

Analysing the Effectiveness of Project Stakeholder Management in Project Performance: A Case Study of Road Construction Projects in Kafue District

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Abstract: Stakeholder management is essential for the success of publicly funded infrastructure projects, particularly those with diverse interests, as demonstrated in a study on road construction in Kafue District, Zambia, funded by the Constituency Development Fund (CDF). The research utilized a quantitative approach with structured questionnaires and involved local government officials, contractors, community representatives and project beneficiaries. The results revealed that effective stakeholder identification, with 55% of respondents affirming consistent processes, and 50% recognizing open communication. However, only 40% felt that stakeholder interests were balanced, pointing to challenges in aligning expectations. Statistical correlations showed that stakeholder satisfaction was significantly associated with timely delivery ($p = 0.002$) and cost control ($p = 0.015$), while the connection to output quality was weaker ($p = 0.056$). Challenges included resource constraints, resistance, and inadequate communication. Recommendations include developing structured engagement frameworks, ongoing communication, stakeholder training, and improved conflict resolution, offering insights for policymakers in enhancing stakeholder engagement and project performance in similar developing contexts.

Keywords: Stakeholder Management, Constituency Development Fund, Cost Efficiency, Quality Standards, Stakeholder Engagement, Project Performance, Road Infrastructure.

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I. INTRODUCTION

➤ Background of the Study

The construction sector is vital for any national economy, contributing significantly to socioeconomic development through infrastructure, housing, and job creation (Oladinrin et al., 2012). Despite its importance, construction projects are often plagued by cost overruns, delays, and quality issues (Muya et al., 2013; Zhang and Fan, 2014). These persistent problems have led to the adoption of quality management practices aimed at improving project outcomes (Ibrahim, 2019). Quality in construction is multifaceted, requiring compliance with legal, functional, and aesthetic standards while meeting the expectations of stakeholders and end users (A.U. Ibrahim, 2019). Effective quality management ensures projects are fit for purpose, sustainable, and competitive (Ignatova et al., 2015; Neo and Mikobi, 2021).

Quality management is integral to organizational operations, fostering an environment where tools and procedures enhance operational success (Harris and

McCaffer, 2001). With rising competition and customer expectations, construction firms are revising structures and cultures to improve service quality (Josphine, 2016). Poor project management can result in high maintenance costs and operational risks (Ignatova et al., 2015). Modern quality management aligns with project management principles, emphasizing customer satisfaction, preventive action, and accountability (Mulyungi, 2018). International standards such as ISO 9001 play a pivotal role in process control and performance improvement (Evangelos and Psomas, 2013).

Globally, organizations are adopting quality improvement measures to stay competitive amid technological advances and globalization (Shah et al., 2014). In Africa, similar strategies aim to boost construction performance, but challenges persist, especially in stakeholder management within Zambia's CDF-funded projects. Despite increased funding—up to K30.8 million per constituency in 2024—issues like delayed disbursement, poor community participation, and weak accountability hinder effective project completion (Transparency International Zambia, 2022). Zambia's construction sector continues to face project

failures, cost overruns, and quality deficiencies, with over 80% of projects affected (Auditor General's Report, 2013–2020). To address these issues, this study examined the effectiveness of stakeholder management in improving project outcomes, focusing on CDF-funded road projects in Kafue District.

➤ *Statement of the Problem*

The efficiency of stakeholder management is crucial for the successful performance of public projects, particularly those funded by the Constituency Development Fund (CDF) in Kafue District. Reports from the Auditor General (2023) and local government news outlets highlight serious inefficiencies, including delays, cost overruns, and substandard work, often stemming from poor stakeholder engagement. Inadequate consultation with community members and local leaders has led to projects that fail to meet intended goals, causing dissatisfaction due to a lack of transparency and accountability. This study aims to analyze the effectiveness of stakeholder management in enhancing project performance, focusing specifically on CDF- road construction projects in Kafue District.

➤ *General Objective*

The primary objective of this study is to critically analyze the effectiveness of stakeholder management in the successful performance of Constituency Development Fund (CDF)-road construction projects in Kafue District. The goal is to provide actionable insights that promote more inclusive, transparent, and efficient stakeholder engagement, ensuring that project outcomes are not only successful but also aligned with the real needs and priorities of the local community.

• *Research Objectives*

- ✓ To establish the current stakeholder management practices in CDF-road construction projects in Kafue District.
- ✓ To assess the effects of stakeholder management on project completion, including time, scope, cost, and quality outcomes.
- ✓ To identify the limitations faced in managing stakeholders during the execution of these projects.

➤ *Research Questions*

- What are the current stakeholder management practices in CDF-road construction projects in Kafue District?
- How does stakeholder management impact project performance in terms of time, cost, and quality outcomes?
- What challenges are faced in managing stakeholders during the execution of these projects?

➤ *Theoretical Framework*

In developing this study, I relied on a theoretical framework a kind of roadmap that brought together key ideas and concepts to help make sense of how stakeholder management shaped the performance of road construction projects in Kafue District (Sekaran, 2003). This framework drew on four well-established theories, each shedding light

on different aspects of the project process and the people involved.

• *Stakeholder Theory*

Stakeholder Theory, first proposed by Freeman (1984), encouraged organizations to look beyond shareholders and consider everyone who might be affected by their work employees, customers, suppliers, and especially, in this case, local communities. For road projects funded by the Constituency Development Fund (CDF), this meant recognizing government agencies, contractors, donors, and residents as important voices. Stakeholder Theory prompted me to think about how bringing these groups together in decision-making could foster a sense of ownership, reduce resistance, and ultimately lead to more successful projects (Freeman, 1984; Aaltonen & Sivonen, 2009). Of course, I also acknowledged its limitations: sometimes it can be hard to prioritize whose interests matter most when they conflict (Jensen, 2002). Still, for this study, it provided a critical lens for looking at how managing these relationships affected project outcomes like timeliness, cost, and quality.

• *Agency Theory*

Agency Theory, developed by Jensen and Meckling (1976), took a different angle. It focused on the relationship between principals (like funders or government officials) and agents (project managers or contractors) who carried out the work. This theory helped me think about issues like accountability and trust: What happens when those in charge and those doing the work don't always have the same goals? Agency Theory suggested ways to address these challenges, such as using contracts, monitoring, and incentives (Eisenhardt, 1989). Though some critics have pointed out that it doesn't always capture the more personal, trust-based sides of these relationships, it still gave me useful tools for understanding oversight and control in the projects I studied (Davis, Schoorman, & Donaldson, 1997).

• *Communication Theory*

Communication Theory, originally from the work of Shannon and Weaver (1949), emphasized how crucial clear and effective information exchange is whether through meetings, reports, or consultations. In the context of road construction, I saw how strong communication could keep everyone informed, involved, and able to prevent misunderstandings or conflicts (Johansen, 2012). While early versions of this theory were a bit too focused on the technical side of communication, its core message about the importance of clarity, feedback, and transparency rang true throughout my research (Craig, 1999).

• *Project Management Theory*

Project Management Theory provided the nuts-and-bolts guidance for running complex projects. Drawing from pioneers like Gantt and Taylor, and modern standards like the Project Management Body of Knowledge (PMBOK), this theory stressed the importance of planning, organizing, and keeping projects on track regarding time, cost, quality, and stakeholder expectations (PMI, 2017; Turner, 2009). In Kafue District, these ideas helped me see how structured management could bring together diverse groups and keep

projects moving forward, even when challenges arose. Together, these theories didn't just shape how I gathered and analyzed data they helped me interpret the real, human dynamics at play in the field, making the study relevant not only to academic readers but to project managers, policymakers, and community members alike.

➤ *Conceptual Framework*

The conceptual framework for this study integrates stakeholder theory and quality management principles to analyze the effectiveness of project stakeholder management

in CDF-road construction projects in Kafue District. It emphasizes identifying and engaging all relevant stakeholders, maintaining open communication, balancing diverse interests, and implementing quality management practices. These steps act as the independent variables influencing project outcomes time, cost, and quality which are the dependent variables. Whilst quality management practices serve as the mediating variable that enhances the relationship between stakeholder management and project outcomes.

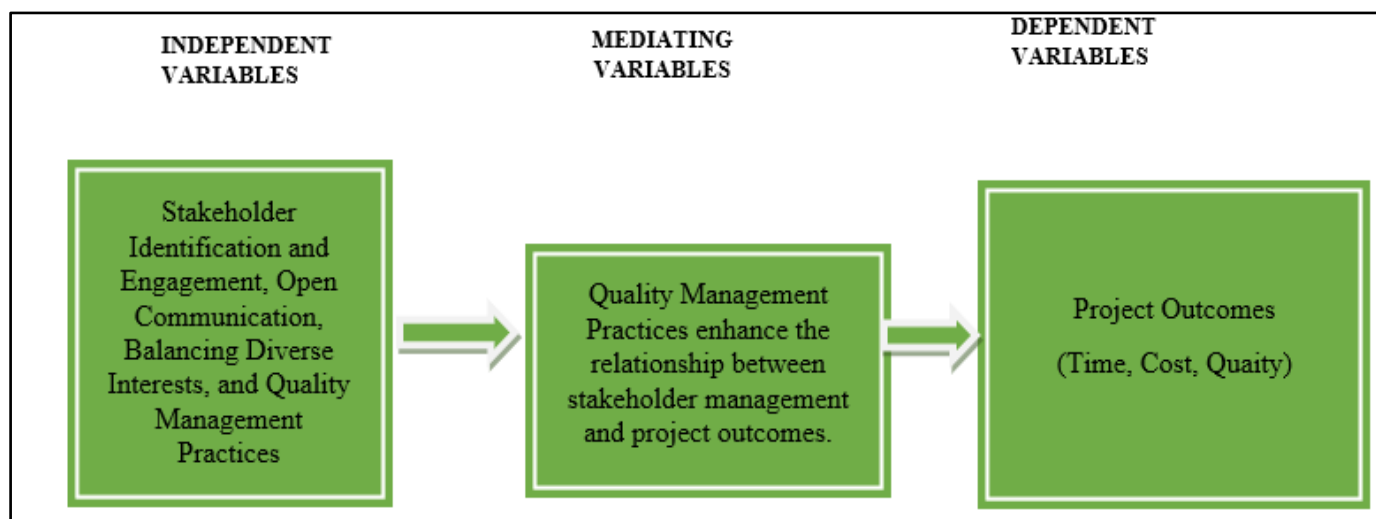


Fig 1 Conceptual Framework of Variables.

➤ *Scope of the Study*

The study focused on Constituency Development Fund (CDF)-funded road construction projects in Kafue District, Zambia, specifically examining stakeholder management practices among local community members, leaders, project teams, and government officials. Using a mixed-methods approach, the research combined qualitative and quantitative data collection to gain comprehensive insights. The scope was limited to projects initiated and funded by the CDF, ensuring findings were relevant to this funding mechanism's unique challenges and opportunities.

II. LITERATURE REVIEW

➤ *Zambian Funded Constituency Development Fund (CDF)*

The Constituency Development Fund (CDF) was established in Zambia in 1995 to enhance local development in both rural and urban areas throughout the nation. The CDF is outlined in Article 162 of the Constitution of Zambia (Amendment) Act No. 2 of 2016 and is implemented by the Constituency Development Fund Act No. 11 of 2018. The legal framework supporting the CDF is further augmented by additional legislation such as the Local Government Act No. 2 of 2019, the National Planning and Budgeting Act No. 1 of 2020, the Public Finance Management Act No. 1 of 2018, and the Public Procurement Act No. 8 of 2020 (Government of Zambia, 2018).

The main objective of the CDF is to provide financial support for development projects driven by the community,

thus meeting local development demands and enhancing citizens' quality of life. The fund is distributed to each of Zambia's 156 constituencies, with funding amounts having seen significant increases in recent times. For example, the budget for 2022 marked a remarkable rise in CDF allocation from K1. 6 million to K25. 7 million per constituency, which was further raised to K30. 8 million in the 2024 budget (Transparency International Zambia, 2022).

The CDF is designed to back a diverse array of projects, such as infrastructure improvement, youth and women empowerment initiatives, and bursaries for secondary schools. The fund's range has been broadened to incorporate additional elements to guarantee thorough local development.

