International Journal of **Project Management** (IJPM)



Effects of Project Implementation Practices on Project Performance in Tanzania: The Case of Mnazi Bay Gas



Neema Hakim Salim Bitesigirwe & Dr. Fredrick W.S Ndede



Effects of Project Implementation Practices on Project Performance in Tanzania: The Case of Mnazi Bay Gas

Neema Hakim Salim Bitesigirwe ^{1*} & Dr. Fredrick W.S Ndede ²

REG: D53EA/CTY/PT/26234/2018 ¹Kenyatta University

²Department of Managerial Science



Abstract

Purpose: The successful achievement of any project means that several of its perceived factors were attained. The success of projects depends on how the risks are mitigated and the way it is managed and controlled. This study examined project implementation management practices and their effects on the Mnazi Bay Gas Project Performance. Towards analysing the data, the study used the Resource Based Theory, Theory of Constraints, Management Theory, and Stakeholder Theory.

Methodology: The study employed a descriptive approach and utilized primary and secondary research methods. The sample size for the study was 100 respondents which included residents around the project, local government leaders, political leaders as well as managers and officials managing the project. Out of 100 only 84 respondents were reached. This study employed simple random sampling and purposive sampling to recruit study sample. The quantitative data were collected through questionnaires and the collected data were analysed using descriptive analysis and presented through descriptive statistics.

Findings: The study reveals a positive relationship between the successful implementation of the Mnazi Bay Gas project and its overall performance, notwithstanding the challenges associated with community involvement. The research significantly advances our understanding of how project management methods influence the project's success. furthermore, the study highlights the project's strengths, including effective implementation, skilled personnel, and clear communication channels, but also identifies weaknesses, particularly in community engagement. Moreover, the study underscores the impact of various management and implementation challenges, such as difficulties in community involvement, regulatory compliance, and environmental assessments, on the project's performance and ultimate success.

Conclusion: The study leverages Resource-Based Theory to underscore the efficient utilization of available resources, demonstrating its impact on Mnazi Bay Gas project performance. It utilizes the Theory of Constraints to pinpoint and tackle critical bottlenecks within this resource-intensive project. Management Theory offers a comprehensive view of project management practices and evaluates diverse managerial approaches. Lastly, Stakeholder Theory provides a thorough analysis of stakeholder interests and involvement, shedding light on the intricate dynamics within Mnazi Bay Gas involving local and international stakeholders. This integration of theories enhances the study's analytical framework, enabling a multifaceted evaluation of project implementation practices and their influence on project performance. This study concludes that there is positive relationship between project implementation and the performance of the Mnazi Bay Gas project. Apart from challenges that were identified with regard to community involvement, the Mnazi Bay Gas project was implemented well. However, there are challenges which were identified during planning in so far as the indigenous or surrounding community of the project are concerned. They were not furnished with enough information about the project, their expectations were not met mainly employment to an uneducated and better life and the dissemination of information during planning was bias since the brochures and flyers used a foreign language which is English.

Recommendations/Policy Implications: Theories enrich the study's analytical framework, facilitating a comprehensive assessment of project implementation practices and their influence on performance. Thus, with this achievement policymakers should consider resource allocation strategies to enhance project performance in resource-intensive endeavors and address critical bottlenecks within projects and implement measures to alleviate constraints. Practitioners involved in project implementation should focus on optimizing resource utilization. Practitioners should adopt a stakeholderoriented approach, actively engaging with diverse stakeholders and considering their interests throughout the project's lifecycle.

Keywords: *Project Management Practices, Project Performance*



1.0 INTRODUCTION

Project implementation practices play a pivotal role in the overall success and performance of projects across the globe. Effective project management is essential for the successful execution of projects, whether in the context of industrialized nations or in the emerging economies of Africa (Silvius & Schipper, 2014). Effectively managing a project is an integral part of development as well as success of the project. The application of methodologies, processes, skills, knowledge, and experience to fulfil project objectives within agreed-upon parameters while adhering to project acceptance criteria is referred to as project management (Mochal, 2009).

Chandra (2010) stated that project management is an activity in businesses that acts as a critical method for accomplishing project goals, implementing them, and improving them through time. Tereso et al., (2019) observes that the value of project management is a function of what is implemented and how well it fits the organizational context. They further bring forward the concept of "fit" and "misfit" as a balance to organization goals and management system. Management approach when effectively integrated with project characteristics can determine the failure or success of the project (Tereso et al., 2019).

