



**INTERFACE EVALUATION APPROACHES AND SUSTAINABLE DEVELOPMENT OF SLUM UPGRADING PROGRAMME IN NAIROBI CITY COUNTY, KENYA**

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**ABSTRACT**

The general objective of the study was to determine the relationship between evaluation approaches and sustainable development of slum upgrading programme in Nairobi City County, Kenya. The specific objectives were to examine the relationship between evaluation approaches; reflexive approach, constructivist, and sustainable development of slum upgrading programme in Nairobi City County, Kenya. The study was guided by theory of change, and program theory. This study adopted a descriptive research design. The target population for this research was slum upgrading programme in Nairobi County. The department of slum upgrading has 12 project managers and 60 monitoring and evaluation officers. This study used questionnaires to collect data. Questionnaires were administered through drop and pick method. Pilot test was conducted with 10% of the respondents 1 project manager and 6 monitoring and evaluation officers. This study used content and construct validity. Cronbach's Alpha Coefficient was used to test questionnaire reliability. Statistical Packages for Social Sciences was used to analyze quantitative data using descriptive and inferential analysis techniques (SPSS Version 28). Findings were tabulated. The regression analysis unveiled significant relationships between evaluation approaches and sustainable development within Nairobi City County's slum upgrading programs. The study found that four evaluation approach variables collectively accounted for 70.5% of the variance in sustainable development outcomes, indicating their substantial impact. Specifically, the reflexive approach ( $B = 0.447, p < 0.05$ ), constructivist approach ( $B = 0.600, p < 0.05$ ), were identified as pivotal factors influencing sustainable development. These findings underscore the critical role of evaluation approaches in enhancing the effectiveness and sustainability of slum upgrading initiatives. Therefore, it is recommended that stakeholders involved in slum upgrading programs prioritize the adoption and integration of comprehensive evaluation approaches to optimize development outcomes and ensure long-term sustainability. Furthermore, future research endeavors should explore additional factors that contribute to sustainable development within slum upgrading programs to offer a more comprehensive understanding of their dynamics and facilitate informed decision-making for urban development in Nairobi City County.

**Key Words:** Evaluation Approaches, Sustainable Development, Slum Upgrading Programme, Reflexive Approach, Constructivist, Nairobi City County

## **Background of the Study**

Project evaluation is a systematic and objective assessment of an ongoing or completed project. The aim is to determine the relevance and level of achievement of the project objectives, development, effectiveness, efficiency, impact and sustainability. Evaluation helps to determine the degree to which a program has successfully met its objectives. This also includes forming an opinion with a view to determine the quality of one or more tasks and drawing lessons for making improvements or adjustments (Beluhu, 2021). In every project, it is imperative to make sure the project objectives or client's requirements are met. This can be done through observing, checking and taking corrective actions during the life cycle of the project. It may be too late to check whether the project objectives have been attained when the project has been completed (Anzoise, & Sardo, 2017). According to Ndegwa (2020) assessment plays a crucial role in facilitating communication and introspection to support the execution of a project. It should be systematically organized and overseen across the entire project cycle to ensure effective planning and management.

Collaboration with various urban stakeholders with a vested interest in slum upgrading is essential for impactful interventions. KENSUP takes pride in fostering a comprehensive coalition of partners, encompassing all relevant entities in the urban landscape of Kenya: governmental bodies, local authorities, civil society, local communities, the private sector, and the donor community. This inclusive collaboration enables stakeholders to address their weaknesses by leveraging the strengths of others (UN-HABITAT). In the 1970s, global concerns and a push for slum-free cities prompted the Kenyan government to develop strategies in response to the issue of slums. Over the years, various settlement development policies and approaches have been experimented with, including forced eviction, resettlement, site and services schemes, and upgrading (UN-HABITAT, 2008). Until the year 2000, forced eviction was the predominant method of slum eradication in Kenya. The adoption of the Millennium Development Goals (MDGs) by UN member countries in 2000, with a specific focus on slum upgrading/improvement, marked a shift in approach. MDG Goal 7 aims for "a significant improvement in the lives of at least 100 million slum-dwellers" by the year 2020 (MDGs, 2000).

In 2008, Kenya initiated the Kenya Vision 2030, outlining the country's development objectives until 2030. The primary aim was to achieve "a well-housed population living in an environmentally-secure urban environment" (Kenya Vision 2030, 2007). Additionally, Kenya adopted a new constitution that ensured every citizen's right to "accessible and adequate housing" and reasonable sanitation standards (Kenya Constitution, 2010). To realize this vision, the government collaborated with international development institutions, including the World Bank, the Swedish International Development Cooperation Agency (SIDA), and Agence Française de Développement (AFD). These institutions provided loans to establish another slum upgrading program—the Kenya Informal Settlement Improvement Program (KISIP)—to complement KENSUP. Launched in 2011, KISIP targeted 15 municipalities, including Nairobi, Mombasa, Eldoret, Naivasha, Machakos, Malindi, Kakamega, Nyeri, Thika, Kericho, Kitui, Garissa, and Embu. The World Bank contributed \$100 million, while AFD, SIDA, and the Kenyan government provided \$45 million, \$10 million, and \$10 million, respectively. In the context of project evaluation, four approaches are identified: result-oriented, constructivist.