In spite of the heightened funding and broadened scope, the CDF has encountered various obstacles, including irregular disbursement, limited engagement from the community, and insufficient accountability. These challenges have obstructed the effective planning and execution of projects, diminishing the fund's developmental effectiveness. To tackle these issues, the Zambian government has initiated reforms aimed at ensuring timely and responsible disbursements, expanded CDF Committees to facilitate community project identification at the ward level, and delegated project approvals to the provincial level to alleviate bottlenecks (Transparency International Zambia, 2022).

The success of the CDF in fulfilling its objectives relies on appropriate management and the participation of stakeholders, comprising local community members, local leaders, project team members, and government officials. Efficient and effective stakeholder management is vital to guarantee that projects correspond to community needs, are executed punctually, stay within budget, and meet the required quality standards (Transparency International Zambia, 2022).

➤ *Review of Related Literature*

This empirical review examines relevant literature on the effectiveness of project stakeholder management in project performance, particularly in the context of CDF-funded road construction projects. The review also explores quality management practices and their impact on organizational performance.

- *Effectiveness of Project Stakeholder Management*

Stakeholder management is crucial for the successful completion of projects. According to Bryson (2011), effective stakeholder management involves identifying stakeholders, understanding their interests, and engaging them throughout the project lifecycle. This process ensures that stakeholder concerns are addressed, leading to higher levels of satisfaction and support for the project.

In the context of CDF-funded road projects, research by Mouton and Malan (2019) highlights the importance of involving local communities in the planning and execution phases. Their study found that projects with higher levels of community engagement were more likely to be completed on time and within budget. The authors argue that involving stakeholders in decision-making processes fosters a sense of ownership and commitment, which contributes to project success.

Other studies, such as those by Olander and Landin (2005), emphasize the role of effective communication in stakeholder management. Their research indicates that open and transparent communication with stakeholders helps build trust and reduces the likelihood of conflicts and misunderstandings. This, in turn, enhances the overall project performance.

➤ *Challenges in Managing Stakeholders*

Several challenges are associated with managing stakeholders in construction projects. One common issue is the diverse and sometimes conflicting interests of different stakeholders. According to Yang, Wang, and Jin (2014), balancing these interests requires effective negotiation and conflict resolution skills. Failure to address stakeholder concerns can lead to project delays and cost overruns.

Resource constraints are another significant challenge. A study by Chinyio and Akintoye (2008) found that limited resources often hinder effective stakeholder management, particularly in developing countries. The authors recommend allocating specific resources for stakeholder engagement to ensure their effective involvement throughout the project lifecycle.

- *Impact of Stakeholder Management on Project Completion*

The impact of stakeholder management on project completion has been widely studied. As observed by Bourne and Walker (2005), effective stakeholder management enhances project success, a finding consistent with challenges and outcomes in CDF projects in Zambia. In a similar vein, a study by Jepsen and Eskerod (2009) highlights the importance of stakeholder analysis in project planning. Their research indicates that identifying and addressing stakeholder needs early in the project lifecycle contributes to better project outcomes. The authors suggest that incorporating stakeholder feedback into project planning and execution can lead to improved performance and reduced risks.

While stakeholder management is crucial to project success, it is equally important to integrate quality management practices to ensure that the project's objectives are met effectively. In this context, quality management practices contribute significantly to the overall success of a project, as they help maintain the required standards and foster stakeholder satisfaction.

- *Quality Management Practices*

Quality management practices play a critical role in enhancing organizational performance. According to Powell (1995), implementing quality management practices, such as Total Quality Management (TQM), leads to improved efficiency, customer satisfaction, and competitiveness. The study found that organizations with robust quality management systems were better equipped to meet the demands of their customers and achieve long-term success.

In the construction industry, quality management practices are essential for ensuring that projects meet the required standards. Research by Love, Zahir, and Irani (2000) indicates that adopting quality management practices, such as regular audits and continuous improvement, enhances project quality and reduces the likelihood of defects and rework. The authors argue that quality management is not just about meeting technical specifications but also about satisfying the expectations of stakeholders.

Quality management, while fundamental, often requires continuous refinement through strategies designed to improve stakeholder engagement. The next section will explore the various strategies employed to enhance stakeholder management practices, which in turn influence the success of quality initiatives in construction projects.

- *Strategies for Improving Stakeholder Management*

Several strategies have been proposed to enhance stakeholder management practices. Bryde (2003) suggests implementing regular stakeholder engagement meetings to improve communication and collaboration. These meetings provide a platform for stakeholders to voice out their concerns and contribute to project decision-making.

Developing a comprehensive stakeholder management plan is another effective strategy. According to Bourne

(2006), a well-defined plan outlines the roles and responsibilities of stakeholders, establishes communication channels, and sets out the processes for managing stakeholder expectations. This structured approach ensures that stakeholders are effectively managed throughout the project lifecycle. Providing training for stakeholders on project objectives and processes is also crucial. Research by Freeman and McVea (2001) indicates that educating stakeholders about the project can increase their understanding and support. This, in turn, enhances collaboration and improves project outcomes.

Despite these strategies, challenges related to stakeholder engagement and the integration of quality management remain prevalent in construction projects. The next section examines some of the key factors that affect the effectiveness of project management in construction projects, particularly those that influence both stakeholder management and quality management.

- *Factors Affecting Effectiveness of Project Management in Construction Projects*

Multiple elements have influenced Quality Management Practices in Construction Projects. In this review, various factors were identified, including political interference, lack of equipment, access to finance, and a deficiency in technical skills.

- ✓ *Political Interference*

Numerous authors have pointed out that political interference serves as a significant barrier to the fair and transparent allocation of work opportunities (Lu et al., 2019; Nestor and Colleges, 2019; Shah et al., 2014; NCC, 2018; Mashamba, 2018). Politicians occasionally exhibit a preference for specific contractors regardless of the competitive elements (prices, capability, experience, etc.). Political interference was further indicated in cases where many politicians with connections have positioned themselves as contractors and hence influence the awarding process (Ibid). Additionally, some politicians have gained from special tax/VAT relief, leading to unfair competition.

- ✓ *Access to Finance and Credit*

Small Contractors encounter difficulties in obtaining credit and financial resources, making it challenging to fully comply with quality management practices (Lu et al., 2019; Nestor and Colleges, 2019; Shah et al., 2014). Small Scale Contractors also struggle to offer guarantees or bonds for instances such as advance payments. Financial institutions generally view contractors as risky clients, a perception likely worsened by the widely held belief that the Government delays payments. Consequently, the interest rates for the available finance or credit facilities are considered prohibitive. Client institutions have sometimes experienced challenges in the effort to promote work opportunities for emerging contractors, particularly in insisting on the provision of a guarantee against advance payment, as guarantee facilities can be costly and the contractor may lack collateral to secure it (Mashamba, 2018).

- ✓ *Equipment*

Most contractors, especially Small-Scale contractors, find it challenging to access equipment (Lu et al., 2019; Nestor and Colleges, 2019; Shah et al., 2014; NCC, 2018; Mashamba, 2018). A lack of suitable and quality equipment hampers the ability of most Zambian small-scale contractors to implement quality in their ongoing projects (NCC, 2018). The Small Contractor regards leasing and purchasing as unfeasible options due to the associated costs and required collateral. This impacts their ability to deliver quality projects, as hiring equipment often proves unreliable; equipment may not be available during contract negotiations or the hire company could require guarantees or upfront payment, which may be hard to provide given the Small Contractors' limited access to finance and credit (Ibid).

- ✓ *Technical Skills*

The insufficiently qualified personnel required to successfully carry out tasks has hindered the performance of organizational projects, particularly among small-scale contractors (Mashamba, 2018; NCC, 2022). This impacts both those contractors who initially lack adequately qualified personnel to carry out quality road-work projects and those who have received formal training but have had to overextend their staff due to attrition, making it impossible to retain their employees or resulting in some staff managing multiple ongoing projects, therefore assigning untrained personnel to other projects. Additionally, other contractors face difficulties in sourcing skilled personnel, particularly Operators. Hiring these individuals from abroad is not feasible due to the difficulty in obtaining work permits for non-management positions (Lu et al., 2019; Nestor and Colleges, 2019; Shah et al., 2014; NCC, 2018; Mashamba, 2018). This also impacts the quality management of projects across various organizations.

These factors highlight some of the challenges that can affect both stakeholder and quality management in construction projects. However, despite these hurdles, a systematic approach to project management, including clear phases and processes, can help mitigate risks and drive successful project completion. The following section explores into the project cycle, which serves as the structured framework that ensures effective planning and execution in construction projects.

- *The Project Cycle*

The project cycle refers to the series of phases that a project goes through from initiation to completion. This structured framework helps project managers and stakeholders plan, execute, and evaluate projects effectively, ensuring that all aspects of the project are meticulously managed to achieve successful outcomes. The project cycle typically includes the following phases: initiation, planning, execution, monitoring and controlling, and closing (Project Management Institute, 2021).

- *Influence of Quality Management Practices and Leadership on Project Management Effectiveness*

Quality management practices refer to systematic managerial efforts aimed at ensuring the consistent delivery

of high-quality outcomes in project execution. These practices help minimize defects, reduce rework, and lower production costs and delays. Moreover, they foster collaboration, learning, and shared responsibility among team members, contributing significantly to improved organizational and project performance. Gary (2008) emphasized that leadership behaviors, management programs, organizational structures, and external influences significantly shape project performance. Effective leadership requires coordinated efforts, adaptability, and the integration of individual contributions toward shared goals (Kanorio, 2014). Key indicators of improved project performance include reduced costs, employee development, product innovation, adherence to timelines, and enhanced customer satisfaction.

A study performed in Chicago by Stanley and James (2003) indicated that leadership was seen as a result of organizational environmental constraints and variations in leadership. Leadership influence is shaped by leadership qualities, policy direction, and the social environment. The impact of one individual's leadership may be minimal, even if they possess leadership qualities. According to George (2016), the effectiveness of employees is often influenced by the leadership of an organization. Leadership directly affects employee morale. Democratic leaders invite employees to engage in the success of the company and acknowledge their contributions (Morris, Thomas, and Sherry, 2012).

Quality Management practices are shaped by individuals who are either leaders or those being led (followers). Effective leadership results in effective quality management. Consequently, exemplary leadership must be exhibited for effective QM practices to be successfully adopted. Brian and Nicholas (1989) observed that QM leadership is crucial across every department or organizational level. The effectiveness of QM leadership depends on each employee's enthusiasm and visible commitment to the continuous improvement process, rather than their position within the company. The leadership culture is determined primarily by the commitment shown by top management and leaders in an organization. It has been suggested that effective leadership is impacted by leaders' deep engagement with organizational strategy as well as by open communication and collaboration. Implementing QM enhances the overall performance of the organization or project. Issues concerning quality are tied to the effectiveness of management. An increase in problems arising from suppliers, stakeholders, and customers indicates poor management and leadership within an organization. Successful quality management is closely associated with the commitment of top management (Kanorio, 2014). It necessitates that top management's commitment to quality must express the belief that quality will take precedence over costs and that, in the long run, this will lead to improved operational performance and lower operational costs. In every organization, management is tasked with guiding product design and assessing market demands and consumer needs. Management focuses on what is essential for organizations to produce goods or provide services that sufficiently meet consumer needs (Gary, 2008). The

management level plays a significant role in overseeing organizational operations and in the processes of decision-making and resource allocation. Therefore, it is clear that the management team of any organization positively influences human resources, supplier management, and design management.

Faith (2014) highlighted that management leadership is a crucial driver of TQM and greatly impacts the implementation of TQM practices. Management leadership pertains to how management appropriately leads or directs personnel in the organization. Eman (2001) remarked that top management plays a vital role in steering organizational activities towards enhanced performance. Leadership within any organization has the advantage in guiding it to accept and execute TQM. Competitive advantage is derived from people and quality products and/or services, as well as management through quality. Efficient leadership provides a significant competitive advantage to any organization.