In a global context, the significance of projects is undeniable. Many studies have underscored the need for effective project management practices to ensure the successful delivery of projects. Inefficient project implementation practices can result in delays, cost overruns, quality issues, and ultimately, the failure of projects, which can have far-reaching consequences on economies and societies (Kerzner, 2017). Project Management Practices are the methods that enable goal achievement when dealing with projects. Tereso et al., (2019) observes that various organization and governments are increasing their attention in applying project management practices as their key to project success.

Achievement of the project can be determined by various factors; however, community benefit should be realized. Mughal, (2017) According to the author Mughal, project management approaches used to play a critical role in shaping how community initiatives are carried out in a number of organizations. Successful implementation projects contribute significantly to community development, which has a favourable impact on general economic development and living standards (Mochal, 2009). Successful implementation of a project needs effective and efficient implementation of project management practices by managers. The practices include project planning, cost management, stakeholder participation, risk management and quality management (Wawira, 2017).

In developed countries such as the United States and Germany, project management practices are often characterized by well-established standards, advanced regulatory frameworks, ample financial resources, and access to highly skilled professionals. For instance, a construction project in the United States may entail comprehensive project planning, stringent adherence to safety and environmental regulations, a highly trained workforce, and state-of-the-art technology adoption (Torres et al. 2021). In German the emphasize was put forward on comprehensive project planning, which includes clear objectives, timelines, budgets, and risk assessments. This helps in aligning the project with its intended goals and monitoring progress effectively (Turner, 2014).

England typically have stringent regulatory frameworks that ensure compliance with environmental, safety, and quality standards. These regulations help in minimizing risks and ensuring project sustainability (Pinto & Slevin, 2018). The availability of a skilled and experienced workforce in developed countries contributes to efficient project execution. Proper training and education systems are in place to maintain a capable workforce and often adopt state-of-the-art technology, which not only enhances project efficiency but also ensures quality and safety standards are met (Schwalbe, 2018; Kerzner, 2013).



In contrast, developing countries like Tanzania face distinct challenges during project implementation. These challenges, as evidenced in the case of Mnazi Bay Gas, stem from limited financial and technical resources, inadequate infrastructure, less stringent regulatory frameworks, a shortage of skilled labor, and the influence of socio-cultural factors. For instance, a large-scale infrastructure project in Tanzania has been hampered by budget constraints, unreliable transportation and energy infrastructure, less rigorous regulatory oversight, a scarcity of skilled professionals, and considerations of community traditions and expectations (Mhando et al.2018; Chelishe & Kikwasi,2014). In Rwanda and Ghana for example, the implementation practices have increased number of success in the performance of projects although they face difficulties such as resource acquisitions and risks (Thaddee et al.2022; Kissi, et al. 2019).

Mnazi Bay Project Performance

The Mnazi Bay Production Sharing Agreement ("Mnazi Bay") covers 756 square kilometres and is located onshore in southern Tanzania (Mtwara area), about 410 kilometres south of Dar es Salaam. In a joint venture with Tanzania Petroleum Development Corporation "TPDC" (20%) and Wentworth Capital, Maurel et Prom (48.06%) controls the Mnazi Bay asset (31.94 percent) (Wentworth, 2020). The Madimba gas processing plant was completed and commissioned in 2016, enabling production to increase to 44 million standard cubic feet per day. In 2017, production increased to about 50 MMscfd (Wentworth, 2020). Mnazi Bay is Tanzania's leading domestic gas-to-power (GTP) provider, with a market share of between 52 and 55 percent.

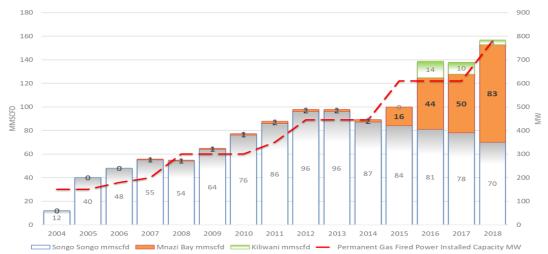


Figure 1: Leading Domestic Das to Power ("GTP") Supplier

It has been rightly observed that Project Management Practices are a benchmark toward project performance and success. According to Kerzner (2015), as quoted in Tereso et al., (2019), employing the best project management techniques results in enhanced market value, greater profit realization, and improved benefit management activities. Pinto and Slevin (2012) as cited in Ahmed, (2019) avers that success of the project is measured by among others realizing two things. Firstly, the requisite prospect of the stakeholders and the secondly accomplishing projected motive. They further mention that project success largely relies on a list of the most relevant project activities and a well detailed planning. It is through this strategy that the implementer of the concerned project can make right and informed decisions.

