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Community Infrastructure Development and Performance of Nunga Neighbourhood Development Project

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Abstract

The study aimed to assess the community infrastructure development and performance of the Nunga Neighborhood Development Project. Specific objectives of the study were; to assess the effect of mobilization on the performance of the Nunga Neighborhood Development Project, to identify the effect of planning on the performance of the Nunga Neighborhood Development Project, and to evaluate the effect of implementation on the performance of the Nunga Neighborhood Development Project. A descriptive research design was adopted to get results related to the study; the target population and the sample size were 105. Census sampling was applied, and the data sources were primary and secondary. The questionnaire was used to collect primary data, and a documentary review for secondary data. The data was analyzed using descriptive statistical analysis using frequency, percentage, mean, and standard deviation, and inferential statistics using Pearson correlation (r) and multiple linear regression analysis. The presentation of findings was done using tables; the pilot test was performed to ensure the validity and reliability of the instrument used in data collection. After collecting data, the following results were obtained; the findings revealed that mobilizing the community influenced the project's performance at a strong positive correlation of 0.892, while participation of the community in planning influenced the project's performance at a strong positive correlation of 0.950. In addition, the results showed that there is a strong positive correlation between community engagement in implementation and the performance of the project at 0.913 (r=91.3%), which affirmed that the ability of a community to participate in implementation led to the performance of the Nunga Neighborhood Development project. The study concluded that mobilizing the community and engaging the community in planning and implementation highly influence the project's performance. The study recommended project developers and managers sensitize the community to participate in infrastructure development projects, and project managers need to encourage community members to participate in financial contributions as well as in controlling the use of project resources.

Keywords: *Community Infrastructure, Development, Performance, Nunga Neighbourhood, Development Project*

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1.1 Background of the Study

Community infrastructure is a complex system of facilities, programs, and social Networks that aims to improve people's quality of life (United Way of Greater Toronto. 2004). Effective community infrastructure development helps neighbourhoods and individuals build assets for long-term success. Investments in basic needs such as Roads for easy accessibility and mobility in the neighbourhood, education, affordable housing, recreation, and social amenities are the building blocks of vibrant and strong neighbourhoods that supplement the physical design of buildings. The community infrastructure of a neighbourhood can be provided by the community within the neighbourhood (internal source of funds) or provided to the neighbourhood by a source that is located or operates from outside of the neighbourhood (external source of funds). However, Community infrastructure needs the active involvement of the people residing in the neighbourhoods. In other words, effective community infrastructure must partner with neighbourhood residents who seek to transform and improve the areas they call home. Community infrastructure may be grouped into six main categories: (1) Connective infrastructure, mainly related to community access and internal circulation, including internal roads, walkways, and footpaths within the community providing access to the national arterial or local road system.

Connective infrastructure provides access to/from communities to the rest of the country; (2) Protective Infrastructures; these are small-scale and low-cost protecting structures built for various community purposes. They include drainage structures, pipe culverts, box culverts, footbridges, retaining walls, protection of slopes, protection walls, or Retaining walls. (3) Socio-Economic Structures; these are small-scale structures developed through local initiatives for a community's sociocultural and economic prosperity. They include small marketplaces and infrastructure within market grounds, including pathways, sheds, drains, community shops, community resource centers, religious centers, graveyards, playgrounds, etc. (4) Water and Sanitation Lifelines; these are minor structures built in the communities in response to their needs for a water supply and sanitation. They may include water reservoirs, water sources, pipes, ponds, the community water supply system, pump houses and deep tube wells, drainage lines, waste disposal, and composting plants. (5) Energy Lifelines; these belong to decentralized household or community-based energy sources and renewable energy plants that cater to the energy needs of remote and isolated off-grid communities. They include biogas plants, solar home systems for electrification, and similar community-driven low-cost technical plants. (6) Communication Lifelines; these are small ICT-based installations in the community, catering to their needs for information, communication, and early warning messages. They may include community telephone centers, community-based early warning systems, communication devices, and community-run radio and communication systems.

Connective Infrastructures or roads are considered the primary elements in the economic development of the country's residents. Generally, road infrastructure plays a crucial role by providing mobility for the efficient movements of people, goods, and services and providing accessibility to land and various commercial and social activities (Meyer & Miller, 2001). The provision of road infrastructure not only lowers the physical barrier by stimulating the movements of people, goods (Motamed, Florax, and Masters, 2014), and services but also improve access to markets, social services, and employment by reducing the overall transportation times and costs. Empirical studies and scientific evidence show that investment in paved roads, especially in countries with shortages of road infrastructure, has been proven to provide an impressive economic return (Canning & Bennathan, 2000).

Shan (2014) stated that Chinese construction companies use proper planning and control techniques, proper coordination between designers and contractors, and technical and professional expertise, which facilitate the company to complete its projects within the planned time and budget. According to Kinaro (2019), in Nigeria, effective community mobilization improves the development of roads due to its big role in the performance of projects where communities contribute financial and human resources leading to the project's success. Lavasseur (2016) showed that construction company in Tanzania is experiencing a lack of trained workforce, poor budget management, and scope creep, and these factors lead to budget overruns and delay in road project performance. PMI (2018) indicated that planning in road development is crucial where procedures and processes are established to determine the total scope of the effort, define and refine the objectives, and develop the course of action needed to achieve those objectives. The objective of the development of the project plan is used to create a consistent, coherent document that can be used to guide project execution and control. The plan should include general plans regarding all areas of the project, such as; project objectives, schedule, and budget, among others. Escribano, Guarsch, and Jorge (2016) revealed that Kenya had numerous small companies serving road development services. These small construction companies failed to capture large-scale infrastructure projects and thus faced difficulties training and retaining good staff and ensuring a high-quality control and business management system.

