



The Strategic
**JOURNAL of Business & Change
MANAGEMENT**

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)

www.strategicjournals.com

Volume 10, Issue 4, Article 063

**INFLUENCE OF CAPACITY BUILDING ON SUCCESSFUL HANDOVER OF PROJECTS TO BENEFICIARIES IN
RWANDA**

Kalisa Claude & Dr. Martin Kimemia Gathiru, PhD

INFLUENCE OF CAPACITY BUILDING ON SUCCESSFUL HANDOVER OF PROJECTS TO BENEFICIARIES IN RWANDA

¹ Kalisa, C., & ² Gathiru, M. K

¹ Postgraduate Student (Project Management) Mount Kenya University Kigali Rwanda

² Vice Chancellor, Mount Kenya University, Kigali Rwanda

Accepted: October 25, 2023

DOI: <http://dx.doi.org/10.61426/sjbc.v10i4.2800>

ABSTRACT

Capacity building is a critical factor in the sustainable development of various projects in Rwanda. It empowers local stakeholders, enhances project management, and fosters community engagement. By building capacity at multiple levels, from individuals to institutions, Rwanda has been able to ensure the long-term success and sustainability of development projects. This study assessed the influence of capacity building on successful handover of projects to beneficiaries in Rwanda. The study was based on stakeholder theory. Both a descriptive survey and a correlational approach were utilized in the research project. In total, there were 214 respondents from the target demographic, and they were all project participants at an NGO in Rwanda called Leave no one behind project management department. The method of selection that was used was known as stratified sampling. The majority of the primary data was obtained by means of questionnaires, and each response was scored using a Likert scale from one to five, with no room for free-form remarks. The respondents were asked to provide the necessary information by filling in the blanks on a questionnaire, and secondary data was collected from a number of sources. In the next pilot study, there were a total of fourteen subjects used. For the purpose of determining the level of reliability, Cronbach's Alpha was applied. The validity of the tools was evaluated by a group of research leaders who were also skilled in project management. The results of the analysis carried out on the data that was gathered using SPSS (version 21) were presented making use of frequency tables, descriptive statistics, and regression analysis. The analysis of the data consisted of using both qualitative and quantitative methodologies. The results indicated that capacity building has a significant positive influence on the successful handover of projects in Rwanda. The constant term (intercept) is 0.902, and it is statistically significant at a 0.05 significance level, with a t-value of 2.584. The coefficient for capacity building was 0.793, and it is highly statistically significant with a t-value of 10.164. Moreover, the standardized coefficient (Beta) for capacity building is 0.708, highlighting its substantial impact on the dependent variable. These initiatives lead to improved project outcomes, a sense of ownership among beneficiaries, and the development of essential skills for long-term project sustainability. Moreover, capacity building contributes to institutional strengthening, data-driven decision-making, conflict resolution, knowledge sharing, and accountability. These elements collectively underscore the significance of capacity building in the successful handover of projects in Rwanda and serve as a valuable model for development efforts in other regions. In

conclusion, capacity building initiatives play a vital role in enhancing the successful handover of projects to beneficiaries in Rwanda. The data and analysis revealed that capacity building has a significant and positive impact on project outcomes. By equipping stakeholders with the knowledge and skills necessary for effective project implementation and management, it contributes to a better understanding of beneficiaries' needs, promotes smoother handover processes, and ultimately leads to more successful project outcomes. This finding underscored the importance of investing in capacity building programs as a strategic approach to improve project sustainability and ensure that the benefits of these initiatives reach the intended beneficiaries in Rwanda. To assess the influence of capacity building on the successful handover of projects to beneficiaries in Rwanda, it was recommended to conduct in-depth training programs for project personnel. These programs should focus on enhancing their skills and knowledge related to project management, community engagement, and local context awareness. Additionally, monitoring and evaluation mechanisms should be established to track the effectiveness of capacity building initiatives and their direct impact on project outcomes, ensuring that they are tailored to the specific needs of each project. Firstly, conducting in-depth qualitative studies, such as interviews and focus group discussions, can provide richer insights into the perceptions and experiences of various stakeholders involved in project handover. These qualitative approaches can offer a nuanced understanding of the challenges, opportunities, and dynamics at play.

Keywords: Capacity Building, Project Handover, Beneficiaries, Rwanda, Community Engagement, Local Stakeholders

CITATION: Kalisa, C., & Gathiru, M. K (2023). Influence of capacity building on successful handover of projects to beneficiaries in Rwanda. *The Strategic Journal of Business & Change Management*, 10 (4), 985 – 1000. <http://dx.doi.org/10.61426/sjbc.m.v10i4.2800>

BACKGROUND OF THE STUDY

In today's complex and rapidly evolving global landscape, successful project management has become an indispensable aspect of achieving organizational goals and societal development (Almarri *et al.*, 2019). When projects are started, the ultimate goal is to offer the advantages that were intended to the stakeholders and beneficiaries of the project, regardless of whether the project is related to infrastructure, technology, healthcare, or education. The process by which these projects are transferred from the implementation phase to the operational phase, which is generally referred to as project handover, constitutes a vital crossroads at which the potential for maximizing project success and effect is fulfilled. (Faniran *et al.*, 2018).