Several studies have indicated that the success of any project within an organization is influenced by the relationship between employees and employers. Managers who act as leaders in driving projects within an organization bear the responsibility of ensuring complete project implementation. The collaboration among the workforce dictates whether a project will succeed or fail. Human resource management encompasses employee training and relations, which positively correlate with quality improvement. According to Flynn, Schroeder, and Sakakibara (1995), quality enhancement is attained through the use of quality data and timely reporting. The application of the principle of employee involvement leads to open discussions about problems in the workplace, unhindered sharing of knowledge and experience, performance assessments against targets, individuals taking ownership of their issues, and awareness of the need to engage and understand their roles within the organization (Chang, 2009). Furthermore, effective quality management is influenced by the efficacy of leadership, considering the quality initiatives implemented and the support provided by leadership. Leadership formulates development strategies and operational objectives that impact actual competency. Each management team within an organization should be capable of establishing comprehensive goals and motivating the team to collectively strive towards achieving these goals.

• *Continuous Improvement*

In relation to continuous improvement, Millner and Savage (2016) in the UK undertook a study intended to add to the existing body of knowledge regarding how service-oriented organizations achieve and maintain gradual performance enhancements. The research embraced an interpretive philosophy and an inductive approach, employing a multi-qualitative methodological design. The multi-embedded case study, carried out over a span of three years, permitted a thorough review and deep investigation. The research concluded that numerous challenges were encountered, alongside a diverse array of methods, tools, and techniques that could be integrated within a structured CI program.

Likewise, Jaca et al., (2016) in Spain outlined a readiness program created to enhance employees' awareness of order and cleanliness as a means of establishing the essential groundwork for executing and maintaining continuous improvement processes. The authors suggested a novel readiness program based on the concepts of 5S, aimed at bolstering employees' motivation and engagement before the implementation of 5S. The findings of the authors indicated that the readiness program was executed before the successful implementation of 5S. The level of awareness and motivation of the program participants increased due to these activities (5S). A 5S refers to a workplace organization method characterized by a list of five Japanese terms: seiri, seiton, seiso, seiketsu, and shitsuke.

It serves as the cornerstone of all enhancements and is crucial for establishing a visual workplace. These elements are integral to Kaizen, which constitutes a system of ongoing improvement and a facet of lean manufacturing. The 5S program concentrated on achieving visual order, organization, cleanliness, and standardization. The authors asserted that these actions heightened employees' motivation to engage in improvement activities.

According to Jurburg et al., (2015) in Spain, a study was conducted to evaluate how organizations execute and structure their Continuous Improvement (CI) processes. The research relied on semi-structured interviews with ten high-performing companies in the Basque Country, a northern region of Spain renowned for its business quality. The aim was to scrutinize the status of their CI processes, with particular emphasis on how the organizational structure interfaced with CI processes and the attributes of the corresponding measurement system. The study uncovered that there was a deficiency of company-wide emphasis on CI, scant written documentation of past improvement activities, ambiguous improvement process ownership, and inadequate utilization of effective measurement systems to oversee CI. Nevertheless, it was also observed that the absence of company-wide emphasis on CI indicated that there was limited evidence of prior improvement activities and sufficient measurement systems to oversee CI.

• *Organizational Performance*

Organizational performance - Organizational performance is a complex concept that includes elements such as financial performance and market performance, according to Richard et al., (2009). Psomas, Fotopoulos, and Kafetzopoulos (2013) contended that performance plays a role in offering competitive advantage to organizations amidst fierce market competition. The organization gains an edge over its rivals and achieves superior business results. Their research was conducted with 140 respondents, based on emailed questionnaires from both ISO Certified and non-certified manufacturing companies in Greece. The results of the study indicated that certified manufacturing firms significantly surpassed non-certified ones in terms of product quality, organizational performance, operational performance, market performance, and financial performance. However, that specific study employed both financial and non-financial metrics of performance and, most

notably, was executed in a developed country. Conversely, this study is limited as it centers on perceptual (non-financial) metrics of performance and takes place in a developing country, specifically Kenya, in Kisumu County, thereby creating a knowledge gap that this study aims to address. This also makes this particular study distinctive by focusing on perceptual rather than financial performance metrics.

Another study conducted by Arumugam and Fong (2012) examined the link between total quality management practices (QMP) and organizational performance, particularly aiming at ISO: 2000 certified manufacturing firms in Malaysia. The study involved interviews with quality managers as participants. The findings demonstrated that total QMPs were found to have a partial correlation with the quality performance of the Malaysia ISO: 2000 certified organizations. However, this study concentrates on quality performance metrics utilizing the following selected indicators: product/service level, customer relationships, reliability, productivity, durability, compliance with customer requirements, count of non-conforming products, and number of complaints. The study applied performance metrics that were utilized by prior empirical studies conducted by other researchers; this research will focus on quality management with the goal of providing a potential solution that would enable government institutions to deliver better services for the improvement of the country.

➤ *Review of Related Literature*

Globally quality management is considered a very important factor for the long-term success of an organization (Hansson & Hansson, 2003; Lu et al., 2019). QM implementation has been an important aspect for improving organizational efficiency. The links between quality management practices in project management and performance have been investigated by numerous scholars. According study done Labosa, (2019) on the effectiveness of project management and quality management practices on in moi teaching and referral hospital Uasin gishu county, kenya. The study adopted descriptive survey design since the researcher interacted one on one with the respondent. Data collected using closed-ended questionnaires. The study employed non-probabilistic approach. The results revealed that quality management practices implementation is an important aspect for improving organizational efficiency. The study concluded that effective project management in an organization should be customer centric hence continuously improve its products and service delivery. Valuing clients more increases value of the organization through profitability, cost reduction and increased market share. Thus the relationship between the suppliers and the organization determines the performance of the organization (Labosa, 2019). The study further revealed that leadership influence is determined by leadership qualities, policy direction and social environment and commitment by top management and leaders in an organization determine the leadership culture. Successful quality management is highly linked top management commitment. Continuous improvement was also found to be one of the critical areas of focus in an organization (Labosa, 2019). It entails modern quality staff, skills and practice. An organization should be in capacity to

improve its quality of product and service henceforth minimizing cost burden to the clients. Due to increased competition in the market, continual improvement is necessary strategy to every organisation especially those involved in the management of engineering projects. Lack of continuous improvement in the organisational leadership leads to market share loss to competitors and eventually poor performance. Training among staffs is critical to ensure effective implementation of strategies and continual improvements (Ibid).

Lu et al., (2019) in China conducted a study on the relationship between quality management practices and inter-organizational project performance. The study tested the moderating role of governance mechanism, commitment on the relationship between quality management practices and inter-organizational project performance. Results of 265 valid questionnaires from China indicated that quality management practices contribute to inter-organizational project performance. Contract governance magnifies the positive effect of quality management practices on inter-organizational project performance while the moderating effect of trust is insignificant. It was also concluded that the moderating effect of contract governance indicates a means for strengthening the effect of quality management practices in inter-organizational projects.

The study by Samuel and Mulyungi (2017) had an objective of assessing the effect of quality management on sustainability of public building construction projects in Rwanda. However, Samuel and Mulyungi (2017) reported a low percentage of correlation between the selected quality management variables (legal framework, conformity assessments and Project Management Methodologies) to the sustainability of building projects in Rwanda. Therefore, Samuel and Mulyungi's research did not address the effect of quality management practices on public projects in Zambia.

Further, study by Ibrahim and Daniel (2019) indicated that total quality management is vital to the organizational performance and sustainability following their research which targeted on project management using a Likert scale. The results indicated that there is a strong association between total quality management and project management. However, the research did not address the effect of quality management on Zambian Public Organizations.

Neo et al., (2021) in South Africa conducted a study aimed at analysing the impact of TQM in SMEs' daily operations. The study aimed to achieve the following objectives: (i) to foster an understanding on the effects of TQM adoption on the performance of SMEs; (ii) Clarify the extent of TQM adoption by South African SMEs; and finally (iii) Outline an understanding of the TQM principles which enterprises in South Africa consider important. The study followed a quantitative approach with a purposive sample of 210 SMEs located in the Maboneng district in South Africa was studied, and collected data using questionnaires and analysed using SPSS 25, where measures of central tendencies such as the mean and the average were calculated. Results obtained revealed that many SMEs adopt TQM as a production

philosophy even though not all components of TQM are appropriately applied. However, most companies do not see the need to involve the employees in all aspects of the production, especially if they do not understand the production process. Thus, this Practice is contradictory to the philosophy of TQM and to some of the many studies done in this area topic.

Lawani and Moore, (2016) argued that Public sector project management practices are increasingly becoming an important subject matter for both the project management environment as well as the public sector, due to the demands for improvement in accountability and organizational effectiveness in public organizations. In the study, dual analysed previous studies on project management practices in developing countries government organizations (DCGOs) published in academic journals and/or conference proceedings. It was observed that a majority of the studies applied a positivist methodology, using statistical measures to collect and analyse data. Based on the studies reviewed, the findings suggest that a combination of the factors identified will be required to enhance project management practices in public organizations of developing countries. In addition, it was concluded that an alternative research methodology should be applied to studying project management practices in differing contexts.

Ibrahim et al., (2019) examined the relationship between total quality management practices on project management. The study focused on establish the impact of TQM on project management and the impact of TQM on organizational performance and sustainability. 100 respondents were sampled and Chi-square was used to test the hypothesis. The findings revealed that there is significant impact of TQM on project management. In conclusions, the implementation of quality management systems has increased the profitability, enhanced sales, increased competitiveness and resulted in acquisition of bigger market share, enhanced service delivery. Thereafter it was recommended there is need for management to implement organizational culture change in the organization, Management commitment to quality need to convey the posture, philosophy and actions that total quality management implementation should receive a higher priority in the organization.

Adeoti (2003) examined the gains of application of total quality management in the service industry with particular reference to the commercial banks in Nigeria and also to see how the application of TQM can prevent future threats of distress in commercial banks. Three banks were selected randomly, one to represent each of the three generation banks. The results of the study showed that the quality and quantity of employees employed determine to a very large extent the survival of any bank, also that the application of TQM is not immunity against distress but a preventive mechanism for distress.

Stewart (2011) in Nepal elaborated that Projects are perceived to be a means through which modern societies achieve social and economic ends to generate new values. As

such, having practices that ensure that projects uphold the highest quality possible are critical as they ensure that advancements in the engineering world are attained efficiently and consistently. Similarly, Roseke (2016) argued that project management plan should have a component called a Quality Management Plan which is dedicated to project quality. The Quality Management Plan contains the Quality metrics which will be used to judge the pass/fail criteria. Quality management was as such determined as a control to ensure that a standard is set that could determine the performance of the project. Nyugen, Phan, and Matsui (2018) and Nester (2019) both reported a significant positive impact of Top management support for Quality management, Design for quality, Quality data and reporting, and Continuous improvement in organizations to improved performance in organizations. In Zambia even though some organizations have been implementing quality management practices in project management and producing quality service to enhance productivity. The country has not yet established an adequate system with standards that are able to ensure that public institutions are able to consistently produce quality projects. As such, the research's focus on quality management is aimed at providing a possible solution that would see the government institutions providing good services for the betterment of the country.

According the study done by Chin-Keng, (2011) in China on the practices of quality management, management commitment in quality management, and quality management implementation problems in construction projects in the context of Malaysian construction industry. The findings revealed that o the state of quality management in construction projects in Malaysia needs to be strengthened and there are problems in relation to quality management implementation that require attention and further research.

Hassero, C., (2020) In Kenya conducted a study were he sought to assess the effectiveness of energy sectors quality management systems in response to electrical fire disaster in Kisumu County. Cross-functional management model and Crosby Theory of Quality theories was adopted and guided the study. A descriptive research design was used in the study. Sample size of the study was selected using purposive, census and stratified random sampling from the energy sectors. The study revealed that organizations have not ensured ISO certification requirements in their management systems. That organizations quality management systems were less effective in relation to electric disasters response. Based on this finding, it was recommended that all organization should implement ISO certification requirements on their management systems. Effect their systems through assistance from other organizations with the same role for effective electric disaster management.

Ignatova, (2015) Power quality problems are among the main causes for business downtime, equipment malfunction and damage. The different types of power quality disturbances, their impact on equipment and electric installation, as well as possible mitigation solutions are well known today. However, there are no standards, recommendations or guidelines on how to implement,

manage and continuously improve the power quality in an electrical network. The only discussed on a detailed explanation on the mandatory and specific for the Power Quality Management steps: measurement, analysis and corrective actions.