## **Statement of the Problem**

Kenya, like other developing countries has witnessed an unprecedented increase in urban population over the past 50 years. This has posed a great challenge to urban economies which have been unable to cope with the increasing demand for essential services such as housing, health and education. Consequently, more urban dwellers in Kenya live in poverty and reside in overcrowded slums that lack basic amenities to sustain a minimum level of living. To reverse this trend, the

Government of Kenya, in collaboration with other stakeholders, initiated two programmes: the Kenya Slum Upgrading Programme (KENSUP) in 2004 and the Kenya Informal Settlement Improvement Project (KISIP) in June 2011. The programmes are aimed at addressing the challenges of housing facing the majority of low income earners living in informal settlements in all urban areas in Kenya. The program also seeks to address the problem of infrastructural services, water distribution pipes, solid waste management facility, land tenure, employment issues and the impact of HIV/AIDS in slum settlement.

Aligned with Millennium Development Goal (MDG) seven, KENSUP endeavors to provide essential sustainable amenities to improve the overall health and well-being of urban poor residents in Nairobi (Melina R. 2020). MDG seven summarizes the international agreement to eradicate extreme poverty by 2020 (UN 2020). Fatma and Sakwa (2018) found that the slum upgrade program aim, efforts to reduce the number of slum dwellers or improve their living standards are not adequate or satisfactory. According to Tairo (2020), 60% of the program beneficiaries end up renting out their houses while they find their way back into the slums. These projects have therefore achieved slum relocation and not upgrading. There are several reasons KENSUP failed in its mission of developing Kibera, including the program's lack of community involvement. Cherunya (2020) found that while at least 70% of slum dwellers in Kibera were aware of the program, only 8% of respondents were involved in the evaluation of the program (through stock-taking forums, score-carding, and other citizen assessments), 6% in the planning of the program (through stakeholder analysis workshops and community mapping), and 4% were involved in the implementation of the program (through physical labor). More than 80% of respondents reported losses which included displacement, loss of a cheaper way of living/ expensive life, and loss of livelihoods.

Various scholars have conducted studies on project evaluation; Fonbeyin (2020) investigated the effects of integrated monitoring and evaluation on the performance of slum upgrading projects in SubSaharan Africa and found that evaluation affects performance of slum upgrading projects. Mukaria (2021) studied effect of evaluating the activities and monitoring on community-based operations and projects in Embu County, Kenya and found that feedback has a substantial positive outcome on Embu County's thriving of community-based projects in Kenya. Munyao (2018) study on influence of monitoring and evaluation practices on the sustainability of new product development projects in commercial banks in Nairobi County, Kenya found that M&E was significantly and positively correlated with the sustainability of new product development projects in commercial banks. Lekamparith (2017) on the influence of monitoring and evaluation on performance of construction projects in Mombasa-Nairobi observed that presence of a functional M&E department enhances project performance. However, there is study limitation on evaluation approaches and sustainability of housing programs in Nairobi County.

### **Specific Objectives**

- i. To examine the relationship between reflexive approach and sustainable development of slum upgrading programme in Nairobi City County, Kenya.
- ii. To determine the relationship between constructivist approach and sustainable development of slum upgrading programme in Nairobi City County, Kenya.

### **LITERATURE REVIEW**

#### **Theoretical Review**

##### **Theory of Change**

This theory was formulated by Stein and Valters in the 1900s. The theory of change is implemented through the execution of complex problems related to the project matter. Theory of change provides a clear outline of ancient as well as changes on the recent times which are required to

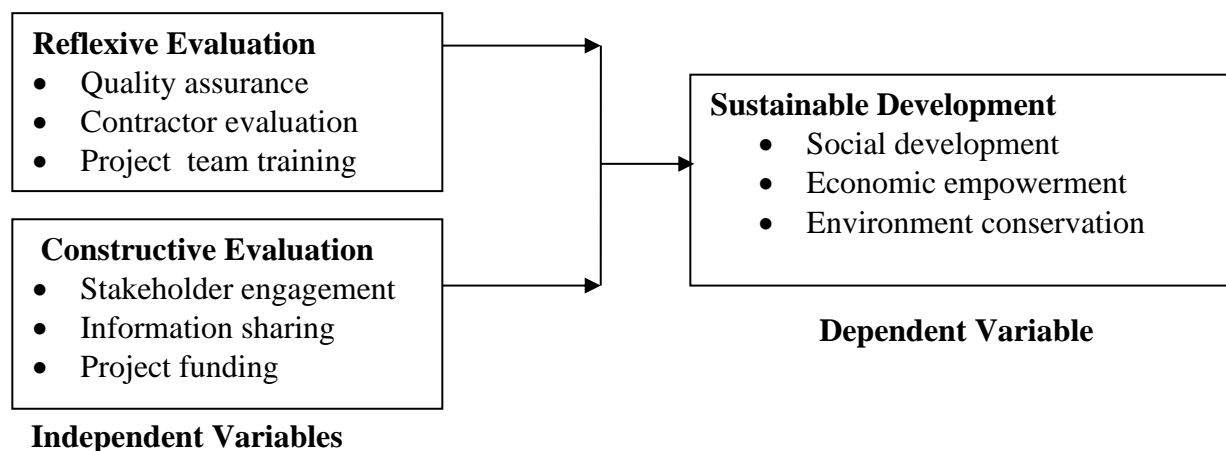
attain the lengthy term set goals (Georges, 2017). This theory provides description of the changes responsible for planning execution and evaluation of project activities. Weiss (2018) highlighted that the theory of change comes alongside conditions that project activity is required for it to succeed. These conditions consist of data quality, effective project management leadership, and appropriate project management planning. Change in the competency levels for adopting monitoring and evaluation systems can be depicted to be contributing towards improved performance.

