

**PROCUREMENT MANAGEMENT PRACTICES AND PERFORMANCE OF
ROAD CONSTRUCTION PROJECTS IN WAJIR COUNTY, KENYA**

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DECLARATION

I declare that this project is my original work and that it has not been submitted to any other institution for the award of a degree or diploma. No part of the project should be reproduced without the authority of the author and/or Kenyatta University

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This research project has been approved for examination by me as the appointed University supervisor.

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DEDICATION

This study is committed to all of my esteemed relatives.

ACKNOWLEDGEMENT

I thank Dr. Morrisson Mutuku for his academic supervision and support during this study process. Special thanks to Wajir staff categories for their assistance during my course work and in carrying out this project.

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ABBREVIATIONS AND ACRONYMS

CIDP	County Integrated Development Plan
IT	Information Technology
JIT	Just-In-Time Delivery
SRM	Supplier Relationship Management
SSE	Small Scale Enterprises
TQM	Total Quality Management

OPERATIONAL DEFINITION OF TERMS

Contract management	Contract management alludes to the organization of contracts with buyers, sellers, accomplices, or workers.
Information sharing	Describes data communication between diverse organizations, people, and technologies.
Procurement management practice	Are responsible for directing all cycles included in the securing of items, materials, merchandise, and services.
Project Performance	Accomplishment of a certain work as measured by predetermined standards of accuracy, completeness, cost, and speed.
Supplier relationship management	Refers to a methodical technique of appraising vendors who supply an organization with commodities, materials, and services.
Training need assessment	Process of determining one's current level of knowledge, ability, and competency and comparing it to the needed or set standards within an organization.

ABSTRACT

The County government has set out its Integrated Development Plan for the District 2013 to 2017 to implement various road projects to reverse the current weak road infrastructure. The district intends to undertake the staggering action of 2117 km under this First CIDP. In addition to significant investment in the road sector, research into the implementation of this CIDP has revealed that the region has managed to cut 320 kilometers in improving communication with key institutions from the city of Wajir. As a result, the purpose of this study was to look at the impact of procurement management practices on the implementation of road construction projects in Wajir County, Kenya. The study looked specifically at how training needs training, contract management, supplier relationship management, and information exchange affect the performance of road construction projects in Wajir County, Kenya. Management theory, participant theory, and agency theory led the research. The study used a descriptive research design. The Wajir County Department of Roads and Transport was designated as the target population. The total number of respondents was 50, with 5 project managers and 45 project team members participating. A questionnaire was used to obtain information. Six respondents were given a list of questions as a test. In addition, these respondents were excluded from the final data collection process. Descriptive statistics such as mean and standard deviations were used to evaluate quantitative data. Inferential calculations such as correlation analysis and regression analysis were also used to assess the relationship between the variance and the relative value. From the findings, regression model coefficients indicated that information sharing, contract management, supplier relationship management, and training needs assessment positively influenced performance of road construction projects in Wajir County. However, for the case of contract management, the effect was not statistically significant. This study concludes that training needs assessment, contract management, supplier relationship management and information sharing as part of procurement management practices have a positive correlation with performance of road construction projects in Wajir County, Kenya. The study recommends the county government of Wajir to pay particular attention to procurement management practices as they positively impact performance of road construction projects. There is need to focus on training needs assessment as it enables the right people to be targeted for each training session, helps to identify knowledge and technical skill gaps before they become a problem, ensures that the training is meeting the actual business demand, and helps employees acquire the knowledge and skills they need to perform their jobs. The study also recommends emphasis by Wajir County on contract management practices to improve performance of road construction projects. This can be done by using the right validation and certification tools, making it simple to identify contracts with various suppliers, paying less for legal services, stopping unforeseen service renewals, keeping track of important project milestones, and using automated features and notifications.

CHAPTER ONE

INTRODUCTION

1.1 Background to Study

The tactics used to make procurement decisions, as well as the management of the entire process, have an impact on project deliveries. Adherence to various procurement management methods influences the quality of material inputs as well as the efficacy with which organizations deliver projects (Hong & Kwon, 2018). Globally, procurement methods have been regarded as bureaucratic and convoluted, making it difficult for corporations to meet stated goals. This viewpoint has had a negative impact on supplier morale, lowering the effectiveness of supply chain management. Kirigia (2018) identified numerous procurement management practices, including needs assessment, contract management, ICT adoption, supplier relationship management, information sharing, and inventory management.

Procurement has a huge impact on how a firm achieves its objectives. Procurement methods can be improved to improve organizational performance even more (Odero & Ayub, 2017; Ndei & Mutuku, 2021). According to Marshall, McCarthy, Claudy, and McGrath (2019), companies have a tendency to pick acquirement techniques that are natural to them; instead, they ought to select those that are most suited and valuable to their business. Purchasing integration is being scrutinized more closely. Purchasing integration ties purchasing processes to business outcomes. Procurement strategies are crucial to organizational success because to the direct connection between functional proficiency, production network execution, and authoritative execution. Consolidation of the entire procurement process is essential to improve overall organizational

performance, leading to the deployment of procurement strategies such as green purchasing.

Streamlined procurement methods increase efficiency and employee, customer, and stakeholder trust in the company. Moving away from outdated purchase methods and toward more contemporary and effective procurement techniques enables continuous improvement and benchmarking (Islam, Murad, McMurray & Abalala, 2017). At this phase, a corporation compares itself to the finest in its industry. Procurement is no longer a process; it is now a strategic function within the firm that reduces costs and optimizes savings. According to Loosemore and Reid (2019), firms should constantly benchmark in order to improve their processes. Organizations must alter their attention from a predictable company-oriented standpoint to a dual company-customer standpoint.

Procurement ought to be emphatically associated with the turn of events and execution of Sustainable Procurement Policies, with an exceptional accentuation on how ecological issues, as well as issues connecting with different parts of society and the economy, can be coordinated into obtainment process exercises (Vaidya & Campbell, 2016). According to Liu, Xue, Yang, and Shi (2019), it is vital to consider a wide range of performance indicators when determining organizational performance. Quality, efficiency, productivity, profitability, and sustainability should all be considered when measuring organizational performance. Procurement should be viewed as an integral aspect of an organization's overall strategy.

1.1.1 Project Performance

Project performance is defined as the project's success in fulfilling pre-specified objectives, targets, and goals, while project performance measurement is described as the

process of evaluating the efficiency and effectiveness of activity (Dainty, Cheng & Moore, 2019). According to Grau, Back, and Prince (2020), project performance is the method involved with evaluating activity, where estimation is the course of measurement and activity prompts project execution. Accordingly, project performance is a measure of how well a fully completed project met its pre-defined objectives, targets, and goals as a whole.

According to Barclay and Osei-Bryson (2018) and Mutuku (2019), performance measurement is an excellent method for assessing performance and assisting companies in understanding past project successes and failures and how this understanding can be used to prepare for future improvements and advances. Furthermore, project performance measurement is critical in enabling firms to perform benchmarking. According to Walker and Nogeste (2018), comparing project performance can lead to the development of new strategies for significantly cutting project duration, lowering project costs, and meeting project scope. Furthermore, it is critical to accurately categorize projects based on similar project criteria and characteristics in order to measure and improve project performance.

According to Chang and Ibbs (2018), a key element element in project management is meeting requirements. To assess this component, you must construct measures of fit, which indicate that the solution totally meets the demand. Customer satisfaction denotes that the customer's expectations have been met. This necessitates a combination of adherence to specifications and the project producing what it promised to produce. According to Chen, Wu, Chu, Lin, and Chuang (2018), project performance measurements are carried out to give data to supervisors for them to apply command over the venture. To control the exhibition of the current undertaking, those estimations should

be fit to the hierarchical level that can quickly impact change contingent upon data it learns.

1.1.2 Procurement Management Practices

Procurement management practices are primarily concerned with the strategies used while making procurement choices. Procurement management practice is also defined as the method involved with acquiring products for a company in accordance with established policies guiding the selection of products, suppliers, and techniques with the goal of employing sound business methods that maximize the organization's value (Mokogi, Mairura & Ombui, 2015). According to Quesada, González, Mueller, and Mueller (2018), accurately dealing with all obtainment processes guarantees that corporate tasks work without a hitch, however it likewise sets aside cash, time, and assets. Obtainment the executives ensures that generally wares and administrations are secured accurately for ventures and cycles to flawlessly run and successfully. As a result, effective procurement management is critical for avoiding costly delays and errors.

A requirements assessment is a process that combines project commencement, data collecting and analysis, and final production to determine the needs of a project (Holton, Bates & Naquin, 2017). Schneier, Guthrie, and Olian (2018) remark in project management that the requirements assessment can address the company and if the project is aligned with its needs. It can also be used as a systemic procedure within a project to determine how far distant the current project conditions are from the required requirements for successful completion. As a result, assessing training needs aids in establishing performance criteria as well as the information, abilities, and capacities

expected by an association's labor force to meet those targets, as well as directing resources to areas of greatest demand in projects.