Shah et al., (2014) The absence of quality regulatory body and the non-availability of local quality standards could not give a clear direction to local construction materials industry an exploratory approach was adopted by studying the available literature to create a quality management framework for building projects and based on these a questionnaire was prepared, which was administered to project engineers, managers, supervising consultants and contractors. The important quality factor for the construction inputs and processes were included in the survey, which was also supported with the interviews of the selected major stakeholders. Quality check lists were developed in consultation with the field staff and actual projects were analysed. The results showed that there an increasing awareness among the major stakeholders but the tools and techniques used for quality control are not reliable and consistent. There is a need to further standardize the procedures and processes as well the inputs for the construction industry in Africa especially developing. It has been observed that quality management practices assist in making effective use of all organisational resources, by developing a culture of continuous improvement. This empowers senior management to maximise their value-added activities and minimise efforts/organisational energy expended on non-value-adding activities. Quality management practice enables companies to fully identify the extent of their operational activities and focus them on customer satisfaction.

➤ *Summary of Literature Review*

Total quality management (TQM) is vital for organizational performance and sustainability, driven largely by customer satisfaction and effective supplier relationships. Leadership behaviors, continuous improvement, adaptable structures, and external initiatives greatly shape organizational success. Strong leadership, clear objectives, and a culture of flexibility are essential for continuous improvement. The chapter also reviewed resource-based and quality improvement theories in project management but notes a lack of research on TQM's impact in Zambian public organizations, especially construction. It concludes that effective quality management in projects is crucial for national development and requires further research.

III. METHODS AND PROCEDURES

➤ *Research Philosophy*

A research philosophy represents a belief about how data concerning a phenomenon should be gathered, analyzed, and used. This study adopted a Pragmatic philosophy, utilizing a mixed-method design. Pragmatism focused on practical solutions to research problems by integrating both qualitative and quantitative approaches. This philosophy enabled the study to gather comprehensive data and provide

a holistic understanding of the research problem (Creswell, 2014).

➤ Study Area

The study was conducted in Kafue District, located in Lusaka Province, Zambia. The district has seen increased implementation of Constituency Development Fund (CDF) projects, particularly in the road construction sector. The selected area was appropriate for the study due to the presence of ongoing and recently completed CDF-funded road projects, which involved multiple stakeholders including local authorities, community members, and contractors. Kafue District is also accessible and provided a relevant context for evaluating stakeholder management practices in project completion.

➤ Research Design

The study adopted a mixed-method design to analyze the effectiveness of project stakeholder management in project completion, specifically focusing on a CDF-funded road project in Kafue District. Exploratory research was suitable since the research scope was unknown and aimed to uncover insights into quality management practices and organizational performance, considering varying results across different regions and social groups (Ponelis, 2015). The mixed-method design allowed for the collection and integration of both qualitative and quantitative data to provide a more comprehensive understanding of the research problem (Tashakkori & Teddlie, 2010).

➤ Target Population

The target population for this case study included project stakeholders such as local community members, local leaders, project team members (engineers, contractors), and government officials (district administrators, ministry representatives). This diverse group provided a comprehensive understanding of effectiveness of project stakeholder management practices and their impact on project completion.

➤ Sample Size

Sample size refers to the number of participants or observations included in a study. It is a crucial aspect of

research design that ensures accurate and reliable findings. The sample size was calculated using the formula known as Cochran's Formula as shown below:

$$n = (Z^2 p (1-p)) / e^2$$

Where:

n = sample size

Z = Z-value (number of standard deviations from the mean corresponding to the desired confidence level)

p = estimated proportion of an attribute present in the population

e = margin of error (desired level of precision)

Thus, to determine the Confidence Level: Choose a confidence level 95% and level (Z = 1.96)

Population proportion (p) = 0.5

Margin of error (e) = 5% = 0.05

$$n = (1.96^2 0.5 (1-0.5)) / 0.05^2$$

$$= (3.8416 0.25) / 0.0025$$

$$= 384.16$$

➤ Sampling Techniques

Sampling, as defined by Kothari (2004), is the process of selecting a small number of individuals to represent a larger population. The target population will be stratified into distinct groups (local community members, local leaders, project team members, and government officials), and a random sample was drawn from each. Stratified random sampling ensured each group was equally represented (Lewis-Beck, Bryman, and Liao, 2004).

Table 1 Respondents Distribution

Stakeholder Group	Estimated Proportion	Sample Size (n)
Local Community Members	50%	192
Local Leaders	20%	77
Project Team Members	20%	77
Government Officials	10%	38
Total	100%	384

➤ Data Collection Methods

Data for this study was gathered using a structured questionnaire designed to capture both demographic characteristics and key research variables. The questionnaire incorporated Likert-scale items ranging from "Strongly Disagree" to "Strongly Agree" to quantitatively assess respondents' perceptions regarding the effectiveness of stakeholder management practices and their influence on successful project completion and performance.

The questionnaire covered three main sections. The first section collected qualitative demographic information, such as age, gender, employment status, household size, educational background, job title, and years of experience. The second section focused on quantitative items measuring the perceived effectiveness of various stakeholder management strategies, including communication, engagement, and feedback mechanisms. The third section

assessed aspects of organizational performance, such as efficiency, employee satisfaction, and goal attainment.

To ensure ethical compliance and respondent comfort, the questionnaire was preceded by a brief introductory note explaining the purpose and significance of the study. Additionally, a consent certificate was included to obtain informed consent from participants, affirming that their participation was voluntary. A confidentiality assurance statement was also provided, clearly stating that all responses would be treated with strict confidentiality and used solely for academic research purposes.

➤ *Other Sources of Data*

Secondary data was gathered from relevant studies in the existing literature to enhance the research findings by providing a broader context and supporting evidence. This approach allowed for the comparison of results across similar studies, helping to validate the current research and ensure its reliability. By analyzing data from well-established sources, this study was able to contextualize its findings within the larger body of knowledge in the field, offering a more comprehensive understanding of the subject matter. The inclusion of secondary data not only strengthened the research but also highlighted trends, patterns, and discrepancies in previous studies, contributing to a more nuanced interpretation of the results.

➤ *Pilot Testing*

A pilot study was conducted to test the feasibility and refine the research instruments (Doody & Doody, 2015). The pilot involved six employees from construction companies in Lusaka, representing 10% of the target population. Data from the pilot was analyzed using SPSS Version 26 to ensure reliability, with Cronbach's alpha values above 0.70 and inter-item correlations between 0.3 and 0.9. Factor analysis confirmed sample adequacy and appropriateness, although pilot data was excluded from the final results (Prescott & Soeken, 1989; Beebe, 2007).

➤ *Reliability Test for Data Collection Instrument*

Reliability was measured to determine the degree to which the research instrument produced consistent results or data after repeated trials (Mugenda & Mugenda, 2003). In this study, reliability was assessed using a test-retest method with a sub-sample of five respondents from the pilot study. Correlations of summated scores administered to respondents on two different occasions were analyzed, and the T-test and correlation results were positively correlated and consistent. The results confirmed that the instrument was reliable. Additionally, the reliability test offered insights into whether the format of the questionnaire needed adjustments. Only minor grammatical errors and omissions were identified, which were subsequently corrected. The data collected from the pre-test exercise was excluded from the study because the pilot study site did not meet the selected study criteria.

➤ *Validity Test for Data Collection Instrument*

Validity refers to the degree to which the research instrument accurately represents what it was intended to measure. This study considered content validity, as described

by Mugenda & Mugenda (2003), which ensures that the data collected represents relevant indicators of the concept being studied. Validity was established by seeking expert opinions from academicians in the field to verify the adequacy of the questionnaire content. The data collection instruments were subjected to supervisor appraisal to ensure clarity. Pre-testing activities were conducted to assess the adequacy of the questionnaire in eliciting relevant responses. Based on pilot study results, the research instrument was considered reliable and suitable for the survey.

➤ *Data Preparation and Analysis*

Data handling and analysis involved editing, coding, and entry into SPSS Version 26.0. Editing ensured that unanswered questions and inconsistencies in the questionnaire were detected and addressed. The data was then cleaned and statistically analyzed using frequency tables, pie charts, bar charts, and inferential methods. Likert-scale data was analyzed using parametric tests. When treated as ordinal data, responses were collated into bar charts, with central tendency summarized by the median and mode rather than the mean. Dispersion was measured using the range across quartiles instead of the standard deviation.

Responses to several Likert questions were summed under the assumption that all questions followed the same scale and that the scale was a reasonable approximation of an interval measure, allowing them to be treated as interval data reflecting a latent variable. Correlation tests were performed between paired questions related to each hypothesis to determine response consistency. Additional correlation analyses in SPSS Version 26 were conducted to evaluate relationships between independent and dependent variables.

➤ *Ethical Considerations*

Ethical considerations in research represent a collection of principles and values that guide responsible conduct (Committee of Publishing Ethics, 2018; Fleming, 2011). These ethical principles help reduce risks to individuals and society while ensuring compliance with accepted research practices.

An introductory letter was obtained from the Information and Communication University (ICU) School of humanities and a clearance letter was sought from the ICU Humanities and Social Sciences Research Ethics Committee before data collection commenced. Several ethical aspects were prioritized to safeguard participants:

- *Confidentiality and Privacy:*

Information obtained from the study was treated with strict confidentiality. Responses were anonymized using codes, and company names were replaced with coded identifiers. Personal information was also anonymized using numerical codes that were securely stored.

- *Privacy:*

Participants' identities were protected throughout the study. Company names were excluded from the questionnaire, and collected information was solely used for research purposes.

- **Transparency:**

The researcher explained the study's objectives and procedures to all participants, enabling informed decision-making regarding participation. Participants were given full disclosure of relevant details.

- **Voluntary Participation:**

Participation was entirely voluntary, with no coercion. Participants had the right to withdraw from the study at any stage without consequences related to employment or evaluations.

- **Risk:**

There were no foreseeable risks associated with participation in this research.

- **Benefits:**

While the study did not provide direct benefits to individual participants, its findings were expected to contribute to improved government policies and public sector management.

- **Compensation:**

No financial or material compensation was provided for participation.

- **Plagiarism:**

To uphold ethical research standards, all external sources, including tables and figures, were appropriately

cited and referenced to acknowledge authorship and prevent academic misconduct.

IV. RESULTS AND DISCUSSION

➤ General Information

This section presents key demographic characteristics of respondents, providing essential insights into the composition of stakeholders engaged in CDF-funded road projects in Kafue District. These attributes play a crucial role in understanding how various factors, such as age, gender, education, and experience, may influence stakeholder engagement and decision-making in project management.

• Age Distribution

The respondents were grouped into four age categories to assess the demographic structure of stakeholders. The data indicates that the majority (35%) fall within the 31-40 years age group, followed closely by those aged 41-50 years (30%). This suggests that the largest portion of stakeholders involved in project management are in their middle adulthood, a stage typically associated with substantial professional experience and leadership capabilities. Meanwhile, younger stakeholders aged 21-30 years (20%) account for a smaller portion, likely consisting of emerging professionals or junior staff. A relatively lower percentage of stakeholders above 50 years (15%) suggests that fewer senior professionals or executives are actively involved in the management of these projects.