In project execution process, the theory of change can be useful in predicting the extent to which monitoring and evaluation provides a solution to complex problems. The theory of change gives out a clear picture of changes that occurs at each level of the project and whatever is wanted to achieve the long-term project goals. This theory of change provides guidelines on how project activities work and measures that need to be taken for all the objectives to be met. This theory plays an essential role in developing guidelines for comprehensive project activities on monitoring and evaluation as a result of new change incorporated by an organization. The theory is applicable to the variable on reflexive evaluation approach since it may help to provide solutions to problems which may include changes in the program. The changes may be suggested and implemented through bringing on board professionals that enhance program quality.

**Program Theory**

The program theory was developed by Chen, Rossi, Quinn, and Weiss. Program theory was pragmatic tool in monitoring evaluations for many years. It was famous for its conclusive mechanism to fix problems, and addresses the need to carry our assessments to compliment the findings. According to Nzingu and Karanja (2018), it also offers mechanisms for managing significant aspects during the evaluation process. Various organizations’ transactions entail the human service programs that are designed to develop the societal needs; the programs are dynamic and are subject to change based on prearranged situations. The program theory is an extensive form of the logic model, visually represented on a scale to demonstrate its connection with the logical model (Kaba A. & Dube M. 2022). According to Rolfe S. (2019), Theory-based evaluations allow the evaluator to grasp the reasons and mechanisms behind how the program operates. A program theory shows a single immediate outcome by which the program has achieved, it helps to understand whether there is change towards a desired performance level. Complex programs mainly found in complex projects show a series of immediate outcomes. The goals of the program must be interpreted to the implementers and financiers accordingly to enhance sustainability. The theory is hence applicable to constructivist evaluation approach.

**Conceptual Framework**



**Figure 2.1: Conceptual Framework**

## **Reflexive Approach**

Reflexive monitoring is an evaluation method that gives urban practitioners insight into the progress of their project in real time. Project or network participants not only exchange their personal viewpoints and motives but they also debate their presumptions and underlying values and norms and the institutional context in which they operate. As stated by Loeber, Bernstein, and Nieminen (2022), they have the potential to reach various understandings regarding potential collaborative initiatives. Reflective practice has become an influential concept in the evaluation field. A greater use of reflective practice is advocated in reference to both evaluators' own professional development, and as a means to enhance dialogue, stakeholders' involvement and organizational learning in the evaluation process (Kubera, 2019).

The leading question in reflexive monitoring is whether the activities in an innovation project stimulate precisely those learning processes that can lead to a change in current practices of interdependent parties. The strength of this approach is that it is based on thinking in terms of systems; current practices are questioned and the aim is to change a complete system. For this reason, the approach is promising for projects where the ambition is to contribute to system innovation. Because reflexive monitoring has not yet been implemented in practice very often, there are few people with knowledge and experience of it. It requires sincere commitment and intensive effort; self-monitoring is not or hardly possible. Related methods are the Interactive Learning Approach and Reflexive Process Monitoring and Reflexive Monitoring in Action. Reflexive Monitoring in Action (RMA) has mainly been conducted in Netherlands. Staff capacity building involves increasing employee skills by developing their expertise and abilities and enabling them to understand their roles better and execute them effectively. Capacity building can be used by monitoring and evaluation employees to learn how to perform an evaluation and think critically while doing so (Frey, 2018). A project manager and the entire project team needs to have a certain set of competencies that will allow them to plan and execute projects effectively (Yoon, Yan, & Kim, 2020).

## **Constructivist Approach**

The constructivist M&E approach assumes that people are the motor behind the development of novelties and societal change processes. They achieve this through interaction and negotiation. Mutual understanding and exchange of experiences support collective learning, improvement and change. Constructivist methods focus heavily on monitoring and evaluation of the progress of the collective learning process. They do not so much define (the "what" question) but highlight more how successful collective learning processes are initiated and prolonged (the "how" question). In the context of M&E, constructivism offers a more holistic and context-sensitive perspective, acknowledging the diverse viewpoints and experiences of stakeholders (Araya & Espinoza, 2018).

Community interests are basically the other form or can be referred to as a collection of demands, expectations, needs, and values expected from each stakeholder. According to Project Management Institute (PMI), the community is one of the main project stakeholders who exert influence from outside the system (external stakeholder). Hence, the community will possess their individual concerns that will influence the project (Archer, D. & Phanthuwongpakdee, N. et. al 2020).

