# PROJECT PORTFOLIO MANAGEMENT AND PERFORMANCE OF FINANCING PROGRAM IN COMMERCIAL BANKS IN NAIROBI CITY COUNTY, KENYA

[1] **Munyua Valentine Makena,** [2] **Dr. Lango Benard**

[1] MsC, Project Management, Jomo Kenyatta University of Agriculture and Technology
[2] Lecturer, Jomo Kenyatta University of Agriculture and Technology

## ABSTRACT

The general objective is to examine influence of project portfolio management on performance of bank financing in Kenya. The specific objectives are to; determine influence of portfolio planning, and portfolio inventory on performance of bank financing program in Kenya. The study was guided by the theory of transactive planning, and resource-based theory. The study adopted the descriptive research design. The study targeted the 399 commercial banks branches in Nairobi City County, Kenya. The target population comprised of 399 bank project managers from the banks' headquarters in Nairobi City County. The study used Yamane 1967 formula to get a sample of 200 project managers who were sampled using stratified random sampling. Questionnaires were used for data collection. The pilot test was conducted with 20 project managers representing 10% of the sample. The study used construct validity whereby factor analysis was used to check if the constructs used to measure the study variables are valid. Reliability was tested using Cronbach's Alpha Coefficient method. The least acceptable scale for a reliable item was 0.7. The questionnaires were dropped off at the respondents' office with the help of trained research assistants. The descriptive statistics included frequency, percentage, and mean while the inferential included correlation and regression. Findings were summarized using tables and a statistical discussion of the results given. The study concludes that portfolio planning has a significant effect on performance of bank financing program in Nairobi City County, Kenya. In addition, the study concludes that portfolio inventory has a significant effect on performance of bank financing program in Nairobi City County, Kenya. Based on the findings, this study recommends that the management of commercial banks should ensure effective portfolio planning through proper budgeting, well defined project schedule and project scope. In addition, the management of commercial banks should formulate and implement effective framework to ensure portfolio risk identification and management.

**Key Words:** project portfolio management, portfolio planning, portfolio inventory, performance, bank financing program

**INTRODUCTION**

Project portfolio is a group of projects that share and compete for same resources and are carried out under the sponsorship or management of an organization (Sadiq, Salisu, & Yuting, 2017). Project portfolio management is one of the most important management functions in today's business. The success of achieving the strategic goals of the enterprise depends on the approach taken to manage the portfolio of projects.  In portfolio management, all the projects are managed as a group, which is treated as a set of investments (activities) that can balance the properties like risks and return. Project Portfolio Management (PPM) deals with coordination of projects and programs in the frames of an organization with aims to optimize the results, balance the portfolio risk profile, govern the alignment of projects with the organization's strategy and deliver the projects within the planned budgets (Hansen & Svejvig, 2022).

The major components of portfolio management include supporting strategic objectives, ensuring value creation, prioritizing projects based on their relative importance, managing the flow of benefits and integrating stakeholders around business objectives (Bragantini & Caccamese, 2015). Hemanta (2013) sought to analyze the impact of applying project portfolio management on project success rate. The result of the study showed that there is a strong coefficient correlation between project success and project portfolio management maturity levels. The implication is that increasing the maturity level of project portfolio management leads to improving project success rate. Waldemar (2019) analysed the impact of portfolio management on the level of quality in EU projects implemented in public universities.  Findings revealed that project portfolio management enhances delivery of quality projects. Vittal and Parviz (2018) studied relationship between project success and project performance.   The results suggested that having a project portfolio management function within the organization improves the likelihood of assigning priority for projects and meeting quality expectations and project objectives. Saba and Bhatti (2022) on impact of project portfolio management on the portfolio's success in the construction industry of Pakistan found that various aspects of project portfolio management affect the innovative behaviour of teams that eventually contributes to the success of the project portfolio.

According to Okechukwu and Egbo (2017), many successful organizations in Nigeria attest to the idea that the management of multiple projects increases efficiency and effectiveness thereby improving organizational performance. Agbo, Igwebuike and Nwankwo (2022) sought to determine the effect of project portfolio management on project success in Nigeria, and results revealed that project portfolio management affects the product quality significantly. The result also indicated that project portfolio management has a positive and significant effect on the stakeholder satisfaction with the products. Killen (2017) noted that project portfolio management in Ghana increases the return from projects investments and contributes to the competitive advantage of an organization by providing a holistic frame for strategic management of project portfolio.