Tanzania, like many other developing countries, has a higher rate of public-private partnership (PPP) project cancellation than the global average. According to Nicholas (2018), this indicates a lack of incorporation of effective PM standards and values. Developing countries face major difficulties and obstacles in executing various projects. (Kavishe & Chileshe, 2018). Henceforth, Tanzania, like most



developed and emerging economies, has a project management issue (PM). The failure of projects to meet budget and schedule requirements is one of the issues described as a problem for developing countries (Kavishe & Chileshe, 2018).

Various examples can be drawn in this, for instance the Kigamboni City project that was started and completed on time, on budget, and within scope, but they are not performing as planned (Nyanje, 2016). Another example is the According to the NGO Civil and Political Rights Watch, the Bank's \$164 million investment in Tanzania's water and sanitation project from 2003 to 2010 was a "total failure" (CPRW). The project, which was expected to replace outdated water pipelines and install billing meters for Dar es Salaam's over 4 million residents, hasn't improved water supply or installed billing meters, but it has put local populations at risk of financial pressure (Bretton Woods, 2013).

While it is important to be noted that the positive impacts of the Mnazi bay project and the pipeline project are that they are helping Tanzania's GDP thrive, it was observed that in the beginning the Mnazi Bay Project fell short since there are large number of people with inadequate information and important obstacles in their efforts to re-establish their livelihoods (Dastan, 2017). Better planning, improved knowledge sharing, consultation, and the general implementation of project management techniques will ensure that infrastructure projects support people while minimizing negative consequences (OXFAM Tanzania, 2017). In individuals who are affected by the project, a lack of transparency can lead to disillusionment, excessive expectations, and disinformation. As a result, the goal of this research is to see how project management methods affect the Mnazi Bay gas project's output.

2.0 LITERATURE REVIEW

Theoretical Reviews

Theory of Constraints

This theory was founded in 1984 in the publication of The Goal by Eliyahu M. Goldratt. The theory of constraints assumes that any management system faces small constraints that prevent it from accomplishing more of its objectives. The theory assumes that in the management system there must be at least a single constraint that reduces the chance of success or achievement of the project. Therefore, it uses the so-called "focusing process" to identify and analyse that constraint, and thereafter restructures to address it. In explaining this theory Landau, (2018) As the classic dictum goes, "A chain is only as strong as its weakest link."

As a result, the theory of constraints attempts to heal the weakest link in order to lessen its susceptibility. In doing so, it can be applied to systems, organisations, individual team members, or anything else that poses a risk to the project's success. The theory of constraints further put forward the concept "throughput Accounting". This stands for three things used to test or measure the management of the organization. These are "throughput", "operational expense" and "investment". Throughput means the extent to which the organization reach its goals for example through sales, operational expense means the cost used to generate the organization's goals and investment means the amount of money invested including machinery and inventory just to mention few. According to the theory the achievement of goals is dependent to some conditions to be fulfilled. These conditions include quality, legal obligations and safety.

This theory is vital to the ongoing study since it explains about failure and success of the project. It gives a highlight to project managers and implementers on how to identify challenges that might be facing their projects and how deal with them in order to achieve the desired goals. In case of Mnazi Bay Gas Project, it is important to identify if there are some internal or external constraints that might be affecting the project performance and this is discussed while reflecting project management practices.



Theory of Management

The theory of Management was coined by Frederick Winslow Taylor and Henri Fayol (1841-1925). It emphasizes that management practices entail three processes of control, planning, and execution. According to Koskela, & Howell, (2002) project planning involves understanding of the project in all corners or parameters. The theory of management is relevant to this study due to the fact that it touches on key variables of the study. The theory explains about planning process in management. Execution process which in other words means implementation of the project. Finally, controlling that may involves issues like monitoring and evaluation, risk and financial management as well as stakeholders' participation. The process of planning is underpinned by the core processes and facilitating processes.

Activity definition estimates activity durations, cost budgeting, cost estimating, building a project plan, resource planning, scope definition, scope planning, and activity sequencing and schedule preparation are among the 10 core procedures. "The output from these processes, the project plans, make up an input to the executing processes." (Koskela & Howell 2002). Execution in management, according to Management Theory, involves dispatching of tasks to subunits or stations. This is considered the classical communication theory also stated in Project Management Practices and Performance of Agricultural Projects. By Community-Based Organizations. In Bungoma County, Kenya (Simiyu, 2018). Execution must involve effective communication between units or stations of work. "There should be feedback mechanisms that will convey the operatives understanding of the instruction passed and as such, enable tasks to be executed as it is envisaged in the plan" (Koskela & Howell, 2002). Controlling consists of performance reporting and overall change control. Corrections to the execution process are prescribed by the theory, whereas adjustments to the planning procedures are required.