Atkinson, Waterhouse and Wells (2017) said that the performance of a construction project is assessed by evaluating through project completion time, meeting the budget, meeting technical specifications, and satisfying the client's needs. High project performance is achieved when stakeholders meet their individual and collective requirements. Determination of the performance of road construction projects can be achieved by evaluation of project deliverables against key performance indicators (KPI). These KPIs tell whether the projects are delivered on time, within budget, defect-free, efficiently, right first time, safely, and profitably (Vandevoorde & Vanhoucke, 2012). A developed infrastructure system was one of the pillars to meet the long-run Rwandan economic development objectives stipulated in Vision 2020 and still highlighted in Vision 2050. It is also stated in the Millennium Development Goals (MDGs) that access to infrastructure is expected to play a critical role in poverty alleviation. The government of Rwanda puts more effort into the development of roads to improve the Rwandan standard of life, as the transport sector has proved to be one of the keys to inclusive growth in Rwanda. It is essential to link farmers to their markets. Across Rwanda's region, the density of the road network correlates closely with progress on poverty reduction. Transport is also an important part of the services sector, contributing 7 percent of GDP (African Development Bank, 2012).

Various criteria influence the road development project; planning, implementation, monitoring, and evaluation significantly contribute to the performance of infrastructure development. Opuch (2016) stated that technical capacity, selection criteria, and contractors' financial capacity affected road project completion. Umugwaneza (2019) showed that accountability, effective communication, partnership for planning, and supportive supervision greatly contribute to the sustainability of road projects in Rwanda. Nunga Neighbourhood Development Project is the project developed to make the Nunga site more accessible; the project facilitated the accessibility, transport, and mobility of the residents of Nunga village, where citizens provided their financial contribution to implementing the project through the community-led initiative.

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1.2 Statement of the Problem

The performance of road infrastructure projects is essential for any country's economic growth and development. These projects play a critical role in the economy in terms of wealth creation, provision of employment opportunities, and accessibility of other services. Furthermore, road development highly influences the performance of infrastructure projects. The project life cycle contributes significantly to the performance of projects. However, many studies indicate that project success is less than failed project during the implementation phase; these are more likely to happen in developing countries than in developed countries. For example, the Ministry of Planning in Kenya indicated that most road projects exceeded the completion time from 2-5 years in 2014. Nyabaro (2020) stated that local road projects fail to meet the project schedule due to a lack of public mobilization, poor planning, inadequate funds, and compromising the quality of work done by contractors leading to budget overruns and huge consummation of project scope. The World Bank (2017) examined the extent to which projects funded by IMF and the Dutch government are performed where five counties were considered; the results showed that 43% of projects developed were completed efficiently and effectively, while 57% failed to complete on planned schedule and expected budget.

In Rwanda, the report published by RTDA (2021) showed that 36 % of road projects implemented in informal settlements exceeded the completion time and cost overrun due to ineffective mobilization, poor planning, coordination, monitoring, communication, accountability, and risk management. According to James (2020), urban road development projects are characterized by the poor performance because of poor mobilization, ineffective planning and supervision, and late the community to provide financial contributions during project implementation. Rwanda is characterized by more road development to improve the performance of infrastructure projects, especially road projects. However, some road development projects still need to be within schedule, scope, and planned budget during implementation leading to poor performance. Through the considerations of the above research, there was a gap that needed to be filled; in all research that has been conducted, none was conducted about the effect of community infrastructure development on the performance of the Nunga Neighbourhood development project using the following variables project mobilization, planning and implementation and their effect on the performance of a project.

1.3 Objectives of the Study

i. To assess the effect of mobilization on the performance of Nunga Neighbourhood Development project
ii. To identify the effect of planning on the performance of Nunga Neighbourhood Development project
iii. To evaluate the effect of implementation on the performance of Nunga Neighbourhood Development project

2.0 Literature Review

2.1 Theoretical Framework

The researcher used various theories to support the research as way of strengthening the quality of the study. Theories supported researcher to get adequate information, opinions related to the researchable topics. Various theories helped researcher to improve the quality of study basing on the theories, models and principals developed by previous researchers or scholars.

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2.1.1 System Theory

Bertallanfy (1993) developed the theory of a system; this theory shows that building a system influences the effective performance of the project. Project implementers and the community create a strong system to stimulate the appropriate use of resources. Social systems constitute the organization. Various elements within and around the organization intermingle to influence the way the organization operates and, therefore, strategy implementation (Harold, 2014). The strengthening system between the community and project implementers contributes to the availability of project resources, commitment to project execution, and provision of crucial opinions required to run the intended project. The system theory implies that poor system management will likely fail a project. The skilled, committed communities can participate in the system to speed up the performance of organization operations. Taking the system approach in project implementation helps managers of organizations to have an understanding of the customer, better predict environmental reactions, estimate resource competence, coordinate strategic project activities, obtain Organizational Top Management commitment, estimate time requirements, ability to follow the plan, manage the strategic change and ensure effective communication.