According to Muriuki (2018), project portfolio management is becoming established as a tool for prioritizing and managing multiple projects in Kenya.  Organizations are increasingly recognizing that portfolio management can help them make the decisions that will make them stand out amongst their competitors. However, despite the quantifiable benefits of portfolio management, relatively few sectors have perfected the practice. The problem of accurately estimating time and cost gets worse when multiple projects are being performed simultaneously. Mutua (2020) study examined the extent to which project portfolio risk management practices influences core banking system projects performance in selected commercial banks, in Kenya.  Findings showed that management of risk is critical to project portfolio success, and it is the task of risk management to manage a project's exposure to risk and risk monitoring and controlling. Therefore, this study

intends to establish the influence of project portfolio management on the performance of bank financing programmes in Kenya.

## Statement of the Problem

The banking industry has faced several challenges with regards to management of multiple projects. Several projects are initiated and only a few a successfully implemented. According to Kenya Bankers Association (2014) banks failed to meet the March 31st, 2014, deadline on the switch to chip based ATM project and were facing major challenges in the implementation phase of the project. Other bank programs like mortgage have not been productive as expected due to late payment or failure to repay the loans. Data from central bank shows that non-performing loans increased by 14% in 2021.In Kenya, the growth in mortgage financing has been poor despite Central Banks' interest rate capping. For instance, mortgage accounts holders in KCB bank which is the leading mortgage lender in Kenya went down by 7.3% in 2021. Housing Finance, the second-largest mortgage provider in the country, also saw a decline in its customers by 4.7 %. Mortgage accounts for all the banks reduced by 1.5% in 2021 (CBK, 2022). This was mainly as a result of non-performing loans which increased by 2% for the same period. The nonpayment was attributed to late payments by public and private entities, reduction in business activities, and reduced uptake of housing units in the real estate sector.

Mongare (2017) 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, cost overruns, poor portfolio planning, and poor project control. Lack of project portfolio management results to customers' dissatisfaction and loss of market share. If the bank projects are not successful, customers will be dissatisfied since they will be unable to access banking services when they need them resulting to financial losses and customer loyalty. The delays of bank programs also imply that achieving various products for customers became a challenging task (Bakari, 2016). There exist several studies on project portfolio management. Adesina, Omoregbe, and Oyewole (2015) study on influence of project portfolio management on product and service innovation showed that PPM practices have a greater impact in the new product and services success rate.

Ngatia (2015) study on nexus between project portfolio management capabilities and performance of local road construction firms in Nairobi City County found that the poor performance of local road projects was due to poor management of their portfolio and poor delivery of services to the road user. Project portfolio management practices contributed significantly to the performance of projects. Kinanu (2016) study on effect of project portfolio management practices on performance of County Governments in Kenya concluded that portfolio inventory, portfolio analysis, portfolio planning, portfolio review significantly affects performance of county government of Nairobi. There is study limitation on project portfolio management and performance of financing programmes in the banking sector in Kenya. This study sought to bridge the research gap by examining the influence of project portfolio management on performance of bank financing program in Nairobi City County, Kenya.

## Research Objectives
  i.  To determine influence of portfolio planning on performance of bank financing program in Nairobi City County, Kenya.
  ii.  To establish influence of portfolio inventory on performance of bank financing program in Nairobi City County, Kenya

## LITERATURE REVIEW

### Theoretical Review

### Theory of Transactive Planning

Theory of Transactive Planning was introduced by Friedmann (1973b). Friedmann stressed on the importance of people involving themselves in the development of their own community and through this involvement developing themselves. Transactive planning transforms knowledge to action by means of dialogue between actors. Friedmann points out that the gap between planner and client is increasing because they do not communicate. Consequently, the planner, before suggesting solutions, must establish personal contact and relations with the client, and this contact must be kept up until the planning (or the action) has been carried out. Instead of a formalized paper contact (plans), the most important thing is a personal, verbal communication between planner and client. The objective must be that both acquire mutual insight into each other's knowledge of the planning process and that this knowledge will result in action.
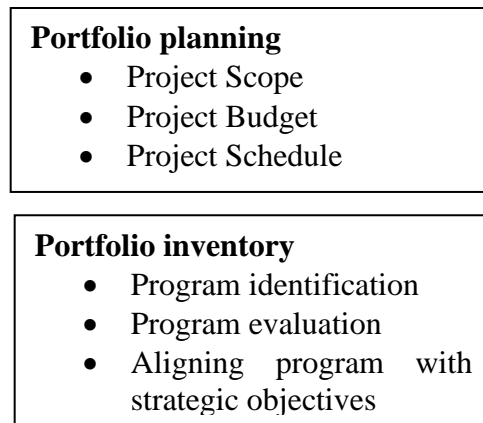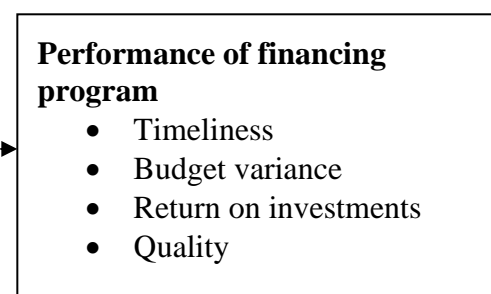
Friedmann was less concerned with the various stages in the planning process. His main idea can be summed up in the following way: if one establishes good contact between planner and client, and if one tries to change the causes of problems rather than the effects, then the planning process will develop naturally within the framework imposed by the society and the type of problem to be solved. During portfolio planning, all stakeholders need to be involved in planning for portfolio budget, scope, and schedule. This will help to bring everyone aboard to oversee portfolio success. The theory was critiqued by Hostovsky (2007) who asserted that planning is time consuming and not every interested party may be involved in planning and the parties excluded may feel that their interests are ignored.