In project management, conflicts should be treated with utmost seriousness in order to save the project from delay and resultant deadlock. There are several causes of conflicts in project management but conflicts arising from people with somewhat different ideas to reach project objectives are becoming more prominent. When people develop project plans, there is always the tendency for such to happen. There are lots of conflicts raised due to the following reasons: different units working on the project might have different expectations about project costs, rewards and priorities, confusion in the project team as a result of decision making, uncertainty on

who has authority to make decision on resource allocation, project manager setting cost and time restrictions that the functional manager cannot cope with, are also a recipe for conflict. However, the most appropriate means of resolving conflicts is negotiation. In negotiating, the project manager should seek for a win-win situation unless in cases where such is not applicable or it cannot yield the desired outcome. This style of negotiation helps the project manager to improve his relationship with colleagues and thus achieve project objectives. In essence, the project manager should ensure that the interest of the project supersedes that of his personal feelings and ego during the negotiation process in order to get a better deal (Crispin, 2020).

As a project evolves different members of the project team have perceived events differently, just like stakeholders have different relations to a given problem. In order for the project to progress, the project team needs to synchronize their perspectives within the team, similar to how stakeholders must understand each other's issues (Oberschmidt, K., et al., 2020). According to Burch (2018), negotiation is a process where two or more parties meet to deliberate an arrangement that preferably would help all parties involved. In addition, it refers to an interchange between two or more parties with the purpose of reaching a reasonable agreement. In project, negotiation is a tool used to achieve conflict reduction and resolution. It takes place among individuals, business partners, corporate groups, employees and even between companies and societies. Regardless of the nature of the negotiation undertaken, setting objectives prior to the process will definitely bring about a favorable result. The ultimate objective of every negotiation is for the negotiating parties to reach an acceptable outcome. Outcome that will favour all parties involved in the negotiation is considered a good objective of negotiation. Project managers are required to apply their negotiation skills at every phase of the project lifecycle.

A win-win style manager focuses more on the problem than the people, seeking for solution that will profit both sides. In other words, such manager aims to work with the other party towards finding a solution to their differences that will eventually lead to satisfaction on both sides. Such manager treasures the interpersonal relationships existing and as such want to confront the problem rather than the person. In a professional or corporate environment, this negotiation style is the most favored (George L. C. 2020). Many community development and evaluation professionals have increased their engagement with critical and culturally responsive approaches to account for the interpersonal, sociocultural, and socioeconomic realities of communities (Kaholokula et al., 2018). However, community-engaged professionals may situate their work within potentially problematic identity constructions, such as external professionals positioned as active experts and communities positioned as passive recipients to be acted upon (Dhaliwal et al., 2020).

## **Empirical Framework**

### **Reflexive Approach and Project Sustainability**

Minjeong and Sungyong (2021) sought to determine the key competencies of project team members in South Korea. The target was project managers and team members. Simple random sampling was used to sample 179 respondents. Questionnaires were used to collect data. Findings revealed that the ability to critically analyze and judge team members from a vision, imagination, and strategic perspective will enhance successful implementation of projects and help the project team make accurate decisions. Team members' intellectual competencies were found to be the most important to project performance. The managerial dimension of the team member was revealed to be an important factor in competence, commitment, and communication of project success factors. Usman (2018) studied effect of project management competence on project performance in public sector mega engineering projects of Pakistan. The study target was 100 engineers. Questionnaires were used to collect data. Findings showed project management competence like leadership, management skills, communication, ethics, honesty have a positive effect on project performance.

Oke, Aigbavboa, and Dlamini (2017) examined factors affecting quality of construction projects in Swaziland. The study adopted a survey design. Questionnaire was used for data collection. Findings revealed that the key factors affecting performance of construction projects were unskilled and incompetent trade contractors. Additionally, there was poor on-site supervision and lack of commitment by supervising team responsible of ensuring compliance to approved standard. The construction workforce also lacked adequate knowledge, training and skills. Seyoum (2018) study on challenges of low-cost housing in Ethiopia revealed that more than half of the occupants complained about the level of product quality. The inhabitants were not satisfied with the quality of the houses they were living and were forced to refurbish the houses often due to frequent leaking and breakage of the housing parts such as door handles door locks and sanitary materials. Kimeria, W., Kising'u, M., & Oyoo, J. (2019) explored elements influencing the management of project quality in the construction sector within Nairobi County.

The study sample was 75 respondents. The study adopted a census survey design. Data was collected using questionnaires. Findings showed that construction materials influence project quality management in the construction industry. The study found out that cheaper construction materials compromised the sustainability of projects. The study also revealed that a good material management system should be put in place to assess the material's quality.

Waswa (2018) assessed level of compliance to professional construction management process by four construction parties Busia County. The study adopted a correlational study design. Data was collected using questionnaires, interviews and observation check lists. Findings revealed that lack of quality management; professionalism and legal framework were the major contributing agents of poor-quality projects. Further, inadequate stakeholder participation, compliance to specifications and standards and legal framework in the construction process influenced public building projects by devolved unit in Busia County. Aputo, A. L. (2018) concentrated on examining the influence of project teams on the performance of projects within non-governmental organizations in Nairobi County. A descriptive survey design was adopted. Questionnaires were used to collect data. The findings established that project team training greatly contributed to project performance.

