estimated include labor, materials, equipment, services, facilities, and special categories like inflation (Cheung et al., 2013).

Expert based estimation is one of the ways that a project manager can use to approximate costs. Expert judgment, guided by historical information, provides valuable insight about the environment and information from prior similar projects. Though this is a common method of cost estimation, a potential downside of experienced-based estimation is the difficulty in thoroughly evaluating the complex relationships between the many cost influencing variables or its inability to quickly generate different cost alternatives in a sort of what-if analysis (Hewage et al., 2011).

Project Cost Budgeting

One of the final causes of bankruptcy is inadequate cash resources and failure to convince creditors and possible lenders of money that this inadequacy is only temporary (Chou, Irawan and Pham, 2013). Money flowing into a business is termed positive cash flow and monies paid out are termed negative cash flow. The difference between the positive and negative cash flows is termed the net cash flow. The use of cash flow forecasting as a cost budgeting tool is very important in project management. Cash flow forecasting according to Zwikael and Globerson (2006) provides a good warning system to predict possible insolvency.

Reserve Analysis is one of the techniques that Wells (2012) suggests can be used for cost budgeting. During reserve analysis, a project is analyzed from a cost overruns point of view and management contingency reserves are placed in appropriate place. Management contingency reserves are budgets reserved for unplanned, but potentially required, changes to project scope and cost. There is no prescribed method of performing reserve analysis. However, the guiding principle is that costs are to be buffered according to the risk levels identified within the project.

Project Time Management

Project Time Management includes the processes required to manage timely completion of the project. The four key tenets of project time management are activity definition, estimating activity resources needed, estimating activity time and time control schedule.

Schedule compression techniques are used to find ways to bring project activities that are behind into alignment with the plan. Fast tracking and crashing are usually used to shorten the schedule when no change in scope is required (Davies and Hobday, 2005). The business dictionary defines crashing as reducing the completion time of a projects sharply increasing manpower and other expenses. Fast tracking on the other hand involves performing tasks in parallel in order to finish faster (Chiu-Chi et al., 2002)

Project Risk Management

Risk management refers to the culture process and structures that are directed towards the effective management of potential opportunities and adverse effects (Davies and Hobday, 2005). When it comes to project risk management the four key areas are risk identification, risk analysis, risk responses and risk control and monitoring.

Identifying Risk

The Delphi technique developed Rand Corporation in the 1950's aims to achieve a convergence of opinion on a specific real-world issue (Anfara and Mertz, 2006). Project risk experts use this technique to solicit ideas about the important project risks (Milunovic and Filipovic, 2013). Common surveys try to identify "what is," whereas the Delphi technique attempts to address "what could/should be" (Miller, 2006). The responses are summarized and are then recirculated to the experts for further comment. Theoretically, the Delphi process can be continuously iterated until consensus is determined to have been achieved. However, Müller and Jugdev (2012) point out that three iterations is often sufficient to collect the needed information and to reach a consensus in most cases. The Delphi technique helps reduce bias in the data and prevents any one person from having undue influence on the outcome.

Risk identification checklists can be helpful when identifying potential risk areas (Shahu, Pundir and Ganapathy, 2012). Risk identification checklists are developed based on historical information and knowledge that has been accumulated from previous similar projects and from other sources of information. While a checklist can be quick and simple, one of their major draw backs is that it is usually impossible to build an all exhaustive checklist.

Risk Analysis

Risk probability and impact assessment is crucial when it comes to risk analysis. probability addresses how likely the risk event or condition is to occur and impact details the extent of what would happen if the risk materialised (Shahu, Pundir and Ganapathy, 2012). Risk probability assessment investigates the likelihood that each specific risk will occur. Risk impact assessment investigates the potential effect on a project objective such as schedule, cost, quality, or performance, including both negative effects for threats and positive effects for opportunities (Tabish and Jha, 2012). Risk probabilities and impacts are rated according to the definitions given in the risk management plan

The first problem in assessing the probability of project risks is that risks are possible future events that have not yet occurred, and as such their probability of occurrence cannot be *measured* but can only be estimated (Tabish and Jha, 2012). Another group of subconscious influences affecting perception of risk probability is heuristics. Heuristics are internal frames of reference used by individuals and groups to inform judgement when no firm data are available (Verschuren et al., 2010).