Supplier relationship management serves as a focal point between the organization and the end users, and it is an organized way to determining what they need and want from a supplier, as well as developing and managing the company-to-company link to meet these demands (Jiang, Henneberg & Naude, 2016; Ibrahim & Mutuku, 2022). According to Grudinschi, Sintonen, and Hallikas (2019), all around oversight joint efforts among purchasers and providers are helpful for supporting cooperative familiarity and obtainment viability. Therefore, organizations assume a significant part in the general exhibition of a venture by choosing the most appropriate provider and assessing are important obtainment processes for a project's success, which adds to effective supply chain management.

A well-designed information exchange framework assists project managers in making sound judgments, implementing appropriate strategies, and completing projects on time and within budget (Kumaraswamy & Anvuur, 2018). Henderson (2019) observes that monitoring quality and assessing communication procedures inside a project aid in improving the overall efficiency of project management, and hence its performance. These inside correspondence examination models are an immense assistance in recognizing both interior and outside factors that impact the volume and nature of data trade all through projects, as well as how to bargain with the special difficulties that have arisen as a result of the emergence of virtual teams.

Contract management entails negotiating contract terms and circumstances, sticking to consistence, and archiving any deviations that might happen during the venture execution

process (Akintoye and MacLeod, 2017). As per Bhardwaj (2019), contract the board is the interaction of dealing with settlement introduction, execution, and assessment in a systematic and effective manner in order to maximize the use of monetary and functional execution while limiting gamble. Contract the executives is accordingly a typical practice for partnerships to include workers for hire or providers somehow to help with conveying administration or item to fulfill indicated standards in some type of agreements should be controlled.

1.1.3 Wajir County Road Construction Projects

Wajir County, with an area of around 56,000KN, is located in the core of the former North Eastern province. According to the 2009 census, the county has 661000 people, and the poverty rate is 84 percent, according to the KNBS 2015 Census. There are no permanent lakes or rivers in the region, and it is not connected to the national power system. The Department of Public Works, Roads, and Transport in Wajir County is divided into three sections: Labor, Roads and Transport. Its mandate includes traffic management. Management, construction, and maintenance of all regional roads, public transportation including street lights, road signs, parking, and regulations for regional public transportation systems, plants and equipment that regulate, maintain, and rent building and equipment, and public works related to design, documentation, contracting in the background, and project management of public works and other infrastructural services, footbridge construction.

Road infrastructure projects have been among the county projects plagued by delays, cost overruns, and work that has been abandoned. Wajir County, like many other counties in the North Eastern region, has experienced general road infrastructure challenges, which

can be linked to the region's elevated degrees of minimization, both truly and by and large, which have continued after some time (Osman & Kimutai, 2019). As of February 2018, the county had a single airport, seven airstrips, and a 28-kilometer tarmac road. The county's total length of unclassified and classified highways was over 8,000 kilometers in 2018, up from 5,280 kilometers.

There is an unavoidable absence of basic framework, for example, enormous leaving regions for Lories and transports, a railroad organization, and appropriate scaffolds. Huge segments of the region's feeder street network are in unfortunate condition, with most of them considered unusable during wet seasons, limiting much of the county's road traffic (Abdi, 2020). Regardless, despite the poor condition of the roads, they are the most popular form of transportation in the area. In terms of collaboration, a poor road network makes it difficult to connect with homesteads and other counties.

1.2 Statement of the Problem

Many road contractors have failed or performed inadequately, particularly in terms of road maintenance (Mashwama, Mushatu & Aigbavboa, 2018). The government's attention has been called to their poor performance, leading the establishment of a performance contract and the installation of authority to oversee the contractors' performance. Poor road contract performance, on the other hand, is ascribed to insufficient financial management and poor service delivery to road users (Dwomoh & Amoah, 2021; Ibrahim & Mutuku, 2022). A road contractor's performance can be measured in a variety of methods, including time, cost, and other performance indicators. Failure of any road contractor is mostly due to resource management concerns and, in

some circumstances, political involvement (Chilala & Mulenga, 2017). Furthermore, there are a variety of causes and events that contribute to these difficulties.

The county government set out in its County Integrated Development Plan 2013 to 2017 to carry out various road projects in order to reverse the county's current weak road infrastructure. The district intends to undertake the staffing action of 2117 km under this First CIDP. In addition to major budget expenditures in the road industry, such as 1,262.2 million in FY 2013/2014 and 1,052.67 million in FY 2017/2018, a review of the implementation of this CIDP revealed that the district has managed to place 320 kilometers to improve access to highways from the city of Wajir (Wajir County Integrated Development Plan 2018-2022).

Eriksson and Vennström (2015) investigated how procurement affects project performance and discovered that procurement methods have a favorable influence on collaboration among project actors, which in turn gainfully affects project performance. However, because the study was a survey of Swedish construction clients, the conclusions may differ in the Kenyan setting. Aputo (2017) evaluated the influence of procurement functions on project performance in non-governmental organizations in Nairobi County, Kenya, and discovered that procurement functions have a favorable effect on project performance. The study, however, revealed a contextual gap. Zulu's (2020) research focused on a critical examination of procurement management practices and their impact on the success of construction projects, revealing that procurement management techniques have the ability to successfully contribute to the success of construction projects. However, the respondents were chosen on purpose, resulting in a contextual gap.

1.3 Objectives of the Study

1.3.1 General Objective

The relationship between procurement management practices and performance of road construction projects in Wajir County, Kenya.

1.3.2 Specific Objective

- i. Examine training needs assessment influence on performance of road construction projects.
- ii. Establishing how contract management influences performance of road construction projects.
- iii. To determine the ways in which supplier relationship management influence on performance of road construction projects
- iv. To find out information sharing influence on performance of road construction projects

1.4 Research Questions

- i. How detrainning needs assessment influence performance of road construction projects?
- ii. How does contract management influence performance of road construction projects?
- iii. How do supplier relationship management relate with performance of road construction projects?
- iv. In what ways do information sharing influence the performance of road construction projects?

1.5 Significance of the Study

The procurement management team can obtain a better knowledge of how procurement management methods affect project performance. The study's findings may assist the team in making sound judgments that will improve the performance of road development projects around the country. This research may assist policymakers in developing appropriate strategies to address the impact of procurement management practices on the performance of road construction projects in Wajir County. Gaining a better understanding of the impact of procurement management methods will have a favorable impact on project performance across the country.

The study may also prove useful in the academic world because it can be used as a source of literature and referencing material. It will also direct future academics on study subjects to pursue in order to expand knowledge on the impact of procurement management methods towards management of projects.

1.6 Scope of the Study

The study looked at how procurement management processes affect the success of road construction projects in Wajir County, Kenya. The study focused on how needs assessment, contract management, supplier relationship management, and information sharing affect the performance of road construction projects in Wajir County, Kenya. The number of people targeted for the study were 50 workers from construction projects in Wajir County. The study was conducted in three months.

1.7 Limitations of the Study

Respondents feared being exploited in the event that they uncover pivotal data for the review. Notwithstanding, the scientist overcame this by guaranteeing the respondents that all data provided would be kept rigorously classified. Furthermore, the study was done using preset questions, which might have limited respondents' ability to express their opinions freely and openly. To address this, the researcher created surveys that included both open-ended and closed-ended items.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Stewardship Theory

Donaldson and Davis' (1991 & 1993) argue that stewardship theory is a novel way of looking at the current links among proprietorship and the board in an organization. It emerges as a critical counterbalance to Agency Theory. According to this notion, a steward optimizes shareholder utility through safeguarding and maximizing shareholder capital through the firm's performance. In this context, stewards are chiefs who endeavor to safeguard and boost incomes for investors. Stewardship theory emphasizes management's position as stewards, with management's priorities imbedded in the company. The notion emphasizes the importance of governance frameworks that engage stewards and give full independence in light of trust. It accentuates the significance of workers acting independently to advance investor returns. This will, in reality, reduce the costs of monitoring and regulating employee behavior. Because managers are stewards, this approach has a strong connection to an organization's procurement management. They must also ensure that high levels of project performance are maintained throughout the organization.

Stewardship theory assumes that managers who work for the county are stewards whose behaviors are linked with the goals of their beneficiaries, who act as principals. As a result, they are pleased when the County Government of Wajir provides a road network for its citizens. This hypothesis is relevant to the review since it underscores the

significance of representatives operating freely in order to maximize shareholder returns. As a result, the idea supports the goal of training needs assessment in enabling employees to act autonomously through training and, as a result, optimize shareholder profits.

2.1.2 Stakeholder Theory

Freeman proposed the theory (1984). Everyone in a group, organization, or initiative, according to the argument, is simply there to protect their own interests. As a result, the theory examines how to manage stakeholder relationships in projects in order to accomplish desired outcomes. The theory examines stakeholders' individual demands, interests, and preferences, as well as the activities they engage in to meet those demands, interests, and preferences. According to the theory, project managers must guarantee that all stakeholders are satisfied with the project implementation process and that stakeholder interests and relationships are successfully preserved in order for a project to be successful in the long run. In later years, the theory evolved to its current form, with Freeman's contribution serving as a foundation for the development of the theory that is tied to Donaldson and Preston (1995). That's what they guarantee, while partner hypothesis is clear and instrumental, it is at last regularizing since partners are characterized by their inclinations and all partners are treated with dignity. This statement is consistent with Freeman's belief that project administrators ought to be engaged with the preparation and execution of initiatives that benefit all stakeholders (Freeman 1984).