### **Constructivist Approach and Project Sustainability**

Sanders and Lamm (2023) sought to identify the components of identity narratives within a community-based health-promotion initiative. The study sample was community members in five rural Georgia counties. Counties were selected based on the identified high-risk category where obesity affects more than 40% of the local population. Findings showed that identity-based knowledge and understanding can help community development practitioners and evaluators anticipate the sustainability of changes introduced by community development initiatives. Despite not being asked to directly articulate individual or collective identity, the results indicated identity-based constructs contributed to participants' narratives regarding the community, the coalition, and the project itself. The findings indicated identity-based characteristics may play a significant role in the project through the participatory efforts of community members.

Adhikari and Joshi (2022) studied community sensitization and mobilization among the various tools used in community sensitization. The community was sensitized through folk song competition. Rural poetry journey and rural roadside journey is people friendly and effective in providing access to information on agro-biodiversity conservation. The majority of the rural farming communities lack basic access to modern information gazettes (television, radio, and reading materials) due to their economic conditions, which leaves them in ignorance. Various local methods for community sensitization can be used in creating awareness among a larger number of

people from different stakeholder groups in farming communities. Furthermore, it also helps the rural community to undertake ownership for conservation and utilization of agro-biodiversity.

Dierickx and O'Nei (2018) set out to assess the relevance of community sensitization for individual decision-making in research participation in rural Gambia. The study used triangulated qualitative methods and quantitative survey methods in the context of an observational study and a clinical trial on malaria. The study found out that majority of the respondents was inclined to participate in the trial when surveyed after the sensitization and prior to the informed consent process. Community sensitization is effective in providing first-hand, reliable information to communities as the information is cascaded to those who could not attend the sessions.

Nyanga, and Momanyi, C. (2018) investigated the impact of community knowledge management on the execution of community-based projects. The study was carried out in Njoro Sub County targeting 375 project staff working for community based projects. The sample size for the study was 79 using simple random sampling technique. Descriptive research design was employed. Data was collected using structured questionnaire. The findings of the study revealed that community knowledge plays a significant role towards implementation of community based projects. The study concluded that community knowledge management positively influences implementation of community project.

Matandi, (2022) explored the impact of community involvement on the performance of development projects in Makueni County, Kenya. Descriptive survey design was used. The target population was 1626 respondents comprising of 126 project management committees and 1500 community members. The sample size was 38 project management committee members and 150 community members benefitting from the project selected using purposive and systemic random sampling method. A semi structured questionnaire was used for data collection. The findings from the study indicated that communities have not fully participated in project cycle especially in monitoring and evaluation, training, resource contribution and decision making. This was due to limited economic resources and failure for community not to fully understand their roles in projects. The study established that community participation through information sharing, resource contribution, collective decision making and project governance have contributed extensively towards development project performance.

## **RESEARCH METHODOLOGY**

This study adopted a descriptive research design. This research design was preferred because it gives the researcher answers on both why and how questions and giving explanations on what questions. The target population for this research was slum upgrading programme in Nairobi County. The research project focused on the completed slum upgrading programmes. From the State Department of Housing and Urban Development, there are two slum upgrading programs in Nairobi; Kibera and Mukuru slum upgrading. The two slum upgrading programmes were the unit of analysis. The study focused on project managers and monitoring and evaluation officers who were the study's unit of observation. According to the Ministry of Transport, Infrastructure, Housing and Urban Development (2023), the state department of Housing and Urban Development has 12 project managers and 60 monitoring and evaluation officers. The study targeted the staff in the department since they are responsible for overseeing the implementation of slum upgrade program and are hence knowledgeable on the evaluation practices for the projects. A sampling frame refers to every component of a target population. The sampling frame was 12 project managers and 60 monitoring and evaluation officers. A census was adopted by the study to gain insight on evaluation approaches.

The study used questionnaires to collect data. Pilot test was conducted with 10% of the respondents 1 project manager and 6 monitoring and evaluation officers hence seven respondents participated in the pilot as recommended by Mabele, Kennedy, and Muhonja (2019). Pilot testing



assists in determining the effectiveness and acceptability of the statements used in the instruments. Pilot testing was carried out two weeks before the main study. Respondents in the pilot will not take part in the actual study. Statistical Packages for Social Sciences was used to analyze quantitative data using descriptive and inferential analysis techniques (SPSS Version 28). Descriptive statistics include percentages, frequencies, and means. The inferential statistics included correlation and regression.

### RESEARCH FINDINGS AND DISCUSSION

A total of 12 project managers and 60 monitoring and evaluation officers were selected as the sample for this study. The returned questionnaires were verified for accuracy and completeness, and 63 were found to be valid and reliable, and suitable for further analysis and reporting. The response rate for the study was 87.5% which is considered excellent according to Sekaran and Bougie's (2016) criteria. They suggest that a response rate of 50% or above is adequate, 60% or above is good, and 70% or above is excellent for analysis.

#### Descriptive Analysis

In this section the study presents findings on Likert scale questions where respondents were asked to indicate their level of agreement with various statements that relate with various evaluation approaches and sustainable development of slum upgrading programme in Nairobi City County, Kenya. They used a 5-point Likert scale where 1-strongly disagree, 2-disagree, 3- Not Sure, 4-agree, 5-strongly agree. The means and standard deviations were used to interpret the findings where a mean value of 1-1.4 was strongly disagree, 1.5-2.4 disagree, 2.5-3.4 Not Sure, 3.5-4.4 agree and 4.5-5 strongly agree. Standard deviation greater than 2 was considered large meaning responses were widely spread out and not tightly clustered around the mean. In other words, there was a lot of variability in the responses, which may suggest that participants had different interpretations or perceptions of the questions being asked.

