EFFECT OF PROJECT IDENTIFICATION ON THE PERFORMANCE OF ROAD INFRASTRUCTURE DEVELOPMENT PROJECTS IN KENYA

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ABSTRACT

This study established the effects of project identification mechanism on performance of road infrastructure development projects in Kenya. The study was anchored on the Theory of Constraints. The study applied a mixed method approach to collect data from the target population of 199 spread out among 15 road infrastructure development projects in the country. The study utilized both primary and secondary data sources and adopted a combination of descriptive survey research design and explanatory design. For primary data collection, both closed and open-ended questionnaire were used. The questionnaire's reliability was tested through the use of the Cronbach's alpha reliability coefficient. The study also made use of a structured interview process to get more insights on the research questions. The study mainly made use of descriptive statistics to summarize data and inferential statistics and specifically the Multi linear regression were used to test hypothesis. The analysis made use of statistical packages to analyse data and these were presented in the form of tables and figures. The study found that project identification had a positive and significant influence on the performance of road projects in Kenya. The study concluded that project identification ensures that a project submitted for project approval is adequately designed and analysed within the project context. The study recommended that it was important to identify the problem to be dealt with concerning the project, the stakeholder to be involved, outline the project goals that are to be achieved and all the relevant project tasks crucial in achieving the results of the project.

Key Words: Feasibility Studies, Problem Analysis, Objective Analysis, Infrastructure Development

INTRODUCTION

Public Private Partnership (PPP) is an increasingly popular choice for policymakers in implementing important public works projects especially in the face of a shortage of government financial resources and where it is necessary to counter public inefficiency (Awodele, 2020). PPP enables governments that are already stretched for resources with the present economic climate, to utilize alternative private sector sources of finance while simultaneously gaining the benefits that the private sector can bring in terms of skills and management. Ultimately PPP can bring greater value for money from public sector resources. Dominic, Ezeabasili, Okoro, Dim and Chikezie (2021) observe that PPP involves long-term collaboration between public and private sectors for mutual benefits in which the collaborating actors mutually agree to share risks, costs and benefits in the development of products or services. The worldwide experience has shown that PPP can provide a range of benefits if properly formulated. The variety of benefits that can be offered by PPP include risk transfer, value for money, increased efficiency, and private financing. The independent variable was the PPP mechanism which had been defined as the processes of project identification in the process of Kenyan road infrastructure projects are being implemented.

Project identification is a complex process that provides a powerful lens which help to spot conflicts in projects (Nielson, 2019). Ideas for identifying projects always springs from customer research, brainstorming sessions, supplier research, market research and literature analysis (Kerzner, 2014). It is through project identification that project administrators are able to foresee potential risks. The risks in most cases ranges from safety, force majeure, political, environmental, social, financial, institutional to technical (Zembri-Mary, 2019). According to (Kerzner, 2018) project identification can be determined by successful or failure of previous projects which in turn releases resources required for fresh projects. The current research will seek to assess the phenomenon project identification through literature analysis, brainstorming sessions, customer research and conflict spotting.

According to Meredith and Mantel (2018), project identification is the process of evaluating a single project or group of projects and selecting those that will help the organization achieve its goals. A project's impact on at least one of the major stakeholders' issues, such as growth acceleration, cost reduction, social impact, or cash flow improvement, should be linked to the right goals. A good project identification, according to Kumar, Saranga, Nowicki, and Rami rez-Ma rquez (2020), is a process in and of itself, and if done correctly, it can significantly increase the potential benefits to beneficiaries. The implementation of the project may also be related to the identification of the project; by supporting the organization's development of a project culture and contributing to the success of the project as well as to the efficiency of the project processes.

Project identification, in this paper refers to all those activities undertaken within an organisation in initiating a construction project up to, but excluding the feasibility study stage. It involves recognition of the need for a facility and development of a commitment to satisfy the need (Maytorena, Winch, Freeman & Kiely, 2019). Berssaneti and Carvalho, 2022) observe that a well-executed project identification phase encompasses a careful definition of the user requirements for the conceived facility and relates the requirements to the available technology, resources and inherent risks. Therefore, at the end of the project identification phase, it should be decided whether a feasibility study should be undertaken.