2.1.2 Community Development Theory

Community Development Theory is the most practical framework for social workers seeking lasting change for individuals, communities, and societies where they live. It focuses on the centrality of oppressed people in overcoming externally imposed social problems (Allison Tan, 2009). This theory is community development work as the fact of its definition speaks for itself. The theory could be adapted to other disciplines like Neighbourhood Development. The theory of community development encourages the community to participate in common activities, which improve society/communities to resolve any difficult situation. In the case of infrastructure development, project implementers allow the community to participate in all project life cycles to stimulate performance and create long-term sustainability of the project.

2.1.3 Theory of Constraints (TOC)

Goldratt developed the theory of Constraints (TOC) in his book The Goal. It is an overall management philosophy. Constraint is when the project or task fails to perform at the expected level. “Anything that surrounds an individual or organization from passing toward or achieving its goal” is a constraint. Constraints exist in all working environments. The Theory of Constraints is a term explaining the methodology for showing the most crucial limiting factor (i.e., Constraint) that elaborates on achieving a goal and then systematically improving the Constraint until it is no longer the limiting factor (Haughey, 2016). Any system usually at least has a constraint, such as the weakest part of the system. The system only becomes stronger until it can improve the strength of its weakest side. It has been advised that TOC is applied to project management to enhance performance. Infrastructure projects need good management to attain the satisfied result, including functional satisfaction, completion on time, completion within budget, the satisfaction of beneficiaries, value for money, and health and safety (Lock, 2016). For a successful agricultural project, the following aspects are required: planning, coordination, and control of a project from conception to completion (including commissioning) on behalf of beneficiaries. It is related to the identification of the project’s objectives in terms of utility, function, time, quality, and cost, and the establishment of relationships between resources.

2.1.4 Theory of Change (ToC)

A theory of change is a model that clarifies how a project manager will obtain the expected results or impacts desired on the project beneficiaries (Burt, 2012). Jean, Diana & Avan "describes A theory of change as strategic planning used by project managers to decide to speed up a project or program development and progress. It explains what to evaluate and when and how, so that project and program managers can refer to that feedback to adjust what they do and how they do it to attain the best results. A theory of change methodology will also assist in identifying the way people, organizations, and situations change as a result of an organization's "services or activities, helping to establish models of good practice" (Clist & Morrisey, 2015). Theory of change supports project managers in designing and planning framework in the early stage of the project. The theory of change process improves understanding of project stakes and stakeholders; this helps in thinking through the utilization of resources, planning, implementation, monitoring, evaluation, risk mitigation, and lessons, and increases the awareness of the consequences. Theory of change assists project managers in planning by tracking progress against plans, milestones, and what we expect to happen and how it will be maintained. The theory of change is useful in measuring the outcomes.

Further, the theory of change plays a great role in tracking project deviations, clarifying why deviations happened, and organizing critical activities required to attain project performance. Burt (2012) indicated that the theory of change is applied during implementation to check on quality and thus help the project team to differentiate between implementation failure and theory failure. Burt further states that involving key stakeholders and staff in developing the theory of social change is essential, as it will inspire a sense of ownership between them. Annie (2009) indicated that the theory of change helps an organization to achieve a variety of results that are instrumental in its growth like strengthened organizational capacity through skills, leadership, and staffing; strengthened alliances through improving the level of coordination, collaboration, and mission alignment; strengthened base of support through the grassroots, leadership, and institutional relationships and alliances; improved policy through stages of policy change in the public policy arena, including adoption, implementation, and funding; shift in social norms through the knowledge, values, attitude, and behaviors; changes in impact through the ultimate changes in social and physical lives and conditions.

2.2 Empirical Literature

Empirical literature enabled a researcher to capture the necessary information supporting the research basing on the previous researchers and scholars who conducted the similar or slightly different research in different countries. The empirical literature was formulated through emphasizing on the effect of mobilization, planning and implementation on the performance of infrastructure projects. Empirical literature is structured as follows:

2.2.1 Mobilization and Performance of infrastructure project

Abdalla and Otieno (2019) researched resource mobilization's contribution to road development in Central Karoo District, South Africa. The study aimed to assess the role of the community in the contribution of financial resources needed to complete the road and to examine the community's perception of the provision of physical materials during road development. The study adopted a descriptive research design where frequency, percentages, measures of central tendency, and inferential statistics were considered. Further, the researchers used a population of 943 while a sample size of 451 was taken to complete the questionnaires. Also, the secondary data was

obtained using different documentary reviews like published books and articles, information obtained from the website, and the finished thesis. The findings showed that communities are mobilized to contribute financial resources to successfully develop roads at a strong mean of 4.6 and a low standard deviation of 0.3.

Further, communities are mobilized to support road development projects by providing materials at a percentage of 56% agreed and 43% strongly agreed. The Pearson coefficient correlation showed that resource mobilization influences the performance of road development in Central Karoo District at a strong positive correlation of 0.95. The study concluded that awareness and community in the development of access roads are crucial factors in successfully completing community road development projects. The study recommended that effective collaboration in community infrastructure development reduces the over-consumption of the projects and leads to on-schedule project delivery.