Jones (2016) supports this notion by stating that the organization should be viewed as a stakeholder group with the goal of managing its interests, needs, and opinions. This method highlights the importance of stakeholder participation. Managers should be aware that involving a large number of partners can altogether affect the undertaking's a positive

outcome. These partners will only participate if they have a good relationship with the management team and are not represented by younger staff. Because effective stakeholder involvement depends on the administration of multiple project functions, the project manager is crucial in maintaining order and managing the actions of project team members.

This theory, however, has been questioned by critics such as Teppo, who believe it is void and offers a deceptive picture of how groups work. According to this point of view, the corporation is essentially a shell that may be freely written on by the various entities who claim ownership of it, and the company has comparatively few inherent interests.

The stakeholders' thesis is based on the notion that an organization's success is determined by the relationships it maintains with numerous stakeholders, including inhabitants, suppliers, the central government, and religious institutions, among others. These theories will help to focus the current research. As a result, the theory is appropriate to this review since it upholds the objectives of agreement the executives and information sharing by demonstrating how stakeholders interact with their companies.

2.1.3 Agency Theory

The development of agency theory may be traced back to the 1960s and 1970s (Eisenhardt, 1989). However, its roots may be traced back to studies on financial gamble examination, where it started by resolving a pervasive issue in associations, individual-bunch objective incongruence and its effect on risk-sharing way of behaving. Office hypothesis, in its contemporary rendition, gets significantly from crafted by Mitnick (1973) and Ross (1973), and envelops the fields of political theory and financial matters, expanding its application past basic agreement collaborations. One party (the head)

assigned errands to another party (the specialist) in an organization plan (Jensen & Meckling, 1976; Ross, 1973; Eisenhardt, 1989).

In situations where a specialist's action is hard to notice (because of the intricacy of the errand), the chief is more helpless against advantage by its representative. Generally, the specialist can all the while keep away from control and distort its abilities (Bergen, Dutta and Walker, 2017). Secret activity models manage contract plan, which can be used to restrict moral peril and boost the specialist to make a right move. Directors, as indicated by Celly and Frazier (2016), are viewed as chance impartial, though specialists are in many cases risk-disinclined, which they contend is an error because of key differences in risk computation techniques. Since chiefs have greater adaptability to enhance their inclinations, specialists are more dependent on the guideline and are more averse to take an interest in improper way of behaving.

2.2 Empirical Review

2.2.1 Training Needs Assessment

Laban, Thuo, and Mutegi (2017) used a case study of Nairobi City County to investigate how preparing needs appraisal impacts hierarchical execution in Kenyan Counties. The study sought to analyze the impact of training needs evaluation on hierarchical execution. There were 161 employees in the target population. It was observed that assessing training needs is critical in affecting an organization's success. It was suggested that a training needs assessment look at the skills, knowledge, and abilities needed by the affected occupational groups. A training needs assessment determines the level of organizational performance. This type of assessment identifies the skills, knowledge, and competences required by a business.

Ejakait (2016) investigated how training needs assessment affects the performance of a postal corporation of Kenya employee in Bungoma County. The review looked to decide what the evaluation of preparing needs means for the exhibition of workers in the Kenyan postal enterprise. A review research configuration was utilized in the review. The ideal interest group comprised of 50 representatives. A poll was utilized to gather data. The information investigation uncovered that the organization didn't direct a preparation needs appraisal prior to laying out a preparation program and afterward choosing representatives for preparing. Notwithstanding the association's continuous preparation responsibility, the review found that assessing individual preparation needs through it was not underlined to prepare needs evaluation. Accordingly, most workers had no idea if their performance was being assessed or whether they were being considered for training. According to the report, the company should stress the need of doing a training needs assessment prior to training.

Using a case study of the Jordanian Health Sector, Alnidawy (2015) investigated how the identification of preparing needs impacts the adequacy of the preparation cycle and the improvement of individual and hierarchical execution. The review held back nothing, and information was assembled using a questionnaire. The outcome demonstrated that identifying training gaps has a favorable impact on individual and organizational performance. The method involved with deciding an association's preparation needs looks to respond to whether or not the necessities, goals, and difficulties of the organization can be satisfied or addressed through training. Human resources are one of the most important parts of every firm. Managers bear a great deal of responsibility for

fulfilling the organization's objectives. As a result, they must use training to develop and improve their workforce.

2.2.2 Contract Management

Mutua, Waiganjo, and Oteyo (2015) conducted a study on the impact of contract management on the outsourcing of projects in central production factories in Nairobi County, Kenya. All medium-sized manufacturing businesses with official headquarters in Nairobi were present included in the population of interest. Twenty of the 22 firms targeted responded completely, resulting in a 90.91 percent response rate. According to the data, project outsourcing is omnipresent, with item improvement, advertising, and data innovation being the most famous sorts of re-appropriated projects. Nonetheless, the investigation discovered that general task execution was just to some degree fulfilling, still up in the air by contract the executives.

Salome (2018) investigated the association between contract management techniques and housing building project performance in Nairobi City County. The target demographic consisted of 66 respondents from house development projects in the National Construction Authority. A survey of 66 people was conducted. The study relies on primary data gathered through the use of a questionnaire. The study discovered a substantial favorable association between contract management methods and project performance.

Nsanzimana and Mulyungi's (2020) study looked at the impact of contract management strategies on the implementation of Kigali Road construction projects: Case Study for Rwandex-Remera Road Construction Project. Descriptive research was used in the study. The target population includes 62 people, which includes project managers, contractors,

customers, and all Rwandan Transport Development Authority staff. Because the population was tiny in this study, the researcher used a census sample technique. The research discovered strong and positive communication between management processes and the success of the Remera-Rwandex road construction project.

2.2.3 Supplier Relationship Management

Mumelo et al. (2017) assessed the effect of provider connections on the exhibition of limited scope firms in Bungoma Town, Kenya. The review's objective was to decide what provider connections mean for SSE execution in Bungoma town. A relationship configuration was utilized in the review. The objective populace comprised of 1011 entrepreneurs. Essential information was accumulated through a survey, while auxiliary information was assembled from big business records, mobile company reports, and publications. The study's findings demonstrated that provider connections well affect the progress of private companies. It was recommended that SSEs be urged to completely coordinate data innovation into their activities and to advance data trade all through the inventory network in order to improve overall performance. Supplier Relationship Management (SRM) is crucial in today's dynamic and competitive climate since it ensures the supply of trustworthy and consistent deliveries. For such a link to be fruitful and long-lasting, it must benefit all parties involved, including purchasing and supply firms.

Wambani (2017) assessed the effect of provider relationship the executives on the functional execution of sugar delivering endeavors. The reason for the review was to examine the impacts of provider connections on the functional execution of sugar creation endeavors in Kakamega County. A graphic cross-sectional study research

configuration was utilized in the review. The review zeroed in on three sugar creation organizations in Kakamega County. A survey was utilized to gather data. The review's discoveries exhibited a positive and critical relationship between provider relationship the board and functional achievement.

Chepkorir (2017) examined how the management of supplier relationships affects procurement performance using Almasi Beverages Limited as an example. Almasi Beverages Limited provided 426 respondents for the target population. That's what the review's discoveries uncovered Almasi Beverages Limited teaches its suppliers by subjecting them to quality requirements. According to the findings of the study, organizations classify their suppliers into bunches in view of value improvement, with quality improvement being underscored all through the acquirement cycle to aid in supplier relationship management and procurement performance.

2.2.4 Information Sharing

Baihaqi and Sohal (2013) investigated how information sharing impacted the chains of organizational performance. The study's emphasis was on evaluating many aspects that determine the level of data partaking in supply chains, including coordinated data innovation, inside combination, data quality, and money saving advantage sharing. The study focused on 150 manufacturing firms. The findings revealed that integrated information technologies and data quality expanded the power of data sharing in a positive way, and that information sharing has an indirect relationship with organizational performance.

Luo, Sha, and Huang (2013) conducted research to determine how data and information trade impacts the purchaser provider relationship and execution in the gadgets area. The

overview instrument utilized in the review was developed based on previous research. The target population consisted of 117 electronic component suppliers. Face-to-face interviews were used to obtain data. According to the findings of the study, information sharing can be triggered by information exchange, which can increase the buyer-supplier connection and supplier performance.

Muljani and Ellitan (2017) used a case study of East Java Manufacturing SMEs to investigate what data sharing and data quality mean for production network execution. The review's discoveries uncovered that predecessor factors (natural vulnerability, intra-authoritative factors, and between hierarchical elements) affected data sharing and data quality in store network the executives. Businesses can give more consumer value and gain a competitive edge by supplying products at the appropriate time and place. As a result, organizations must develop a collaborative network with partner companies in order to efficiently provide goods and services to consumers via supply chain management.