Cruz, Sastoque and Otegi (2020) observe that identification, the first stage of the project cycle, is a crucially important process leading to the initial screening of projects. According to Love, Mistry and Davis (2021) project identification generally consists of the following steps; Establish the project concept (together with alternative plans) that will effectively serve to achieve the country's development objectives; assess the priority or urgency of the project in the context of the country's economic and social development plan and sector investment program; estimate approximate project cost (together with the cost of alternatives) based on

the conceptual design; and make preliminary assessment of the feasibility of the project and its impacts on the country, its specific region or sector.

Williams (2003) noted that Public Private Partnerships are diverse and no two projects are the same. Consequently, the approach in the preparation, design and assessment to choose the best option is key in determination of the type of contract and model to be adopted (Ojebode, 2016). Thus, in designing a PPP process and selecting a form of PPP, it is important to consider the reform objectives; policy environment; the legal, regulatory, and institutional frameworks; financing requirements and resources of the sector; and the political constraints and stakeholder concerns (ADB, 2008). The degree/level of private sector involvement is determined by the government and is influenced by the project's goals and objectives, the level of control the government requires, and the PPP consortium's ability to provide the service needed (Ojebode, 2016). Therefore, PPPs take a wide range of forms varying in the extent of private sector participation. Figure 1 below depicts the range of PPP agreements.
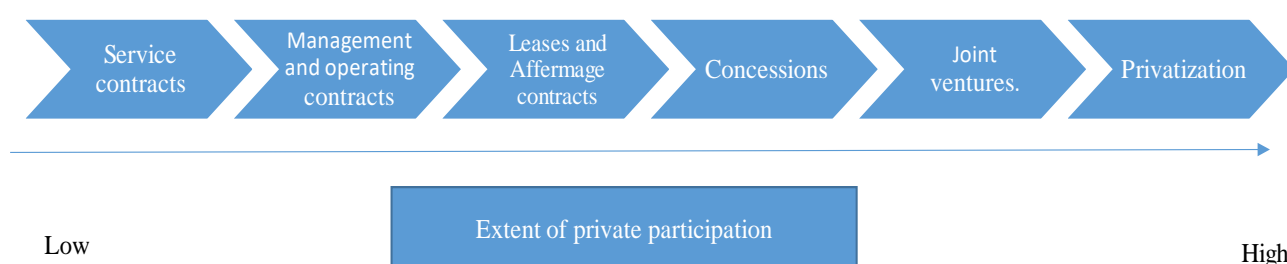

Figure 1: Types of PPP Contracts

Source: (European Commission, 2003)

Performance of projects is a measure of what is actualized from the project goals stated in the project scope (Antônio, Geciane Ornella & Alexandre, 2015). It is acknowledged that over 30% of the initiated projects end up being characterised as poorly performing and the policy debate in the project management has shifted to identification of key factors that enhance project performance (Xiong, *et al.,* 2017). While project performance looks at dimensions such as cost, time, quality, health and safety and user satisfaction, Fabre and Straub (2019) mentions that for road projects, performance is seen in terms of costs, time and quality.

Road construction and maintenance projects are characterised by high investment and capital needs which calls for partnership between the government and the private sector. Ullah, Thaheem and Umar (2017) find that the governments face a lot of challenges in delivering utility projects to the public as they have short falls in their budgets to invest hence calling on the private sector to fund such projects and earn reasonable returns. Major road construction projects incur delays in delivery timeliness that is due to insufficient government budgets, but the entry of private sectors cures such a problem. Further, the long bureaucracies that the private sector faces in implementing projects no-longer becomes an issue as the government side of PPP hammers out the details. The PPP strategy cures the challenges of financial limitations, insufficient contractors, cost overruns and delays as both parties work together leading to high instances of successful road projects.