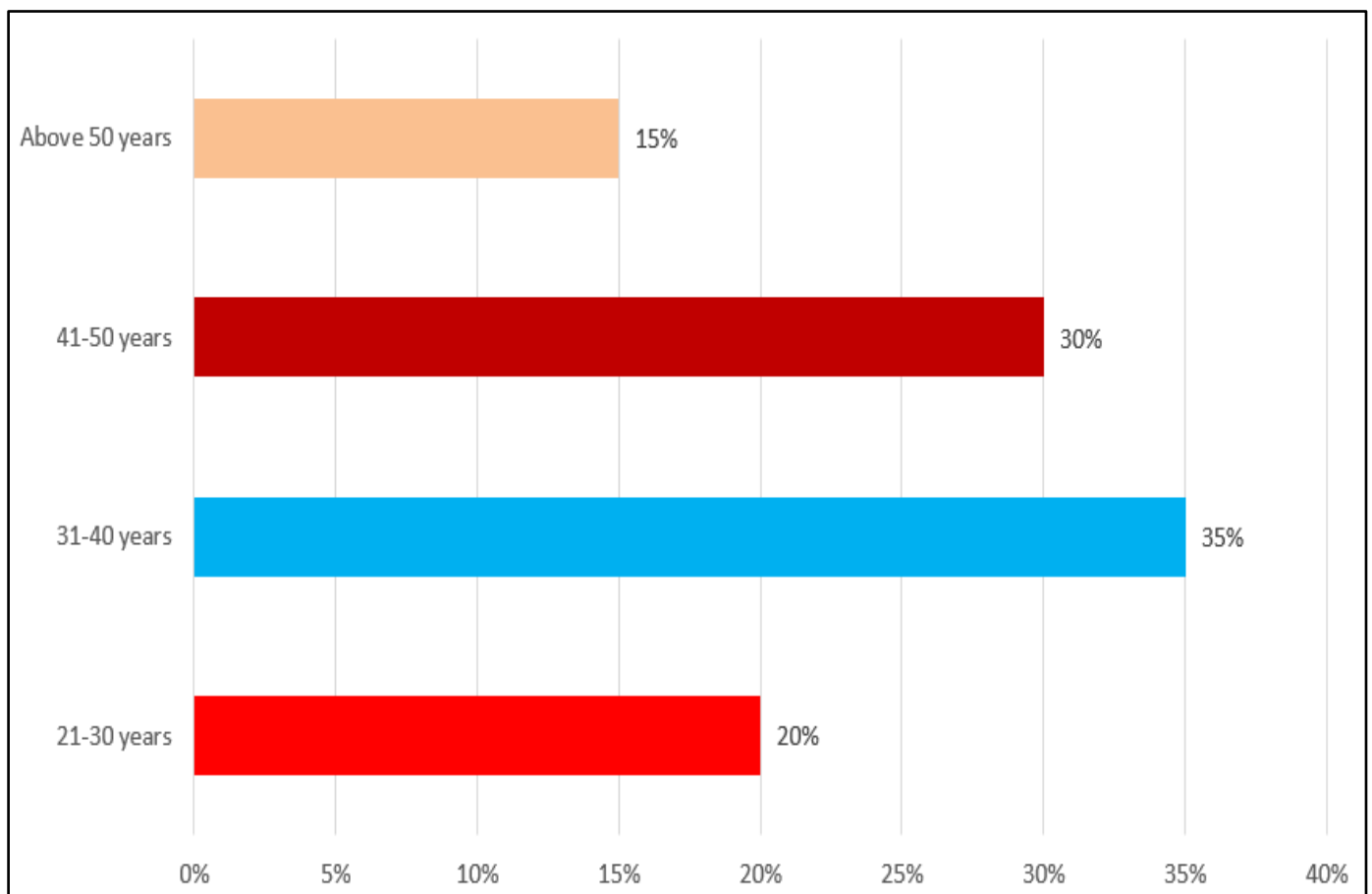


Fig 2 Chart Distribution of the Respondents by Age

• *Gender Distribution*

The study incorporated both male and female respondents to assess the gender composition within organizations managing CDF-funded road projects. The results show a slight predominance of male participants (55%) compared to female participants (45%). This suggests

that while both genders play significant roles in project management, there is a marginally higher representation of males, which may reflect existing workforce trends within the sector. The near balance in gender participation indicates increasing inclusivity in stakeholder involvement.

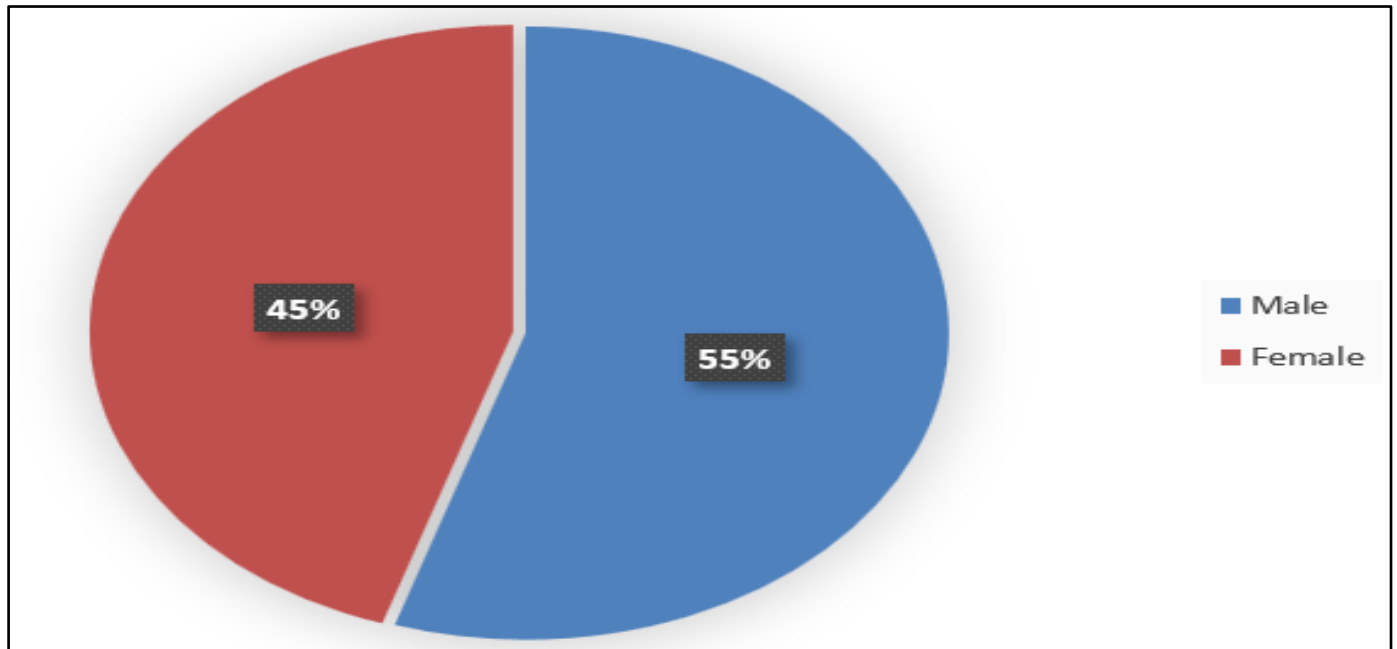


Fig 3 Gender Distribution

• *Level of Education*

The respondents possessed varying levels of education, highlighting the diversity in academic qualifications among stakeholders. A considerable proportion of them hold Bachelor's degrees (35%), followed by Diploma holders (25%), which indicates that a majority of stakeholders have attained formal tertiary education. Additionally, Masters

degree holders (20%) and PhD holders (10%) represent a sizable number of highly educated professionals, likely contributing to advanced decision-making and technical expertise in project management. A small percentage of Certificate holders (5%) and those with other educational backgrounds (5%) suggest that some stakeholders may have alternative forms of training or qualifications relevant to their roles.

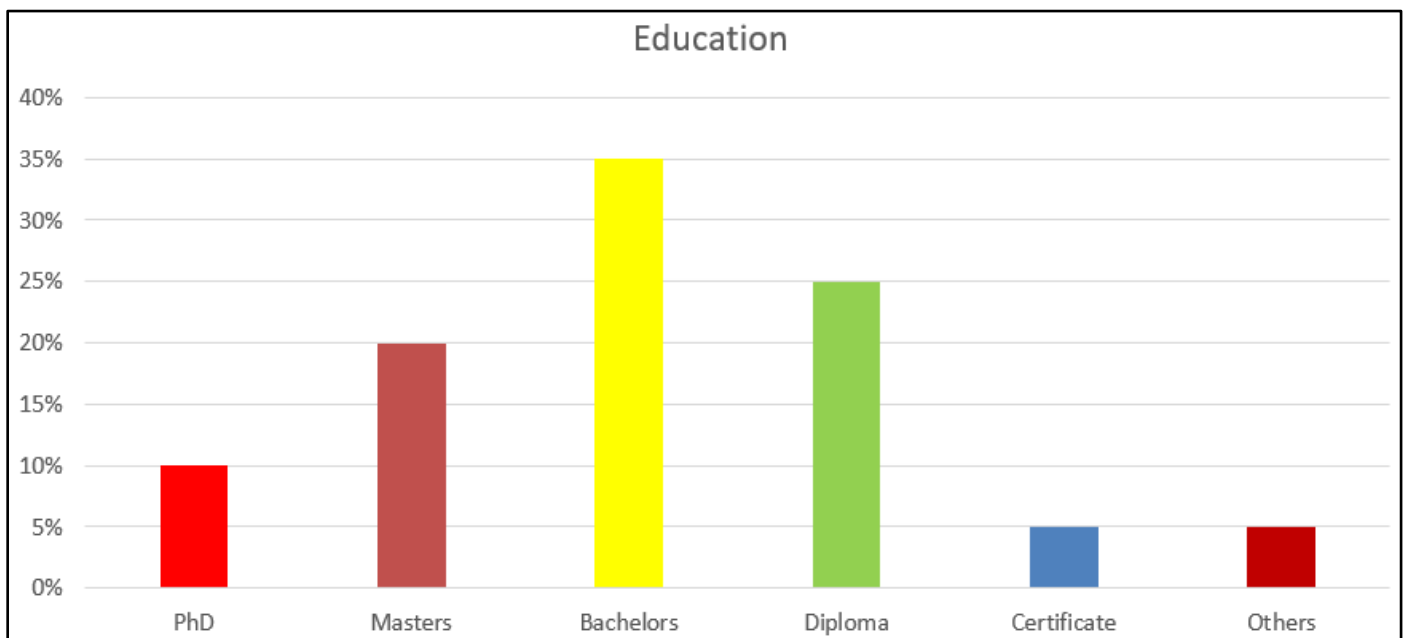


Fig 4 Level of Education

➤ Years in Current Organization

The tenure of stakeholders within their respective organizations provides insight into their level of experience and institutional knowledge. The majority of respondents (40%) have been in their organizations for 3-5 years, indicating a significant portion of stakeholders with mid-level experience, which may contribute to effective project execution. Stakeholders with 6-10 years of experience (30%) form another substantial group, suggesting that a significant number of individuals have long-standing involvement in the industry. Meanwhile, 15% have spent less than 2 years, likely representing newer entrants, and another 15% have been with their organizations for more than 10 years, reflecting institutional continuity among senior members.