2.3 Conceptual Framework

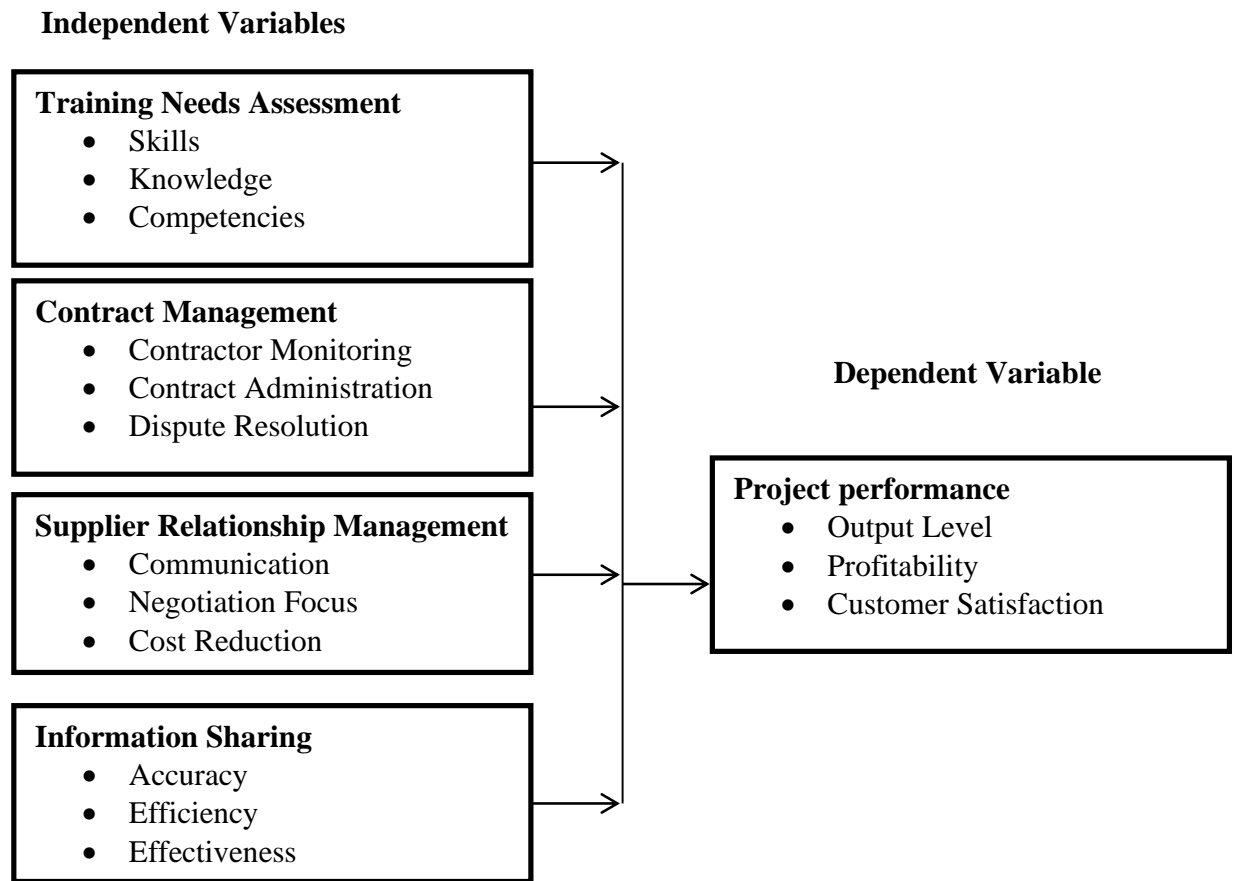


Figure 2.1: Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The study used a descriptive research design. According to Stangor (2014), descriptive research design is a way of assessing people's characteristics, reporting and observation behaviors, awareness of programs, attitudes or ideas, and needs, and their relevance to present the current state of occurrence. The argument is that descriptive testing methods allow the collection of large amounts of data in a cost-effective and efficient way, and it is a research method that involves obtaining data directly from people or a sample of population over a period of time.

3.2 Target Population

According to Mugenda and Mugenda (2003), a population is defined as "the total set of individuals or items under investigation in any field of study that have a common trait." Wajir County Roads & Transport Department was chosen as the target population. As shown in Table 3.1, the overall number of respondents were 50.

Table 3.1: Target Population

Category	Population	Percentage
Project manager	5	10
Project team leader	45	90
Total	50	100

3.3 Sampling Design and Sample Size

A survey of 50 people was conducted. This is because, according to Mugenda and Mugenda (2003), if the number of cases is less than 100, the entire population can be analyzed in a quantitative study.

3.4 Data Collection Instrument

Questionnaire was utilized as data collection instruments since people involved are literate, allowing for minimal interpretations of the questionnaires' contents. The questionnaires were divided into five sections, numbered A through F. Section A collected demographic data from respondents, while sections B through F focused on top training needs assessment, contract management, supplier relationship management, information sharing, and project performance.

3.5 Pretesting

A pilot review is a little test with a foreordained number of respondents that assists the specialist with surveying the nature of the polls and find any blemishes prior to continuing with the last information gathering process (Orodho, 2005). Six respondents were given questionnaires as a test run. Moreover, these responders were rejected from the last information gathering method. The study was guided to ensure that any missing things are distinguished and settled for them to be legitimate and dependable.

3.5.1 Validity

Orodho (2005) describe validity as a test involving decisions whether the information assortment instrument provides data applicable to the review's expressed objective. Substance legitimacy test was utilized in the review to guarantee that the instruments for

research are written in basic language that respondents can grasp and to guarantee that the inquiries are clear. This was achieved by incorporating the views of the supervisor.

3.5.2 Reliability

Mugenda and Mugenda (2003), dependability is a measure of how well a research instrument performs on repeated trials. Internal consistency was utilized as a benchmark for instrument reliability in this study, and it was assessed using the Cronbach's Alpha scale, which ranges from 0 to 1 and indicates the closeness for a set of items that are in a series. Cronbach's Alpha values larger than a specific threshold, according to Ali and Yusof (2011), indicate items assessing construct and hence instrument reliability. Cronbach's Alpha of 0.7 was used as the internal consistency and hence reliability level in this investigation. In this case, variable items that are above this internal consistency threshold were kept, and an overall value of greater than 0.7 was adopted to confirm that the instrument is reliable.

3.6 Data Collection Procedures

The County's administration was contacted in order to obtain authorization to conduct the study within the organization. The surveys were distributed directly by the researcher to all respondents. The responders were accorded two weeks to complete the surveys. The researcher likewise visited the respondents to remind them of the need of finishing the studies to get a high response rate.

3.7 Data Analysis

To represent useful data, the results of the questionnaire were sorted, sorted, and categorized into similar themes. Descriptive statistics such as medium and standard

deviations were used to evaluate quantitative data. This was accomplished by generating and presenting data in the form of graphs, charts, tables, and figures using SPSS.

Inferential analysis was used by producing the correlation and regression outputs.

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

Y = Project performance

X_1 = Training needs assessment

X_2 = Content management

X_3 = Supplier relationship management

X_4 = Information sharing

$\beta_1, \beta_2, \beta_3$ and β_4 = Coefficients

ϵ = Error term

3.8 Ethical Issues

To affirm morals during information assortment, the scientist initially got a recommendation letter from the University and an examination approval from NACOSTI to introduce it to the particular authorities and participants. Respondents were approached to take part in the review after first making sense of the motivation behind the review and guaranteeing that no outsider would actually want to get to the data they give in the review. Respondents were not permitted to indicate their names or the office where they work.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.0 Introduction

This chapter presents the study's findings along with its analyses. Results on the response rate are presented to begin the chapter. Following the demographic characteristics of the survey respondents, presentation of descriptive data per objective and inferential statistics is done.

4.1 Response Rate

The study's respondents, who were project managers and project team leaders from the Wajir County Roads & Transport Department, were given a total of 50 questionnaires. 44 questionnaires were completed and returned out of these. This indicates an 88% overall response rate. According to Fincham's (2008) recommendations, this response rate is within the acceptable range of 70% and above for executing statistical analyses to allow for the conclusions to be generalized. Figure 4.1 presents the findings.