Machogu (2021) assessed the effect of mobilization on the performance of agriculture projects in the Muhanga District, Rwanda, with a case study of the Nyabikenke coffee project. Stratified and random sampling techniques were applied to select the sample of 89 respondents from three cooperatives of coffee. The findings showed that mobilization influences farmers to plant coffee at 72%, while 76% contribute to financial requirements through the mobilization process. The study concluded that the community mobilization approach increases the number of farmers participating in coffee planting. The study advised project developers and sponsors to use an effective community participation approach to get more information about the intended project implementation.

2.2.2 Planning and Performance of infrastructure project

The study conducted by Kadiho, Nyabera, and Kituyi (2021) analyzed the community's contribution to the project's planning and performance, a case study of the National Union of Deaf Project, Kicukiro District. The research used a correlational research design to examine the relationship between the independent and dependent variables. The study emphasized the community's contribution to risk, cost, and time planning. The data was collected using both primary and secondary sources. The purposive sampling process was adopted to get the respondents, where 128 questionnaires were submitted to the selected participants. The findings showed that the community contributes to risk planning at a mean of 4.1% and standard deviation of 0.4, 56% strongly agreed, and 42% agreed that the community participates in cost planning. In comparison, 61% and 38% strongly agreed, respectively community participation in project schedule planning. In conclusion, community involvement in the project planning stage is important to make the project planning phase successful and the project's performance. However, the study showed poor community skills lead to ineffective project planning. Hence, it was advised for project managers to train community members to ensure the right people are participating in the project life cycle.

Njue and Chandi (2019) studied the role of the community in the planning and performance of agriculture projects in Rwanda, a case study of terraces projects in the Kibangu Sector. The objectives were to determine how the community participated in the terraces' project monitoring and evaluation, the selection area that needed to be traced, and how risk would be managed. The sample of 12895 populations was considered from 6 cells of the Kibangu sector while the sample size was 3169 respondents, including the project team, local leaders, and community (end users). The quantitative and qualitative method was applied to get the needed information from the target

respondents. The findings showed that 61% of respondents revealed that the Terraces' project in Kibangu Sector failed to meet beneficiaries' needs due to a lack of community participation; 42% said that the rapid rural appraisal approach used during the implementation of the Terraces' project is the cause of the poor performance of the project. In conclusion, the study concluded that lack or poor community involvement in project implementation increases the probability of project failure even if more financial resources have been invested. The study calls on project developers to make effective community involvement in all project phases.

2.2.3 Implementation and Performance of infrastructure project

The study by Mburu (2017) studied the effect of the community on the implementation of road development in Zanzibar. The purpose of the study was to assess the community's practices during road project implementation. The research design utilized was descriptive and a case study to get the expected results. The population, as well as the sample size, was 347 and 159, respectively. The data collection instruments used to gather information were questionnaires and documentary reviews. The findings showed that the communities contribute to the implementation of road development in the following responses, 83% of respondents indicated a financial contribution, and 68% of total respondents revealed that the community contributes to the monitoring and evaluating of road construction projects. Finally, 73% of respondents asserted that the community influences the performance of road development projects through the provision of materials. The findings concluded that more practices performed by the community lead to the achievement of project outcomes. The study recommended that project managers take the community as the key stakeholder; this will make the community take care of the constructed road as well as long run sustainability of the project.

As conducted by Maendo, James, and Ngugi (2018) about the effect of community on the risk management and sustainability of road projects in Australia, the study focused on the community's involvement in risk identification, risk mitigation, and responses. A descriptive research design was used as a research design. The population was 506, while the sample size was 231, selected from contractors, the project team, and the community. Both probability and non-probability sampling techniques were applied; the stratified random sampling method was used to select the participants from the community, and judgment sampling for contractors and the project team. The data were analyzed using descriptive statistics, measures of central tendency, and inferential statistics. The findings showed that the community was involved in risk identification at a mean of 3.8 with a standard deviation of 0.8.

Burke (2016) assessed the influence of community implementation on the performance of projects in Uganda; the specific objectives were to determine the financial contribution on the performance of the socioeconomic projects, to establish the influence of communication on the performance of the socioeconomic projects, and to examine the community supervision on the performance of the project. The methodology used was descriptive research design using frequencies, percentages, mean, and standard deviation. The data collection instruments were questionnaires and documentary reviews, while the sampling techniques adopted were probability and non-probability sampling methods. In probability sampling, research utilized stratified random sampling, whereas snowball sampling was a non-probability process. After data collection and analysis, the results showed a strong positive correlation between community implementation and the project's performance at an extent of 91%. In comparison, 45% of the respondents strongly agreed, and 52% agreed that community involvement contributes to the project's performance. In

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conclusion, research revealed that community members perform more activities during project implementation leading to the successful completion of the project.

2.3 Conceptual Framework

A conceptual framework is a synthetization of integrated components and variables, which helped in capturing and solving a real-world problem. It is analytical tool used for viewing the deductive resolution of an identified issue. In this research, Conceptual Framework that guides researcher is shown in Figure 1.