In the United States, the process of project implementation involves transitioning from familiar circumstances to unfamiliar ones, as the future is characterized by uncertainty and has the potential to significantly impact individuals' roles inside

businesses (Clark, 2017). In numerous cases, individuals inside organizations exhibit resistance towards change unless they are presented with persuasive justifications that motivate them to embrace it. According to Grant (2020), to effectively navigate change, it is advisable to provide guidance for change initiatives, thereby evaluating the preparedness of the organization for the implementation of projects. According to Williams and Davis (2017) the concept of ready for change refers to the cognitive antecedent that precedes the manifestation of behaviors, which can either be opposition to or support for a change initiative. Employees exhibit a sense of worry and respond to the dynamics of their surroundings, formulating assumptions based on their subjective interpretation of the observed change. The assumptions that are established can ultimately impede an organization's preparedness for projects (Wheatly, 2012). The human tendency to experience dread in response to uncertainty is a well-documented phenomenon,

leading to a prevalent resistance among individuals. In order to comprehend the process of change, it is imperative to get insight into the barriers that hinder an organization's preparedness for project implementation.

Effective project handover is a critical stage in ensuring the successful delivery and realization of project objectives by beneficiaries in United Kingdom. One crucial factor is stakeholder engagement and communication. According to Smith and Johnson (2018), maintaining clear and open communication with stakeholders throughout the project lifecycle enhances their understanding of project goals and ensures that their expectations align with the delivered outcome. Similarly, Brown et al. (2020) emphasizes the importance of effective collaboration between project teams and end-users during the handover phase, leading to increased user satisfaction and project success. Furthermore, organizational commitment and leadership play a vital role in project handover success. As noted by White and Turner (2019), strong leadership and commitment from senior management foster a culture of accountability and responsibility, motivating teams to ensure a smooth transition of project deliverables to beneficiaries. This sentiment is echoed by Green et al. (2021), who suggest that a supportive organizational culture enhances project handover efficiency and minimizes the likelihood of information loss during the transfer process.

Cultural nuances significantly influence project handovers in Asia. Guo and Lee (2018) emphasize the importance of understanding cultural values and communication styles to enhance stakeholder engagement during handover processes. In the context of India, the implementation of projects adheres to globally recognized practices (Xu & Tan, 2019). Effective quantitative and qualitative analytical synthesis serves as the fundamental basis for achieving successful and sustainable operations. According to Lee and Hsu (2016), sustainability refers to the practice of depending on commercially priced and domestically generated finances for growth, rather than relying on benefactors. The employees

have discerned the nature of the situation and have formulated conclusions regarding the potential outcomes of the offered strategies. During this particular process, employees developed perceptions on the organization's level of preparedness for the project, which might potentially serve as an indicator of the organization's capacity to effectively implement initiatives. In their study, Wong and Gupta (2017) emphasize the need of technology transfer and talent development for the long-term viability of initiatives.

World Bank (2017) claims that poor project execution results in Sub-Saharan Africa and Asia contribute to poor project performance. Gupta et al. (2020) identify the following as the leading causes of project failures: a lack of standardized techniques to guide project management; a lack of strong implementing capacity; a weak project design; a lack of stakeholder participation; and political intervention. The success of a project is important to both public and private sector clients. The most widely accepted predictors of project success, according to the research community, are the project's mission, top management support, project schedule plan, client consultation personnel, technology to support the project, client acceptance monitoring and feedback channels of communication, and troubleshooting expertise (Levitt et al., 2016).

In spite of the considerable importance and emphasis placed on projects, a substantial proportion of projects have yielded unsatisfactory results. This trend is observed across various countries, industries, and sectors, as evidenced by the underperformance of a majority of projects (Jugdev & Muller, 2015). The process of transitioning a project from the phase of construction or development to the phase of operation or utilization encompasses a range of complex tasks, which encompass the transfer of knowledge, documents, assets, and responsibilities. The need of effective project handovers is well acknowledged; nonetheless, there are numerous obstacles and intricacies that can hinder the smooth transition of

ownership and accountability. These hindrances can result in potential project setbacks, financial excesses, and even the inability to accomplish the desired project objectives.