### Resource-Based Theory

Resource-Based Theory (RBT) was introduced by Penrose (2009). The theory was based on effective management of firms' resources, diversification strategy, and productive opportunities. The theory has been widely used by managers in project management. It examines how resources can drive competitive advantage, especially project management (PM) capabilities that have been customized to a specific organizational environment and developed over time (Kozlenkova, Samaha & Palmatier, 2014). It aims to elaborate on imperfectly imitable firm resources that could potentially become the source of sustained competitive advantage (Barney, 1991). If the firm or organization is defined as a set of resources, then, logically, any part of such an organization, such as projects, is a subset of resources. To better allocate resources according to the project portfolio capacity, the organization must ask questions including what resources the organization possesses, how many projects the organization have the capacity to deliver, which department or type of resources that have a high degree of delayed projects and where bottlenecks occur regarding resources (Kendall & Rollins, 2003). The projects identified are thoroughly evaluated to assess if they would help to meet the organization goals. The theory is therefore related to the objective on project inventory. The key limitations of the theory include its inability to compile an empirical study to measure performance. RBV application is also limited to large firms with valuable resources (Triojens, 2004).

### Conceptual Framework

The conceptual framework in Figure 1 shows the relationship between independent and dependent variable. The independent variables are; portfolio planning, portfolio inventory, portfolio analysis and portfolio validation. The dependent variable is the performance of bank financing program.

**Independent Variables**                           **Dependent Variable**

| Portfolio planning |
| • Project Scope |
| • Project Budget |
| • Project Schedule |

| Portfolio inventory |
| • Program identification |
| • Program evaluation |
| • Aligning program with strategic objectives |

| Performance of financing program |
| • Timeliness |
| • Budget variance |
| • Return on investments |
| • Quality |

**Figure 1: Conceptual Framework**

**Portfolio Planning**

Project planning is the systematic arrangement of project resources in the suitable manner so as to attain project objectives. Cost planning is regarded as an essential aspect of the project management process. Every project manager needs to be aware of where the costs fall to handle the demand for resources. All resources that consume costs can be added in a resource-optimized schedule. This schedule is critical in cost planning as it enables project managers to oversee planned costs over time. Cost planning ensures that the tender amount matches with the approved budget estimates, achieve cost-effectiveness and ensures a smooth running of operations (Faten et al., 2020). Cost planning is applied to lower problems or issues during the life cycle of construction projects.

Resource planning ensures that resources are used effectively across one project or several portfolios. When a project manager effectively executes this, banks end up achieving maximum efficiency and optimization, especially in their use of resources. They also gain visibility into continuing projects and future resource requirements. Resource planning helps in the stabilization and creation of links between projects budget tasks and time (Mutuku et al., 2021). Resource planning helps to forecast shortages, develop capacity allocations and anticipate project bottlenecks. It also allows banks to respond with great flexibility as projects change and markets evolve. Time planning entails using the time allocated to meet scheduled deliverables and finalize work before or by the completion date. It requires project managers to keep the team prompt, organized, and productive. Sometimes the project manager is required to complete a project sooner than anticipated based on time restrictions and objectives. Lofti et al (2022) state that to complete a project sooner than scheduled several activities need to be diminished. Time is essential in a project as it helps to eliminate time-wasting and keep a team productive and the success of the project. Every project manager must be able to optimize time as a strategy to guide a team towards the achievement of project goals.

**Portfolio Inventory**

The inventory phase of portfolio is where all projects are successfully categorized and listed in a consolidated place (Brown, 2020). Chien (2012) contends that selecting of individual solid project does not guarantee an ideal portfolio blend, but the general goals of the portfolio must be considered in the determination procedure. Program identification seeks to establish a preliminary proposal for the course of action, set of interventions within budget frames and specific time to establish a specific development goal. The identification phase helps to analyze the relevance of

the ideas of a project. It includes the target group of the project and stakeholders. It analyzes potential problems that these parties might have and options that are available to resolve them. In some instances, occurrences that are likely to be encountered in a project can be identified or anticipated and addressed (Sobieraj & Metelski, 2020). Project identification helps to review alternative approaches for addressing a set of opportunities and development problems.