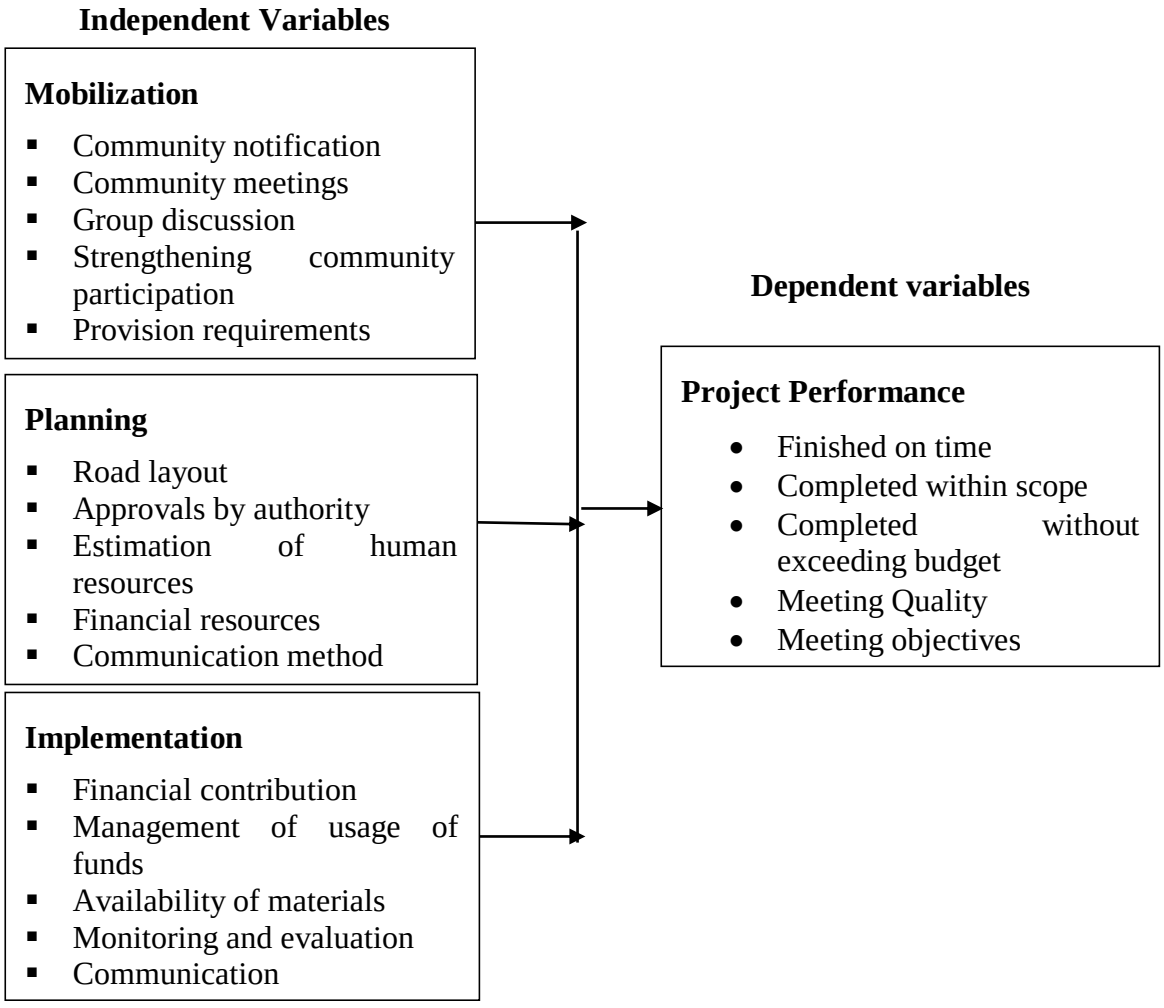

Figure 1: Conceptual Framework

3.0 Research Methodology

The study was qualitative and quantitative methods through quantitative approach research; the researcher used descriptive statistical elements such as frequencies, percentages. On the other hand, measures of central tendency were used as a statistic that represents the single value of the entire population or a dataset. Lastly, inferential statistics by the use of Pearson correlation (r) and multiple linear regression analysis was applied as the way of testing effect of independent variable

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on the dependent variable. The target population was 105 participants composed of 6 managers, 3 participants from finance department, 2 environmentalist's analysis, 4 monitoring and evaluators, 7 engineering specialists and 83 community representatives. The population was obtained from Urban Planning and Civil Engineering (UPCE) Consult Ltd who designed and implemented Nunga Neighbourhood Development Project. The study used census approach and the sample size was 105 which is the same as the target population. Both primary and secondary data were employed in the study.

4.0 Research Findings and Discussion

The results showed that male is greater than women due to female are more likely to be less than men in construction projects, this has relation with the culture and traditional way of thinking where women are likely to be not involved in construction works or heavy works.

4.1 Presentation of Findings

Each objective was handled chronologically as presented in chapter one of this research.

4.1.1 Descriptive Statistics for the Effect of Mobilization on Performance

This part provides responses related to the of mobilization on the performance of Nunga Neighbourhood Development project, responses were analyzed using Likert scale ranging from Strongly Disagreed to strongly Agreed, mean and standard deviations were also used.

