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Original Article

Shareholder Expectations on Project Performance of Bus Rapid Transit, Kenya

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Abstract: *Bus Rapid Transit (BRT) has become a critical solution towards improving urban transport, decongestion, and the efficiency of transport in the ever-growing cities. The effective implementation of large-scale infrastructural projects, like BRT, depends on the effective management of the expectations of stakeholders during the entire life cycle of the project. However, many infrastructure developments have been characterized by delays, cost escalations, and the loss of confidence of the stakeholders due to deficient involvement, poor communication channels, and unsatisfactory transparency in project governance frameworks. The present paper has investigated how shareholder expectations influence the performance of BRT projects in Kenya. The study was a descriptive survey, where structured questionnaires were used to collect information about stakeholders involved in the BRT project. Data analysis was done through descriptive statistics, correlation analysis, and multiple regression. Results have shown that the factors of stakeholder expectations play an important role in project performance. External stakeholder expectations (β= 0.546), timely and transparent communication with stakeholders (β= 0.421), and the presence of the Matatu Owners Association and donor agencies (β = 0.397) were found to have a positive and statistically significant influence on the project performance, especially on the budget compliance. This paper concludes that stakeholder engagement and a clear communication process promote the performance of major transport infrastructure projects. It suggests that policymakers should intensify stakeholder engagement systems and institutionalize participatory governance systems. Further studies are required on further governance and financial factors that affect the performance of infrastructure projects in the future.*

Keywords: *Bus Rapid Transit (BRT), Infrastructure Project Performance, Stakeholder Expectations, Stakeholder Engagement, Transport Infrastructure.*

I. INTRODUCTION

Stakeholder optimization in project management refers to the strategic alignment of the interests, needs, and expectations of the stakeholders for the improvement of project success and value creation [1]. This approach involves a systematic understanding of the interdependencies among stakeholder goals and project delivery goods, thereby fostering a coherent framework and collateral for successful choice making and the allocation of resources in complex organisational situations. The conceptual framework of stakeholder optimization involves the matching of expectations of different stakeholders, optimization of resource allocation, maintenance of regulatory compliance, and adoption of stringent quality assurance procedures. Each of these components has a piece that is very imperative on the performance of the projects as project as a whole, according to the legal requirements, working under the budgetary constraint, and ensuring the quality desired is realized in the project. Systematically evaluating and managing stakeholder expectations by clearly communicating with and engaging stakeholders proactively, and by honoring commitments made to them, projects can improve the satisfaction of stakeholders and win their support. Such alignment eventually implies a higher project success as a result of contemporary empirical explorations [2]. Effective resource allocation, including the allocation of financial, human, and material resources, ensures that project objectives are met within predetermined budgetary parameters and time frames, contributing to the overall effectiveness of the project management process.

Bus Rapid Transport (BRT) is envisaged as a high-capacity, efficient public transport system aimed at relieving congestion, shortening transportation times, and reducing environmental pollution in an urban context. The deployment of the system is meant to solve the epidemic of challenges faced by urban mobility by focusing on simplified transit operations. The implementation of BRT by Stecol Corporation is done as per the provisions of Kenya's Vision 2030, a national strategic framework with the aim of strengthening urban transport networks. The initiative aims at improving the efficiency of transport within the capital of Nairobi by setting up dedicated lanes and upgrading the infrastructure that feeds them, in a theoretical eruption of improved operational performance and commuter experience. Despite these optimized objectives, a series of impediments has slowed progress and undermined stakeholder confidence in the project. Bureaucratic delays, uncertain funding streams, opposition from Matatu operators, complications related to land acquisition, and poor coordination between national

and county authorities have combined to delay the project, overrule the cost, and lose stakeholder faith in the successful execution of the BRT program.