Project evaluation is a method that is used in coordinating and planning projects. It serves as a project management tool in which all elements are identified including the relationships that exist between them. The technique is also used to establish the diverse types of estimates that exist when uncertainty is present with the duration of the activity considered. Project evaluation must achieve its goal which is to ensure output validation, cost-effectiveness, impact assessment, and efficacy (Concilio et al., 2021). Evaluation of complex projects comes with recurring challenges even for researchers, professionals, and people handling the projects. By evaluating projects, project managers can determine the activities that they need to focus on first before moving on to other programs.  Aligning programs with strategic objectives helps to achieve desired results in a faster manner. Project managers undertake several steps to ensure that their projects align with strategic objectives. These steps include defining the purpose of the project, establishing a plan to get there, measuring progress, reviewing and adjusting as required. The strategic alignment will always include financial goals and business drivers like improving distribution, efficiency and market share.

When selecting projects, a project manager needs to be able to turn strategic goals into criteria that they can utilize to evaluate whether a project is aligned with strategy. Strategic projects need to be categorized based on long-term business goals, social values, sustainability, investment, and time. Most cases would require alignment to ensure that they meet the significant investments and resources put into them (Al-Sobai et al., 2020). Aligning programs to strategic objectives attains several benefits such as high project success rates, turn focus on value creation, attain stronger executive sponsorship, elimination of waste, and better team focus.

**Empirical Review**

PMBOK (2014) investigated the influence of cost planning on project performance. This study utilized a descriptive research design. The sampled respondents were 120 project managers. The study found that project cost planning practices, which includes the cost budgeting as well as cost estimating process, affects project performance. Cost -planning practices are essential to complete a given project within the agreed budget. The project's budget is crucial, and it has an influence in all areas in both projects planning as well as implementation.  Lello (2018) evaluated the pre-contract cost planning process for building projects in Tanzania. The sample size was 34 team members.  Questionnaire and interviews were used to collect data. The findings established that although companies conduct a pre-contract cost planning process, they skip key stages in the process.

Tekalign (2014) assessed the role of project planning on project performance in Ethiopia. The target was 43 organizations. Questionnaires were used for data collection.  The main factors affecting project performance were identified as human, management, technical and organizational factors. The challenge for the project team was in planning processes as risk, scope, quality human resource, and integration knowledge areas were inadequately/poorly/ performed.  Tuyishime, and Nyambane (2021) assessed the contribution of planning to the project performance in public institutions in Rwanda. The study adopted a causal research design. The target population comprised of 145 and Yamane formula was used in sampling 106.

The study concluded that objective setting, targets and key performance indicators, coordination of activities and mobilization of resources influenced projects performance. Findings further revealed that there exists a significant relationship between planning and project performance. Ondiek (2020) investigated the influence of project planning on the success of road construction projects in Uasin Gishu County in Kenya. The study adopted a descriptive research design. The study targeted 51 employees in 15 government road construction projects under construction in Uasin Gishu County, Kenya. Census was adopted to identify the 51 respondents. The study established that there was a positive correlation between the success of road construction projects and factors such as time planning, scope planning, cost planning, and risk planning.

Callistus and Clinton (2018) studied the evaluation practices in construction sector in Switzerland. This study used secondary data. Conclusions were that project evaluation has a critical responsibility in the performance of construction projects through ensuring sufficient allocation of funds, planning on training of the evaluation staff, and provision of a favorable project environment. Linzalone and Giovanni (2015) studied effect of program evaluation models on project performance. The study was carried out through a systematic review. Findings showed that effectiveness and efficiency of the evaluation are increasingly important for programs and projects. The assessment and evaluation of the meta-evaluation is crucial for finance of a project, assessment of a project's efficacy and improvement of a programs performance.

Boustani (2021) conducted a study on the relationship that exists between risk management and the development of construction projects in Saudi Arabia. The research was conducted using a questionnaire that was filled by 230 respondents. The study established a connection between risk identification and risk assessment in determining the success of the project with a focus on the time limit, technical specifications, and planned budget. Gashuga (2016) studied effect of project finance management on project performance in Rwanda. The sampled respondents were 91 staff. Questionnaires were used to collect data. Findings showed that finances allocation, funds control, and fundraising were positively related to project performance.