#### Reflexive Approach

The first objective of the study was to examine the relationship between reflexive approach and sustainable development of slum upgrading programme in Nairobi City County, Kenya. The respondents were therefore asked to indicate the degree to which they agree/disagree with listed statements on reflexive approach. Table 1 presents summary of the findings obtained.

**Table 1: Descriptive Statistics on Reflexive Approach**

Statements	Mean	Std. Dev.
Team members are frequently trained	3.612	0.817
The ministry selects the appropriate quality system requirements for each program	3.767	0.993
Subcontractors are evaluated and selected based on their ability to satisfy specified requirements	4.182	0.082
Quality assurance helps to avoid housing projects defects	3.715	0.367
The housing programs comply with the proper laws and regulations	3.902	0.573
The ministry ensure that main subcontractors / sub suppliers meet specified requirements	3.982	0.079
Team members motivate and influence each other to achieve program results	4.151	0.276
The team members consistently perform tasks in a variety of situations, under pressure	3.953	0.568
<b>Aggregate score</b>	<b>3.925</b>	<b>0.442</b>

The findings in Table 1 show that the respondents agreed on average with the statements since they all had means above 3.5. They specifically agreed that team members are frequently trained

(M= 3.612, SD= 0.817); that the ministry selects the appropriate quality system requirements for each program (M= 3.767, SD= 0.993); and that the subcontractors are evaluated and selected based on their ability to satisfy specified requirements (M= 4.182, SD= 0.082). They were also in agreement that quality assurance helps to avoid housing projects defects (M= 3.715, SD= 0.367); that the housing programs comply with the proper laws and regulations (M= 3.902, SD= 0.573); that the ministry ensure that main subcontractors / sub suppliers meet specified requirements (M= 3.982, SD= 0.079); that team members motivate and influence each other to achieve program results (M= 4.151, SD= 0.276); and that the team members consistently perform tasks in a variety of situations, under pressure (M= 3.953, SD= 0.568).

The findings above supported by an aggregate mean of 3.925 (SD= 0.442) show that the respondents agreed on average that there exists a relationship between reflexive approach and sustainable development of slum upgrading programme in Nairobi City County, Kenya. The finding is supported by Minjeong and Sungyong (2021) who emphasize the importance of critical analysis, strategic vision, and intellectual competencies in enhancing project implementation and decision-making, which are essential components of a reflexive approach. This underscores the significance of reflexive practices in addressing complex challenges within slum upgrading initiatives and promoting sustainable development outcomes. Furthermore, Oke, Aigbavboa, and Dlamini (2017) highlight the role of reflexivity in addressing factors affecting project quality and performance, such as unskilled contractors and inadequate supervision. By fostering a culture of reflection and learning, reflexive approaches can help identify and mitigate risks to project sustainability, ultimately enhancing the overall effectiveness and quality of slum upgrading programs.

**Constructive Approach**

The second objective of the study was to determine the relationship between constructivist approach and sustainable development of slum upgrading programme in Nairobi City County, Kenya. Respondents were therefore asked to indicate the degree to which they agree/disagree with listed statements on constructive approach. Table 4.5 presents summary of the findings obtained.

**Table 2: Descriptive Statistics on Constructive Approach**

Statements	Mean	Std. Dev.
Community leaders are included in the project management boards	4.155	0.355
Project staff are hired from the local community in which the project is implemented	3.71	1.115
There are community information sharing forums where the local community give views	3.91	0.321
The ministry partners with existing community projects in project implementation	3.59	0.083
The ministry funds project proposals from the community on house upgrading	3.897	0.508
Indigenous knowledge is included in project design and implementation	3.595	0.209
<b>Aggregate score</b>	<b>3.810</b>	<b>0.432</b>

Since all the mean values were above 3.5, it suggests that the respondents agreed on average with the statements on the relationship between constructivist approach and sustainable development of slum upgrading programme in Nairobi City County, Kenya. The findings show that the respondents specifically agreed that community leaders are included in the project management boards (M= 4.155, SD= 0.355); that project staff are hired from the local community in which the project is implemented (M= 3.71, SD= 1.115); and that there are community information sharing forums where the local community give views (M= 3.91, SD= 0.321). They further agreed that the

ministry partners with existing community projects in project implementation (M= 3.59, SD= 0.083); that the ministry funds project proposals from the community on house upgrading (M= 3.897, SD= 0.508); and that indigenous knowledge is included in project design and implementation (M= 3.595, SD= 0.209).