Road transport is the most common mode of transportation in Kenya, accounting for approximately 90% of cargo and passenger traffic (Adan, 2017). The Ministry of Roads and Infrastructure is in charge of road construction and maintenance, which is carried out through several agencies, including the Kenya National Highways Authority (KeNHA), which was established by the Kenya Roads Act of 2007 and is tasked with managing, developing, and rehabilitating international roads. The Kenya Rural Roads Authority (KeRRA) which is tasked with construction, expansion and upkeep of all rural roads in the country and the Kenya Urban Roads Authority (KURA) which governs all roads in major cities and its surrounding areas in accordance with

the standards set out in their service charter. Kenya has a total of 177,800 kilometres of roads, of which 63,500 kilometres are separated and 70 percent are unclassified (44,100km) of it are classified as being in good condition while the remaining 30% (18,900km) are in poor condition and they need rehabilitation. The county governments are also working together with the national government to construct, rehabilitate and maintain all roads in the country.

Statement of Research Problem

Road construction is an important aspect that drives the economy of the country and increases the productivity of the people since it acts as a linkage to various factors of production. Roads in developing nations play a big role to the economies as they account for majority of the transportation of cargo and passengers from one place to another; both for trading purposes and leisure (Ndunda, et al., 2017). The performance of the road projects is a capital intensive project that consumes huge financial and other resources; hence the need for adopting PPP strategy to deliver roads that drive the growth of the economy as it links other sectors and industries. Previous studies done on PPP and infrastructure projects by Wera (2016) and Mutwiri et al. (2018) and that focussed on road construction in Kenya, revealed that the projects faced delays in delivery timelines. Ochienge (2018) also noted that the quality of road infrastructure was below the standards as a result of low quality of materials used in constructing the roads, use of under-qualified staff and inexperienced contractors and limited financial budget allocations.

Pedo, Kabare and Makori (2018) conducted an assessment of PPP framework and its interaction with road projects under PPP in Kenyan context. The study creates a conceptual gap as it does not cover the performance of road projects. Adan (2017) investigated on factors that influence implementation of county road projects; establishing that public participation, human resources, financial disbursement and politics affected the performance of road projects. The study was a case study of Isiolo County thus creating a methodological gap as it did not focus on the PPP mechanism and was conducted as a case study. These knowledge gaps in context, concept and methodology, tried to be filled by the study by looking at the public private partnership mechanism and the performance of road projects in Kenya. The study determined the extent to which project identification mechanism has an impact on performance of road infrastructure projects in Kenya.

Objective of the Study

This study determined the effect of project identification on the performance of road infrastructure development projects in Kenya. The study was guided by the following research question;

- How do project identification processes affect the performance of road infrastructure development projects in Kenya?

LITERATURE REVIEW

Empirical Literature Review

According to Benamghar and Limi (2011), road infrastructure performance is critical for economic growth in any country, and consistent access to roads is required to improve living standards. Researchers also point out that the effectiveness of road infrastructure projects is critical to the economic growth of any country, and that road projects play a key role in creating wealth and creating jobs. According to Faridi and El-Sayegh (2010), there are a number of factors that contribute to project performance, including project complexity, staff skills, organizational and strength constraints, poor supervision and background management, inadequate leadership, lack of equipment and equipment, and so on. Conflict between stakeholders, inefficiency, and contractor inefficiency have all had a negative impact on project implementation in Sub-Saharan Africa (Carter, 2012).

Doloi (2012) investigated the timing effects and construction risks associated with costs in the operational performance of PPP projects. According to research, performance can be measured in three categories: time, cost, and performance. In seven major PPP projects in Australia, data were collected using a questionnaire survey. A number of key risk factors affecting time, cost, and performance are assessed using standard mathematical and analytical methods. According to these findings, one of the most important risk factors contributing to the timeliness of a project is the background conditions and complexity of the project. In addition, research has found that market forces have a significant impact on both construction and operational costs in PPP projects. The study also found that stakeholder management is an important factor in time and cost-effectiveness based on backward formation. According to the study, PPP projects are in many cases complex, and long haul association of autonomous organizations in PPP projects not just uncovered time and cost-related takes a chance during project improvement stages, yet in addition presents risks connected with project performance.

Project identification is a critical component in the successful completion of any project with some researchers positioning it as the first step in the project cycle (Qian et al., 2017; *Ministry of Finance, 2020*). Different definitions of project identification have been advanced with Wera (2016) offering an encompassing definition of the process as the evaluation of projects and careful selection of a project so that the organization objectives can be met. In the case of the PPPs, both the public and private sector must look at how best their objectives could be met. The public sector is keen on offering needed services to the citizens while the private sector is interested in maximizing the organizations overall gains.