Wera (2016) investigated effect of project identification process on performance of technical and vocational training institutes in Kibra, Kenya. The study adopted a case study design. The target was 135 staff sampled using purposive sampling. Data was collected using questionnaires. Findings showed that risk management and objective analysis during project identification process influenced project performance. Oswald (2016) investigated the development of a project management evaluation model for the construction industry in Kenya. To meet the research objectives, a survey research design was adopted. A sample size of 580 members was selected,

with 344 members being responsive. The results determined that a model should be established for monitoring and evaluating construction projects to ensure the proper delivery of construction projects

**RESEARCH METHODOLOGY**

The research design employed was descriptive and mixed, using both qualitative and quantitative methods. The target population was 399 bank project managers from 43 commercial banks in Nairobi City County, with a sample size of 200 project managers determined using the Yamane formula. The sampling technique used was stratified random sampling. Questionnaires were used for data collection, and a pilot study was conducted to validate the instruments. Validity was ensured by drawing indicators from the conceptual framework and using factor analysis to check construct validity. Reliability was tested using Cronbach's Alpha Coefficient method. Data

collection procedures were followed, and ethical clearance was obtained. Data collected was analyzed using descriptive and inferential statistical. Inferential statistics included correlation and regression analysis.

## ANALYSIS AND INTERPRETATION OF DATA

The researcher sampled 200 respondents who were each administered with the questionnaires. From the 200 questionnaires 196 were completely filled and returned hence a response rate of 98%. The response rate was considered as suitable for making inferences from the data collected since it was above 50%

### Descriptive Statistics Analysis

### Portfolio Planning and Performance of Bank Financing Program

The first specific objective of the study was to determine influence of portfolio planning on performance of bank financing program in Nairobi City County, Kenya. The respondents were requested to indicate their level of agreement on various statements relating to portfolio planning and performance of bank financing program in Nairobi City County, Kenya. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 1.

### Table 1: Portfolio Planning and Performance of Bank Financing Program

|  | Mean | Std. Deviation |
|---|---|---|
| A cost management plan is developed for every project to describe how costs will be managed. | 3.926 | 0.840 |
| Specific activities of projects are clearly identified and documented. | 3.931 | 0.904 |
| Every project has clear duration estimates help to assess the work period of portfolio | 3.896 | 0.937 |
| Project scope is well defined to help in identifying major project work components, deliverables, and requirements | 3.789 | 0.876 |
| Scope is verified to define how project work will be confirmed and ultimately accepted by the client. | 3.756 | 0.897 |
| Creating Work Breakdown Structure provides the necessary framework for detailed cost estimating and control | 3.712 | 0.897 |
| There are adequate designs, specifications and documentations for the use of contractors. | 3.659 | 0.789 |
| **Aggregate** | **3.742** | **0.865** |

From the results, the respondents agreed that a cost management plan is developed for every project to describe how costs will be managed. This is supported by a mean of 3.926 (std. dv = 0.840). In addition, as shown by a mean of 3.931 (std. dv = 0.904), the respondents agreed that specific activities of projects are clearly identified and documented. Further, the respondents agreed that every project has clear duration estimates help to assess the work period of portfolio. This is shown by a mean of 3.896 (std. dv = 0.937). The respondents also agreed that project scope is well defined to help in identifying major project work components, deliverables, and requirements. This is shown by a mean of 3.789 (std. dv = 0.876). The respondents agreed that scope is verified to define how project work will be confirmed and ultimately accepted by the client. This is supported by a mean of 3.756 (std. dv = 0.897). In addition, as shown by a mean of 3.712 (std. dv = 0.897), the respondents agreed that creating Work Breakdown Structure provides the necessary framework for detailed cost estimating and control. Further, the respondents agreed

that there are adequate designs, specifications and documentations for the use of contractors. This is shown by a mean of 3.659 (std. dv = 0.789).

## Portfolio Inventory and Performance of Bank Financing Program

The second specific objective of the study was to establish influence of portfolio inventory on performance of bank financing program in Nairobi City County, Kenya. The respondents were requested to indicate their level of agreement on various statements relating to portfolio inventory and performance of bank financing program in Nairobi City County, Kenya. A 5 point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 2.

## Table 2: Portfolio Inventory and Performance of Bank Financing Program

|  | Mean | Std. Deviation |
|---|---|---|
| Strategic projects are categorized based on long-term business goals, | 3.996 | 0.865 |
| Project managers undertake several steps to ensure that their projects are aligned with strategic objectives | 3.919 | 0.945 |
| Evaluation helps project managers to determine the activities that they need to prioritize on | 3.908 | 0.611 |
| Stakeholders are consulted during program identification | 3.901 | 0.908 |
| All projects are categorized in order of importance and the most valuable ones selected | 3.861 | 0.776 |
| Project evaluation helps in multiple projects coordination and planning | 3.854 | 0.786 |
| Identification helps to establish occurrences that are likely to be encountered in a project | 3.834 | 0.897 |
| Project identification helps to review alternative approaches for addressing a set of opportunities and challenges | 3.765 | 0.798 |
| **Aggregate** | **3.822** | **0.841** |