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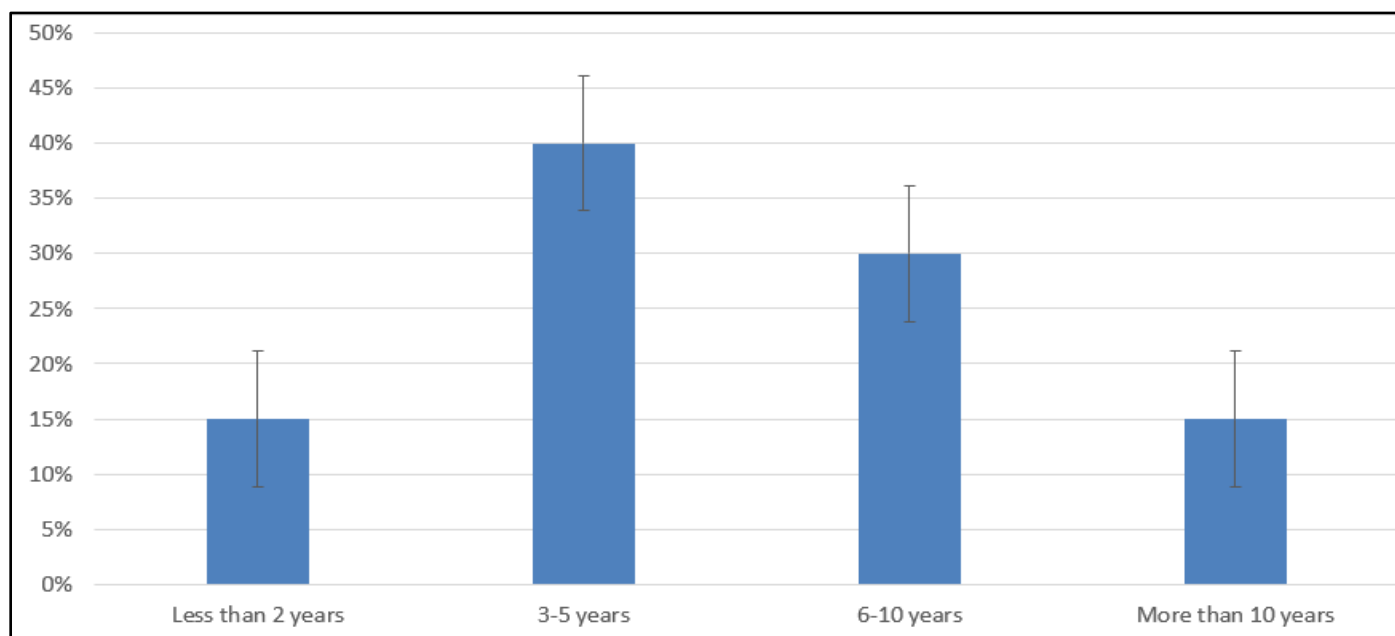


Fig 5 Level of Education

➤ Current Stakeholder Management Practices

The study sought to establish the current stakeholder management practices employed in CDF-funded road construction projects within Kafue District. The study identified a variety of stakeholder management practices currently used in CDF-funded road construction projects within Kafue District. The results, summarized in Table 1, indicate that stakeholder identification at the project start is the most widely adopted practice, reported by 42 out of 50 respondents (84%). Ad hoc communications, such as informal phone calls, are also common, with 38 respondents

(76%) indicating their use. Regular stakeholder meetings are held in 68% of cases, while practices such as the use of public notice boards (52%) and community forums (58%) are moderately prevalent. In contrast, formal mechanisms for gathering stakeholder feedback are reported by only 26% of respondents, and intentional inclusion of marginalized groups is even less common, at 18%. These findings highlight that while some standard practices are well established, there is room for improvement in areas such as inclusivity and formal feedback collection.

Table 2 Stakeholder Management Practices Identified in CDF-Funded Road Projects

Stakeholder Management Practice	Number of Respondents	Percentage (%)
Stakeholder identification at project start	40	80%
Regular stakeholder meetings	32	64%
Public notice boards for updates	25	50%
Community forums/open consultations	28	56%
Stakeholder feedback mechanisms (e.g., surveys/suggestion boxes)	15	30%
Inclusion of marginalized groups	10	20%
Conflict resolution committees	22	44%
Transparent sharing of project documents	18	36%
Ad hoc communications (phone calls, informal)	35	70%

- *Rating Stakeholder Management Practices in CDF-Funded Road Projects*

The analysis of stakeholder management in CDF-funded road projects in Kafue District shows mixed effectiveness. Stakeholder identification is strong (rating 4/5), with key groups involved early. Communication and transparency both receive moderate ratings (3/5), with issues in timely updates and information sharing. Efforts to balance

interests and resolve conflicts are moderately effective (3–4/5), though some groups, such as local businesses, may feel left out. Feedback collection and inclusion of marginalized groups especially women and youth are least effective (rating 2/5) due to low participation and limited input. Overall, while basic processes exist, there is significant room for improvement in inclusivity, communication, and feedback mechanisms.

Table 3 Rating of Stakeholder Management Practices in CDF-Funded Road

Description/Practice Observed	Effectiveness Rating (1–5)
Regular stakeholder mapping at project inception	4
Monthly meetings and written updates	3
Public notices and open forums	3
Consultation with community leaders and local government	3
Grievance redress committees established	4
Suggestion boxes and periodic surveys	2
Invitations to women/youth groups for consultations	2

Effectiveness Rating: 1 = Very Poor, 5 = Excellent

- *Evaluation of Stakeholder Management Practices*

Findings indicate that the majority of respondents believe stakeholders are effectively identified and engaged. 55% strongly agreed, while 30% agreed that the stakeholder identification process is thorough and inclusive. This suggests that project teams implement and execution phases. Regarding communication, 50% of respondents strongly agreed, and 35% agreed that communication throughout the

project lifecycle is open and transparent. This implies that information flow between stakeholders is generally adequate, fostering collaboration and informed decision-making. However, balancing stakeholder interests proved to be more challenging, as only 40% strongly agreed, while 33% agreed that stakeholder interests are managed fairly. A notable percentage (15%) remained neutral, indicating that while efforts are made to address diverse perspectives, some respondents perceive gaps in achieving an equitable balance.

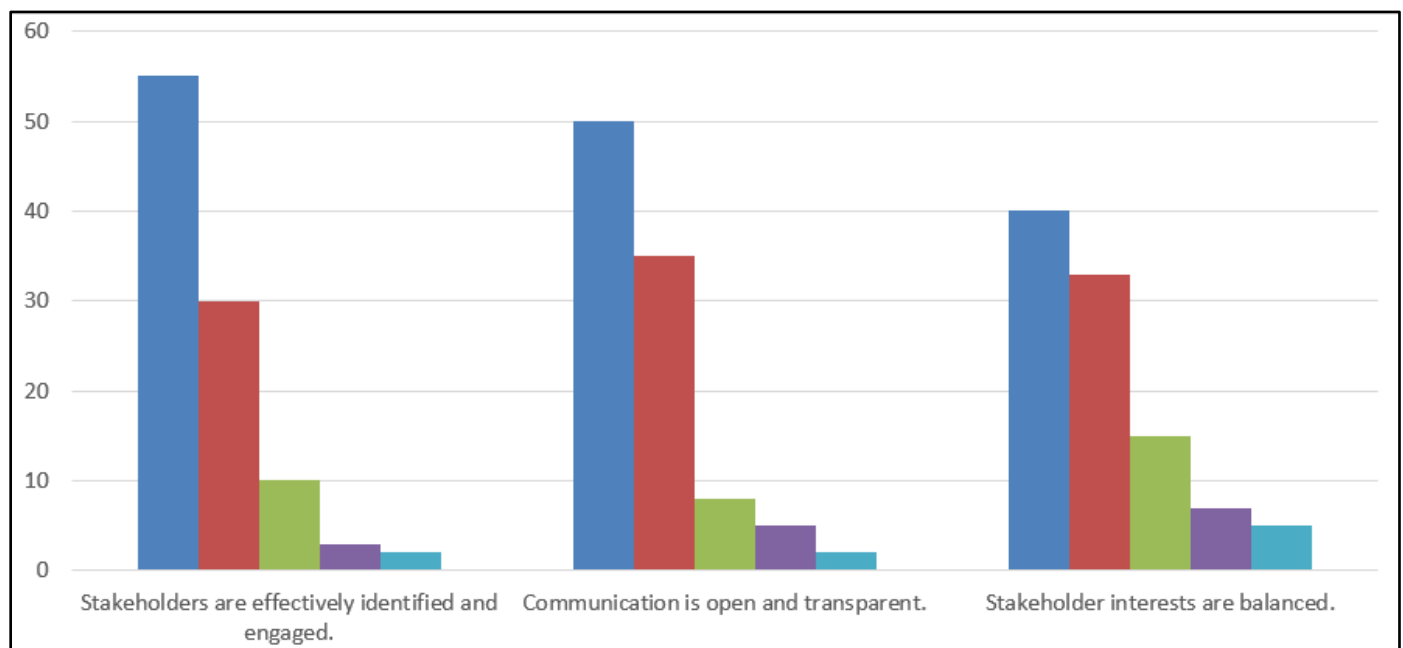


Fig 6 Chat Distribution of Respondents Responses on the Stakeholder Management Practices

➤ *Effects of Stakeholder Management on Project Completion*

- *Perception on Effect of Stakeholder Management on Project Completion.*

The table below shows that 70% of respondents believe effective stakeholder management leads to timely project

completion, with an average effectiveness rating of 4. Positive effects are also noted for project scope (64% positive, rating 3), cost control (56% positive, rating 3), and quality outcomes (62% positive, rating 4). The results highlight that while stakeholder management broadly supports successful delivery, consistent engagement is crucial to maximize benefits across all project dimensions.

Table 4 Perception on the Effect of Stakeholder Management on Project Completion

Effect of Stakeholder Management	Frequency Reporting Positive Effect (n)	Percentage (%)	Average Effectiveness Rating (1–5)
Timely identification and resolution of issues reduce delays	35	70%	4
Clear communication helps maintain project scope	32	64%	3
Early input avoids unexpected costs and budget overruns	28	56%	3
Incorporation of stakeholder feedback improves quality	31	62%	4

Effectiveness Rating: 1 = Very Poor, 5 = Excellent

- Effects of Stakeholder Management**

Most respondents expressed confidence that effective stakeholder management leads to timely project completion, with 63% strongly agreeing and 25% agreeing with this sentiment. This demonstrates that strong stakeholder collaboration minimizes delays and keeps projects on track. Additionally, 58% strongly agreed, and 28% agreed that stakeholder management aids in keeping project costs within budget. Strategic engagement can reduce inefficiencies and

unnecessary expenditures, contributing to financial sustainability. The quality of project outcomes is also positively influenced by stakeholder involvement. 55% strongly agreed, reinforcing the notion that active stakeholder participation leads to better execution and adherence to project specifications. Stakeholder satisfaction was another critical factor, as 60% strongly agreed that effective management fosters trust and enhances overall project success.

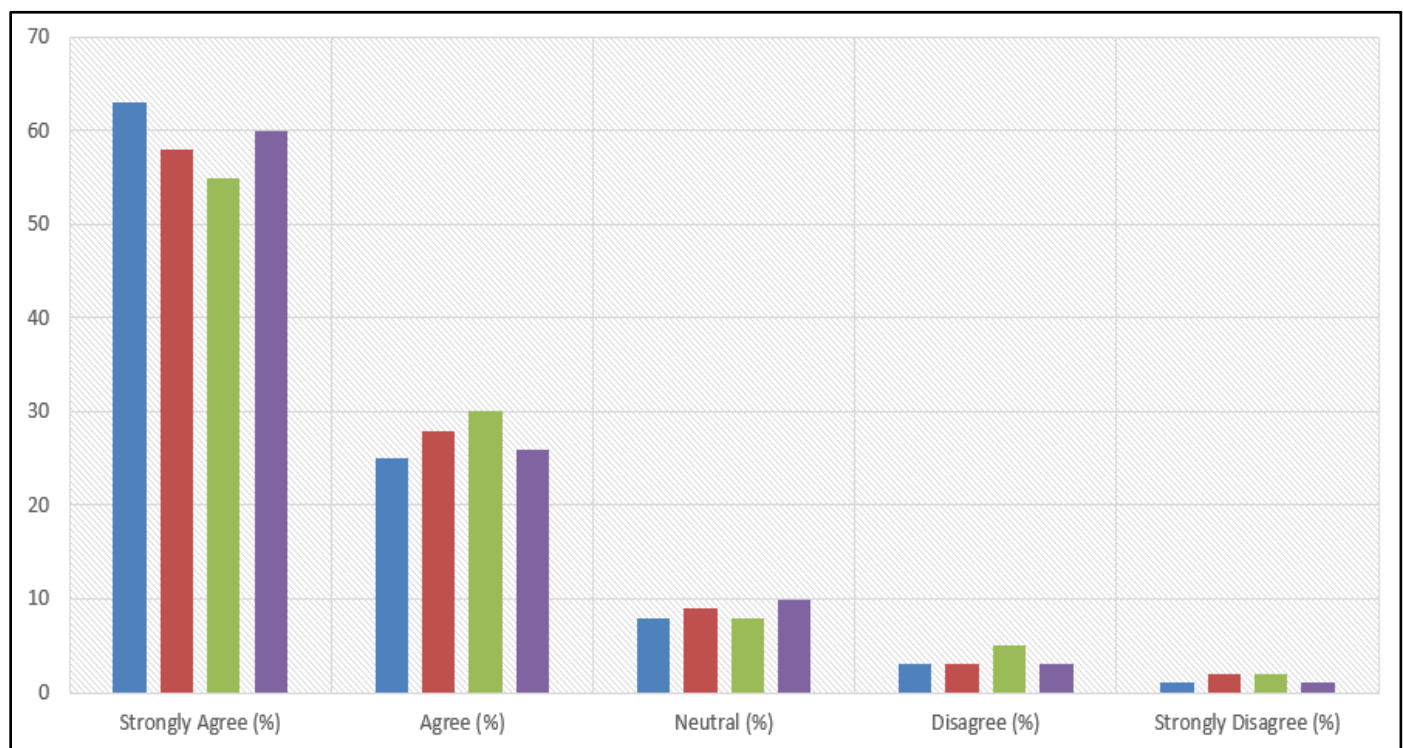


Fig 7 Graph Distribution of the Respondent's Responses on the Effects of Stakeholder Management

- ANOVA Results: Testing Differences Across Key Demographic Variables**

An ANOVA (Analysis of Variance) was conducted to assess whether demographic factors specifically age, education level, years of experience, and gender have a statistically significant influence on stakeholder management practices in CDF-funded road projects. The analysis aimed to reveal how these variables affect key aspects of stakeholder engagement, including the effectiveness of communication, the inclusivity of participation, and the ability to balance diverse stakeholder interests. The findings revealed notable

variations across demographic groups, suggesting that stakeholder perceptions and involvement strategies may differ based on their background and experience. For instance, respondents with more years of experience tended to report greater confidence in managing conflicting interests, while higher education levels were associated with more proactive communication and engagement practices. These insights underscore the importance of tailoring stakeholder management approaches to accommodate the diverse characteristics of project participants, thereby enhancing overall project effectiveness and inclusivity.