Monitor and Control Risks

Technical performance measures (TPMs) are tools that show how well a system is satisfying its requirements or meeting its goals. These TPMs provide assessments of the product and the process through design, implementation and test (Ward and Daniel, 201). Such technical performance measures might include weight, transaction times, number of delivered defects, storage capacity, etc.

One of the most valuable tools that a project manager has is a weekly project status meeting (Zwikael and Globerson, 2006). Project risk management should be an agenda item at periodic status meetings. Frequent discussions about risk makes it more likely that people will identify risks and opportunities. One flipside of this technique is that status meetings have a tendency to get a bad reputation. Many can feel that spending anywhere from a half-hour to an hour just talking about project status when there is real work to be done is a major waste of time

Plan Risk Responses

This involves the process of developing options and actions to enhance opportunities and to reduce threats to project objectives. Risk Responses addresses the risks by their priority, inserting resources and activities into the budget, schedule and project management plan as needed (Zwikael and Globerson, 2006).

There are three major ways of dealing with threats or risks that may have negative impacts on project objectives if they occur and they are risk avoidance, risk transfer, risk mitigation and risk acceptance (Wells, 2012). Risk avoidance involves changing the project management plan to eliminate the threat entirely.

Zwikael and Globerson (2006) are of the opinion that contingent response involves planning alternatives to deal with the risks should they occur. For some risks, it is appropriate for the project team to make a response plan that will only be executed under certain predefined conditions.

Project Quality Management

Quality management includes both quality assurance planning to meet quality requirements and the quality control steps taken to monitor results to see if they conform to requirements (Wells, 2012). The whole aspect of project quality management is usually made up of quality management, quality assurance and quality control.

The process analysis phase has the potential to provide the highest return on investments because if the real problems are not identified then the project manager may unintentionally design the same problems back into the processes (Davies and Hobday (2005). Process analysis is usually conducted to identify needed improvements from an organizational and technical standpoint. This usually includes root cause analysis and defect prevention techniques.

Statistical methods provide problem-solving tools to the quality process. According to Chin et al. (2011), statistical methods provide teams with the tools to identify the causes of quality problems, to communicate in a precise language that can be understood by all team members, to verify, repeat, and reproduce measurements based on data, to determine the past, present, and to a lesser degree, the future status of a work process, and to make decisions on facts that are based on data rather than the opinions and preferences of individuals. or groups. The most commonly used statistical methods in the TQM

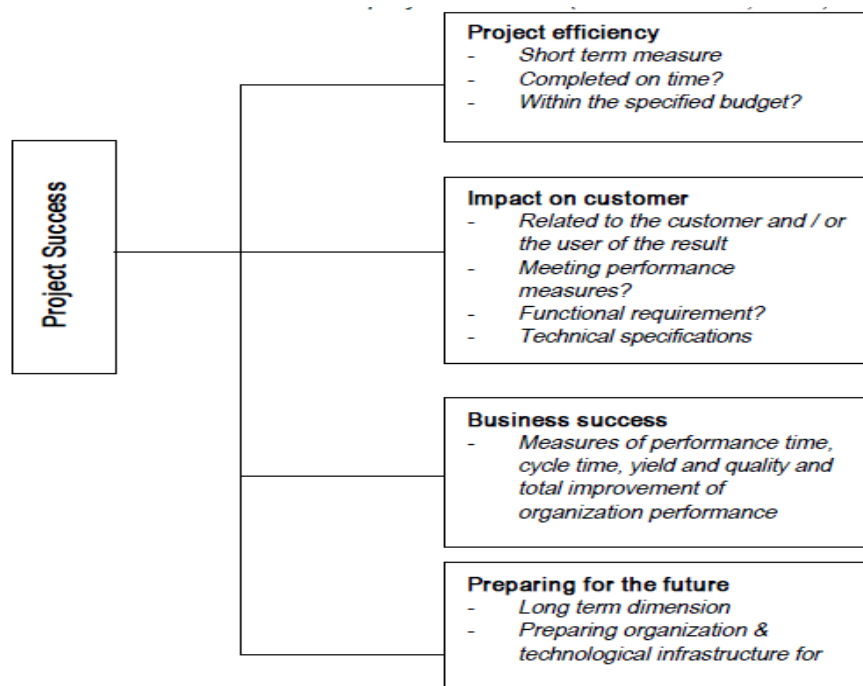
process include histograms, cause and effect diagrams, check sheets, Pareto diagrams, graphs, control charts, and scatter diagrams (Jetu and Riedl, 2012).