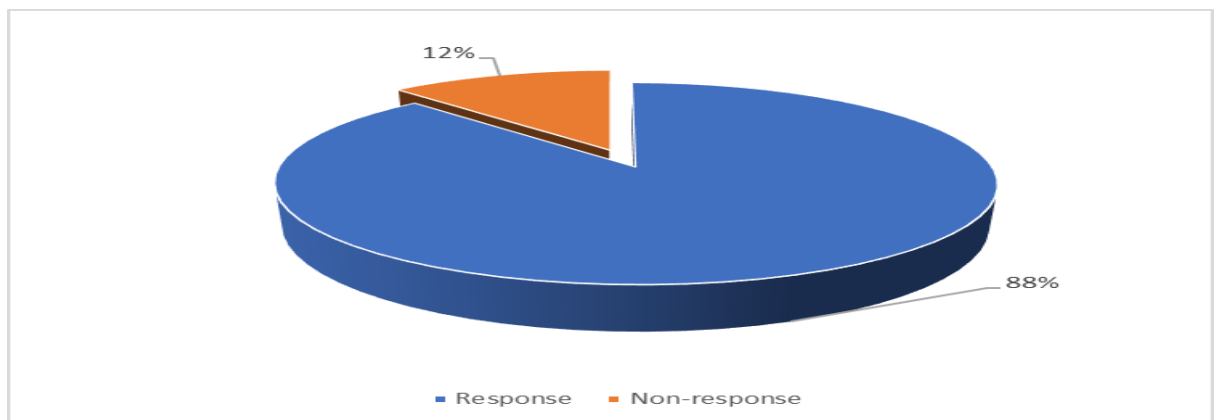


Figure 4.1: Response Rate

Source: Research Data (2022)

4.2 Reliability Analysis

In accordance with Julious (2005) recommendations, a pilot study was done with six respondents, or 10% of the sample, to determine the validity and reliability of the research instrument. To prevent bias, the main study did not include the pilot study's subjects. As advised by Mugenda and Mugenda (2003), the study used Cronbach's Alpha to measure the internal consistency of the items of the six questionnaires that were the subject of the pilot test. The results are provided in table 4.1.

Table 4.1: Reliability Test Results

Scale	Cronbach's Alpha	Number of Items	Remarks
Training needs assessment	0.896	5	Reliable
Contract management	0.771	5	Reliable
Supplier relationship management	0.736	5	Reliable
Information sharing	0.797	5	Reliable
Project performance	0.877	3	Reliable

Source: Pilot Data

The five study variables all had alpha coefficient values higher than 0.7 (>0.7), as shown in Table 4.1, indicating that the instrument was reliable for gathering data.

4.3 Demographic Characteristics

The survey aimed to identify the respondents' gender, the number of years they had worked in Wajir County, and their academic background. Tables and figures are used to present the results in the ensuing subsections.

4.3.1 Respondent Gender

The goal of the study was to identify the gender distribution of study participants. This enabled the researcher to determine whether gender bias existed in the study and whether Wajir County upholds gender parity when hiring project staff. Table 4.2 displays the results.

Table 4.2: Gender Distribution of Respondents

Gender	Frequency	Percent
Male	28	63.6
Female	16	36.4
Total	44	100

Source: Research Data (2022)

Table 4.2 reveals that 63.6 percent of respondents were male and 36.4 percent of respondents were female. It implies that the gender makeup of the workforce in Wajir County is diverse. This result also imply that the study was not skewed against either gender because it included both male and female respondents, giving it a sufficient representation of both genders' points of view.

4.3.2 Number of years working in Wajir County

The research also aimed to find out how long the chosen participants had been employed by Wajir County government. This made it simpler for the researcher to assess the respondents' familiarity with the county's customs and culture and, consequently, their ability to provide reliable information needed for the study. The results are displayed in Figure 4.2 below.

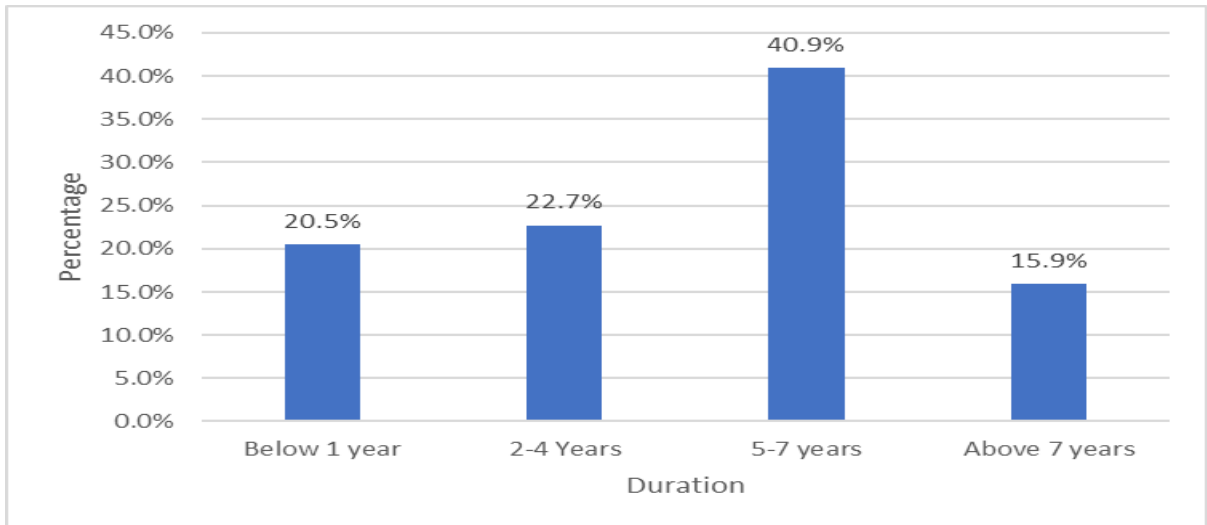


Figure 4.2: Length of service in the County

Source: Research Data (2022)

As revealed in figure 4.2, the largest proportion of respondents, 40.9 percent, indicated that they had served in the county government of Wajir for a period of 5 to 7 years, 22.7 percent indicated they had worked in the county for a period of 2 to 4 years while 15.9 percent indicated they had served in the county for a period exceeding 7 years. This indicates that majority of the respondents indicated that they had served in the county government of Wajir long enough to understand project management practices in the county. They were therefore well placed to provide this study with reliable information.

4.3.3 Academic Qualification

Further, the study sought to establish the highest level of education of the study respondents. Findings are shown in figure 4.3

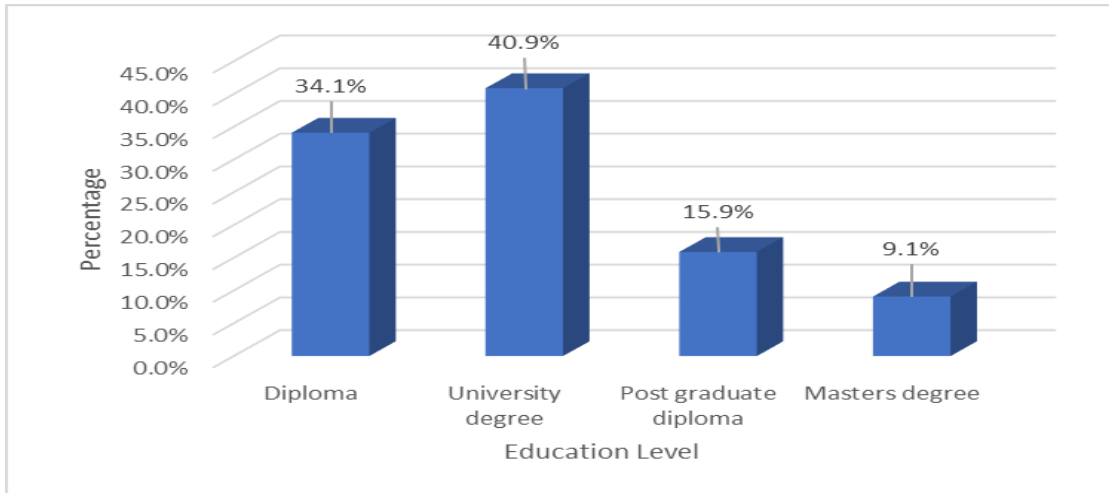


Figure 4.3: Respondent Academic Qualification

Source: Research Data (2022)

According to the findings in 4.3, the majority of respondents (40.9%) had a bachelor's degree, followed by 34.1% who had a college diploma, 15.9% who had a postgraduate diploma, and 9.1% who had a master's degree. The findings showed that respondents had a sufficient degree of academic knowledge, which allowed them to furnish the study with accurate and trustworthy data.

4.4 Descriptive Findings

For the purpose of summarizing data on the responses to the study's numerous variables, descriptive statistics, including mean and standard deviation, were used. Due to the fact that standard deviation values indicate the degree of response differences, the average responses to each of the variables are also presented in this section.

4.4.1 Training Needs Assessment

The study's first objective was to determine how training needs assessments affected how road construction projects in Wajir County performed. On a Likert scale of 1 to 5,

study participants indicated how much they agreed or disagreed with various statements on training needs assessment. Table 4.3 displays the average outcomes.