The success of large infrastructure projects, like the BRT system in Kenya, is in large part driven by the success or otherwise of how effectively shareholder expectations are managed. Shareholders and other important stakeholders often expect open communication, chances to give feedback, and clear information on the progress of the projects and the utilization of resources. But, in many large projects, these expectations are not always met, and this can lead to a loss of confidence for the project among stakeholders and thus their support for its implementation. One key challenge is the lack of structured mechanisms for gathering and responding to the feedback of shareholders. When feedback channels are inconsistent/poorly managed, project stakeholders may feel excluded from important decisions that affect project implementation [3]. Moreover, poor communication between the project managers and the shareholders can promote misunderstandings about the project objectives, timelines, and financial management. Such communication gaps may weaken trust and cooperation between stakeholders. Transparency is another important issue with large infrastructure projects. When information about a project is not shared, or information disclosure is selective, shareholders may question the credibility of project management and proper utilisation of financial resources [4]. This situation could eventually affect the performance of the projects, especially when it comes to sticking to the budget as well as the overall efficiency of the project.

Despite the strategic importance of shareholder expectations in the governance of projects, there have been few empirical studies to examine how positive feedback mechanisms, good communication, and transparency affect the performance of large transport infrastructure projects such as the Bus Rapid Transit system in Kenya. As a result, this study aims to investigate the impact of shareholder expectations on the project performance of BRT projects in Kenya.

II. LITERATURE REVIEW

A) Agency Theory

Agency theory is a basic knowledge framework for explaining the complex dynamics that occur between shareholders and managers in organizational and project governance situations. It entails conceptualizing shareholders as principals who must delegate their decision-making power to managers, referred to as the agents, to act on their behalf to achieve institutional objectives [5]. Nevertheless, such delegation may lead to agency problems in case there is a divergence between the interests of the managers and those of the shareholders [6]. In these circumstances, managers may pursue their personal or organizational goals that may not be in line with shareholder expectations, and this leads to inefficiencies, inefficient utilization of resources, and sub-optimal organizational performance. Agency theory thereby emphasizes the key role played by contingent governance modes of operation, such as performance monitoring, transparent reporting mechanisms, incentive structures, and conditions for accountability, in order to align the managerial behavior with the interests of the shareholders.

Within the context of large infrastructural projects like the Bus Rapid Transit (BRT) project in Kenya, agency theory provides an interesting dimension through which to explore the degree to which managerial behavior aligns with shareholder expectations and the resultant outcome on the project. Infrastructure projects are usually surrounded by multifarious stakeholders, large capital investments, and complex governance arrangements. The absence of duly taking the expectation of shareholders in respect of the financial accountability, risk management, or sustainability practices makes the project managers misaligned, and this will lead to delay in project completion, overrun of budget, and low quality of service [7]. Conversely, effective governance structures that promote transparency, accountability, and engagement with various stakeholders can improve managerial responsiveness to shareholder expectations for greater performance on the project, raising the overall performance of the project.

Consequently, this study has used agency theory as a conceptual framework for scrutinizing the relationship between shareholder expectations and the performance of BRT in Kenya. The theory highlights the importance of assessing how well the project managers respond to the expectations of the shareholders through mechanisms such as effective communication, feedback mechanisms, and governance controls. By identifying potential sites of misalignment, the study contributes to a more nuanced understanding of how governance structures and strategy(s) of stakeholder engagement may be fortified to improve the performance and sustainability of large public infrastructure projects.

B) Empirical Review

Sakawa [8] examined institutional investors under the stakeholder-oriented model of corporate governance in Japan and especially focused on whether shareholder-oriented investors improve corporate monitoring and performance on corporate governance. Using panel data from the firms on the TOPIX 500 between 2010 and 2016, which included a total of 2,924 firm-year observations, the authors studied the role of institutional shareholders in determining firm outcomes. Their outcomes proved that institutional investors, particularly foreign participants, acted as powerful monitors and, in turn, reinforced the governance mechanisms and resulted in sustainable firm performance. The study finally contended that strong shareholder oversight can help to strengthen the institutional arrangements of governance as well as to promote long-term organizational growth due to an increase in accountability and monitoring mechanisms.