Measuring Success of Financed Construction projects in Commercial Bank

Milunovic and Filipovic (2013) define performance measurement as the process of quantifying the efficiency and effectiveness of action. Müller and Jugdev (2012) see performance measurement as the use of a multi-dimensional set of performance measures for planning and management of a business. According to Shahu et al. (2012), performance measurement systems are considered to be important for evaluating the accomplishments of firm goals, constructing strategies for development, making decisions for investments and compensating managers.

Sudhakar (2012) consider a project as the achievement of a specified objective, which involves a series of activities and tasks that consume resources. Criterion is defined as standard of judge mentor principle by which something is measured for value. In the early 90s', project success was inherently tied to performance measures, which in turn were tied to project objectives. At project level, success was measured on the bases of time, monetary cost and project performance (Tabish and Jha (2012). Verschuren et al. (2010) advocates that measures for project success should also include project psychosocial outcomes - the satisfaction of interpersonal relations with project team members. One way in which project managers in the banking industry can measure the success of their projects is through the Shenhar model.

The mo cond dimension can be assessed after a short time, when the project has been delivered to the customer. The third dimension can be assessed after a significant level of sales has been achieved (one to two years). Finally the fourth dimension can only be assessed three to five years after project completion



Research Gaps

Sudhakar (2012) stated that the professional project management training for certification consists of 7 knowledge areas which are hard skills and only two which are soft skills. That is, 80% of the training to become a project management professional is to do with hard skills and only 20% of the training is in soft skills. This particular study focused on the technical skill without looking at the soft skills of a project manager. It is important to note that the quality of a skilled worker is evaluated through two key aspects i.e. technical skills and non-technical skills. Leveraging on the technical skills alone is not enough to qualify one as an expert worker with the necessary skills.

In view of this, well-designed, field-based inquiries could be developed and used to assess the project management soft skills that managers working in Kenyan Banks are required to possess.

Research Design

A research design is the blue print for the collection, measurement, analysis of data and a plan to obtain answers to research questions (Coppers and Schindler, 2006). Designing a study helps the researcher to plan and implement the study in a way that helps the researcher to obtain intended results, thus increasing the chances of obtaining information that could be associated with the real situation (Creswell and Clark, 2007).

This study adopted a descriptive and historical research design. Descriptive research designs help provide answers to the questions of who, what, when, where, and how associated with a particular research problem. According to Babbie (2007), descriptive statistics enable the researcher to work out a number of statistical procedures, such as frequency distributions, frequency Tables, percentages, minimum, maximum, sum and means, as well as graphical presentations of frequencies and values in order to describe and compare variables numerically. This research is preferred because it provides an accurate account of characteristics of a particular individual event or a group in real life situation (Kothari, 2004; Mugenda and Mugenda 2003).

A section of the research study relied on historical research design. According to Kothari (2004) the purpose of historical research design is to collect, verify, and synthesize evidence from the past to establish facts that defend or refute a hypothesis. Historical research uses secondary sources and a variety of primary documentary evidence, such as, diaries, official records, reports, archives, and non-textual information maps, pictures, audio and visual recordings.

Secondly the historical design was chosen since a great portion of the research relied on reports prepared by the banking supervision department of the Central Bank of Kenya. These supervision reports and the annual financial reports from the Central Bank of Kenya are authentic and valid a. key consideration that a researcher has to consider before using the historical design (Kothari, 2004).

Target Population

A population is the total collection of elements about which interferences are made and refers to all possible cases which are of interest for a study (Denscombe, 2007). Kenya has a total of 44 registered commercial banks. All these banks are in operation with the exception of Charterhouse Bank and Dubai Bank which are under CBK's statutory management.