Resource Based Theory

In 1984, Wernerfelt proposed this theory. The core assumption of the theory is that when an organization own enough resources its strengths and capacity to compete with others become huge (Wernerfelt, 1984). This theory was also used and supported in the Project Management Practices and Performance of Agricultural Projects. By Community-Based Organizations. In Bungoma County, Kenya project (Simiyu 2018) and Challenges on the Implementation of Free Education Policy in Tanzania: A case of Public Primary schools in Babati Town (Doriye, Muneja & Ilomo, 2020). Furthermore, the control of strategic resources provides a competitive advantage to an organization or company (Simiyu, 2018).

Due to this, it will therefore be easier for an organization to achieve its goals in its high expectations. Henceforth, supervisors and implementers of any project including managers should be able to utilize effectively the available resources to attain the organization's objectives. Effective utilization of resources involves a cycle stage (Simiyu, 2018). These are the identification of the available resources, analysis, the organization's capabilities including weak and strong points, identification of available opportunities and choose the best strategy to utilize the available resources. It is also important for the managers to identify the resource gaps and be able to give or recommend on proper solutions (Wernerfelt, 1984). The Resource Based Theory further explains the importance of having a detailed plan which is considerate with the available resources. Since it stresses careful planning, execution, and control of project resources, the theory discusses the independent variables.

Stakeholders Theory

Propagated by Freeman (1984). Donaldson and Preston (1995) define Individuals who affect or are affected by an organization's or company's actions are referred to as stakeholders. The stakeholder theory is based on the premises that without an element of "risk" there is no stake and stake is only something that can be lost; therefore, stakeholders should be the ones who are likely to be affected by activities of the company (Mwakyambiki,2018). Basing on the study area, natural gas mining that is



associated with drilling activities including flaring of excess gas, deforestation for natural gas operations, oil leakages, spill and pollution affects the natural life of the people in the area.

Thus, women and men living close to mining activities sites 12 are at risk of losing the land, water, air and water pollution and economic activities like fishing or tourism (Sigam and Garcia, 2012). Extractive companies have the responsibility to consider social differences, roles, expectations and needs of close communities in mitigating the footprint of extractive industry activities (Le Masson et al., 2015). This theory applies to this study because stakeholder satisfaction is crucial in measuring a project's performance especially the Mnazi bay gas project performance since land was required from locals to build the project.

Empirical Reviews

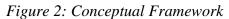
Simiyu, (2018) investigated the effect of implementation of the project to its performance in as far as the agricultural projects are concerned. Through inferential statistics the researcher revealed that effective implementation of the project can yield high performance in the project. Kamat, (2017) conducted a study on Tanzanian natural gas production and distributive justice Fieldwork was carried out in the rural Mtwara area in July and August 2013, as well as August to December 2014. It looked at the optimism that surrounds the dominant national political discourse about how the gas project can empower the country, as well as oppositional discourses from the periphery that tell a different tale. He looked at how the gas project was carried out and how it impacted local indigenous communities and other stakeholders. People who have been impacted by the gas project have shared their stories of dominance, isolation, anger, embarrassment, oppression, resistance, powerlessness, and indifference.

The study showed how the gas project's method and size, as well as the pace at which it was introduced, exemplify what scholars have dubbed accumulation by dispossession and accumulation by displacement. The study found that the extractive industry's economic and social effect on local communities has resurfaced as a key component of corporate social responsibility and national policy documents. As a result, it is critical that the Tanzanian government implements the provisions in its revised National Gas Policy to improve transparency, meaningfully engage with local actors, and mitigate the harms that gas production activities have caused to the citizens of Mtwara. The need to rethink the "fairness" or "justness" of the "inadequate" monetary compensation paid to the citizens of rural Mtwara whose lands were expropriated is one of the first steps toward ensuring distributive justice.

Conceptual framework

Project Implementation

- Resource acquisition
- Resource Organization
- Risk Mitigation



3.0 METHODOLOGY

Study Design

Project Performance- Schedule- Budget Compliant- Objectives- Stakeholder Satisfaction- Time- Project Goal Attainment

The study adopted a descriptive research design. The study used descriptive research design because it explains situations that are already known and have data available (Mbelwa, 2015). The research investigated the effects of project management practices on the Mnazi bay gas project performance. To achieve this a qualitative and quantitative research approach was adopted to accomplish research objectives. The study adopted content analysis method, questionnaires and surveys to analyse



published website information, content and text. The descriptive research design was employed due to its effectiveness when it comes to context analysis. The data were gathered using primary and secondary research through previous research studies, international organization reports, EIA reports, Mnazi Bay Project reports and government documentation.