Berssaneti and Carvalho (2015) studied the identification of variables that influence project success in Brazilian firms. A survey of 336 professionals in the field of project management that was carried out in Brazilian organizations was the methodological research approach. All vertices of the "iron triangle" of success—time, cost, and technical performance—are significantly linked to project management maturity, the findings demonstrate. However, it has nothing to do with the aspect of customer satisfaction. Top management support and a dedicated project manager, two moderate variables, have a significant effect on the time success dimension but not on customer satisfaction.

Taufik (2019) did a study on project identification factors affecting project performance on road construction project in Malaysia. Data collected from the owner's project manager who located in one of four provinces, namely South Sumatra, Lampung, Bangka Belitung and Bengkulu. Before analyzing data, that data must be tested its reliability by Cronbach's alpha to find out its validity. Then, data analyzed by the Pearson correlation and Multiple regression analysis. The result shows that the project identification factors highly affect the project performance.

Gómez-Cabrera, Sanz-Benlloch, Montalban-Domingo, Ponz-Tienda and Pellicer (2020) studied project identification factors affecting the performance of rural road projects in Colombia. The objective of this research is to identify significant variables generating overruns in time and cost using empirical data of 535 rural road projects in Colombia from 2015 to 2018. Bivariate analysis, with statistical tools like Spearman's Rho and Kruskal–Wallis, allowed identifying that higher values of variables like budget and project intensity are related to higher deviations in cost and time. Additionally, it was found that projects with shorter durations are reporting higher time overruns. The worst performers are projects executed in the year that council mayors start their terms, those developed in municipalities with more resources, and those awarded using a competitive bidding process. Multivariate analysis, through Random Forest, assessed the effect of considering all variables interacting simultaneously and ranking them in order of importance. The results demonstrated a relationship between cost and time performance, and that numerical variables are more significant than the categorical ones.

Makhdumi and Taha-El-Baba (2022) investigated the project identification approaches in mega construction projects in developing countries: cases from Pakistan. The research was based on case study

inquiry strategy comprising of three case studies, which incorporated interviews with project managers of the respective mega construction projects. Two major findings were identified. Firstly, the project management approaches that contribute to the success of Mega Construction Projects in developing countries are similar to those outlined in the literature, including; Clear project objectives, senior management support, Stakeholders involvement and consultation, and Competent, Project Team. Secondly, more specific project management approaches and Critical Success Factors within the context of developing countries were identified from the findings of the thesis, including; outsourcing and collaboration, organizational culture, and the attitude of local stakeholders.
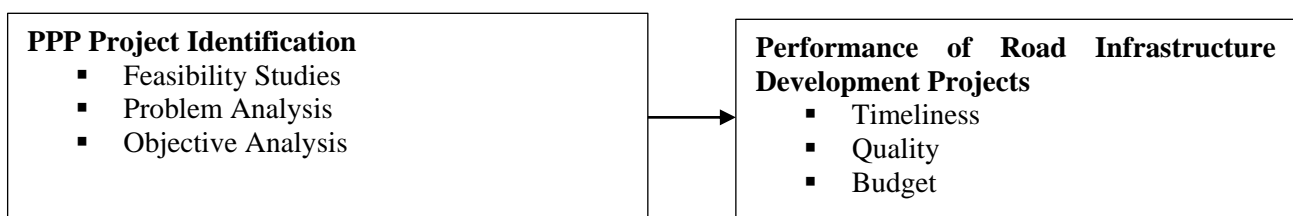
Theoretical Framework

Theory of Constraints

Goldratt (1990) developed the theory of constraints, which is based on the fact that there exists at least one factor that may limit the ability of the system to achieve its desired results. Through this theory of constraints, it is possible to identify the key factors that slow down the system and processes so as to improve on performance. The theory further notes that for any system or process to have progress in the goals attained, the constraints in reference should be identified and the management of the entire systems should be done in line with this identified constraints. There are five key steps that form the basis of this theory: identification of the constraint in the system, deciding on how best to exploit these constraints in the system, ensuring that everything else is subordinated to the above decision, elevation of the constraints in the system and give chance for inertia to cause constraint in the system.