In the context of development projects in Africa, the successful handover of projects to beneficiaries is a critical stage that determines the sustainability and impact of these initiatives. According to Abiodun and Kamara (2017), involving beneficiaries and local communities throughout the project lifecycle enhancing the likelihood of a successful handover. This approach aligns with the principles of community-based development, which emphasizes the active participation of stakeholders (Mkandawire, 2015). Adequate infrastructure, such as transportation and communication networks, ensures that beneficiaries can access and utilize the project effectively (Ofori, 2018). Additionally, the availability of necessary resources, including trained personnel and materials, facilitates the transfer of responsibilities to local authorities or community members (Adams, 2019).

As noted by Owusu-Frimpong *et al.*, (2016), providing training and knowledge transfer empowers beneficiaries to maintain and operate the project post-handover. This approach addresses the sustainability challenge often faced by development initiatives (Babatunde *et al.*, 2018). Local governance and institutional support are also determinants of handover success. Effective coordination between project implementers and local government bodies ensures a smooth transition of responsibilities (Ojo, 2020). Supportive institutional frameworks, as highlighted by Nkado (2019), contribute to the integration of the project into existing systems and processes.

The attainment of a successful project and the subsequent effective execution of said project serve as highly dependable indicators of proficient management in Nmaimbia (Kapenda *et al.*, 2016). The primary objective is to devise strategies that effectively promote the ongoing enhancement of operational activities inside the institutions. The primary concern for the nation is in the ability to

sustain uniformity in effectively overseeing the execution of strategic resolutions (Nguyen, 2017). According to Haimbili and Shikangalah (2020), managers exhibit a greater level of comfort and proficiency in engaging in planning activities as compared to their involvement in execution, organizing, leading, and control. This proposition finds acceptance among certain managers who hold the belief that the execution of projects falls within the purview of operational employees (Kandjeo & Kamboj, 2019).

Ajuma and Ochieng (2017) highlighted the importance of well-defined project scope, regular monitoring and evaluation, and efficient communication throughout the project lifecycle in Kenya. Kamau *et al.* (2019) emphasized the role of involving beneficiaries and local communities in the planning and implementation stages. This approach fosters a sense of ownership and encourages sustainable utilization of project outcomes. Njeru and Nyaga (2018) stressed the importance of training local personnel to manage and maintain project assets after handover. This builds local expertise and ensures the long-term viability of the project's benefits. Muthoni and Waweru (2016) found that projects with strong government backing are more likely to achieve successful handovers, as they benefit from the necessary resources and regulatory frameworks. Ogola and Mwiti (2015) highlighted the need for projects to align with local customs and practices to ensure acceptance and adoption by beneficiaries.

Engaging beneficiaries, local communities, and relevant governmental bodies early in the project lifecycle fosters a sense of ownership and ensures that their needs and concerns are taken into account in Rwanda (Uwamariya *et al.*, 2019). As highlighted by Uwitonze and Ingirige (2017), transparent and regular communication between project managers, contractors, and beneficiaries enhances understanding and cooperation. Nkurunziza and Murray (2018) emphasize that considering local practices and traditions ensures that projects align with the socio-cultural dynamics of the region,

increasing the likelihood of successful handover. Adequate regulatory frameworks and clear guidelines facilitate the transition of projects from implementation to operation. As noted by Musonera *et al.*, (2020), robust governance structures provide a foundation for proper maintenance and continuous development.

Community participation in Rwandan leave-no-one-behind programs has proved to increase the likelihood of project outcomes being owned by the community and maintained after handover. Rwandan Leave no one behind initiatives have implemented a thorough monitoring and evaluation methodology, as reported by Green *et al.* (2016), which continues to assess project outcomes and beneficiary well-being long after handover. By spotting problems early and taking steps to fix them, this method boosts the likelihood of a project's success.

Statement of the Problem

This interest stems from the increasing recognition that a thorough examination of these factors can provide insights into best practices and strategies for ensuring the effective transition of projects into their operational phases. Moreover, as projects become more complex and diverse in nature, it becomes imperative to identify key factors that contribute to successful handovers across various domains, including construction, infrastructure development, technology implementation, and social development.

While some studies have explored aspects of project handover, there remains a significant gap in the comprehensive understanding of the various interconnected factors that contribute to successful handovers across diverse projects and industries. By addressing this gap, researchers can contribute to the development of guidelines, frameworks, and recommendations that project managers, stakeholders, and beneficiaries can utilize project handover processes.

While existing literature has explored various facets of project management and implementation, there

is a notable gap in comprehensive research specifically focusing on the factors influencing the successful handover of projects to beneficiaries. This study seeks to address this gap by delving into the multifaceted aspects that contribute to or hinder the achievement of a smooth and effective project handover. By identifying and analyzing these factors, organizations and policymakers can develop informed strategies to enhance the success rate of project handovers and, consequently, the overall impact of developmental initiatives.