Target Population and Sample Size

This study focused on project implementers and the local population residing in close proximity to the project site, specifically in two densely populated villages: Msimbati and Mandi. The predominant ethnic group in this area is the Makonde people, and the majority of the population follows the Islamic faith. The sample for this analysis comprised a total of one hundred (100) respondents, drawn from various categories: twenty (20) local government officials, five (5) project managers, five (5) assistant managers representing different project departments, fifty (50) community members, and ten (10) individuals each from the political and public coordination spheres. The selection of participants involved a combination of two sampling techniques: simple random sampling and purposive sampling. Simple random sampling, a method where each individual has an equal chance of being chosen, was employed for the selection of the 50 community members residing around the project area. The overall sample size for this study remained fixed at 100 respondents.

Sample Size

The Slovin's formula was used to determine a target sample size based on statistical estimates that considered 95 percent confidence and a margin error of 5%. (Cochran, 1977)

Sample size, n = N *
$$\frac{\frac{Z^2 * p * (1-p)}{e^2}}{[N-1 + \frac{Z^2 * p * (1-p)}{e^2}]}$$
Whereby;
N= Population size
e = Margin error

p= Sample proportion

n = Sample size

Table 1: Sample size

Villages	Pi	Fi
Msimbati	911	39
Kilambo	563	34
Mahurunga	222	19
Mkubiru	199	8
Total	1,895	100

Data Collection

In this study a standardized questionnaire, both open and closed questions were administered to 100 respondents. The method was used in order to allow the researcher to reach a large number of respondents in a short time.



Data Analysis

This study employed descriptive data analysis, which is a collection of methods aimed at elucidating facts. The data analysis process utilized SPSS for processing the information gathered in the field. The information collected was meticulously refined, elucidated, and organized into tabular forms. Quantitative techniques were applied, revealing insights into various datasets, whether in written or oral form, pertaining to specific time frames, events, issues, or topics. These insights encompassed aspects related to administration and strategy. The collected data underwent a rigorous examination to identify errors and omissions, with frequencies and discrepancies being instrumental in establishing relationships and making comparisons among the variables generated.

4.0 FINDINGS

Socio-Demographic Factors

Table 2: Socio-Demographic Factors

Variables	N (%)	Percentage (%)
Age		
Below 25 years	13	15.5
26-34 years	33	39.3
35-44 years	24	28.6
45-54 years	11	13
Above 55	3	3.6
Total	76	100.0
Gender		
Male	34	68.7
Female	19	31.25
Total	76	100
Education background		
Not attended formal education	11	17.2
Primary education	13	20.3
Secondary Education	18	28.2
Tertiary education	15	23.4
University level	7	10.9
Total	76	100



Table 2 provides demographic information and the findings shows that majority of the respondents were male at 34 = 68.75% and female respondents accounted for 19 = 31.25%. This shows that both genders were well represented and the study could not suffer from gender bias. Also, the respondents who were in the age group category of below 25 years were 13 that equals to 15.5%, between 26-34 years were 33 that equals to 39.3%, between 35-44 years were 24 that equals to 28.6, between 45-54 years were 11 that equals to 13% and above 55 years were 3 that equals to 3.6%. Also, majority (82.8%) of community members and local government officials had attended some form of formal education, while only about 17.2% had not attended any formal education. Among those who had attended some type of formal education, around 20.3% said that they had only attended primary school, around 28.2% said that they had attained secondary school level of education, around 23.4% had attained tertiary education, with 10.9% had attained university education.

Empirical findings

Project Implementation Practices on Project Performance in Mnazi Bay Gas Project

The study sought to know if the Mnazi Bay Gas project was well implemented. The respondents were required to rate YES or NO and the results are presented in Table 3.

	Frequency	Percent
Yes	44	52.4%
No	40	47.6%
	84	100

Table 3: Project Implementation

The results showed that 44 respondents that equals to 52.4% said YES, the project was well implemented while 40 respondents that equals to 47.6% said NO. This means that the level of implementation of Mnazi Bay Gas project was satisfactory. In addition, the respondents were required to explain their answers. It was identified that those who viewed that the project was well implemented focused on the current output of the project. The project has well helped the country. For instance, the natural gas extracted from Mnazi Bay site feeds into the National Natural Gas Infrastructure Pipeline (NNGI) where the gas is transported from Mtwara to Dar es Salaam the commercial capital. The National Natural Gas Infrastructure Pipeline is the largest pipeline in East Africa. The gas therefore supports various industrial activities in the city through generation of electricity. The Manzi Bay Gas project has the capacity that exceeds 100MMscf/d that meets the current average daily demand. The project supplements the hydropower capabilities in the national system.