The findings above and the aggregate mean score of 3.810 (M= 0.432) show that the respondents agreed on average that there exists a relationship between constructivist approach and sustainable development of slum upgrading programme in Nairobi City County, Kenya. The finding is corroborated by literature emphasizing the importance of community involvement, knowledge management, and participatory processes in development projects. Matandi's (2022) study illustrates how community participation, including information sharing and collective decision-making, significantly contributes to project performance. This aligns with the constructivist approach, which prioritizes engaging communities in project governance and decision-making processes. Similarly, Nyanga and Momanyi (2018) highlight the positive impact of community knowledge management on the execution of community-based projects, underscoring the significance of harnessing local knowledge and expertise for sustainable development outcomes. Together, these studies support the finding by emphasizing the role of community engagement and participatory approaches in promoting the sustainability of slum upgrading initiatives, thereby validating the relationship between the constructivist approach and project sustainability in Nairobi City County.

**Sustainability**

The main objective of the study was to determine the relationship between evaluation approaches and sustainable development of slum upgrading programme in Nairobi City County, Kenya. Respondents were therefore asked to indicate the degree to which they agree/ disagree with listed statements on resource planning. Table 3 presents summary of the findings obtained.

**Table 3: Descriptive Statistics on Sustainability**

Statements	Mean	Std. Dev.
The housing projects enhance social development	3.894	0.833
Housing projects have helped to improve living standards	3.613	0.778
House upgrade enhances environmental conservation	3.855	0.918
The health conditions of the people have improved	3.792	0.333
<b>Aggregate score</b>	<b>3.789</b>	<b>0.716</b>

The findings showed that the respondents agreed on average that the housing projects enhance social development (M= 3.894, SD= 0.833); that housing projects have helped to improve living standards (M= 3.613, SD= 0.778); that house upgrade enhances environmental conservation (M= 3.855, SD= 0.918); and that the health conditions of the people have improved (M= 3.792, SD= 0.333). The findings indicating that respondents agreed on average about the positive impacts of housing projects on social development, living standards improvement, environmental conservation, and health conditions align with existing literature on the benefits of housing and infrastructure projects in community development. Nyanga and Momanyi (2018) investigated the impact of community knowledge management on the execution of community-based projects and emphasized the significant role community knowledge plays in the implementation of such projects. Their findings resonate with the perception of respondents regarding housing projects' contribution to social development and living standards improvement. Additionally, Mgoba (2019) explored the effectiveness of participatory monitoring and evaluation (PM&E) on community-based water projects and highlighted the positive outcomes of such projects, including environmental conservation and health improvement. These studies support the findings by indicating that housing projects not only provide shelter but also contribute to broader socio-

economic and environmental benefits, aligning with the perceptions of respondents regarding the positive impacts of housing projects in Nairobi City County.

**Correlation Analysis**

Correlation analysis measures the strength and direction of the linear relationship between two variables. Pearson correlation coefficient was used for testing the relationship between the independent and the dependent variables. If the correlation values are  $r = \pm 0.1$  to  $\pm 0.29$  then the relationship between the two variables is small, if it is  $r = \pm 0.3$  to  $\pm 0.49$  the relationship is medium, and when  $r = \pm 0.5$  and above there is a strong relationship between the two variables under consideration. Table 4 presents the findings obtained.

**Table 4: Correlations**

		Sustainability of Housing Projects	Reflexive Approach	Constructivist
Sustainability of Housing Projects	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	63		
Reflexive Approach	Pearson Correlation	.641**	1	
	Sig. (2-tailed)	.000		
	N	63	63	
Constructivist	Pearson Correlation	.839**	.312	1
	Sig. (2-tailed)	.000	.098	
	N	63	63	63

The correlation coefficient between sustainability of housing projects and reflexive approach is  $r = 0.641$  with a p-value of  $0.000 < 0.05$ , suggesting a strong positive correlation. This implies that as the reflexive approach is implemented in evaluating housing projects, their sustainability tends to increase. This finding resonates with Minjeong and Sungyong (2021), who emphasize the importance of critical analysis and strategic vision in enhancing project implementation and decision-making, aligning with the reflexive approach's emphasis on critical self-reflection and adaptive learning.

Similarly, the correlation coefficient between sustainability of housing projects and the constructivist approach is  $r = 0.839$ , with a p-value of  $0.000 < 0.05$ , indicating a very strong positive correlation. This suggests that as the constructivist approach is adopted in evaluating housing projects, their sustainability is significantly enhanced. This finding aligns with literature by Kimiri (2018) and Ndungu and Karugu (2019), which highlight the importance of organizational culture, leadership, and technical capacity in driving result-oriented approaches, emphasizing the need for aligning organizational values and capabilities with result-based management practices.

**Multiple Regression Analysis**

Model summary is used to test the amount of variation in dependent variable that can be explained as a result of changes in independent variables. In this study the amount of variation in sustainable development of slum upgrading programme in Nairobi City County, Kenya as a result of changes in reflexive approach, constructivist approach, was sought. Table 5 presents the findings obtained.

**Table 5: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.840 <sup>a</sup>	.705	.685	.39772

a. Predictors: (Constant), Result Oriented, Constructivist

The R Square value, also known as the coefficient of determination, is 0.705 indicating that approximately 70.5 % of the variation in sustainable development can be explained by the

independent variables included in the model. This suggests that the combination of the reflexive approach, constructivist approach, for a substantial portion of the variance in the sustainable development of slum upgrading programs. The Adjusted R Square, which adjusts for the number of predictors in the model, is 0.685, suggesting that the model maintains its explanatory power even after considering the complexity of the variables involved.