Table 4.3: Descriptive Results on Training Needs Assessment

Statement	1	2	3	4	5	Mean	Std Dev
The assessment of training needs has helped the County to detect knowledge and technical skill deficiencies before they become an issue.	9.1%	11.4%	22.7%	36.4%	20.5%	3.48	1.21
The assessment of training needs has ensured that the training is focusing on the relevant areas.	2.3%	9.1%	15.9%	20.5%	52.3%	4.11	1.13
The County was able to target the right persons for each training session thanks to a training needs analysis.	0.0%	9.1%	36.4%	31.8%	22.7%	3.68	0.93
The assessment of training needs has assured that the training is meeting the actual business demand.	4.5%	9.1%	29.5%	22.7%	34.1%	3.73	1.17
The identification of training needs has enabled employees to learn the necessary information and skills to execute their jobs.	6.8%	6.8%	25.0%	38.6%	22.7%	3.64	1.12

Source: Research Data (2022).

The results of the study indicated that majority of the respondents, represented by a mean of 3.48 and 36.4 percent agreed that the assessment of training needs has helped the county to detect knowledge and technical skill deficiencies before they become an issue. However, a standard deviation of 1.21 shows that responses are spread out from the mean of 3.48. Another statement sought to find out whether the assessment of training needs has ensured that the training is focusing on the relevant areas. In this case, majority represented by a mean of 4.11 and percentage of 52.3 strongly agreed. On whether the County was able to target the right persons for each training session thanks to a

training needs analysis, the largest proportion of the respondents, 36.4 percent, moderately agreed. This is also confirmed by a mean of 3.68 as a standard deviation of 0.93 is relatively small implying that responses were well clustered around the mean. The findings also show that majority of study participants, mean 3.73 and standard deviation 1.17, moderately agreed that the assessment of training needs has assured that the training is meeting the actual business demand. Similarly, as represented by 38.6% and a mean of 3.64, majority of respondents agreed that the identification of training needs has enabled employees to learn the necessary information and skills to execute their jobs.

4.4.2 Contract Management

The next objective of this study was to determine how contract management affects performance of road construction projects in Wajir County. Table 4.4 displays the means and standard deviations of the responses on this variable.

Table 4.4: Descriptive Results on Contract Management

Statement	1	2	3	4	5	Mean	Standard Deviation
With the correct validation and certification tools, a contact management system has enabled significantly improved efficacy in supplier onboarding.	18.2%	4.5%	20.5%	29.5%	27.3%	3.43	1.42
Content management has made it possible to easily identify contracts with diverse vendors inside the County.	6.8%	15.9%	22.7%	27.3%	27.3%	3.52	1.25
A contract management system has aided in the reduction of legal fees and the elimination of unplanned renewals of undesirable services.	6.8%	11.4%	31.8%	20.5%	29.5%	3.55	1.23
A contract management system has enabled the tracking of crucial project milestones.	9.1%	11.4%	34.1%	29.5%	15.9%	3.32	1.16
A contract management system has supplied users with automated alerts and features that allow them to schedule notifications as needed.	9.1%	4.5%	15.9%	38.6%	31.8%	3.80	1.21

Source: Research Data (2022).

The results of the study in table 4.4 indicated that majority of the respondents as represented by a mean of 3.43 moderately agreed that with the correct validation and certification tools, a contact management system has enabled significantly improved efficacy in supplier onboarding with only 18.2 percent of the respondents strongly disagreeing. However, with regard to this statement, there was a relatively high variation in responses as standard deviation is 1.42. On whether content management has made it possible to easily identify contracts with diverse vendors inside the County, as shown by a mean of 3.52, the largest proportion (27.3%) moderately agreed while a standard deviation of 1.25 indicates a high spread of the responses among respondents.

Moreover, results show that majority of respondents, 31.8 percent and mean of 3.55, moderately agreed that a contract management system has aided in the reduction of legal fees and the elimination of unplanned renewals of undesirable services. However, a standard deviation value of 1.23 shows that the responses were not particularly clustered around the mean. Another statement intended to find out whether a contract management system has enabled the tracking of crucial project milestones whereby the largest proportion of respondents, 34.1 percent and mean of 3.32, moderately agreed. Again, a standard deviation value of 1.16 shows that the responses were spread out from the mean value. The last statement sought to establish whether a contract management system has supplied users with automated alerts and features that allow them to schedule notifications as needed. In this case, the largest proportion of respondents, 38.6% and mean 3.8 agreed. However, as with most of the other statement, responses to the above statement were not clustered around the mean of 3.8 as confirmed by a standard deviation of 1.21.

4.4.3 Supplier Relationship Management

This study also determined the influence of supplier relationship management on performance of road construction projects in Wajir County. The average responses are as shown on Table 4.5 based on a Likert scale of 1-5 using mean and standard deviation.

Table 4.5: Descriptive Results on Supplier Relationship Management

Statement	1	2	3	4	5	Mean	Std Dev
A positive supplier connection has resulted in the exchange of ideas and feedback, which has helped to improve operations.	4.5%	2.3%	31.8%	40.9%	20.5%	3.70	0.98
Good supplier ties have resulted in cost reductions.	4.5%	6.8%	29.5%	36.4%	22.7%	3.66	1.06
The County has been able to identify waste causes and solutions to eliminate them thanks to a supplier relationship management platform.	4.5%	11.4%	22.7%	29.5%	31.8%	3.73	1.17
The improvement in communication has resulted from the creation of a positive relationship between the County and the provider.	9.1%	11.4%	31.8%	31.8%	15.9%	3.34	1.16
The supplier relationship management strategy has strengthened the County's supply chain.	4.5%	2.3%	34.1%	31.8%	27.3%	3.75	1.04

Source: Research Data (2022).

As indicated on table 4.5 above, the largest percentage of the respondents, 40.9, agreed that a positive supplier connection has resulted in the exchange of ideas and feedback, which has helped to improve operations. This is also confirmed by a mean of 3.7 whereas a standard deviation of 0.98 is small indicating that responses were not spread out from the stated mean. on whether good supplier ties have resulted in cost reductions, the largest fraction of respondents 36.4 percent, agreed and this was confirmed by a mean of 3.66. The next claim sought to find out whether the County has been able to identify waste causes and solutions to eliminate them thanks to a supplier relationship management platform. In this case, a significant part of the sample, 31.8% strongly agreed while a mean of 3.73 shows that overall, respondents moderately agreed. However, the data

around the mean had a lot of volatility and was widely dispersed with standard deviation of 1.17. On whether the improvement in communication has resulted from the creation of a positive relationship between the County and the provider, majority of respondents, mean 3.34 and standard deviation of 1.16 moderately agreed as only 9.1 percent strongly disagreed. The final statement was intended to determine whether the supplier relationship management strategy has strengthened the County's supply chain. In this regard, the largest proportion of respondents, 34.1 percent, moderately agreed. This is also confirmed by a mean of 3.75 while only 4.5 percent of the sampled participants strongly disagreed.

4.4.4 Information Sharing

The study's final objective was to determine how Information Sharing affects performance of road construction projects in Wajir County. On a Likert scale of 1 to 5, study participants indicated how much they agreed or disagreed with various statements on Information Sharing. Table 4.6 displays the average outcomes.

Table 4.6: Descriptive Results on Information Sharing

Statement	1	2	3	4	5	Mean	Std Dev
Employees of the County now feel that they are a part of the organization because to information sharing.	4.5%	4.5%	31.8%	29.5%	29.5%	3.75	1.08
The sharing of information has enabled the incorporation of procedural changes into the County's project management.	9.1%	11.4%	36.4%	18.2%	25.0%	3.39	1.24
The use of information sharing tools has made it possible for vital project information to be disseminated broadly and swiftly within the county.	9.1%	13.6%	22.7%	27.3%	27.3%	3.50	1.28
The sharing of information has resulted in better and faster decision making.	4.5%	15.9%	18.2%	40.9%	20.5%	3.57	1.13
Knowledge loss has been decreased as a result of information exchange.	2.3%	9.1%	40.9%	22.7%	25.0%	3.59	1.04

Source: Research Data (2022).

The results of the study indicated that majority of the respondents, 31.8 percent and mean 3.75, moderately agreed that employees of the County now feel that they are a part of the organization because to information sharing. A standard deviation of 1.08 indicates a large amount of variation in the sampled respondents. Similarly, majority of respondents represented by 36.4 percent and mean of 3.39 moderately agreed that sharing of information has enabled the incorporation of procedural changes into the County's project management. The responses were not highly centered around the mean, however, as indicated by the standard deviation value of 1.24. With regard to the statement that use of information sharing tools has made it possible for vital project information to be disseminated broadly and swiftly within the county, the largest percent of respondents, 27.3, agreed or agreed strongly whereas a mean of 3.5 indicates that overall majority

moderately agreed. Only 9.1 percent of the respondents strongly disagreed and a standard deviation of 1.28 shows data around the mean had a lot of volatility and was widely dispersed. The next statement was meant to establish whether sharing of information has resulted in better and faster decision making whereby only 4.5 percent of the participants strongly disagreed but the largest fraction, 40.9 percent, agreed. This is also shown by a mean of 3.57 which indicates majority of respondents moderately agreed. The last statement established whether knowledge loss has been decreased as a result of information exchange whereby a mean of 3.59 demonstrates that majority of respondents moderately agreed. Only 2.3 percent of the respondents strongly disagreed and a standard deviation of 1.04 indicates volatility of data around the mean.