Those who thought the project was not well implemented largely focused on the stakeholder's satisfaction. Mainly the surrounding community. The community is not satisfied with the execution of the project as many things that were promised were not met. Among others, the employment opportunity to uneducated and construction of industries around the area. The findings are similar to the study conducted by Kamat, (2017) who assessed how the gas project was carried out in Mtwara and found that the community showed anger, isolation, and powerlessness as they felt neglected.

Another inquiry of this study was, what is the influence of project implementation on the performance of Mnazi Bay Gas project? The respondents were required to mark the rate of influence basing on answers which were categorized in a Likert scale of one to five. The results are shown in Figure 3.



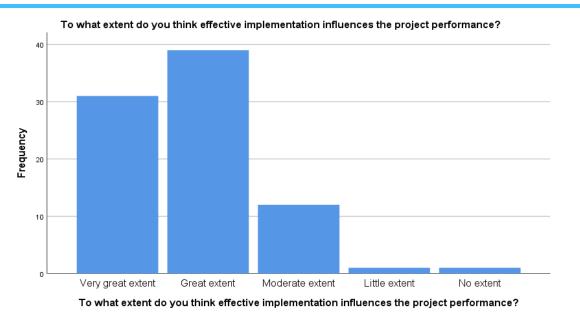


Figure 3: Influence of Project Implementation on the Performance of the Project

Figure 3 reveals that, 31 respondents that equals to 36.9% marked the influence as to a "very great extent" while 39 respondents that equal to 46.4% marked as a "great extent". This means that the influence of project implementation to performance is positive. These findings agree with the study conducted by Simiyu, (2018) who investigated the effect of implementation of the project to its performance and found out that effective implementation of the project can yield high performance in the project.

The Overall Performance of Mnazi Bay Gas Project

The study sought the respondents' general views on the overall performance of the Mnazi Bay Gas project. The respondents were required to rate if they think the project is "very successful", "Successful" or "Not successful". The results are presented in Table 4.

Table 4: Project Success

	Frequency	Percent
Very successful	17	20.3
Successful	53	63%
Not successful	14	16.7
Total	84	100

The results in Table 4 Shows that 53 respondents that equals to 63% said the project was successful, 17 respondents that equals to 20.3 said the project was very successful while 14 respondents that equals to 16.7% said the project was not successful.

In addition, the respondents were required to mark the rate of performance basing on eight indicators, which are budget compliant, time, objectives, schedule, stakeholder's satisfaction, project goal attainment, quantity of the product and quality of the product. These indicators were measured through three levels, that is "Below the range", "Within the range", and "Beyond the range". The results are presented in Table 5.



8		J	
Indicator	Below the Range	Within the Range	Beyond the Range
Budget Compliant	10	59	15
Time	8	63	13
Objectives	34	41	9
Schedule	17	43	24
Stakeholder Satisfaction	39	32	13
Project Goal Attainment	19	48	17
Quantity of product	11	57	16
Quality of product	8	65	11

Table 5: Rating Based on the Overall Performance of the Project

Table 5 above shows that 59 respondents that equals to 70% ranked the budget compliant within the range. On the other hand, 15 respondents that equals to 18% ranked the budget compliant beyond the range and 10 respondents that equals to 12% thought that the budget was below the range. This means the that the Mnazi Bay gas project was implemented within the expected budget. Morris (2011) analyses that the successfulness of the project can be measured by the level of compliance with the budget. Compliance with the budget has many implications including, good planning of the respective project, effective implementation and finally the success of the project.

With regards to time for completion, the table shows that 63 respondents that equals to 75% thought that the project was completed within range, 13 respondents that equals to 15% thought it was beyond the range while 8 respondents that equals to 10% thought it was below the range. Morris (2011) argues completion of the project with time indicates that there are elements of success and good performance of the project. If the project is not completed timely it may cause severe costs and strain on participating stakeholders. On the project objectives, the table shows that 41 respondents that equals to 49% thought the project attained its objectives within the range, 34 respondents that equals to 46 rated as below the range while 9 respondents that equals to 11% thought it was beyond the range.