For the purpose of this study, the target population was the 10 banks listed on the main segment of Nairobi Securities Exchange. They include Barclays Bank, Co-operative Bank of Kenya, CFC Stanbic Bank, Diamond Trust Bank, Equity Bank, Housing Finance, KCB Bank, National Bank of Kenya, NIC Bank, and Standard Chartered Bank. These ten banks were chosen for this study because according to CBK 2013 report, they disbursed 91% of the total loan book in the banking industry.

The target population of the study was 113 respondents from all the banks mentioned above who according to the various Human Resources departments are involved in construction project finance and management.

Table 3.1: Target Population

Population Category	Target population	Percentage
Top management	13	12%
Middle level management	32	28%
Low level management	68	60%
Total	113	100%

Sampling Technique

Proportionate Stratified random sampling technique was used to select the sample. According to Denscombe (2007), stratified random sampling occurs when the sample size of each stratum is proportionate to the population size of the stratum when viewed against the entire population. Cooper and Schindler (2006) are of the opinion that stratified method of sample selection is appropriate when getting a sample from a heterogeneous population.

Sampling Frame

A sampling frame is the source material or device from which a sample is drawn. A sampling frame may also be described as a complete list of all the members of the population that we wish to study (Babbie, 2007). For the purpose of this study each stratum was categorized based on the position that the respondent holds in the bank i.e. top, middle management or low level management. Mugenda and Mugenda, (2003) suggests that for descriptive studies at least 10% -

30% of the total population is enough. A sample of 30% of the total population was therefore used for the study.

Table 3.2: Sample Size

Population Category	Respondents	Sample Ratio	Sample
Top Level Management	13	30%	4
Middle Level Management	32	30%	10
Lower Level Management	68	30%	20
Total	113	30%	34

Data Collection

This study collected both primary and secondary data. According to Babbie (2007), primary research involves the study of a subject through firsthand observation and investigation while secondary research and it involves the collection of information from studies that other researchers have made of a subject. The study employed questionnaire and interviews to collect the primary data. Closed and open ended pre-designed questionnaires were self-administered through research assistants. The study used interview to collect data from Key informants in the project finance and mortgage departments, in selected banks. The primary source of secondary data for this study was the CBK's supervision and banking sector reports which are released on an annual and quarterly basis respectively by the Central Bank of Kenya.

In order to ensure a higher response rate, the researcher included an introductory letter explaining the aim of the study and pledge to observe confidentiality. The researcher also undertook aggressive follow-up to ensure that a quality data was collected and high percentage rate of the respondents completed the questionnaire fully.

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes (Denscombe, 2007). This research study adapted the triangulation method to collect data. Triangulation is the use of multiple techniques within a given method to collect and interpret data. Triangulation means using more than one method to collect data on the same topic. in the validation process to ensure that the variance reflected that of the trait and not of the method.

Pilot Test

Before venturing into actual research, a pilot study was carried out. The term pilot study can be used to refer to the small scale versions, or trial runs done in preparation for the major study (Creswell and Clark, 2007). A pilot study can also be seen as the pre-testing or trying out of a particular research instrument. One of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated (Denscombe, 2007).

The research pre-tested the research instruments on four respondents. According to Cooper and Schilder (2006) a pilot should constitute at least 10% of the sample size. A more common problem is deciding whether to include pilot study participants or site(s) in the main study. Here the concern is that they have already been exposed to an intervention and, therefore, may respond differently from those who have not previously experienced it.

In order to avoid this contamination the four respondents who were involved in the pilot study were not short listed for the main research interview. The subjects of the pilot study were one senior level manager, one middle level manager and two lower level managers. The pre-test subjects were encouraged by the researcher to make comments and give suggestions concerning the items.