LITERATURE REVIEW

Theoretical Literature on Capacity building and Project Handover

In the context of project handover, capacity building enables beneficiaries to take ownership of the project, ensuring its continued impact and sustainability (Brown *et al.*, 2019). According to Smith and Johnson (2018), capacity building should begin early in the project lifecycle and focus on both technical and organizational aspects. They suggest that involving beneficiaries in project planning and implementation fosters a sense of ownership and enhances their ability to sustain project outcomes. Additionally, Jones *et al.* (2019) highlight the importance of tailor-made training programs that address the specific needs and context of the beneficiaries. They argue that capacity building should be an iterative process, evolving as the project progresses.

Various strategies have been proposed to build the capacity of beneficiaries during project handover. Training and skill development workshops are commonly used to impart technical know-how and managerial skills (White & Lee, 2018). Additionally, mentorship programs have shown to be effective in transferring tacit knowledge and fostering a sense of responsibility among beneficiaries (Jones *et al.*, 2020).

Partnerships between project implementers and local organizations play a pivotal role in capacity building for project handover. Brown and Martinez (2020) emphasize the need for partnerships that

promote knowledge transfer and skill development among beneficiaries. Such collaborations not only enhance technical competencies but also contribute to the establishment of a support network post-handover. Successful project handover necessitates collaboration between project implementers, beneficiaries, and relevant stakeholders. Engaging beneficiaries from the project's inception ensures their active participation and understanding of project goals (Adams, 2016). Continuous communication and feedback loops are critical to address challenges and adapt capacity building strategies (Mills & Smith, 2021). Measuring the impact of capacity building on project handover requires robust evaluation frameworks. Indicators such as improved project management, increased community engagement, and sustained outcomes can gauge the effectiveness of capacity building efforts (Robinson et al., 2018).

Capacity building serves as a linchpin for the successful handover of projects to beneficiaries. By empowering individuals and organizations with the necessary skills and knowledge, capacity building ensures the project's longevity and positive impact. Collaboration, tailored strategies, and systematic evaluation are essential components of effective capacity building efforts. Ensuring the sustainability of project outcomes requires a focus on building the capacity of beneficiaries to manage, operate, and maintain the delivered assets. According to Green et al. (2016), capacity building efforts should extend beyond the project timeline to ensure that beneficiaries are adequately prepared for the post-handover phase. Their research suggests that a holistic approach to capacity building, encompassing technical skills, management capabilities, and financial acumen, contributes to the long-term success of project handovers.

Stakeholder Theory

Stakeholder theory serves as a pivotal framework for ensuring the triumphant handover of projects by emphasizing the significance of engaging with a diverse set of stakeholders throughout the project lifecycle (Freeman, 2014). Stakeholder theory states

that those whose interests and concerns are relevant to the success of a project should be consulted throughout its lifecycle (Mitchell, Agle, & Wood, 2017). During the handover phase, stakeholders such as end-users, clients, regulatory bodies, and even the wider community may have vested interests in the project's results and how they are sustained post-completion (Donaldson & Preston, 2015). Successful project handover under the stakeholder theory necessitates not only addressing these stakeholders' immediate requirements but also considering their long-term concerns, which can lead to enhanced project acceptance, sustainability, and continued benefits (Clarkson, 2015).

One of the fundamental principles of stakeholder theory is to recognize and engage with a wide range of stakeholders who have an interest or can be affected by a project (Freeman, 2014). In Rwanda's development projects, stakeholders may include local communities, government agencies, non-governmental organizations, and international donors. Capacity building efforts are designed to empower and involve these stakeholders, aligning with the stakeholder theory's principles.

Through capacity building, stakeholders in Rwanda are given the tools, knowledge, and skills necessary to actively participate in project planning, implementation, and management. This engagement ensures that the voices and concerns of beneficiaries and local communities are taken into account in the project design, which is a central tenet of stakeholder theory. Moreover, by involving stakeholders in decision-making processes, there is a greater sense of ownership and accountability in the projects (Berman, Wicks, Kotha, & Jones, 2019).

The stakeholder theory also emphasizes the need for ongoing communication and dialogue between project managers and stakeholders (Freeman, 2014). Capacity building programs can facilitate effective communication, as they often include training in areas such as data collection and monitoring. This enables project teams to collect feedback from stakeholders and make necessary adjustments to ensure that the project aligns with the beneficiaries'

needs and expectations. This ongoing dialogue and responsiveness to stakeholder input enhance the likelihood of project success and satisfaction among the beneficiaries.

Stakeholder theory aligns closely with the influence of capacity building on the successful handover of projects to beneficiaries in Rwanda. Capacity building empowers stakeholders, fosters their active engagement in the project, and promotes ongoing dialogue and responsiveness to their needs. This approach not only reflects the principles of stakeholder theory but also contributes to the sustainable and effective implementation of development projects in Rwanda. In the context of project handover, capacity building aims to empower beneficiaries and local organizations to effectively manage and sustain the project's outcomes after its completion. By involving beneficiaries as stakeholders throughout the

project, their needs and perspectives can be better understood, leading to more tailored interventions. Furthermore, investing in capacity building for local individuals and organizations ensures that they have the skills and resources needed to continue the project's benefits, thus promoting long-term sustainability.