4.4.5 Project performance

The measures of project that were used in this study were project quality and completion within time and cost/budget. This section presents the average responses of these indicators as shown on Table 4.7.

Table 4.7: Descriptive Results on Project performance

Statement	1	2	3	4	5	Mean	Std Dev
The projects are of excellent quality.	6.8%	13.6%	25.0%	22.7%	31.8%	3.59	1.26
All of the projects were completed under budget.	4.5%	13.6%	22.7%	25.0%	34.1%	3.70	1.21
All of the projects were completed within the timeframes provided.	6.8%	18.2%	27.3%	27.3%	20.5%	3.36	1.20

Source: Research Data (2021).

With regard to the projects being of excellent quality, results show that majority of the respondents moderately agreed (mean=3.59). Similarly, most respondents moderately

agreed on the statement that all of the projects were completed under budget (mean=3.7). On whether the projects were completed within the timeframes provided, majority of the respondents also moderately agreed (mean=3.36). However, respective standard deviations of 1.26, 1.21 and 1.2 shows that the responses were spread out from the mean values.

4.5 Inferential Analysis

The study set a significance level of 5% on the coefficients of the variables in order to determine the significance of the relationship between procurement management practices and performance of road construction projects. Results of correlation and regression analysis are shown in the following sections.

4.5.1 Correlation Analysis

The study conducted a correlation analysis to determine the relationship between procurement management practices and performance of road construction projects in Wajir County, Kenya using Pearson correlation coefficient. The Pearson correlation coefficient, r , ranges from +1 to -1 with values closer to either value indicating strong positive or negative association respectively. The study findings on correlation are as presented in Table 4.8.

Table 4.8: Results on Pearson Correlation Analysis

Correlations		Training needs assessment	Contract management	Supplier relationship management	Information sharing	Project Performance
Training needs assessment	r	1				
	Sig.					
Contract management	r	.547**	1			
	Sig.	0				
Supplier relationship management	r	0.288	0.271	1		
	Sig.	0.058	0.075			
Information sharing	r	.454**	.522**	0.23	1	
	Sig.	0.002	0	0.133		
Project Performance	r	.571**	.492**	.432**	.549**	1
	Sig.	0.000	0.001	0.003	0.000	
	N	44	44	44	44	44

** Correlation is significant at the 0.05 level (2-tailed).

Source: Research Data (2022).

As indicated in table 4.8 above, training needs assessment has a positive and significant relationship with performance of road construction projects in Wajir County, Kenya ($R = 0.571$, $p=0.000$). This implies that a positive change in training needs assessment results to significant improvement in performance of road construction projects in Wajir county. Similarly, there was a moderate positive and significant relationship between contract management and performance of road construction projects in Wajir County, Kenya ($R = 0.492$, $p=0.001$) whereby a positive variation in contract management results to positive and significant change in performance of road construction projects in Wajir County.

The results also show existence of a positive and significant relationship between supplier relationship management and performance of road construction projects in Wajir County ($R = 0.432$, $Sig=0.003$). The findings imply that an improvement in supplier relationship

management results to positive and significant change in performance of road construction projects in Wajir County. Additionally, a positive and significant relationship exists between information sharing and performance of road construction projects in Wajir County, Kenya ($R = 0.549$, $Sig=0.000$). An improvement in information sharing therefore results to significant improvement in the performance of road construction projects in Wajir County, Kenya.

4.5.2 Regression Analysis

A multiple regression model was employed with summary findings shown in table 4.9 to determine the effect of procurement management practices on the performance of road construction projects in Wajir County, Kenya.

Table 4.9: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.705	0.497	0.445	0.561452

Predictors: (Constant), Information sharing, Supplier relationship management, Training needs assessment, Contract management

Source: Research Data (2022).

The model summary results indicate that the procurement management practices had a strong positive influence on performance of road construction projects in Wajir County as shown by a joint Pearson correlation of 0.705. The coefficient of determination (R-square) is 0.497 implying that procurement management practices (Information sharing, Supplier relationship management, Training needs assessment, Contract management) jointly account for up to 49.7% of the variation in performance of road construction projects in Wajir County. The results on significance of the model are presented in table 4.10 below.

Table 4.10: Model Significance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	12.138	4	3.034	9.626	.000
Residual	12.294	39	0.315		
Total	24.432	43			

a Dependent Variable: Project Performance
b Predictors: (Constant), Information sharing, Supplier relationship management, Training needs assessment, Contract management

Source: Research Data (2022).

The results indicate that the overall model was statistically significant. Further, the results imply that procurement management practice is a good predictor of performance of road construction projects in Wajir County. This was supported by an F statistic of 9.626 higher than the F (4, 39) critical value of 2.462 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. This suggests that the practices of procurement management such as information sharing, supplier relationship management, training needs assessment, and contract management are appropriate predictors of the change in performance of road construction projects in Wajir County, Kenya. Regression coefficients are presented in Table 4.11.

Table 4.11: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.024	0.77		1.33	0.191
Training needs assessment	0.385	0.176	0.308	2.183	0.035
Contract management	0.112	0.165	0.099	0.676	0.503
Supplier relationship management	0.364	0.177	0.247	2.059	0.046
Information sharing	0.401	0.183	0.301	2.187	0.035

a Dependent Variable: Project Performance

Source: Research Data (2022).

Thus, the optimal regression model with significant only coefficients is:

$$\text{Road construction project performance} = 1.024 + 0.385 \text{ Training needs assessment} + 0.364 \text{ Supplier relationship management} + 0.401 \text{ Information sharing}$$

The regression results as shown in Table 4.11 indicate that training needs assessment positively and significantly influence performance of road construction projects in Wajir County, Kenya as shown by beta value of 0.385 and p-value of 0.035 which is less than 0.05. This implies that a positive change in training needs assessment, all other factors held constant at zero would result to a significant improvement in performance of road construction projects in Wajir County. The results are collaborated by the findings of Laban, Thuo, and Mutegi (2017) who found a positive influence of assessing training needs on organization's project success. It was suggested that a training needs assessment look at the skills, knowledge, and abilities needed by the affected occupational groups. A training needs assessment therefore positively influences the level of performance of organizational projects. On the same note, contract management practices positively influenced performance of road construction projects in Wajir County as shown by beta value of 0.112. However, this effect is not significant as confirmed by a p-value of 0.503 which is greater than 0.05. The implication in this case is that an improvement in contract

management practices, *ceteris paribus*, results to insignificant improvement in performance of road construction projects in Wajir County. The results backed up the findings of Nsanzimana and Mulyungi's (2020) which discovered a positive relationship between contract management processes and the success of the Remera-Rwandex road construction project.

Similarly, the results indicate that that supplier relationship management positively and significantly influenced performance of road construction projects in Wajir County, Kenya as shown by beta value of 0.364 and p-value of 0.046. This implies that a positive change in supplier relationship management would result to a significant improvement in performance of road construction projects in Wajir County if all other factors are held constant at zero. Mumelo et al. (2017) suggested that supplier relationship management ensures the supply of trustworthy and consistent deliveries which benefit all parties involved, including purchasing and supply firms thereby improving project performance. Wambani (2017) also exhibited a positive and significant relationship between provider relationship and functional achievement of a project.

Lastly, information sharing positively and significantly influenced performance of road construction projects in Wajir County, Kenya as shown by beta value of 0.401 and p-value of 0.035. This implies that a positive change in information sharing would result to a significant improvement in performance of road construction projects in Wajir County. This finding is supported by Baihaqi and Sohal (2013) who revealed that integrated information technologies and data quality expands the power of data sharing in a positive way, and that information sharing has a direct positive relationship with project performance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study's chapter includes a description of its findings, conclusions, recommendations for use in practice, and suggestions for additional research in this area. The purpose of the study was to ascertain how the performance of road construction projects in Kenya's Wajir County related to procurement management practices. In order to do this, a thorough evaluation of the effects of information sharing, contract management, supplier relationship management, and training needs assessment on the performance of road construction projects in Wajir County was conducted.

5.2 Summary of the Study Findings

Presented herein is a summary of both descriptive as well as inferential results of each study objective. The model summary results of the study indicated that information sharing, contract management, supplier relationship management, and training needs assessment accounted for 49.7 percent of the variation in performance of road construction projects in Wajir County, Kenya. Results Pearson correlation performed at 5% level of significance showed that information sharing, contract management, supplier relationship management, and training needs assessment all have positive relationships with performance of road construction projects. These relationships were also statistically significant at 5% level of significance. Similarly, regression model coefficients indicated that information sharing, contract management, supplier relationship management, and training needs assessment positively influenced performance of road construction

projects in Wajir county. However, for the case of contract management, the effect was not statistically significant.