On project schedule the table depicts those 43 respondents that equals to 51% said it was within the range, 24 respondents that equals to 29% said it was beyond the range while 17 respondents that equals to 20% said it was below the range. On addressing project objectives and its relation to performance Marr, (2020) argues the question as to whether the project was able to address the issues that were the driving force behind is important. If a project did not fulfil the need intended, it can be categorized as a failure.

With respect to the stakeholder's satisfaction the table shows that 39 respondents that equals to 47% said that it was below the range, 32 respondents which equals to 38% said it was within the range and 13 respondents which equals to 15% said it was beyond the range. Another indicator was goal attainment, the table shows that 48 respondents which equal to 57% said it was within the range, 19 respondents which equal to 23% said it was below the range and 17 respondents which equals to 20% said it was beyond the range.

With regard to the quantity of the product, 57 respondents which equals to 68% said it was within the range, 16 respondents which equal to 19% said it was beyond the range and 11 respondents which equals to 13% said it was below the range. The findings are similar to Wentworth Resources, (2020),



the Mnazi Bay is Tanzania's leading domestic gas-to-power (GTP) provider. In addition, it has been mentioned that in 2017, production of Mnazi Bay increased to about 50 MMscfd (Wentworth Resources, 2020).

The last indicator was product quality, where it was found that 65 respondents that equals to 77% said it is within the range, 12 respondents that equals to 13% said it was beyond the range and 8 respondents that equals to 10% said it was below the range. In regard to quality, this research implies the quality of gas that is produced in Mnazi Bay. Good quality in the project product is measured by the impact of the respective project. Marr (2020) explains that the aim of any project is to have an impact or profit on the company and society. The impact should be improved quality and lower costs which in turn influences the project's good performance and success.

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusions

The study further concludes that there is a positive relationship between project implementation and the performance of Mnazi Bay Gas project. Apart from challenges that were identified with regard to community involvement, the Mnazi Bay Gas project was implemented well. The study contributes a body of knowledge in respect to a better understanding of the impact of project management methods on the Mnazi Bay gas project's success. It has established the strengths and weaknesses of the Mnazi Bay project in relation to its integration with project management practices. It has identified challenges in the management and implementation of the project and how the same has impacted the performance and success of the Mnazi Bay Gas project.

Recommendations

The study findings have implications for the design and implementation of project performance. The study recommends that, for the purpose of ensuring project implementation increases the chances of performance, all partners should effectively be involved. Companies should not only focus on the output of the product they are producing, instead, they should also consider public image. This is by ensuring their investments directly touch the community through the creation of employment and improvement of infrastructure. Investors have legal obligations like cooperate social responsibility which is the portion of return to the community. Formulation of policies and enactment of appropriate laws can guarantee the improvement and performance of government projects like the Mnazi Bay in Mtwara. The government should formulate friendly policies that emphasize the importance of stakeholder cooperation in the planning and implementation of its projects. The policies should be backed up with appropriate statutory legislation that establishes strong institutions to enforce the provisions of the law.



REFERENCES

- Bretton Woods project. (2013). Tanzania Water Project. Retrieved from: https://www.brettonwoodsproject.org/2013/04/art-572268/
- Chileshe, N., & John Kikwasi, G. (2014). Critical success factors for implementation of risk assessment and management practices within the Tanzanian construction industry. *Engineering, Construction and Architectural Management*, 21(3), 291-319.
- Dastan Kweka. (2017). Oxfam, Balancing Infrastructure Development and Community Livelihoods Lessons from Mtwara – Dar es Salaam Natural Gas Pipeline.
- Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. Academy of Management Review, 20(1), 65-91.
- Freeman, R. E. (1984). Strategic management: A stakeholder approach. Pitman.
- Kamat, V. R. (2017). Powering the Nation. Human Organization, 76(4), 304-314.
- Kavishe, N., & Chileshe, N. (2018). Identifying Project Management Practices and Principles for Public–Private Partnerships in Housing Projects: The Case of Tanzania. Sustainability, 10(12), 4609. https://doi.org/10.3390/su10124609
- Kavishe, Neema. Chileshe, Nicholas. (2018). Identifying Project Management Practices and Principles for Public–Private Partnerships in Housing Projects: The Case of Tanzania
- Kerzner, H. (2013). Project Management: A Systems Approach to Planning, Scheduling, and Controlling. Wiley.
- Kerzner, H. (2017). Project management: a systems approach to planning, scheduling, and controlling. John Wiley & Sons.
- Kissi, E., Agyekum, K., Baiden, B. K., Tannor, R. A., Asamoah, G. E., & Andam, E. T. (2019). Impact of project monitoring and evaluation practices on construction project success criteria in Ghana. *Built Environment Project and Asset Management*, 9(3), 364-382.
- Koskela, L., & Howell, G. (2002). The underlying theory of project management is obsolete. In Proceedings of the PMI Research Conference (Vol. 2002, pp. 293-302).
- Landau, M. (2018). The Goal. North River Press.
- Le Masson, T., Tordjman, H., Boucher, D., Kolsky, P., Preux, C., & Gombauld, P. (2015). The socioeconomic and environmental impacts of climate-driven changes in the natural resource industry in the Arctic. Polar Science, 9(3), 268-287.
- Marr, Benard. (2020). How do you measure Project Performance KPI's that really matter? Retrieved from :https://www.bernardmarr.com/default.asp?contentID=1792
- Marsela .N. Mwiru. (2015). The importance of community participation in development projects at local level.
- Mbelwa. (2015). Investigation of stakeholder management in the oil and gas industry in Tanzania
- Mhando, Y. B., Mlinga, R. S., & Alinaitwe, H. M. (2018). Variation mitigation model to enhance construction performance of public building projects in Tanzania. American *Journal of Civil Engineering and Architecture*, 6(3), 105-118.
- Mochal. (2009). Best Practices for Successful Project Management. New York: New Delhi: McGrawHill Publishing.