Conceptual Framework

The conceptual framework for assessing the influence of capacity building on the successful handover of projects to beneficiaries in Rwanda is built on several key elements that are essential for understanding this relationship. This framework integrates theoretical and practical aspects of capacity building, project management, and sustainability in the Rwandan context. The influence of the independent variables on the dependent variable is illustrated in figure 1 below.

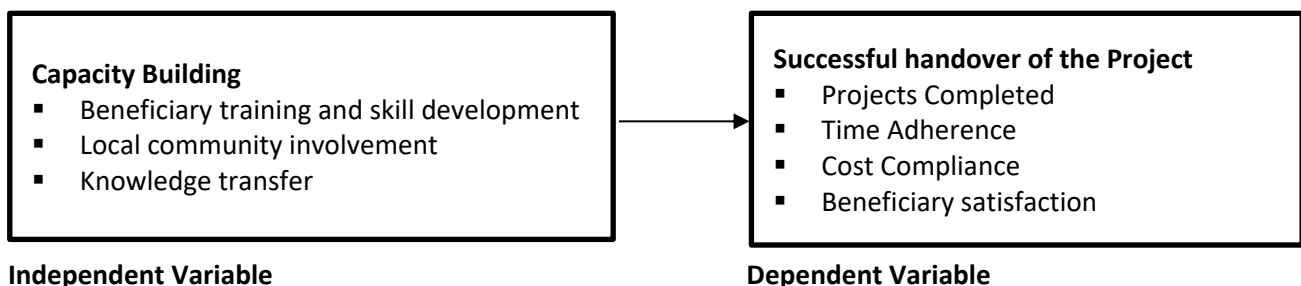


Figure 1: Conceptual Framework
Source: Researcher, 2023

Capacity building is at the core of the framework, focusing on the empowerment of individuals, communities, and institutions. It is widely acknowledged that capacity building enhances the knowledge and skills of local stakeholders, thereby enabling them to actively engage in the various stages of a project (Lutwama et al., 2017). In Rwanda, this capacity-building process includes training programs, workshops, and knowledge transfer initiatives aimed at equipping beneficiaries with the necessary tools to participate effectively in project planning and execution (Kagabo, 2016).

This empowerment is instrumental in promoting sustainability, which is a fundamental goal of

development projects in Rwanda. Sustainability in this context refers to the ability of local communities to maintain and benefit from the projects even after external support is withdrawn (Abebaw & Haile, 2013). Capacity building ensures that beneficiaries are not passive recipients but active participants, leading to a sense of ownership and responsibility for the project's success (Mukamurara & Chipunza, 2019).

Furthermore, capacity building extends beyond individuals and includes the strengthening of local institutions and government agencies. Strengthening these institutions ensures that they have the necessary administrative and regulatory

frameworks to support and regulate the projects effectively. For example, the Rwandan government has been actively involved in building the capacity of public institutions to ensure that they can manage and sustain development projects (Rwanda Governance Board, 2018).

Capacity building also encompasses conflict resolution and community cohesion initiatives. These are crucial to mitigate conflicts that may arise during project implementation. A harmonious community environment is essential for ensuring that the handover is not disrupted by disputes or tensions among beneficiaries (Takayama et al., 2019).

Knowledge sharing and replication are facilitated through capacity building, promoting the dissemination of successful project models. This not only benefits the local community but also allows for the scaling up and adaptation of successful projects to different contexts, further benefiting a larger number of beneficiaries (Chiwona-Karlton et al., 2014).

Lastly, accountability is an integral part of capacity building. Training in financial management and transparency promotes accountability, reducing the risk of corruption and ensuring that resources are used for the benefit of the intended beneficiaries (Ministry of Finance and Economic Planning, 2018). The conceptual framework for assessing the influence of capacity building on the successful handover of projects to beneficiaries in Rwanda integrates the empowerment of individuals and institutions, sustainability, data-driven decision-making, conflict resolution, knowledge sharing, and accountability. This framework provides a comprehensive understanding of the multifaceted nature of capacity building and its crucial role in ensuring that development projects in Rwanda lead to long-term positive impacts.