- Influence of Age on Stakeholder Management Practices*

Age was found to have a statistically significant impact on stakeholder engagement and communication in CDF-funded road projects. The analysis revealed that stakeholders from different age groups perceive their involvement in projects and the effectiveness of information exchange in distinct ways. Older stakeholders, often with more experience and maturity, demonstrated higher levels of confidence and proactivity in communication, likely due to their familiarity with community development processes and

institutional procedures. In contrast, younger respondents showed varying levels of engagement, which appeared to depend on their exposure to project dynamics, access to information, and opportunities for participation. Despite these differences in engagement and communication, the ability to balance stakeholder interests did not vary significantly across age groups. This suggests that managing competing interests is a common challenge experienced by stakeholders of all ages, pointing to the need for comprehensive strategies that address this issue across the board.

Table 5 ANOVA Results Testing Differences Across Key Demographic Variables

Variable	F-Statistic	p-Value	Significance
Stakeholder Engagement	4.32	0.007	Significant
Stakeholder Communication	3.98	0.012	Significant
Balancing Stakeholder Interests	2.11	0.091	Not Significant

- Influence of Education Level on Stakeholder Management Practices*

Education level plays a critical role in shaping stakeholder engagement and communication within CDF-funded road projects. The analysis indicates that respondents with higher levels of education are generally more effective in interacting with others and in exchanging project-related information. This effectiveness is likely linked to their familiarity with structured project management principles, formal communication practices, and a deeper understanding of development processes. Educated stakeholders are also more likely to comprehend technical project details, follow

procedural requirements, and contribute constructively during consultations or decision-making forums. However, when it comes to balancing stakeholder interests such as negotiating conflicting priorities or facilitating compromise the results showed only marginal statistical significance. This suggests that while education may enhance one's ability to understand and articulate positions, it is not the sole determinant of success in managing diverse stakeholder expectations. Other factors, such as interpersonal skills, cultural sensitivity, and practical experience, also play important roles in navigating the complexities of stakeholder relationships.

Table 6 Influence of Education Level on Stakeholder Management Practices

Variable	F-Statistic	p-Value	Significance
Stakeholder Engagement	5.21	0.003	Significant
Stakeholder Communication	4.87	0.005	Significant
Balancing Stakeholder Interests	2.76	0.061	Marginally Significant

- Influence of Years of Experience on Stakeholder Management Practices*

Years of experience significantly impacted all stakeholder management variables. More experienced stakeholders were found to be more proficient in engagement,

communication, and balancing diverse interests. Their familiarity with project processes and stakeholder expectations enables them to navigate complexities and mitigate potential conflicts more effectively than those with limited experience.

Table 7 Influence of Years of Experience on Stakeholder Management Practices

Variable	F-Statistic	p-Value	Significance
Stakeholder Engagement	6.14	0.001	Significant
Stakeholder Communication	5.72	0.002	Significant
Balancing Stakeholder Interests	4.08	0.013	Significant

- Influence of Gender on Stakeholder Management Practices*

Gender differences did not show a statistically significant impact on stakeholder engagement or communication, indicating that both male and female respondents generally participate in projects and exchange information at comparable levels. This suggests that gender does not inherently influence the willingness or ability to engage in project-related dialogue. However, a significant difference was observed in the area of balancing stakeholder

interests, implying that men and women may approach negotiation, conflict resolution, and decision-making in distinct ways. These differences could stem from varying leadership styles, communication preferences, or the prioritization of stakeholder needs. For example, women may be more inclined toward inclusive and consensus-building approaches, while men might favor more directive or outcome-focused strategies. Such variations highlight the importance of recognizing and valuing diverse perspectives in stakeholder management, as they can contribute to more balanced and equitable project outcomes.

Table 8 Influence of Gender on Stakeholder Management Practices

Variable	F-Statistic	p-Value	Significance
Stakeholder Engagement	2.98	0.082	Not Significant
Stakeholder Communication	3.42	0.065	Marginally Significant
Balancing Stakeholder Interests	4.67	0.018	Significant

• *Chi-Square Results: Testing the Association Between Stakeholder Satisfaction and Project Completion*

A Chi-Square analysis was conducted to examine the association between stakeholder satisfaction and successful project completion in CDF-funded road projects. The results revealed a strong and statistically significant correlation between stakeholder satisfaction and key indicators of project success, particularly timeliness and cost control. Projects where stakeholders were effectively engaged through transparent communication, inclusive decision-making, and responsive issue resolution—were more likely to be completed on schedule and within budget. This suggests that

when stakeholders feel heard and involved, their cooperation and support can lead to smoother implementation and fewer delays or cost overruns. Additionally, while stakeholder satisfaction was also positively linked to project quality, this correlation was only marginally significant. This implies that, although stakeholder involvement contributes to quality outcomes, other factors such as technical expertise, material standards, and supervision practices also play critical roles in determining the overall quality of the completed infrastructure. These findings highlight the multifaceted nature of project success and underscore the importance of maintaining high stakeholder satisfaction as part of a broader project management strategy.

Table 9 Chi-Square Results: Testing the Association Between Stakeholder Satisfaction and Project Completion

Variable	Chi-Square Value	p-Value	Significance
Stakeholder Satisfaction vs. Project Timeliness	13.85	0.002	Sig
Stakeholder Satisfaction vs. Cost Control	9.42	0.015	Sig
Stakeholder Satisfaction vs. Quality Outcomes	6.73	0.056	Not Sig

➤ *Challenges Faced in Managing Stakeholders*

Effective stakeholder management is essential to the success of any project; however, several persistent challenges continue to undermine its effectiveness. Respondents highlighted a range of critical obstacles that hinder smooth and inclusive stakeholder engagement. These include low levels of stakeholder participation, often stemming from inadequate outreach or lack of awareness about the project's relevance to affected groups. Poor communication—characterized by irregular updates, unclear messaging, or exclusion of key stakeholders—was frequently cited as a barrier to building trust and fostering collaboration. Additionally, balancing the conflicting interests and expectations of diverse stakeholder groups proved difficult, particularly in contexts where priorities conflict or where there is no structured mechanism for resolving disputes. Limited financial and human resources further constrained engagement efforts, making it difficult to conduct thorough consultations or sustain dialogue throughout the project lifecycle. Finally, resistance from certain stakeholders, whether due to mistrust, political interests, or fear of change, was identified as a significant challenge that can delay or derail project progress. Addressing these issues requires a more strategic, inclusive, and well-resourced approach to stakeholder management.

• *Challenges in Managing Stakeholders*

The most significant challenge cited was inadequate stakeholder engagement, with 60% strongly agreeing that this issue often leads to conflicts and misunderstandings. 25% agreed, further reinforcing the need for proactive stakeholder participation. Poor communication was another major concern, as 58% strongly agreed, and 30% agreed that ineffective information sharing can result in project delays. This highlights the importance of establishing clear communication protocols to prevent disruptions. Balancing diverse stakeholder interests was acknowledged as difficult, with 53% strongly agreeing, suggesting that conflicting priorities may slow decision-making and complicate project execution. Limited resources emerged as another critical challenge, with 48% strongly agreeing and 35% agreeing that constraints on funds, personnel, and materials hinder efficient stakeholder management. Finally, resistance from stakeholders was cited as a barrier to project progress, with 44% strongly agreeing that reluctance to cooperate or accept decisions negatively impacts outcomes.

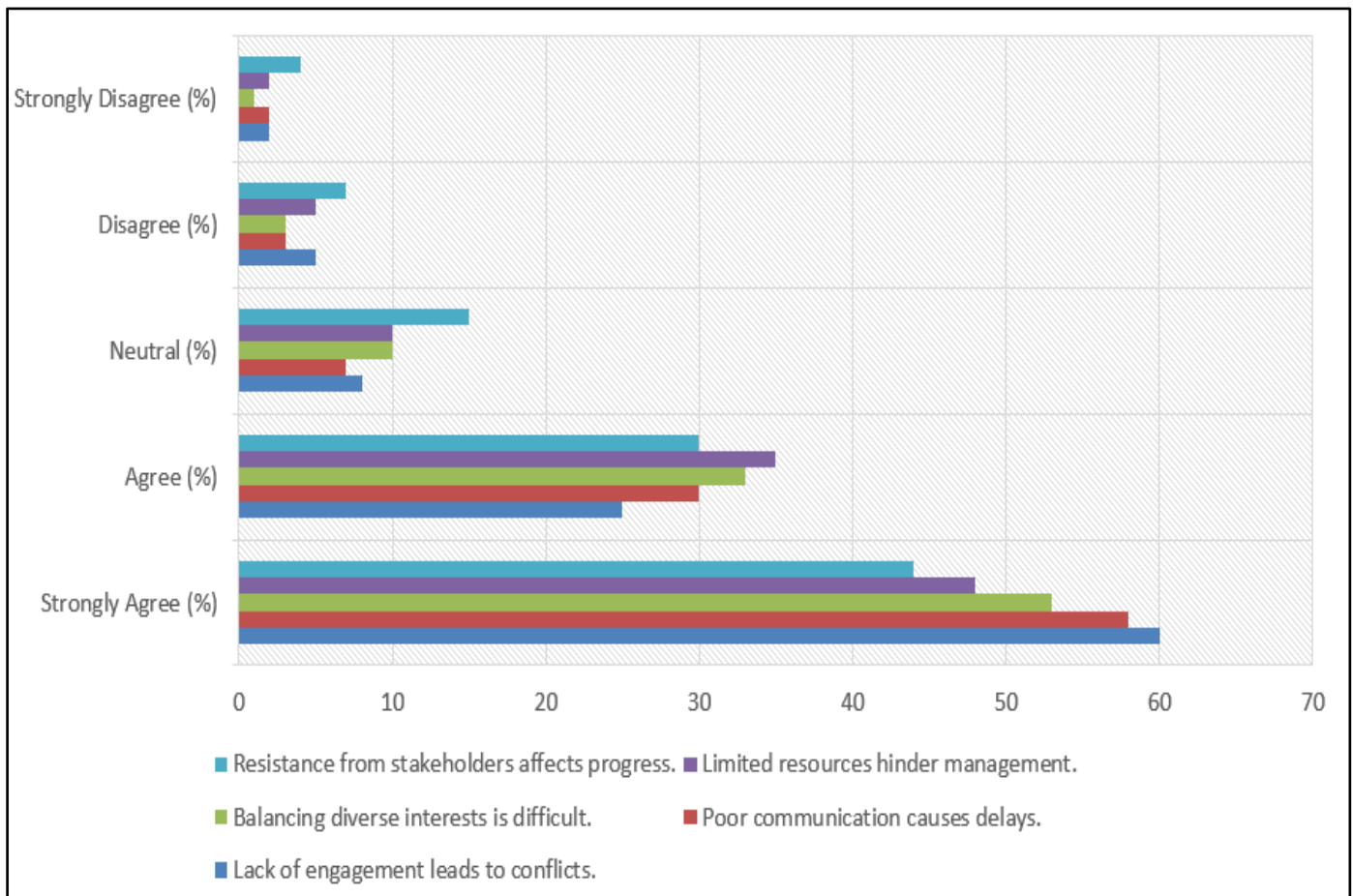


Fig 8 Graph Distribution of the Respondent's Responses on the Evaluation of Stakeholder Management Practices

• Impact of Challenges on Stakeholder Management Effectiveness

To assess the severity of each limitation, respondents rated the impact of these challenges on the effectiveness of stakeholder management. The results, detailed in Table 4, show that limited stakeholder participation, resource

constraints, and political interference have the most severe effects. Communication barriers, lack of transparency, and conflicting interests also meaningfully hinder project progress, while inadequate feedback mechanisms and exclusion of marginalized groups further limit the quality and inclusiveness of stakeholder engagement.