From the results, the respondents agreed that strategic projects are categorized based on long-term business goals. This is supported by a mean of 3.996 (std. dv = 0.865). In addition, as shown by a mean of 3.919 (std. dv = 0.945), the respondents agreed that project managers undertake several steps to ensure that their projects are aligned with strategic objectives. Further, the respondents agreed that evaluation helps project managers to determine the activities that they need to prioritize on. This is shown by a mean of 3.908 (std. dv = 0.611). The respondents also agreed that stakeholders are consulted during program identification. This is shown by a mean of 3.901 (std. dv = 0.908).  The respondents agreed that all projects are categorized in order of importance and the most valuable ones selected. This is supported by a mean of 3.861 (std. dv = 0.776). In addition, as shown by a mean of 3.854 (std. dv = 0.786), the respondents agreed that project evaluation helps in multiple projects coordination and planning. Further, the respondents agreed that identification helps to establish occurrences that are likely to be encountered in a project. This is shown by a mean of 3.834 (std. dv = 0.897). The respondents also agreed that project identification helps to review alternative approaches for addressing a set of opportunities and challenges. This is shown by a mean of 3.765 (std. dv = 0.798).

## Performance of Bank Financing Program

The respondents were requested to indicate their level of agreement on various statements relating to performance of bank financing program in Nairobi City County, Kenya. A 5 point Likert scale

was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 3.

**Table 3: Performance of Bank Financing Program**

|  | Mean | Std. Deviation |
|---|---|---|
| Program is completed within set budget | 3.984 | 0.997 |
| Program is sustainable | 3.905 | 0.830 |
| The bank has managed to complete several projects at a given time | 3.878 | 0.563 |
| Program is of desired quality | 3.859 | 0.851 |
| Program meets customer's satisfaction. | 3.842 | 0.976 |
| The bank portfolios delivered returns on investments | 3.765 | 0.987 |
| The program is unique in comparison to other programs in the market | 3.675 | 0.897 |
| Program is aligned to strategic organization goals | 3.546 | 0.678 |
| **Aggregate** | **3.807** | **0.834** |

From the results, the respondents agreed that program is completed within set budget. This is supported by a mean of 3.984 (std. dv = 0.997). In addition, as shown by a mean of 3.905 (std. dv = 0.830), the respondents agreed that program is sustainable. Further, the respondents agreed that the bank has managed to complete several projects at a given time. This is shown by a mean of 3.878 (std. dv = 0.563). The respondents also agreed that program is of desired quality. This is shown by a mean of 3.859 (std. dv = 0.851). The respondents agreed that program meets customer's satisfaction. This is supported by a mean of 3.842 (std. dv = 0.976). In addition, as shown by a mean of 3.765 (std. dv = 0.987), the respondents agreed that the bank portfolios delivered returns on investments. Further, the respondents agreed that the program is unique in comparison to other programs in the market. This is shown by a mean of 3.675 (std. dv = 0.897). The respondents also agreed that the program is aligned to strategic organization goals. This is shown by a mean of 3.546 (std. dv = 0.678).

## Inferential Statistics

## Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent and the dependent variable (performance of bank financing program in Nairobi City County, Kenya) dependent variable. Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients. The current study employed Taylor (2018) correlation coefficient ratings where by 0.80 to 1.00 depicts a very strong relationship, 0.60 to 0.79 depicts strong, 0.40 to 0.59 depicts moderate, 0.20 to 0.39 depicts weak.

**Table 4: Correlation Coefficients**

|  |  | Program Performance | Portfolio Planning | Portfolio Inventory |
|---|---|---|---|---|
| **Program Performance** | Pearson Correlation | 1 | | |
|  | Sig. (2-tailed) | | | |
| **Portfolio Planning** | Pearson Correlation | .822** | 1 | |
|  | Sig. (2-tailed) | .002 | | |
| **Portfolio Inventory** | Pearson Correlation | .834** | .289 | 1 |
|  | Sig. (2-tailed) | .001 | .061 | |

From the results, there was a very strong relationship between portfolio planning and performance of bank financing program in Nairobi City County, Kenya (r = 0.822, p value =0.002). The relationship was significant since the p value 0.002 was less than 0.05 (significant level). The findings are in line with the findings of Tuyishime, and Nyambane (2021) who indicated that there is a very strong relationship between portfolio planning and project performance. Moreover, the results revealed that there is a very strong relationship between portfolio inventory and performance of bank financing program in Nairobi City County, Kenya (r = 0.834, p value =0.001). The relationship was significant since the p value 0.001 was less than 0.05 (significant level). The findings conform to the findings of Linzalone and Giovanni (2015) that there is a very strong relationship between portfolio inventory and project performance.