The value of R represents the correlation coefficient between the predicted values of the dependent variable (sustainable development of slum upgrading programs) and the observed values. In this case, R=0.840, indicating a strong positive correlation between the predicted and observed values. This suggests that the model, effectively captures the relationships between the variables and the sustainable development outcomes of slum upgrading programs. Overall, the model summary suggests that the combination of these evaluation approaches significantly contributes to understanding and predicting the sustainable development outcomes of slum upgrading programs in Nairobi City County.

The ANOVA table provides information on the statistical significance of the regression model. In this study the significance of the model was tested at 5% confidence interval. Table 4.11 presents summary of the findings obtained.

**Table 6: Analysis of Variance**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.915	4	5.479	34.636	.000 <sup>b</sup>
1 Residual	9.174	58	.158		
Total	31.089	62			

a. Dependent Variable: Sustainability of Housing Projects

b. Predictors: (Constant), Result Oriented, Constructivist

The table indicates that the regression model is statistically significant, as evidenced by the F-statistic of 34.636 and a corresponding p-value of 0.000. Since the p-value is less than the significance level of 0.05, we reject the null hypothesis, indicating that at least one of the predictor variables (Result Oriented, Constructivist) has a significant effect on the sustainability of housing projects. This suggests that the combination of these evaluation approaches collectively contributes to explaining the variance in the sustainability of housing projects, providing valuable insights for policymakers and practitioners involved in slum upgrading programs in Nairobi City County.

From the coefficients in table, the regression model was fitted;

**Table 7: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.912	.244		3.738	.000
1 Reflexive Approach	.447	.193	.402	2.312	.024
Constructivist	.600	.213	.537	2.822	.007

a. Dependent Variable: Sustainability of Housing Projects

From the coefficients in Table 7, the following regression model was fitted;

$$Y = 0.912 + 0.447 X_1 + 0.600 X_2$$

Where Y is Sustainability of Housing Projects; X<sub>1</sub> is Reflexive Approach; X<sub>2</sub> is Constructivist;

For the variable reflexive approach, the coefficient of 0.447 with a p-value of 0.024 indicates a statistically significant positive relationship. This suggests that an increase in the implementation of reflexive evaluation approaches is associated with higher levels of sustainability in housing projects. This finding aligns with Minjeong and Sungyong (2021), who emphasize the importance of critical analysis and strategic vision in enhancing project implementation and decision-making, which are key components of reflexive approaches.

For the constructivist variable, the coefficient of 0.600 with a p-value of 0.007 indicates a statistically significant positive relationship. This implies that adopting constructivist evaluation approaches is associated with higher levels of sustainability in housing projects. This finding is supported by Kimiri (2018) and Ndungu and Karugu (2019), who highlight the significance of organizational culture, leadership, and technical capacity in driving result-oriented approaches, which align with the principles of constructivist evaluation.

### **Conclusions**

The study revealed that reflexive practices such as team training, quality assurance, and compliance with regulations are positively associated with sustainable development outcomes within slum upgrading programs. The engagement of project teams, adherence to quality standards, and consistent performance in various situations contribute to improved project effectiveness and sustainability. Therefore, it is concluded that reflexive approach positively and significantly influences the sustainable development of slum upgrading programs in Nairobi City County, Kenya.

The findings indicate that community involvement, indigenous knowledge integration, and partnership with local initiatives significantly contribute to sustainable development outcomes within slum upgrading initiatives. The inclusion of community leaders in project management, hiring local project staff, and fostering community participation in project design and implementation enhance project relevance, ownership, and effectiveness. Hence, it is concluded that the constructive approach positively and significantly influences the sustainable development of slum upgrading programs in Nairobi City County, Kenya.

### **Recommendations**

Given the positive influence of reflexive practices on sustainable development outcomes, it is recommended that slum upgrading programs in Nairobi City County prioritize continuous training and capacity building for project teams. This should include regular workshops, seminars, and skill enhancement programs to ensure that team members are equipped with the necessary competencies to navigate various project challenges effectively. Additionally, fostering a culture of quality assurance and compliance with regulations should be emphasized to mitigate project risks and enhance overall project performance.

To further enhance the constructive approach in slum upgrading initiatives, it is recommended to strengthen community engagement and partnership strategies. This can be achieved by actively involving community leaders in project decision-making processes, hiring local project staff, and establishing community information sharing forums. Moreover, integrating indigenous knowledge into project design and implementation should be prioritized to harness local expertise and promote community ownership of development initiatives.

### **Suggestions for Further Studies**

Future research endeavors should expand beyond the current scope by delving into additional factors that contribute to sustainable development in slum upgrading programs. While this study focused on strategic leadership practices, further investigations could explore the influence of other organizational variables on project outcomes. Additionally, extending the analysis to encompass

various types of development projects would provide valuable insights into the effectiveness of leadership approaches across different contexts.

Comparing the applicability of strategic leadership practices in slum upgrading initiatives across diverse geographic regions or countries could shed light on contextual factors influencing project success. Moreover, exploring the role of leadership in driving sustainability initiatives across sectors beyond hospitality, such as finance, manufacturing, and healthcare, would contribute to a more comprehensive understanding of leadership's impact on sustainable development.

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