Table 1: Descriptive Statistics for the Effect of Mobilization

Responses	SD	D	A	SA	Mean	St. Dev
Notifying community to participate in project preparation influence performance of project	3.8	6.7	49.5	40.0	3.25	.74
Encouraging community to attend project meetings contribute to the performance of project	2.9	4.8	53.3	39.0	3.28	.69
Group discussion has effect on the performance of project	1.9	8.6	52.4	37.1	3.24	.69
Strengthening community participation improve performance of project	4.8	9.5	50.5	35.2	3.16	.78
Mobilizing community to provide requirements contributes to the performance of project	1.0	12.4	48.6	38.1	3.23	.70

In Table 1, the study was interested in knowing whether notifying community to participate in project preparation influence performance of project. The findings showed that 40.0% strongly agreed and 49.5% agreed the statement. However, 6.7% disagreed and 3.8% strongly disagreed the statement, the respondents agreed the statement at strong mean of 3.25 and standard deviation of 0.74, this result confirmed that respondents agreed the statement. Researcher asked the respondents whether encouraging community to attend project meetings contribute to the performance of project, the results showed that majority of respondents agreed at 53.3% and 39.0% strongly agreed. Even though majority of respondents agreed, few of them disagreed at 4.8% and 2.9% strongly disagreed, furthermore results showed that respondents agreed at mean of 3.28 and standard deviation of 0.69. The results confirmed that encouraging community to attend project meetings enhance performance of project.

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The researcher asked the respondents whether group discussion has effect on the performance of project. The findings revealed that 37.1% strongly agreed and 52.4% agreed. Contrary, 8.6% disagreed and 1.9% strongly disagreed the statement while respondents agreed at mean of 3.24 and standard deviation of .69. Concerning to the strengthening community participation improve performance of project, the following responses were obtained 35.2% strongly agreed and 50.5% agreed. However, some respondents refused the statement, 9.5% disagreed and 4.8% strongly disagreed the statement, meanwhile statement was confirmed at mean of 3.16 and standard deviation of .78. The study established that Mobilizing community to provide requirements contributes to the performance of project at agreement of 38.1% strongly agreed and 48.6% agreed. Contrary, 12.4% disagreed and 1.0% strongly disagreed the statement. On the other hand, respondents agreed at mean of 3.23 and low standard deviation of .70.

4.1.2 Descriptive Statistics For the effect of Planning on performance

This part indicates the effect of planning on the performance of Nunga Neighbourhood Development project. The researcher asked this question to assess how community participation in planning influences performance of infrastructure project.

Table 2: Descriptive Statistics for Planning

Responses	SD	D	A	SA	Mean	St. Dev
Community participation in road layout planning influence performance of project	13.3	17.1	43.8	25.7	2.81	.96
Planning how local authority will approve implementation of road lead to the performance of project	8.6	15.2	46.7	29.5	2.97	.89
Suitable human resources estimation influences performance of project	7.6	11.4	48.6	32.4	3.05	.86
Effective financial resources planning enhances performance of project	7.6	8.6	50.5	33.3	3.09	.85
Appropriate communication plan contributes to the performance of project	10.5	15.2	45.7	28.6	2.92	.92
Risk management planning leads to the performance of project.	5.7	16.2	47.6	30.5	3.02	.83

In Table 2, Concerning to the community participation in road layout planning influence performance of project, 25.7% strongly agreed and 43.8% agreed whereas 17.1% disagreed and 13.3% strongly disagreed the statement. Also, respondents agreed the statement at mean of 2.81 and standard deviation of 0.96. Further, planning how local authority will approve implementation of road lead to the performance of project at agreement of 29.5% strongly agreed and 46.7% agreed. However, few respondents refused the statement where 15.2% disagreed and 8.6% strongly disagreed the statement. In addition to, respondents agreed at mean of 2.97 and .89 standard deviations.

Research interested in knowing whether suitable human resources estimation influences performance of project. the following results were obtained, 32.4% strongly agreed and 48.6% of the respondents agreed the statement. On the other hand, 11.4% and 37.6% disagreed and strongly

disagreed respectively. Further, results showed that respondents agreed ant mean of 3.05 and standard deviation of .86. When research asked respondents whether effective financial resources planning enhances performance of project, the results showed that majority of respondents agreed at 50.5% and 33.3% strongly agreed the statement. However, few respondents were in disagreement angle at 8.6% disagreed and 7.6% strongly disagreed the statement. The responses had strong mean of 3.09 and low standard deviation of .85, the results confirm the statement highly.

The researcher was interested in knowing whether appropriate communication plan contributes to the performance of project. The satisfactory results were obtained by researcher, 28.6% and 45.7% strongly agreed and agreed respectively with the mean of 2.92 and standard deviation of .92. Although majority of respondents agreed, few of respondents refused at 15.2% disagreed and 10.5% strongly disagreed the statement. Last but not least, the respondents affirmed that risk management planning leads to the performance of project at significance results due to majority of respondents agreed at 30.5% strongly agreed and 47.6% agreed, the responses had mean of 3.02 and low standard deviation of .83. Oppositely, 16.2% disagreed and 5.7% strongly disagreed.

4.1.3 Descriptive Statistics for the Effect of implementation on performance

This subsection shows the information related to the effect of implementation on the performance of Nunga Neighbourhood Development project. The findings were analysed using percentage, mean and standard deviation.