Table 10 Impact of Limitations on Stakeholder Management Effectiveness

Limitation Identified	Average Impact Rating (1–5)
Limited stakeholder participation	4
Communication barriers	3
Lack of transparency	3
Resource constraints	4
Conflicting stakeholder interests	3
Political interference	4
Inadequate feedback mechanisms	2
Exclusion of marginalized groups	2

Impact Rating: 1 = Negligible, 5 = Severe

• Strategies for Improving Stakeholder Management

✓ Strategies for Improvement

Among the strategies proposed, regular stakeholder engagement meetings received the highest support, with 65% strongly agreeing that frequent interaction promotes effective communication and collaboration. Developing a comprehensive stakeholder management plan was another

highly favored strategy, with 60% strongly agreeing that structured approaches enhance project outcomes. On the other hand training stakeholders on project objectives ranked high, with 55% strongly agreeing that increasing awareness improves cooperation and shared decision-making. Finally, establishing clear communication channels was acknowledged by 58% of respondents, highlighting the necessity of minimizing misunderstandings through improved information dissemination.

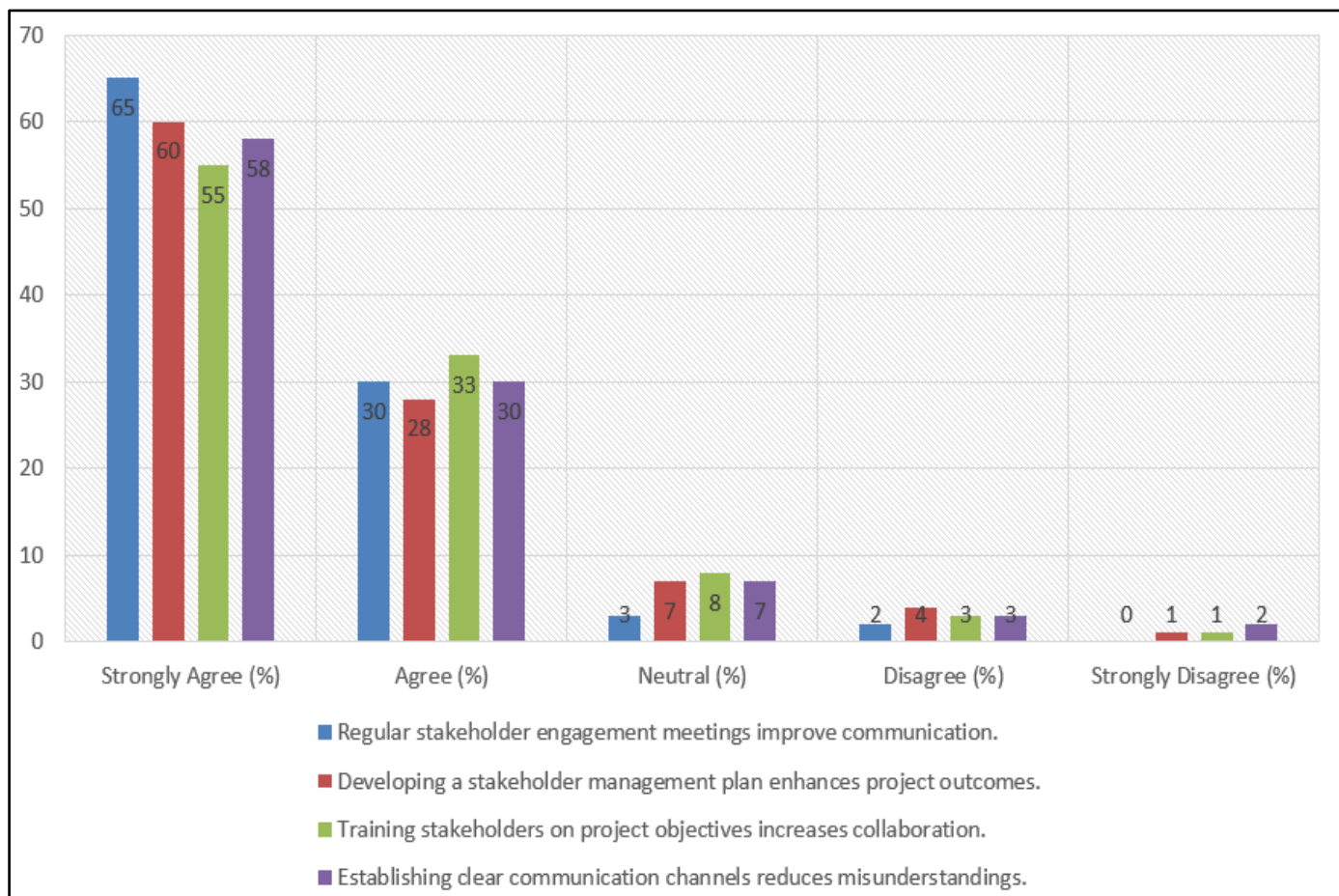


Fig 9 Graph Distribution of the Respondent's Responses on Strategies for Improving Stakeholder Management

➤ Discussion of Research Findings

The management of stakeholders is fundamental to ensuring the successful execution of government-funded infrastructure projects, such as the Constituency Development Fund (CDF) road projects in Kafue District, Zambia. This study measured stakeholder management effectiveness using structured questionnaires and statistical tools, revealing strong correlations between stakeholder practices and a wide array of demographic factors, including age, education, experience, and socioeconomic status. These results underscore the importance of considering stakeholder diversity when devising engagement and communication strategies to ensure project success and inclusivity.

➤ Stakeholder Management Practices

The findings indicate notable gaps in inclusivity, especially concerning marginalized groups like women and youth. While stakeholder identification and general communication are relatively robust, only 18–20% of respondents reported active efforts to include underrepresented groups. This limited inclusion conflicts with Freeman's Stakeholder Theory, which advocates for the engagement of all stakeholder segments to recognize and balance diverse interests, thereby enhancing acceptance and project outcomes. The lack of structured mechanisms for marginalized input in Kafue District deviates from global best practices and undermines project quality.

From a quality management perspective, international standards such as ISO highlight inclusivity and continuous improvement as crucial to service and construction quality. Studies by Harris & McCaffer, Ibrahim, and others reinforce that project success and stakeholder satisfaction are closely tied to effective engagement across all groups. Projects that fail to incorporate vulnerable groups risk lower satisfaction, reduced community ownership, and higher chances of conflict or project failure. Although Zambian policy, as per the CDF Act (2018), mandates participatory approaches, Transparency International Zambia has noted persistent implementation challenges. The findings in Kafue District reflect a gap between policy and practice, especially regarding transparency and equitable participation.

• Stakeholder Effectiveness and Management Practices

Identifying and engaging all stakeholders is key to project success, as highlighted by stakeholder theory. In Kafue District, 55% of respondents confirmed adequate stakeholder identification, and half reported transparency in communication. These outcomes align with Turner (2016) and Bourne (2018), who emphasized early stakeholder engagement to reduce risk and foster cooperation. However, only 40% felt stakeholder interests were adequately balanced, suggesting a need for better negotiation and conflict resolution. Studies by Aaltonen and Kujala (2016) point to rivalry and misalignment as challenges that require structured mediation and stakeholder workshops, promoting a

cooperative environment and ensuring active participation in decision-making.

- *Challenges in Stakeholder Management*

Despite promising stakeholder practices, recurring challenges like insufficient involvement, poor communication, and stakeholder resistance impede optimal project execution. Sixty percent of respondents believed lack of involvement led to conflicts, while 58% cited poor communication as a cause of delays. Mok et al. (2015) argue that poor communication increases project risks and inefficiencies, emphasizing the necessity for proactive engagement. Similarly, 44% attributed project disruptions to stakeholder resistance, often due to distrust or uncertainty. Olander and Landin (2008) support the need for consultation sessions to build trust and maximize cooperation. The findings imply that transparency and stakeholder involvement should be enhanced at all project levels, possibly through community-based decision-making models that align with local needs and expectations.

- *Effects of Stakeholder Management on Project Completion*

Effective stakeholder management directly impacts project completion, cost, and quality. Statistical analysis revealed a strong correlation between stakeholder satisfaction and project timeliness, as well as cost control, supporting Bourne's (2016) assertion that engaged stakeholders help avoid overruns and ensure deadlines are met. However, the correlation with quality outcomes was marginal, indicating that factors such as contractor expertise, material selection, and environmental conditions also significantly influence project quality. Therefore, integrating stakeholder engagement with technical project management is necessary for success.

- *Influence of Demographic Variables*

ANOVA results showed that age, education, and experience significantly affect stakeholder engagement and communication, while gender had minimal impact. Stakeholders aged 31-40 exhibited the highest engagement, consistent with Müller and Turner (2010), who noted that middle-aged professionals often play pivotal roles due to experience and adaptability. Higher education correlated positively with engagement, echoing Nguyen et al. (2018), who found that more educated stakeholders provide stronger strategic input. Experience also enhanced stakeholder management, as supported by Harrison and Freeman (2004). Gender differences were not significant in engagement or communication, but differences in balancing interests were noted, likely reflecting organizational culture rather than inherent ability.

Respondents mentioned that regular engagement meetings, stakeholder training, and structured communication channels to enhance engagement. Karlsen (2002) highlights the value of scheduled discussions for transparency and collaboration, while Eskerod and Huemann (2013) support structured stakeholder frameworks for project sustainability. Training programs were also strongly endorsed, reinforcing the importance of educating

stakeholders to foster collaboration and minimize resistance. Future research should refine strategies for aligning stakeholder interests and reducing disruptions, especially in CDF-funded projects in Zambia.

V. CONCLUSION AND RECOMMENDATIONS

➤ *Conclusion*

The findings of this study highlight the critical role of stakeholder management in the successful implementation of CDF-funded road projects in Kafue District. Demographic factors such as age, education level, years of experience, and gender all influence stakeholder engagement and communication, while stakeholder satisfaction significantly impacts project timeliness and cost control. Despite efforts to ensure effective stakeholder participation, challenges such as resistance to engagement, communication breakdowns, and financial constraints continue to hinder project outcomes. While most stakeholders demonstrate a strong understanding of project objectives and maintain open lines of communication, balancing diverse interests remains a notable difficulty. Addressing these challenges requires structured approaches to stakeholder interaction, enhanced transparency, and strategic engagement efforts to ensure project sustainability. By implementing targeted improvements in stakeholder management practices, project success rates can increase, leading to more efficient and impactful development initiatives.

➤ *Recommendations*

To improve stakeholder management in future CDF-funded road projects, several recommendations are proposed:

- Encouraging active participation through mandatory consultation meetings at key project stages will ensure inclusivity and prevent disengagement.
- Establishing clear and structured communication channels between government agencies, contractors, and community members will minimize misunderstandings and ensure alignment in project expectations.
- Increasing stakeholder awareness through educational programs will help clarify project goals and responsibilities.
- Allocate adequate funding should to stakeholder engagement activities, ensuring that financial limitations do not compromise the effectiveness of participation.
- Creating open feedback mechanisms where stakeholders can express concerns without bureaucratic hurdles will enhance transparency and build trust.
- Awareness campaigns highlighting the benefits of AI can address resistance to change and limited understanding. Additionally, policy frameworks should encourage innovation while supporting SMEs in overcoming infrastructure challenges.

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