**Regression Analysis**

Multivariate regression analysis was used to assess the relationship between independent variables (portfolio planning, portfolio inventory) and the dependent variable (performance of bank financing program in Nairobi City County, Kenya)

**Table 5: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .930 | .865 | .866 | .10582 |

a. Predictors: (Constant), portfolio planning, portfolio inventory

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.865. This implied that 86.5% of the variation in the dependent variable (performance of bank financing program in Nairobi City County, Kenya) could be explained by independent variables.

**Table 6: Analysis of Variance**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 172.027 | 4 | 43.007 | 398.21 | .001[b] |
| | Residual | 20.568 | 191 | .108 | | |
| | Total | 198.595 | 195 | | | |

a. Dependent Variable: performance of bank financing program
b. Predictors: (Constant), portfolio planning, portfolio inventory

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 398.21 while the F critical was 2.419. The p value was 0.001. Since the F-calculated was greater than the F-critical and the p value 0.001 was less than 0.05, the model was considered as a good fit for the data. Therefore, there is a statistically significant difference between the means of the study variables meaning that there is significant influence of portfolio planning, inventory, analysis, and validation on performance of bank financing program in Nairobi City County, Kenya. Therefore, the model can be used to predict the influence of portfolio planning, portfolio inventory, portfolio analysis and portfolio validation on performance of bank financing program in Nairobi City County, Kenya.

**Table 7: Regression Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 0.221 | 0.062 | | 3.565 | 0.002 |
| | portfolio planning | 0.380 | 0.108 | 0.381 | 3.519 | 0.003 |
| | portfolio inventory | 0.481 | 0.109 | 0.482 | 4.121 | 0.001 |

a Dependent Variable: performance of bank financing program

The regression model was as follows:

$$Y = 0.221 + 0.380X_1 + 0.481X_2 + \varepsilon$$

From the results, portfolio planning has a significant effect on performance of bank financing program in Nairobi City County, Kenya $\beta_1$=0.380, p value= (0.003). The relationship was considered significant since the p value 0.003 was less than the significant level of 0.05. The findings are in line with the findings of Tuyishime, and Nyambane (2021) who indicated that there is a very strong relationship between portfolio planning and project performance. The results also revealed that portfolio inventory has significant effect on performance of bank financing program in Nairobi City County, Kenya, $\beta_1$=0.481, p value= 0.001). The relationship was considered significant since the p value 0.001 was less than the significant level of 0.05. The findings conform to the findings of Linzalone and Giovanni (2015) that there is a very strong relationship between portfolio inventory and project performance.

**Conclusions**

The study concluded that portfolio planning significantly influences performance of bank financing program in Nairobi City County, Kenya. Portfolio planning helps in achieving cost effectiveness as well as smooth running operations of the project. During planning, a competent project team is selected and work structure provided to the project team to manage their time and meet project deadlines. Portfolio inventory influences the performances of bank financed housing projects. Portfolio inventory is where all projects are successfully categorized and listed in a consolidated place. The study concluded that it is of importance to categorize and evaluate projects appropriately. Portfolio inventory also helps in enabling managers undertake several steps to ensure that their projects are aligned with strategic objectives. It also helps in prioritization and stakeholder involvement.

**Recommendations**

Effective program portfolio design and initiation activities should be applied to all programs implemented by the banks. The banks should establish proper portfolio planning to facilitate time planning management to ensure that the programs are delivered within set time. The program designs should be flexible to accommodate changes if suggested by the stakeholders to improve on beneficiary satisfaction which is a key performance indicator of projects. The project managers should endeavor to involve all project stakeholders in project identification. This will ensure that the programs initiated will meet the needs of the targeted beneficiaries and the stakeholders will be satisfied. The programs should be prioritized depending on the needs identified the most needed programs should be considered first while the least important should be considered last.

**Suggestions for Further Studies**

This study focused on the influence of project portfolio management on performance of bank financing program in Nairobi City County, Kenya. Having been limited to performance of bank financing program in Nairobi City County, Kenya, the findings of this study cannot be generalized to other financial institutions in Nairobi County in Kenya. The study therefore suggests further studies on the influence of project portfolio management on performance of programs of other financial institutions in Nairobi City County. Further, the study found that the independent variables (portfolio planning, portfolio inventory, portfolio analysis and portfolio validation) could only explain 86.5% of performance of bank financing program in Nairobi City County, Kenya. This study therefore suggests research on other factors affecting performance of bank financing program in Nairobi City County, Kenya.

**REFERENCES**

Adesina, O., Omoregbe, S. & Oyewole, O. (2015). An Assessment of Project Portfolio Management Techniques on Product and Service Innovation: Evidence from Nigerian Selected Industries. *Journal of Economics and Finance*, 6(4)08-20

Agbo, E., Igwebuike, S. & Nwankwo, S. (2022). *Project Portfolio Management and Project Success in Nigeria: A Study of Aqua - Rapha Investment Nigeria Limited. International Journal of Management Research*, 10 (2) 1-26.