Validity

Validity as noted by Neuman (2003) is the degree to which result obtained from the analysis of the data actually represents the phenomenon under study. Validity is the ability of a test to measure what it is supposed to measure and it was applied to test whether the questionnaire measures what it aimed to measure (Cooper and Shindler, 2006). There are four types of validity that the researcher considered: statistical conclusion validity, internal validity, construct validity, and external validity. Statistical conclusion validity refers to inferences about whether it is reasonable to presume variation given a specified alpha level and the obtained variances. Internal validity is a crucial measure in quantitative studies, where it ensures that the researcher's experiment design closely follows the principle of cause and effect (Neuman, 2003). Construct Validity refers to the ability of a measurement tool to actually measure the psychological concept being studied to find out if it properly measure what it's supposed to measure. External validity is the process of generalization where results obtained from a small sample group, can be extended to make predictions about the entire population (Creswell and Clark, 2007).

Statistical conclusion validity was enhanced by the use of adequate sampling procedures, appropriate statistical tests, and reliable measurement procedures (Neuman, 2003). In order to enhance construct validity, experts in the area of study were asked to give their opinion on the instrument so as to judge the appropriateness. The expert opinion sort out confirmed that the content depth and breadth were suitable for the study. Internal validity on control of extraneous variables was addressed by making the question simple, straight forward and free from ambiguity. For external validity the model applied in this study was stratified random sampling to ensure representation of heterogeneous population.

Reliability

Reliability is the extent to which measurements are repeatable when different persons perform the measurements, on different occasions, under different conditions, with supposedly alternative instruments which measure the same thing (Neuman, 2003). The study used coefficient alpha to measure the reliability of the research instruments. Cronbach's is generally used as a measure of internal consistency or reliability of a psychometric instrument. Internal consistency concerns the reliability of the test components. Internal consistency measures consistency within the instrument and questions how well a set of items measures a particular behavior or characteristic within the test. For a test to be internally consistent, estimates of reliability are based on the average inter correlations among all the single items within a test (Neuman, 2003).

A satisfactory level of reliability depends on how a measure is being used. The standard is taken from (Creswell and Clark, 2007), who suggests that in the early stages of research on predictor tests or hypothesized measures of a construct, reliabilities of 0.70 or higher was sufficient.

Data Analysis and Presentation

This study had both qualitative and quantitative data. Content analysis was used to analyse qualitative data. Content analysis is a method for summarizing any form of content by counting various aspects of the content. This enabled the researcher to get a more objective evaluation as opposed to comparing content based on the impressions of a listener (Kothari, 2004). In the process, statements were studied, organized and presented in prose form in order to draw some meaningful conclusions from the data. Analysis of quantitative data on the other hand involved coding, entry and data cleaning.

Quantitative data obtained was analysed by the use of both descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS version 21). Descriptive statistics included frequencies, percentages measures of central tendency (mean) and measures of dispersion (standard deviation). According to Bryman and Bell (2003) Descriptive statistics enable the researcher to work out a number of statistical procedures, such as frequency distributions, frequency Tables, percentages, minimum, maximum, sum and means, as well as graphical presentations of frequencies and values in order to describe and/or compare variables numerically. The information was presented by use of bar charts, graphs and pie charts and in prose-form.

To determine the association between the dependent and the independent variables the study used both correlation and multiple linear regression analysis. A multiple linear regression is a statistical technique that uses several explanatory variables to predict the outcome of a response variable. The Multiple linear regression Model was recommended by (Peng and So 2002) who felt that the model is well suited for studying relationship between a categorical or qualitative dependent (outcome) variable and one or more predictor variable as recommended. The study adapted the following linear regressions Model.

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Whereby Y = The Performance of Financed Projects in Commercial Banks, X1= project cost management skills, X2= project time management skills, X3= project risk Management Skill and X4= project Quality Management Skill. B0 represents Constant term while β_1 , β_2 , β_3 and β_4 are coefficients of determination and finally ε represents the error term (standard error).

The study applied a 95% confidence level. A 95% confidence interval indicates a significance level of 0.05. This implies that for an independent variable to have a significant consequence on the dependent variable, the p-value ought to be below the significance level (0.05).

Regression Analysis

A regression analysis was used to determine the relationship between project management skills and performance of financed construction projects in Kenyan banks. The regression model was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Whereby Y = performance of financed construction projects in Kenyan banks, X1= project cost management skills, X2= project time management skills, X3= project risk Management Skill and X4= project Quality Management Skill. B0=Constant term while β_1 , β_2 , β_3 and β_4 are coefficients of determination and finally ε represents the error term (standard error).