According to Wyngaard, Pretorius, and Pretorius (2012), the theory can also be understood through the triple constraints principle, which is an important project management concept that emerges from the project implementation framework and provides guidance on project planning and implementation. According to researchers, triple blocking is one of the main building blocks of project plans and is essential to the monitoring and control system. According to Hassan, Adeleke, and Taofeeq (2019), the policy identifies the project scope, time, and cost as three times as important flexibility issues, and that project time deals with project planning and duration, costs cover project budget and resources, and scope covers project needs and work. According to research, a long-term project is tied to the completion agenda, while a challenging project is bound to cost planning. The performance criteria of the deliverables limit the scope of scope-constrained projects. Wyngaard, Pretorius and Pretorius (2012) also noted that project quality constitutes an integral dimension of project management and is supported by the triple constraint principle in the theory of constraints.

This theory of constraints used to anchor the variable of public private partnership project identification and performance of road infrastructure development projects and the key construct on defining performance.

Conceptual Framework

PPP Project Identification	Performance of Road Infrastructure Development Projects
▪ Feasibility Studies ▪ Problem Analysis ▪ Objective Analysis	▪ Timeliness ▪ Quality ▪ Budget

Independent Variable   **Dependent Variable**

Figure 2: Conceptual Framework

Source: Researcher (2021).

METHODOLOGY

The current study was guided by pragmatism research paradigm which advocates for research mixed-methods into social inquiry (Morgan, 2014). The study employed descriptive research design. The design is preferred due to its inherency simplicity, utility in diverse contexts, flexibility and inquisitive attributes into phenomenon under study (Doyle, McCabe, Keogh, Brady & McCann, 2020). The study also used a mixed method approach. The study was conducted in Kenya and on road infrastructure projects and respondents in Nairobi, Kiambu, Kajiado, Mandera, Marsabit, Wajir, Taita Taveta, Bungoma, Busia, Vihiga, Embu, Kirinyaga, Laikipia, Muranga, Nyeri, Tharaka Nithi, Mombasa, Migori, Narok, Lamu, and Nakuru Counties. The target population was composed of members of the public sector including the PPP unit, road agencies, environmental agencies, the county government, regulatory boards and contractors. Records at the Ministry of Roads and Infrastructure showed that there were 23 large projects that were being implemented in the county; but this study concentrated on the large infrastructure development roads projects. The research applied purposive sampling in selecting only the large infrastructure development projects. Since the targeted population was small, census was employed such that all 199 respondents made it into the final sample size.

The study used both primary and secondary data sources. The questionnaires were used to collect key data, and were designed to include open and closed questions. The semi-structured instrument helped collect qualitative data and quantitative data (Sheard, 2018). Primary data was collected for the independent study variables of project identification, project financing, project risk management and stakeholder participation and secondary data mainly collected information on the dependent variable of performance of the road infrastructure development projects.

After the data collection process was completed, all field materials (the questionnaires, data collection sheets, field notes) was cleaned, completed and arranged in readiness for analysis. The information was then programmed and fed in statistical package for social science (SPSS version 25.0) for further analysis. The researcher also used inferential statistics to allow the sample results to be generalized to the larger population.

FINDINGS

Project Identification Mechanisms

The descriptive statistics results on project identification mechanism were provided in Table 1.

Table 1: Project Identification Mechanisms

Statements on Project Identification Mechanisms	M	SD
Intensive literature analysis on the road project was conducted.	4.14	0.796
There were brainstorming sessions held on different occasions.	4.17	0.706
Prudent customer research on the road project was appropriately conducted.	3.84	1.163
During project identification, consultants were able to foresee a number of conflicts from all spheres.	4.17	0.839
A feasibility study was conducted to determine the viability of this road infrastructure project	4.34	0.712
Feasibility studies identified possible risks to be encountered in the project implementation phase	4.20	0.925
Different challenges to be encountered in the implementation phase of this project were projected in the feasibility studies	3.92	1.243
Project budgeting was done accurately during scoping of the study	3.74	1.156
Project milestones were well projected in the feasibility study of this project	4.08	0.961
This project's objective analysis was done accurately	3.87	1.230
Different stakeholders were consulted prior to deciding to undertake this project	4.21	0.927
The interests of different stakeholders were harmonized prior to commencement	4.15	1.114
Project evaluation criteria were set out in the phase of project identification	4.30	0.858
Aggregate Score	**4.33**	**0.972**