5.2.1 Training Needs Assessment

The first objective of the study sought to establish how training needs assessment influences performance of road construction projects in Wajir county. Descriptive results indicated that majority of the respondents moderately agreed that the assessment of training needs has helped the County to detect knowledge and technical skill deficiencies before they become an issue, assessment of training needs has ensured that the training is focusing on the relevant areas, the County was able to target the right persons for each training session thanks to a training needs analysis, the assessment of training needs has assured that the training is meeting the actual business demand and the identification of training needs has enabled employees to learn the necessary information and skills to execute their jobs. A positive and statistically significant correlation between training needs assessment and performance of road construction projects was obtained. Regression coefficients further revealed that training needs assessment influences performance of road construction projects in Wajir county and this effect is statistically significant.

5.2.2 Contract Management

Descriptive results on the objective which sought to determine how contract management influenced performance of road construction project also indicated that majority of the participants of the study moderately agreed that with the correct validation and certification tools, a contract management system has enabled significantly improved efficacy in supplier onboarding and that contract management has made it possible to

easily identify contracts with diverse vendors inside the County. Similarly, majority of respondents moderately agreed that a contract management system has aided in the reduction of legal fees and the elimination of unplanned renewals of undesirable services, has enabled the tracking of crucial project milestones and has supplied users with automated alerts and features that allow them to schedule notifications as needed. A positive and statistically significant correlation between contract management and performance of road construction projects was also established. However, from the regression coefficient result, contract management positively but insignificantly influenced performance of road construction projects.

5.2.3 Supplier Relationship Management

Moreover, this study aimed to determine the ways in which supplier relationship management influences performance of road construction projects whereby descriptive findings revealed that majority of the respondents moderately agreed that a positive supplier connection has resulted in the exchange of ideas and feedback, which has helped to improve operations, good supplier ties have resulted in cost reductions, the County has been able to identify waste causes and solutions to eliminate them thanks to a supplier relationship management platform, improvement in communication has resulted from the creation of a positive relationship between the County and the provider and the supplier relationship management strategy has strengthened the County's supply chain. A positive and statistically significant correlation between supplier relationship management and performance of road construction projects was obtained. Further, regression coefficients indicated that supplier relationship management positively influenced performance of road construction projects, this effect being statistically significant.

5.2.4 Information Sharing

The final objective was intended to find out how information sharing influenced performance of road construction projects whereby majority of respondents from descriptive statistics moderately agreed that employees of the County now feel that they are a part of the organization because to information sharing, sharing of information has enabled the incorporation of procedural changes into the County's project management, use of information sharing tools has made it possible for vital project information to be disseminated broadly and swiftly within the county, sharing of information has resulted in better and faster decision making and knowledge loss has been decreased as a result of information exchange. With regard to the association between information sharing and performance of road construction projects, Pearson correlation coefficient revealed a strong positive and significant relationship.

5.3 Conclusions

Based on the results, this study concludes that training needs assessment, contract management, supplier relationship management and information sharing as part of procurement management practices have a positive correlation with performance of road construction projects in Wajir county, Kenya. Similarly, with the exception of contract management, training needs assessment, supplier relationship management and information sharing positively and significantly influenced performance of road construction projects in Wajir county, Kenya. To this end, this study concludes that training needs assessment positively influence performance of road construction projects in Wajir county and this effect is statistically significant. As such, assessment of training needs helps to detect knowledge and technical skill deficiencies before they become an

issue, ensures that the training is focusing on the relevant areas, enables the right persons for each training session to be targeted, assures that the training is meeting the actual business demand and enables employees to learn the necessary information and skills to execute their jobs.

Similarly, the study also concludes that, despite the insignificant effect of contract management on performance of road construction projects in Wajir county, the effect is still positive. Consequently, performance of road construction project is positively affected with correct validation and certification tools, easy identification of contracts with diverse vendors, reduction of legal fees and the elimination of unplanned renewals of undesirable services, tracking of crucial project milestones as well as automated alerts and features. Another conclusion arrived at by this study is that supplier relationship management positively and significantly influenced performance of road construction projects in Wajir County. In this case, a positive supplier connection leads to exchange of ideas and feedback, results in cost reductions and identification of waste causes and solutions to eliminate them, creation of a positive relationship between with the provider and strengthens supply chain performance.

Finally, this study concludes that information sharing positively and significantly influenced performance of road construction projects in Wajir County. To this end, project performance is enhanced when employees feel that they are a part of the organization because of information sharing, if there is incorporation of procedural changes into the project management, when it possible for vital project information to be disseminated broadly and swiftly and better as well as when there is faster decision making and knowledge loss decrease as a result of information exchange.

5.4 Recommendations for Practice

Based on the above findings and conclusions, this study recommends the county government of Wajir to pay particular attention to procurement management practices as they positively impact performance of road construction projects. Firstly, there is need for Wajir county to focus on training needs assessment as it enables the right people to be targeted for each training session, helps to identify knowledge and technical skill gaps before they become a problem, ensures that the training is meeting the actual business demand, and helps employees acquire the knowledge and skills they need to perform their jobs.

This study also recommends emphasis by wajir county on contract management practices to improve performance of road construction projects. This can be done by using the right validation and certification tools, making it simple to identify contracts with various suppliers, paying less for legal services, stopping unforeseen service renewals, keeping track of important project milestones, and using automated features and notifications.

Moreover, the study recommends Wajir County to focus on supplier relationship management practices as they positively and significantly affect performance of road construction projects. In this regard, it is important to promote a positive supplier relationship because it results in an exchange of ideas and feedback, cost savings, identification of waste causes and ways to eliminate them, development of a good rapport with the provider, and an improvement in supply chain performance. In order to further improve the performance of road construction projects, it is also necessary to pay attention to information sharing practices because they foster a sense of belonging among employees, allow for the incorporation of procedural changes into project management,

ensure that project information is disseminated widely, quickly, and effectively, as well as encourage quicker decision making.

5.5 Recommendations for Further Research in this Field of Study

Additional research can be done on how public procurement practices affect the success of other public-related projects outside those for road construction. For comparisons, this would be quite relevant. If there are more public procurement practices that have an impact on public projects, such a study would help to find them. This study also suggests that further research be done on the impact of procurement practices on the success of private projects. Comparing the effectiveness of public versus private projects might be aided by this. This would also help to ascertain whether there are any other procurement strategies that the public projects may use to boost performance. Research can also be done concentrating on how procurement practices affect the success of NGO projects. This would make it easier to compare performances. This would help provide information on improved procurement practices that might be used to improve the effectiveness of road construction projects.

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APPENDICES

Appendix I: Introductory Letter

Dear Sir/Madam,

RE: REQUEST FOR RESEARCH DATA COLLECTION

My name is Dahira Yarrow Ibrahim, and I am a postgraduate student at Kenyatta University pursuing a master's degree in Business Administration with a concentration in Project Management. My study is about 'Procurement management techniques and project performance of road construction projects in Wajir County, Kenya.' Because of the nature of your profession, I respectfully request that you assist me in carrying out the research.

I'd want to collect data in your department via questionnaires to improve our research work. As a result, this letter begs your assistance in responding to the questionnaire items. The study will not expose or disclose any of the County's information and is solely for academic purposes.

Your involvement and support in this activity will be much appreciated.

Appendix II: Questionnaire

Section A: Demographic Data

Gender	Male { } Female { }
Years you have been in the County	below 1 { } 2 – 4 { } 5 – 7 { } Above 7 { }
Academic	Diploma { } University degree { } Post graduate diploma { } Master’s { }

Section B: Procurement Management Practices

Training needs assessment	5	4	3	2	1
The assessment of training needs has helped the County to detect knowledge and technical skill deficiencies before they become an issue.					
The assessment of training needs has ensured that the training is focusing on the relevant areas.					
The County was able to target the right persons for each training session thanks to a training needs analysis.					
The assessment of training needs has assured that the training is meeting the actual business demand.					
The identification of training needs has enabled employees to learn the necessary information and skills to execute their jobs.					
Content Management					
With the correct validation and certification tools, a contact management system has enabled significantly improved efficacy in supplier onboarding.					
Content management has made it possible to easily identify contracts with diverse vendors inside the County.					

A contract management system has aided in the reduction of legal fees and the elimination of unplanned renewals of undesirable services.					
A contract management system has enabled the tracking of crucial project milestones.					
A contract management system has supplied users with automated alerts and features that allow them to schedule notifications as needed.					
Supplier relationship management					
A positive supplier connection has resulted in the exchange of ideas and feedback, which has helped to improve operations.					
Good supplier ties have resulted in cost reductions.					
The County has been able to identify waste causes and solutions to eliminate them thanks to a supplier relationship management platform.					
The improvement in communication has resulted from the creation of a positive relationship between the County and the provider.					
The supplier relationship management strategy has strengthened the County's supply chain.					
Information sharing					
Employees of the County now feel that they are a part of the organization because to information sharing.					
The sharing of information has enabled the incorporation of procedural changes into the County's project management.					
The use of information sharing tools has made it possible for vital project information to be disseminated broadly and swiftly within the county.					

The sharing of information has resulted in better and faster decision making.					
Knowledge loss has been decreased as a result of information exchange.					
Project Performance					
The projects are of excellent quality.					
All of the projects were completed on time and under budget.					
All of the projects were completed within the timeframes provided.					