As indicated in table 4.9 above, the R squared value (0.6593) shows that the overall model is significant. The four independent variables that were studied, explain 34.07% of performance in financed construction projects in Kenyan banks as represented by the adjusted R². This therefore means that other factors not studied in this research contribute 34.07% of the performance of financed projects in Kenyan banks.

Table 4. 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.812	0.659344	0.625411	0.53131

The significance value is 0.000 which is less than 0.05 thus the model is statistically significant in predicting how project cost management, project time management, project risk management and project quality management influence performance in financed construction projects in Kenyan banks. The F critical at 5% level of significance was 2.52. Since F calculated (15.961) is greater than the F critical, this shows that the overall model was significant.

Table 4. 2: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.407	4	4.10175	39.5485537	0.000
	Residual	2.904	28	0.10371429		
	Total	19.311	32			

From the findings in the table the established regression equation was;

$$Y = 2.257 + 0.187 X_1 + 0.307 X_2 + 0.278 X_3 + 0.667 X_4 + \varepsilon$$

The regression equation above has established that taking all factors into account (project cost management, project time management, project risk management and project quality management) constant at zero the performance in financed construction projects in Kenyan banks will be 2.257. The findings presented also show that there is a positive significant relationship between project cost management and performance in financed construction projects in Kenyan banks as shown by a

coefficient of 0.178 and a p-value of 0.0234 at 95% confidence interval which is less than 0.05 and a t-value of 2.198 which is greater than 2.

In addition, the findings show that there is a positive significant relationship between project time management and performance in financed construction projects in Kenyan banks as shown by a coefficient of 0.307 and a p-value of 0.000 at 95% confidence interval which is less than 0.05 and a t value of 3.337, which is greater than 2. This can be used to conclude that there is a positive significant relationship between project time management and performance in financed construction projects in Kenyan banks.

Further, the findings show that there is a significant positive relationship between project risk management and performance of financed construction projects in Kenyan banks as shown by a coefficient of 0.278 and a p-value of 0.021 at 95% confidence interval which is less than 0.05 and a t value of 2.356, which is greater than 2. This shows that there is a positive significant relationship between project risk management and performance of financed construction projects in Kenyan banks. Lastly, the findings show that there is a positive significant relationship between project quality management and performance of financed construction projects in Kenyan banks as indicated by a coefficient of 0.677 and a p-value of 0.000 at 95% confidence interval which is less than 0.05 and a t-value of 4.513, which is greater than 2. This infers that there is a positive significant relationship between project quality management and performance of financed construction projects.

Table 4. 3: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	2.257	1.002		2.252	0.032
Project cost management	0.178	0.081	0.049	2.198	0.023
Project time management	0.307	0.092	0.201	3.337	0.000
Project risk management	0.278	0.118	0.435	2.356	0.021
Project quality management	0.677	0.15	0.544	4.513	0.000

Summary of findings

The study sought to establish the influence of project cost management, project time management, project risk management and quality management on the performance of financed construction projects in Kenyan banks.

The empirical literature showed that project cost management, project time management, project risk management and project quality management all had a positive impact on the overall success of project. Other literature revealed that organizations that were able to manage their costs, execution time, project risks and the project quality were able to not only execute their projects on time, at cost and on schedule but they were also more likely to get repeat and referral customers.

A pilot study was undertaken with four respondents to test the reliability and validity of the questionnaire. The stratification was based on the position that the respondent held in the bank i.e. one respondent from the top management level, one from the middle Management level and two from the lower management level.

Recommendations

The study found that nearly all financed construction projects in most banks had experienced cost overrun in the last 5 years. This study therefore recommends the following. The study variables examined in this study (project cost management, project time management, project risk management and project quality management) only accounted for 44% of the project management skills with regard to the performance of financed construction projects in Kenyan banks. The study recommends that other variables which account for the remaining 56% of project management skills namely project scope management, project human resource management, project communication management project procurement management and project integration management be researched on. Also there is need to carry out similar research on the influence of the same independent variables in other types of projects and countries in order to establish whether the link between these factors and project performance can be generalized.

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