Source: Survey Data (2022)

The results as presented in Table 1 indicated that the respondents agreed that project identification had an effect on the performance of road infrastructure development projects in Kenya as indicated by the aggregate mean score of 4.33 with a low variation of responses as indicated by standard deviation of 0.972. The findings agree with Wera (2016) study that investigated the impact of project identification on performance using a case study research design. The findings revealed that effective project identification has the ability to influence project success in terms of budget, time, and quality. The findings also agree with Mkuni (2018) study which focused on an assessment of the project identification cycle in Zambia's road construction projects. Results revealed some constraints in the manner road projects were planned. It was established that the lapses in the project identification processes had negatively impacted on project delivery through cost overruns, delays and quality shortfalls.

The respondents agreed on the statements that; a feasibility study was conducted to determine the viability of this road infrastructure project (M=4.34, SD=0.712), project evaluation criteria were set out in the phase of project identification (M=4.30, SD=0.858), different stakeholders were consulted prior to deciding to undertake this project (M=4.21, SD=0.927), feasibility studies identified possible risks to be encountered in the project implementation phase (M=4.20, SD=0.925), there were brainstorming sessions held on different occasions, during project identification (M=4.17, SD=0.706), consultants were able to foresee a number of conflicts from all spheres (M=4.17, SD=0.839), the interests of different stakeholders in this project were harmonized prior to commencement (M=4.15, SD=1.114) and intensive literature analysis on the road project was conducted (M=4.14, SD=0.796).

The respondents also agreed on the statements that; different challenges to be encountered in the implementation phase of this project were projected in the feasibility studies (M=3.92, SD=1.243), This project's objective analysis was done accurately (M=3.87, SD=1.230), prudent customer research on the road project was appropriately conducted (M=3.84, SD=1.163) and that project budgeting was done accurately during scoping of the study (M=3.74, SD=1.156).

The results agree with Mutwiri et al. (2018), study that investigated project identification and initiation as a success factor in CDF project performance in three randomly selected constituencies in Kenya. According to the study, project identification and initiation accounted for 43.4 percent of CDF project success. The findings also concur with Qian et al. (2017) who observe that project identification is a critical component in the successful completion of any project with some researchers positioning it as the first step in the project cycle. Nnadi, Ejiofor and Emmanuel (2021) study focused on the determination of the influence of project identification on the performance of road construction projects in Nigerian Construction firms. The results from the findings show that 38.8% of the respondents strongly agreed to the fact that performance of road construction is greatly influenced by proper project identification. The regression result of the response had R^2 of 0.555 and the P-Value was less than 0.05 which means that about 55.5% of road project performance is as a result of proper project identification. In addition, Yidnekachew (2021) study focused on the assessment of Project Identification & Design practice: the Example of World vision Ethiopia and the majority of grant-funded project ideas originate from donors, according to the study's findings. In addition, the organization demonstrated proficiency in involving stakeholders in the identification and design of projects for both funding sources.

In addition, the respondents were asked to indicate whether the project identification mechanisms had been of help. The findings was that majority (77.7%) of the respondents agreed that project identification mechanisms had been of help while 22.3% disagreed. The respondents further indicated that project identification mechanisms are of help since they enable in the development of preliminary proposal that set the best interventions and course of action that are set for a specified limitations in terms of time and budget. The project identification mechanism also ensures proper identification and utilization of project resources. The finding concur with the study by Diing and Nyonje (2022) which looked at the impact of participatory

project identification on community water point projects in Turkana County, Kenya. The study came to the conclusion that community water point projects' sustainability was significantly influenced by participatory project identification. The finding also agree with The study by Naeem, Khanzada, Mubashir, and Sohail (2018) looked at how project identification influenced project success, with risk management serving as a mediator and organizational culture serving as a moderator. The results of study indicated significant and insignificant impacts of predictors on response variables.