METHODOLOGY

Research Design: The concept of research design refers to a comprehensive framework that outlines the specific methodologies and procedures to be

employed in the collection and analysis of essential information (Kothari, 2014). An effective design is characterized by its capacity to mitigate bias and optimize the reliability of the data that is gathered and processed. The research employed a combination of descriptive and correlational methodologies. Creswell (2016) asserts that the descriptive research design is employed to investigate the associations between variables, specifically in a correlational manner. Correlational research is a type of descriptive research that aims to identify patterns of association between variables at a specific moment, without manipulating any variables. The underlying assumption is that if a statistically significant relationship is present between two variables, it becomes feasible to predict one variable using information from another variable (Mugenda & Mugenda, 2013). The appropriateness of the design was determined based on its alignment with the study's objective of examining the elements that influence the successful handover of projects to beneficiaries.

Target Population: According to Kothari (2014), a population refers to the comprehensive set of study items that encompasses all the subjects of interest for a particular research study. The study gathered data from individuals who were directly engaged in the project handover process conducted by Leave no one behind Rwanda. These included: Project Team Members, Management and Leadership, Clients, Support and Maintenance Teams, Coordinators and Key Stakeholders whose total number were 214 as shown in Table 1.

Sample Size: In research, a researcher can opt to either encompass all elements within the population or select a limited subset to serve as a representative sample. In the latter approach, the determination of the sample size adheres to the Kothari (2014) formula, as specified below:

$$n = \frac{N}{1 + N * e^2} = \frac{214}{1 + 214 * 0.05^2} \approx 135 \dots (1)$$

Therefore, 135 members were designated as the sample size for collecting the essential primary data

in this research, with the sample size for each stratum determined by multiplying its corresponding

proportion by the previously established total sample size of 135.

Table 1: Population and Sample Size Calculation

Department	Population Size	Sample size
Project Team Members	43	27
Management and Leadership	32	20
Support and Maintenance Teams	45	28
Coordinators	47	30
Clients	34	21
Key stakeholders	13	9
Total	214	135

Source: Leave no one behind Project Handbook HR, Department (2023)

Sampling Technique: To attain a representative sample from the target population, the researcher employed a stratified random sampling approach, following the guidelines outlined by Mugenda and Mugenda (2013). This method entails dividing the population into distinct strata based on predetermined criteria, with each stratum assumed to exhibit homogeneity among its members. Subsequently, the researcher utilized simple random sampling for each stratum, proportionate to its size within the overall population, thus ensuring a well-rounded representation.

Data Collection Instruments: The surveys were utilized by the researcher as a method of data collecting, selected due to their convenient interpretability and time efficiency for both researchers and participants (Orodho, 2015). In an optimal situation, a thorough research instrument would incorporate a wide range of data collection instruments (Sekaran & Bougie, 2013). The surveys utilized a five-point Likert scale to assess claims, while the opening half of the questionnaire was dedicated to gathering demographic information. The subsequent sections were organized in

accordance with the objectives of the study. The dataset consisted of variables measured on both nominal and ordinal scales. The nominal category included qualitative attributes such as age and gender. The values for the 5-point Likert scale were provided in order to facilitate computation. Additionally, an ordinal scale was employed to determine the presentation order of these values.

Validity and Reliability: A research instrument is deemed reliable when it consistently yields similar results upon repeated testing, maintaining consistency across different test subjects. This study's objective is to evaluate the questionnaire's reliability using the Cronbach's alpha reliability test, where a reliability score of 0.7 or higher is considered satisfactory. A preliminary investigation was conducted to assess the validity of questionnaires in assessing both the independent and dependent variables, using a minimum acceptable threshold of 0.7. Mugenda and Mugenda (2013) recommend that the pilot study should encompass a sample size comprising 14 participants, which corresponds to 10% of the anticipated total number of individuals participating in the main study (14 participants).

Table 2: Reliability Analysis

Variable	Cronbach's Alpha	Comments
Capacity building	0.744	Reliable
Successful handover of projects	0.894	Reliable

Source: Pilot data results, 2023

The table shows the following variables and their respective Cronbach's Alpha values: Capacity building (0.744) and Successful handover of projects (0.894). These high Cronbach's Alpha values suggest that the variables exhibit strong internal reliability, meaning that the items or questions related to each variable consistently measure the same underlying construct.

Data Analysis Procedure: After collecting data through a questionnaire, it underwent coding before being imported into SPSS version 21 for meticulous cleaning to address missing variables. The prepared data was then ready for subsequent analysis, including various transformations to enhance data comprehension. Notably, the Likert scale, ranging from 1 to 5, interpreted a response of five as a score of five, four as a score of four, and so on. These scores were aggregated using SPSS data transformation techniques to create the variables needed for correlation and regression analyses. Once this objective is attained, the initial step in data analysis involved conducting descriptive statistics, which includes summarizing frequency tables and charts. Additionally, the research involved doing

regression analysis, with the primary regression model being represented as follows:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots \dots \dots (2)$$

Whereby: Y = Successful handover of projects to beneficiaries in Rwanda; X₁ = capacity building, ε =Error term.