Thien [9] examined the nexus of firm efficiency-performance, moderating the effects of controlling shareholders. By using Data Envelopment Analysis (DEA) in combination with the panel regression methods, they performed on 1295 firm-year observations of listed firms in Malaysia during the period 2015-2019, and claimed their results in a convincing manner imply ambivalent findings regarding the direct efficiency and performance relationship. Nevertheless, the presence of controlling shareholders had a significant moderating influence and controlled the way operational efficiency translated into financial results. These findings emphasize the importance of careful resource utilization and strict control of governance in driving organizational performance upwards, as well as the importance of shareholder influence in organizational performance goals that may either harmonize or deviate from institutional goals.

Makokha [10] discussed how project stakeholder practices affect the performance of construction projects within Kakamega County. Their design, named mixed methods, was both descriptive survey and correlation analyses. A sample size of 326 respondents was selected from a population of 1,761 stakeholders who are taking part in county construction projects. Structured questionnaires using a 5-point Likert Scale were used; reliability and validity were assessed by Cronbach's Alpha and expert commentary. The results showed a robust, significant positive relationship between the stakeholder management practices and project performance. The authors therefore called for strengthening stakeholder engagement and decision-making processes in order to improve project outcomes.

These investigations highlight the critical role of shareholders and stakeholders in determining the performance of organizations and projects through improved monitoring, governance, and resource management practices. The existing body of literature has mostly focused on corporate governance and the management of construction projects in private enterprises, leaving a gap in the impact of shareholder expectations on infrastructure projects of large-scale public transport, such as the BRT system in Kenya. Consequently, the present study aims to fill this contextual gap by examining the impact of shareholder expectations on the performance of BRT projects in Kenya.

C) Conceptual Framework

The conceptual framework illustrates the relationship between the independent variables, represented by stakeholder expectation, and the dependent variable, which is project performance. The framework provides a visual representation of how the study conceptualizes the interaction between these variables and guides the structure of the research. Fig 1 presents the conceptual framework summarizing the key variables examined in the study. The independent variables include shareholder expectations. Shareholder expectations are operationalized through indicators such as positive feedback mechanisms, effective communication, and transparency in project management. These variables are expected to influence project performance, which is measured through indicators such as budget adherence in the BRT projects in Kenya.

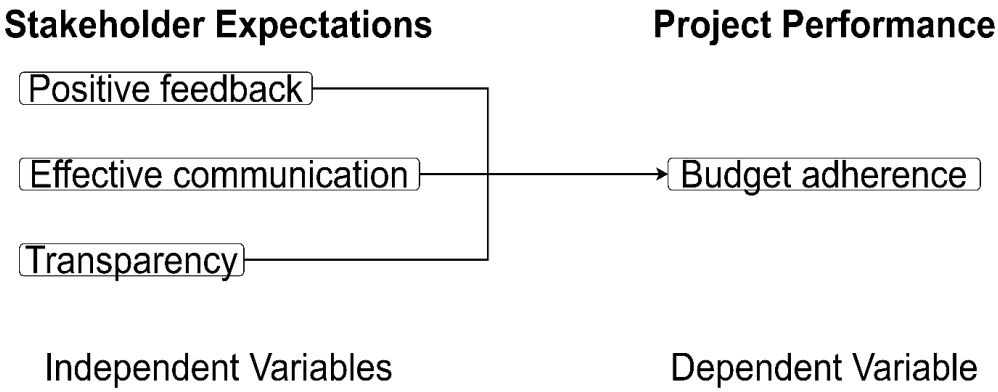

Figure 1. Conceptual Framework for the Study

III. METHODOLOGY

A) Research Design

The investigation uses a descriptive survey paradigm to scrutinize the relationship between shareholder expectations and the performance of BRT projects in Kenya. Such a design is considered appropriate, for it provides the researcher with the ability to collect empirical data from the respondents, and then analyzes the interrelations among the variables without the need for any experimental manipulation.