- Morris, PWC, & Geraldi, J. (2011). Managing the institutional context for projects. *Project Management Journal*, 42(6), 20-32.
- Mugenda, O. M., & Mugenda, A. G. (2003). Research methods: *Quantitative and qualitative approaches*. Nairobi: Acts Press.
- Mughal. (2017). Exploring the Importance of Community Projects, retrieved from <u>https://www.fiyazmughal.org/importance-community-projects/</u>
- Mwakyambiki, A. (2018). Challenges on the Implementation of Free Education Policy in Tanzania: A case of Public Primary schools in Babati Town.
- Oxfam Tanzania. (2017). Balancing Infrastructure Development and Community Livelihoods: Lessons from Mtwara - Dar es Salaam Natural Gas Pipeline
- OXFAM. (2017). Balancing infrastucture development and community livelihoods Lessons from Mtwara Dar es Salaam Natural Gas Pipeline.
- Pinto, J. K., & Slevin, D. P. (2018). Project Management: Achieving Competitive Advantage. Pearson.
- Sigam, P. G., & Garcia, J. (2012). Oil spill modelling: the effects of oil spills and dispersion of hydrocarbons on marine environments. In Oil Spill Environmental Forensics (pp. 83-103). Academic Press.
- Silvius, A. G., & Schipper, R. P. (2014). Sustainability in project management competencies: analyzing the competence gap of project managers. *Journal of Human Resource and Sustainability Studies*, 2014.
- Simiyu, N. R. (2018). Project Management Practices and Performance of Agricultural Projects by Community-Based Organizations in Bungoma County, Kenya. 157.
- Tereso, A., Ribeiro, P., Fernandes, G., Loureiro, I., & Ferreira, M. (2019). Project Management Practices in Private Organizations. *Project Management Journal*, 50(1), 6–22. https://doi.org/10.1177/8756972818810966
- Thaddee, B., Prudence, N., & Valens, S. (2022). Influence of Project Management Practices on Performance of Public Construction Projects in Kamonyi District, Rwanda. Journal of Entrepreneurship & amp; Project Management, 6(4), 33–49. <u>https://doi.org/10.53819/81018102t50104</u>
- Torres, A., Sriraman, V., & Ortiz, A. (2021). Comprehensive Assessment of a Project Based Learning Application in a Project Management Course. *International Journal of Instruction*, 14(3), 463– 480. <u>https://doi.org/10.29333/iji.2021.14327a</u>
- Turner, J. R. (2014). The Handbook of Project-Based Management (4th ed.). McGraw-Hill Education.
- Wawira. (2017). Effects of project management practices on community development in Nairobi city county.
- Wentworth Resources. (2020). Mnazi bay. Retrieved from: https://wentplc.com/operations/tanzania/
- Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5(2), 171-180.



License

Copyright (c) 2023 Neema Hakim Salim Bitesigirwe, Dr. Fredrick W.S Ndede



This work is licensed under a <u>Creative Commons Attribution 4.0 International License</u>.

Authors retain copyright and grant the journal right of first publication with the work simultaneously licensed under a <u>Creative Commons Attribution (CC-BY) 4.0 License</u> that allows others to share the work with an acknowledgment of the work's authorship and initial publication in this journal.