Table 3: Descriptive Statistics for the Effect of implementation

Responses	SD	D	A	SA	Mean	St. Dev
Financial contribution improves performance of project	2.9	10.5	48.6	38.1	3.21	.74
Proper management usage of funds influence performance of project	3.8	7.6	49.5	39.0	3.23	.75
Availability of materials speed up performance of project	4.8	11.4	46.7	37.1	3.16	.81
Community participation in monitoring and evaluation raise performance of project	3.8	8.6	52.4	35.2	3.19	.74
Effective implementation among project team has impact on the performance of project	1.9	12.4	51.4	34.3	3.18	.71
Reporting process influences performance of project	8.6	9.5	48.6	33.3	3.07	.87

In Table 3, Concerning whether financial contribution improves performance of project, the following responses were given by respondents 38.1% strongly agreed and 48.6% agreed. Although, 10.5% disagreed and 2.9% strongly disagreed the statement, the mean of respondents was 3.21 and standard deviation of .74. Furthermore, researcher asked whether proper management usage of funds influence performance of project, the following responses were provided by respondents, 39.0% strongly agreed and 49.5% agreed while the stamen had mean of 3.23 and low standard deviation of. 75. However, 7.6% chose disagreed and 3.8% selected strongly disagreed. Researcher sought to find out whether aavailability of materials speed up performance of project, 37.1% strongly agreed and 46.7% agreed, the findings had mean of 3.16 and standard deviation of .81. Oppositely, 11.4% disagreed and 4.8% strongly disagreed the statement.

The research asked the respondents to indicate whether community participation in monitoring and evaluation raise performance of project, the significance results were observed by researcher,

35.2% strongly agreed and 52.4% agreed with satisfactory mean of 3.19 and standard deviation of .74. However, few of respondents were disagreed at 8.6% and 3.8% strongly disagreed the statement. When researcher asked respondents whether effective implementation among project team has impact on the performance of project, the following responses were obtained, 34.3% and 51.4% strongly agreed and agreed respectively followed by strong mean of 3.18 and standard deviation of .71. Contrary, 12.4% disagreed and 1.9% strongly disagreed the statement. Finally, respondents revealed that reporting process influences performance of project, 33.3% strongly agreed and 48.6% agreed. On the other hand, respondents agreed at mean of 3.07 and standard deviation of .87. Even though, majority of respondents agreed, 9.5% disagreed and 8.6% strongly disagreed the statement.

4.1.4 Descriptive Statistics for Performance

This section provides results related to the community infrastructure development and performance of Nunga Neighbourhood Development project. The performance of project was examined using respecting schedule, budget, meeting scope and project objective. The research displayed the results in below table.

Table 4: Descriptive Statistics for Performance

Responses	SD	D	A	SA	Mean	St. Dev
Delivered on time	9.5	16.2	42.9	31.4	2.96	.93
Completed within scope	7.6	12.4	45.7	34.3	3.06	.87
Completed without exceeding budget	6.7	15.2	41.0	37.1	3.08	.88
Meet Quality	1.9	13.3	45.7	39.0	3.21	.74
Meeting objectives	3.8	12.4	44.8	39.0	3.19	.79

In Table 4, the researcher was interested in knowing whether project is delivered on time, majority of respondents agreed at 31.4% and 42.9% strongly agreed with mean of 2.96 and standard deviation of 0.93. On the other hand, 16.2% and 9.5% disagreed and strongly disagreed the statement. Also, the study revealed that project ccompleted within scope at agreement of 34.3% strongly agreed and 45.7% agreed with strong mean of 3.06 and standard deviation of .87. However, 12.4% disagreed and 7.6% strongly disagreed the statement. The respondents indicated that project ccompleted without exceeding budget as indicator of project performance at 37.1% strongly agreed and 41.0% agreed with highest mean of 3.08 and standard deviation of 0.88, the results indicates strong agreement of respondents. However, 15.2% chose disagreed and 6.7% selected strongly disagreed. Furthermore, project meet quality as indicator of good performance of project, results showed that 39.0% of respondents chose strongly agreed and 45.7% agreed while respondents agreed at mean of 33.21 and standard deviation of 0.74.

However, low disagreement results were obtained, 13.3% disagreed and 1.9% strongly disagreed the statement. At the end, researcher asked whether meeting objectives clarifies performance of project, the results showed that 44.8% of the respondents agreed and 39% strongly agreed with mean of 3.19 and standard deviation of .79. However, 12.4% disagreed and .79% strongly

disagreed the statement. The findings were in line of research done by Atkinson, Waterhouse and Wells (2017) who said that performance of construction project is assessed by evaluating through project completion time, meeting budget, meeting technical specification and satisfying the clients' needs. The findings confirmed that usability factors influence performance of performance of Nunga Neighbourhood Development project, where majority of respondents confirmed that project is delivered on time, completing project within scope, completing on budget as well as meeting project objectives as project milestones.

4.2 Correlation Analysis

Researcher applied correlational analysis to measure the relationship between independent variables and dependent variable. Independent variables were constituted by community mobilization, planning and implementation while dependent variable is performance of Nunga Neighbourhood Development project. The results are shown in the below table.