A research design provides the overall structure that guides the systematic collection, analysis, and interpretation of data, in order to answer the research questions or empirically test conjectures [11]. In the present inquiry, a descriptive survey design has been applied in order to carefully observe and indicate how the independent variable (shareholder expectations) affects the dependent variable (project performance). This configuration is especially suitable to investigate the phenomenon in its genuine

context or setting, and to allow the researcher to value the variables in their normal setting. Descriptive surveys help gather quantitative data from a large population and make it easier to determine patterns, relationships, and trends that will explain the expectations of the involved stakeholders that can influence project results.

B) Case Study: Bus Rapid Transit

The case study project selected is BRT, which is one of the major projects that Stecol corporation has been involved in Kenya. The proposed respondents for the study are 200, comprising individuals who directly and indirectly worked in the project derived from the following departments, as presented in Table 1.

Table 1: Number of respondents from the BRT project.

No	Stakeholder Group / Department	Estimated Number	Actual sample size
1	Ministry of Transport & Infrastructure	20	13
2	Nairobi Metropolitan Services (NMS)	15	10
3	Donor Agencies (World Bank, AfDB, etc.)	20	13
4	Matatu Owners Association (Top Managers)	25	17
5	Nairobi City County Officials	15	10
6	Procurement and Supply Chain Management	20	13
7	Operations and Logistics	20	13
8	Engineering Department	25	17
9	Quality Control and Assurance	15	10
10	Project Management	15	10
11	Finance and Accounting	10	7
12	Legal and Compliance	5	3
13	Human Resource (HR)	5	3
14	IT and Innovation	5	3
15	Health, Safety, and Environment	5	3
	Total	220	145

The sample size was determined using the Krejcie and Morgan Table (1970). The total sample size for this study was 145 respondents drawn based on convenience sampling drawn from BRT workers in Kenya. The sample size was drawn from the target population based on the Krejcie and Morgan Table (1970).

C) Data Collection

The data for the study were obtained using a structured questionnaire that the respondents, on their own, made use of. This method was selected because it is relatively cost-effective, easy to administer, and is able to provide standardized responses from a large sample of participants in a relatively short time frame. Moreover, the questionnaire format is easy to measure, as the answers can be easily coded and processed statistically. The items contained in the questionnaire were drafted with a five-point Likert scale that gave the option of strongly agree, agree, neutral, disagree, and strongly disagree to the respondents. This scale was chosen as being appropriate because it enabled the participant to rate nuanced levels of agreement with each of the statements and, therefore, simplifies the data analysis process that will follow. The questionnaire had two main parts. Part I collected basic demographic data of the respondents, such as gender, and mean dispositions in terms of age and educational background. Part II consisted of statements that aimed to elicit information on the expectations of the shareholders and how they influence their perceptions of the project performance, specifically in the context of the BRT project in Kenya. This section was designed to capture the respondents' perceptions on the way in which factors such as communication, feedback mechanisms, and transparency affect the performance of a large infrastructure project.

D) Validity and Reliability

a. Pilot Testing of Research Instruments

The researchers had a pilot test that both tested the reliability and validity of the research instrument before the phase of data collection. In accordance with the recommendations of Mugenda [12], a pilot sample that includes about 10% of the target population is recommended as adequate for pre-testing of research instruments. In this investigation, questionnaires were given to respondents related to the BRT project, which was not later assessed as the final sample.

The information provided by the feedback obtained from the pilot test was used to assess how comprehensible, relevant, and internally consistent the items are. It also enabled the identification of any ambiguities or deficiencies within the instrument that might possibly compromise the quality of the data to be collected. Drawing from the responses of the respondents and the observations made by the investigators during the pilot study, in line with the respondents ' responses, some modifications were made to make the questionnaire both valid and reliable prior to actual use in the main study.

b. Validity of Research Instruments

Validity is the degree of accuracy that a research instrument has to measure what it is supposed to measure [13]. Research validity is critical when conducting research because validity is used to determine the significance and credibility of the results that are produced from the research instrument. In this study, there were two types of validity that were considered, namely content validity and construct validity.