From the interviews, the respondents indicated that the project identification mechanisms that were applied included; the project problem to be dealt with and their causes, project opportunities and its viability, idea generations, the project strength and potentials and decision making process.

Performance of Road Infrastructure Development Projects
The descriptive statistics results on the performance of road infrastructure projects are provided in Table 2.

Table 2: Performance of Road Infrastructure Development Projects

Statements on Performance of Road Infrastructure Development Projects	M	SD
All the operations of the project were extremely efficient.	4.29	0.864
The contractor employed advanced technology in undertaking the project.	4.49	0.730
The contractor has employed highly skilled manpower to undertake the project.	4.30	0.746
The human resource carrying out the project have an outstanding reputation experience in their career.	4.03	1.094
This project is on schedule as per project plan	4.20	0.830
The implementation of this project has adhered to budgetary provisions	4.34	0.781
The implementation of this project is likely to be completed on time	4.19	0.968
The quality of this project is as per the plan	4.36	0.871

Source: Survey Data (2022)

The results as illustrated in Table 2 indicated that the respondents strongly agreed on the statements that; the contractor employed advanced technology in undertaking the project (M=4.49, SD=0.730), the quality of this project is as per the plan (M=4.36, SD=0.871) and that the implementation of this project has adhered to budgetary provisions (M=4.34, SD=0.781). The findings agree with Muturi and Oguya (2016) study that investigated factors that contributed to the implementation of road construction projects in Kenya's arid and desert regions. The research focused on the road projects Isiolo – Moyale (A 2) and Garissa – Modogashe (C 81). The study noted that performance of road projects focuses on performance in terms of cost and timeliness and noted that there is a positive relationship between the contractor's competency, project financing, timely availability of resources and stakeholder conflict management and performance

The respondents agreed on the statements that; the contractor has employed highly skilled manpower to undertake the project (M=4.30, SD=0.746), all the operations of the project were extremely efficient (M=4.29, SD=0.864), this project is on schedule as per project plan (M=4.20, SD=0.830), the implementation of this project is likely to be completed on time (M=4.19, SD=0.968) and that the human resource carrying out the project have an outstanding reputation experience in their career (M=4.03, SD=1.094). The findings are in line with Doloi (2012) study that investigated the timing effects and construction risks associated with costs in the operational performance of PPP projects. According to research, performance can be measured in three categories: time, cost, and performance. In seven major PPP projects in Australia, data were collected using a questionnaire survey. A number of key risk factors affecting time, cost, and performance are assessed using standard mathematical and analytical methods.

CONCLUSIONS AND RECOMMENDATIONS
The study sought to determine the effect of project identification on the performance of road infrastructure development projects in Kenya. The study found that project identification had a positive and significant

influence on the performance of road projects in Kenya. A feasibility study was conducted to determine the viability of this road infrastructure project, project evaluation criteria were set out in the phase of project identification, different stakeholders were consulted prior to deciding to undertake this project and feasibility studies identified possible risks to be encountered in the project implementation phase.

The study concluded that project identification ensures that a project submitted for project approval is adequately designed and analysed within the project context. Project identification helps in the identification and development of the projects that addresses the needs of the clients. The project identification enables the project team to obtain alternative course of actions in addressing a set of project problems and opportunities. The detailed definition of the project's goals and work scope is required to support allocating resources for their preparation, as well as the identification of the key problems that need to be solved and the questions that need to be answered before a project based on the concept can be implemented.

The study recommended that it is important to identify the problem to be dealt with concerning the project, the stakeholder to be involved, outline the project goals that are to be achieved and all the relevant project tasks crucial in achieving the results of the project. It is necessary to compile enough information on project options to make it possible for the government and financing organizations to choose a top-priority project and come to agreements with key players regarding plans for the preparation work, such as creating steering committees. The format of the report, project brief, or concept document should include the results of the identification work and be determined by the requirements of the government and/or financing agencies.

Suggestions for Further Studies

From the results in regression analysis, the study concluded that there a remaining 0.139(13.9%) that could account for other variables not studied. Therefore, this study suggests that further studies should be carried out focusing on other variables not studied to address this gap. In addition, the study focused of road projects in Kenya. Therefore, there is need for other studies that focus on other types of projects.

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