Table 5: Pearson Correlation Matrix

		Mobilization	Planning	Implementation	Performance
Mobilization	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	105			
Planning	Pearson Correlation	.906	1		
	Sig. (2-tailed)	.000			
	N	105	105		
Implementation	Pearson Correlation	.978	.928	1	
	Sig. (2-tailed)	.000	.000		
	N	105	105	105	
Performance	Pearson Correlation	.892	.950	.919	1
	Sig. (2-tailed)	.000	.000	.000	
	N	105	105	105	105

The researcher interested in computing the Pearson Coefficient Correlation to find out the relationship between independent variable and dependent variable. The findings showed that all variables classified under independent variable influence performance of dependent variable which is performance of Nunga Neighbourhood Development Project. The results generated by software revealed that there are positive correlations between all components constitute Community Infrastructure Development on the performance of Nunga Neighbourhood Development Project. The result showed that mobilization influence performance of project at positive correlation of r=.892 which is confirmed that effective community mobilization contributes highly to the performance of Nunga Neighbourhood Development Project. The results were in line of Abdalla and Otieno (2019) who indicated that resource mobilization influence performance of road development in Central Karoo District at strong positive correlation of 0.95.

4.3 Regression analysis

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This section illustrates the relationship between independent variable (Community Infrastructure Development) and dependent variable which is performance of Nunga neighborhood Development project. Analysis was done using regression linear to find out the effect of community Infrastructure Development on the performance of Neighborhood Development Project. The components of independent variable are community mobilization, planning and implementation. In this study model summary, variances and coefficients of variables were determined as shown in the following tables.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.955[a]	.913	.910	1.18291

Table 6 shows that regression analysis revealed (R = .955) which is a favorable connection while the R square of 0.913 indicated that the model's predictors, community mobilization, community in planning and community in implementation influence performance of project at the extent of 91.3% which very significance statistically. Further, the research concluded that combination of all components of independent variable raise performance of Nunga Neighbourhood Development Project.

Table 7: Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1480.863	4	493.621	352.767	.000[b]
	Residual	141.328	101	1.399		
	Total	1622.190	105			

The results indicated that model affirmed that 91.3% of variation in Community Infrastructure Development project where 1480.863 out of 1622.19 contribute to the performance of project whereas other factors which are not contributing to the performance of project computed at 18.7% (141.328 out of 1622.19). Furthermore, F value of the model is 352.767, where significantly different from zero. P-value of 0.000 is less than estimated value which indicates statistical significance of independent variables to the dependent variable. In recommendation, the model is good to indicate the performance of Nunga Neighbourhood Development project.

Table 8: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.383	.603		2.293	.000
	Mobilization	.245	.161	.125	.199	.000
	Planning	.550	.062	.702	8.887	.000
	Implementation	.348	.142	.390	2.462	.000

Table 8 shows the responses of the regression coefficients. The performance of Nunga Neighbourhood Development project was established through determination of Standardized Coefficients (B). In reference to the T-statistics, more community infrastructure development enhances the performance of project. Where the results indicated that performance of Nunga

Neighbourhood Development Project is influenced by community mobilization, community involvement in planning and community participation in implementation at the following rate mobilization (=.125), planning (= .702), implementation (=.390).

In addition to, a unit modified due to community mobilization increases the performance of Nunga Neighbourhood Development Project at .125 times while any factor modified due to community participation in planning leads to the performance of Nunga Neighbourhood Development Project at .702 times, and a section change from community participation in implementation boosts performance of Nunga Neighbourhood Development Project at multiple of .390. All p-values in the research were less than 0.05, it signifies that variables are statistically confirming independent variables improves performance of Nunga Neighbourhood Development Project.

5.0 Conclusions

Based on the findings from this study, it indicates that community infrastructure Development plays a significant role in the performance of infrastructure projects. More particularly on the performance of the Nunga Neighbourhood Development project. Various factors influence this performance, such as community mobilization and community involvement in planning and implementation. The study concluded that notifying the community to participate in project preparation, the capability of the community to attend various meetings concerning the preparation and planning of project activities, mobilizing the community to provide requirements, and effective community mobilization motivates the community to provide various inputs contributing to the performance of the project. In this way, project managers ensure that all stakeholders understand the plans and procedures to successfully run the project.

The study also concluded that community involvement in planning influenced the performance of the Nunga Neighbourhood Development project; the findings of this research show that community participation in road layout planning and planning how the local authority will approve the implementation of the project played a more significant influence on the performance of the Nunga Neighbourhood Development project. Community and project implementors work together to decide the financial resources needed to implement project activities and set the strategies and techniques applied to mitigate the risks once they occur, leading to the adequate performance of the project.

The study confirmed that community participation in implementation influenced the performance of the Nunga Neighbourhood Development project in various ways, such as providing financial contributions, participation in proper management, and efficient and effective use of funds. In addition, the community provides materials required to implement various project activities contributing to the adequate performance of the project. Based on the findings obtained, mobilizing the community and engaging the community in planning and implementation highly influence the performance of the project, where all results of coefficient correlations and multiple regressions indicated that the combination of community mobilization and allowing the community to participate in planning and implementation influenced the performance of the Nunga Neighbourhood Development project.

5.3 Recommendations

The recommendations were formulated basing on the research findings and conclusions as follows:

Community participation in road layout planning is very important to ensure that the project will meet its objectives successfully. However, the respondents agreed the statement at low percentage

in relation to other statement. Thus, research recommended project developers and managers to sensitize the community to participation in infrastructure development due to that effective participation of community makes project's outcomes to be sustained.

The study recommended community to support in development community infrastructure by providing requirements needed to run the project.

The study recommended project managers to encourage community members to participate in financial contributions as well as in controlling the use of project resources.

The study advised local authority to facilitate project implementers by approving the implementation of local access roads layout project without strict rules and procedures.

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