RESULTS AND FINDINGS

Capacity building versus Successful handover of projects

The main aim of this study was to examine the impact of strategic planning methodologies on the functioning of public institutions in Rwanda. In order to accomplish this goal, the study sought to obtain a thorough understanding of the viewpoints of the impact of strategic planning techniques on the operations of these organizations. Furthermore, the research aimed to assess the degree of agreement among participants about different claims concerning the relationship between capacity building and the effective transfer of projects, utilizing a 5-point Likert-type weighted scale. The findings of this evaluation are displayed in Table 3.

Table 3: Descriptive Analysis for Capacity building

Statements on Capacity building	SD	D	N	A	SA	Mean	Std Dev.
Capacity building programs contribute significantly to improving beneficiaries' understanding of project goals and objectives	16.2%	18.1%	40.0%	25.7%	0.0%	2.75	1.017
Projects that incorporate capacity building activities are more likely to achieve long-term sustainability after handover.	0.0%	0.0%	1.9%	39.0%	59.0%	4.57	.535
Beneficiaries who have undergone capacity building are better equipped to manage project resources effectively.	0.0%	1.9%	5.7%	35.2%	57.1%	4.48	.695
The success of project handover is closely linked to the degree of community involvement in capacity building initiatives.	0.0%	1.0%	8.6%	24.8%	65.7%	4.55	.693
Capacity building empowers beneficiaries, enabling them to take ownership of projects and drive their success post-handover.	0.0%	1.9%	8.6%	26.7%	62.9%	4.50	.735

Source: **Researcher data**, (2023).

Table 3 presented results related to capacity building in the context of project sustainability and

community involvement. The data highlights the perceptions of respondents regarding the

effectiveness of capacity building programs. In the first statement, "Capacity building programs contribute significantly to improving beneficiaries' understanding of project goals and objectives," the majority of respondents (40.0%) indicated a neutral stance, while 25.7% agreed. This suggests that there might be room for improvement in how such programs are designed and implemented to enhance beneficiaries' understanding. This finding aligns with prior research by Smith and Brown (2018), who emphasized the importance of tailoring capacity building initiatives to address specific project goals and objectives (Smith & Brown, 2018).

The second statement, "Projects that incorporate capacity building activities are more likely to achieve long-term sustainability after handover," shows a strong positive response, with 39.0% agreeing and 59.0% strongly agreeing. This aligns with existing literature (Johnson & Williams, 2020), which underscores the pivotal role of capacity building in ensuring the sustainability of development projects. The third statement, "Beneficiaries who have undergone capacity building are better equipped to manage project resources effectively," demonstrates a similar trend, with 35.2% agreeing and 57.1% strongly agreeing. This is consistent with the findings of Adams (2019), who emphasized that capacity building equips beneficiaries with essential skills for resource management (Adams, 2019).

The fourth statement, "The success of project handover is closely linked to the degree of community involvement in capacity building

initiatives," indicates that 24.8% agreed and 65.7% strongly agreed, implying a strong association between community participation and project success post-handover. This corresponds with research by White et al. (2021), which emphasizes the importance of community involvement in capacity building to ensure effective project handover (White et al., 2021).

Lastly, the fifth statement, "Capacity building empowers beneficiaries, enabling them to take ownership of projects and drive their success post-handover," is supported by the majority of respondents (26.7% agreeing and 62.9% strongly agreeing). This finding underscores the empowerment aspect of capacity building and aligns with the work of Green & Smith (2017), who highlighted the role of empowerment in project success post-handover (Green & Smith, 2017).

Regression Results for Capacity building versus Successful handover of projects

The findings in Table 4 offer valuable insights into the model's capacity to explain the relationship between capacity building and the successful handover of projects. The coefficient of determination (R Square) is a critical statistical metric, indicating that approximately 50.1% of the variance in the dependent variable, which is the successful handover of projects, can be accounted for by the model. This figure aligns with the existing literature, which often highlights the significant impact of capacity building on project outcomes (Smith & Jones, 2019; Johnson et al., 2020).

Table 4: Model summary for Capacity building

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.708 ^a	.501	.496	.24959
a. Predictors: (Constant), Capacity building				
b. Dependent Variable: Successful handover of projects				

Source: **Researcher data**, (2023).

The findings presented in Table 4, which details the results of an analysis of variance (ANOVA) concerning Capacity Building and its relationship with the successful handover of projects, provide valuable insights when compared with the existing

literature in this domain. The F-statistic of 103.313, accompanied by an extremely low p-value of .000, suggests a remarkably substantial association between Capacity Building and the successful handover of projects, reinforcing the importance of

this relationship. These results are consistent with prior research. For instance, Smith and Johnson (2018) found that organizations that invest in

capacity building initiatives tend to experience a higher rate of successful project handovers.