Al-Sobai, K. M., Pokharel, S., & Abdella, G. M. (2020). Perspectives on the Capabilities for the Selection of Strategic Projects. *Sustainability*, *12*(19), 8191.

Bakari, R. (2016). *Strategic Change Practices Adopted by Kenya Commercial Bank Group in Response to the Changing Banking Sector in Kenya.* Unpublished Masters' Thesis, University of Nairobi

Barney, J.B. (2001). Is the Resource-Based "View" a Useful Perspective for Strategic Management Research? Yes. *The Academy of Management Review*, 261, 4

Boustani, F. A. (2021). *A Study on the Impact of the Relationship between Risk Management and the Development of Construction Projects in the Kingdom of Saudi Arabia.* Unpublished Doctorate Thesis, Metropolitan University.

Bragantini, D. & Caccamese, A. (2015). *Getting to stakeholders' agreement*. Paper presented at PMI® Global Congress 2015—EMEA, London, England. Newtown Square, PA: Project Management Institute

Concilio, G., Karimi, M., & Rössl, L. (2021). Complex Projects and Transition-Driven Evaluation: The Case of the easy rights European Project. *Sustainability*, *13*(4), 2343.

Faten Albtoush, A. M., Doh, S. I., Abdul Rahman, A. R. B., & Albtoush, J. F. A. A. (2020). Factors affecting the cost management in construction projects. *International Journal of Civil Engineering and Technology*, *11*(1).

Hansen, L. K., & Svejvig, P. (2022). Seven Decades of Project Portfolio Management Research (1950–2019) and Perspectives for the Future. *Project Management Journal*, 53(3), 277–294.

Killen, C. (2017). Managing portfolio interdependencies: The effects of visual data representations on project portfolio decision making. *International Journal of Managing Projects in Business*, 10(4) 856-879

Kozlenkova, I.V., Samaha, S.A. & Palmatier, R.W. (2014). Resource-based theory in marketing. *Journal of the Academy of Marketing Science*, 421, 1-21

Lello, D. S. (2018). An Evaluation of the Pre-Contract Cost Planning Process for Building Projects in Tanzania. *International Journal of Innovative Research and Development*, 7(5), 7-21.

Mongare, M. C. (2017). *Project Management Practices and Implementation of Information Technology Projects among Selected Commercial Banks in Kenya*. Unpublished Masters' Thesis, Kenyatta University, 1-87

Mutuku, H. M., Mueke, M., & Mwangi, A. (2021). Resource Planning as a Panacea for Successful Completion of Water Projects in Semi-Arid Areas in Machakos County, Kenya. *European Journal of Business and Management Research*, *6*(3), 161-164.

Ngatia, N. (2015). The Nexus between Project Portfolio Management Capabilities and Performance of Local Road Construction Firms in Nairobi County, Kenya. *International Journal of Social Sciences and Project Planning Management,* 1(4)220-223

Okechukwu, E. U., & Egbo, D. E. (2017). Effect of Project Portfolio Management on the Performance of Business Organizations in Enugu Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 7(9), 591–604

Ondiek, F. B. (2020). *Influence of Project Planning on Road Construction Projects Performance in Uasin Gishu County, Kenya.* Unpublished Doctorate Thesis, Jomo Kenyatta University of Science and Technology

Oswald Gwaya, A. (2016). *Development of a Project Management Evaluation Model for the Construction Industry in Kenya*. Unpublished Doctorate Thesis, Jomo Kenyatta University of Science and Technology

Saba, N. & Bhatti, S. (2022). Impact of project portfolio management on the portfolio's success with a mediating role of team innovative behaviour in the construction industry of Pakistan. *Journal of management Research*, 8(1) 1-18,

Sadiq, G. A., Salisu, G. D. & Yuting, W. (2017). Factors shaping project portfolio management in Nigeria's built environment. *International Journal of Economics, Commerce & Management,* 6(3) 512-33

Sobieraj, J., & Metelski, D. (2020). Identification of the key investment project management factors in the housing construction sector in Poland. *International Journal of Construction Management*, 1-12.

Tan, T. K. (2012). Financial distress and firm Performance: Evidence from the Asian Financial Crisis. *Journal of Accountancy and Finance*, 5-6

Tuyishime, A. C., & Nyambane, D. (2021). Planning and project performance in public institutions in Rwanda. A case of establishment of a Frequency Spectrum Management and monitoring system project in Rwanda. *The Strategic Journal of Business & Change Management,* 8 (1), 780 – 790

Vittal, S.& Parviz, F. (2018). Role of Organizational Project Management Maturity Factors on Project Success. *Engineering Management Journal*, 30(3)165-178