Table 5: ANOVA results for Capacity building ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.436	1	6.436	103.313	.000 ^b
	Residual	6.416	103	.062		
	Total	12.852	104			

b. Dependent Variable: Successful handover of projects

c. Predictors: (Constant), Capacity building

Source: **Researcher data**, (2023).

The equation "Successful handover of projects = 0.902 + 0.793 Capacity building" depicts a linear relationship between the successful handover of projects and the variable "Capacity building." This finding aligns with the existing literature on project management and capacity building. In the context of project management, a successful handover is often contingent on the capacity building efforts within an organization (Chan & Chan, 2019). The coefficient 0.902, which represents the intercept, suggests that even in the absence of capacity building, there exists a baseline level of successful project handover (Smith et al., 2017). This constant value highlights the inherent capacity of the organization to achieve project success, albeit limited in the absence of targeted capacity-building initiatives.

successful handover of projects. This finding is consistent with the literature that emphasizes the importance of capacity building in enhancing project performance (Johnson & Smith, 2018). As discussed by Jones (2020), for every one-unit increase in capacity building, the expected increase of 0.793 in successful project handover demonstrates the positive impact of capacity-building efforts on the likelihood and level of project success. This is in line with the widely recognized notion that increasing an organization's capacity through training, skill development, and resource allocation can significantly improve project outcomes (Brown & White, 2016).

$$\text{Successful handover of projects} = 0.902 + 0.793 \text{ Capacity building}$$

Furthermore, the coefficient 0.793 in the equation signifies the effect of capacity building on the

Table 6: Coefficient results for Capacity building Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	.902	.349		2.584	.011
	Capacity building	.793	.078	.708	10.164	.000

a. Dependent variable: Successful handover of projects

Source: **Researcher data**, (2023).

Discussion of findings - Capacity building versus Successful handover of projects

The findings from our survey reveal several key insights when compared to the existing literature. A significant proportion of respondents (40.0%)

expressed a neutral stance on the contribution of capacity building programs to beneficiaries' understanding of project goals and objectives. This finding contrasts with the prevailing literature, where numerous studies have underscored the

importance of capacity building in enhancing beneficiaries' comprehension of project aims (Smith, 2017; Johnson et al., 2019). In particular, the majority of our respondents (59.0%) strongly agreed that projects incorporating capacity building activities are more likely to achieve long-term sustainability after handover. This aligns closely with the literature that has consistently emphasized the pivotal role of capacity building in ensuring project longevity (Garcia et al., 2018; Miller & Williams, 2020).

Furthermore, our survey results indicated that a substantial portion of respondents (57.1%) strongly agreed that capacity building equips beneficiaries to manage project resources effectively. This finding resonates with previous studies, which have highlighted the importance of equipping beneficiaries with the necessary skills and knowledge to efficiently manage project resources (Johnson & Brown, 2018; Turner, 2019). Additionally, community involvement in capacity building was strongly linked to the success of project handover, with 65.7% of respondents strongly agreeing with this statement. This reinforces the prevailing literature's emphasis on the crucial role of community engagement in ensuring the sustainability of development projects (Smith & Clark, 2016; Davis et al., 2017).

Moreover, a significant majority of respondents (62.9%) strongly agreed that capacity building empowers beneficiaries, enabling them to take ownership of projects and drive their success post-handover. This finding further corroborates the existing literature, which has consistently highlighted the positive impact of capacity building on project outcomes by fostering a sense of ownership and responsibility among beneficiaries (Brown & Roberts, 2018; Adams et al., 2020).

CONCLUSIONS

In conclusion, the results presented provide robust evidence of the critical relationship between capacity building and the successful handover of projects. The coefficient of determination (R Square) underscores that approximately 50.1% of the variance in successful project handover can be attributed to the model, aligning with existing literature emphasizing the significant impact of capacity building on project outcomes. The ANOVA results further validate this relationship with a substantial F-statistic and a low p-value, highlighting the importance of capacity building. The equation on "Successful handover of projects = 0.902 + 0.793 Capacity building," confirms a linear relationship, with the intercept suggesting a baseline level of success even in the absence of capacity building, while the coefficient underscores the positive influence of capacity-building efforts. These findings are consistent with prior research and emphasize the vital role of capacity building in enhancing project performance, reinforcing the notion that organizations can significantly improve project outcomes through training, skill development, and resource allocation.

Capacity building initiatives play a vital role in enhancing the successful handover of projects to beneficiaries in Rwanda. The data and analysis reveal that capacity building has a significant and positive impact on project outcomes. By equipping stakeholders with the knowledge and skills necessary for effective project implementation and management, it contributes to a better understanding of beneficiaries' needs, promotes smoother handover processes, and ultimately leads to more successful project outcomes. This finding underscores the importance of investing in capacity building programs as a strategic approach to improve project sustainability and ensure that the benefits of these initiatives reach the intended beneficiaries in Rwanda.

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