Content validity is also known as logical validity, in which the measure is reviewed in relation to how well or how far it covers the entire concept intended to be measured [14]. To ensure content validity, the research questionnaire was checked by the researcher's supervisor to establish if the items were adequate to reflect the study objectives. In addition, the instrument was analysed by five BRT project managers who have practical experience in project implementation. Their feedback helped to assess whether the detailed items of the questionnaires were relevant, comprehensive, and suitable for measurements of shareholder expectations and the performance of projects.

Construct validity, on the other hand, is about how much the instrument measures the theoretical ideas that it is meant to measure [14]. In this study, construct validity was assessed by testing the clarity, wording, and structure of the questionnaire items to ensure that no ambiguities or vagueness existed. The pilot test also helped to confirm whether the questions were effective in measuring the constructs under investigation. Necessary adjustments were made on the basis of feedback received for much clarity and precision of the research instrument before the main data collection researched process.

c. Reliability of Research Instruments

Reliability refers to the degree to which the results of a measurement instrument will be the same, regardless of the time of administration or the context [15]. A reliable tool always yields similar results when used repeatedly under similar conditions. The imperative for ensuring reliability is its ability to help strengthen both the credibility and dependability of research results.

Within the present investigation, the reliability of the instrument was checked with the help of the correlation coefficient approach. In particular, the choice of equivocation has been made of the methodology split and half to calculate the value of the coefficient of reliability, based on the technique of correlation by ranks of Spearman. This method divides the questionnaire into two separately set, equivalent-sized parts and tests the consistency of response using these halves. The items in the questionnaire were split into odd and even numbered groups, where each group was scored separately for every subject in the questionnaire. The scores obtained in the two partitions were then correlated, thus testing the internal coherence of the instrument. A high correlation coefficient is an attestation to the reliability of the instrument, and its ability to provide results consistently with very little or no variation, and confirms its use in the major phase of data collection. The Spearman Brown prophecy formula is given by

$$Pxx' = \frac{2r_{hh}}{1+r_{hh}} \quad (1)$$

Where: Pxx' is the reliability projected for the full-length test/scale, r_{hh} is the correlation between the half-tests. According to Creswell [11], a reliable instrument should have a coefficient of at least 0.7 for all items under study. Therefore, the research shall consider a reliability coefficient of 0.7.

E) Data Analysis

The current investigation necessitated a systematic perusal of the survey data to distill the substantive information that may be utilized in formulating the policy and operational decisions that relate to the study. Using IBM SPSS Statistics, the researcher systematically organized, coded, and modeled the data set. Both descriptive and inferential statistical approaches formed the central part of the analytical strategy. Descriptive statistics (frequency distributions, percentages, means, and standard deviations) were used to summarize, in a concise manner, the response patterns observed for the participants. Correlation analysis was used to quantify the scale and directionality of the linear relationship between study variables and provides an initial indication of the interdependence between variables. Subsequent regression analysis was capitalized on to determine the predictive features of the independent variables concerning the dependent variable, which was the project performance of the BRT initiative in Kenya. The independent variables included stakeholder expectations, resource allocation, regulatory compliance, and quality assurance, each of which was hypothesized to have a measured impact on project results. The analytical framework was explicitly developed in order to provide feedback on how conditions of stakeholder expectation, allocation of resources, compliance with regulations, and quality assurance collectively influence the performance of the BRT project in Kenya.

IV. RESULTS AND FINDINGS

A) Questionnaire Return Rate

The study had an overall response rate of 91%. An achievement of this scale can be considered to be extremely high within the domain of survey research; hence, providing a strong basis for confident statistical analysis and for arguing the generalizability of findings to the target population. Increased response rates help to reduce non-response bias and thus enhance the credibility as well as the representativeness of the data collected [16]. Baruch [17] noted that investigations that involve organizational stakeholders generally achieve high response rates, which are due to the respondents' familiarity with the topic and perceived relevance of the research. The heavy involvement noted in this study implies a strong stakeholder interest in how well large-scale infrastructure projects perform, and this is evident for the BRT infrastructure system in Kenya, thereby strengthening the acceptability of the descriptive, correlational, and regression analysis that has been undertaken in addressing the objectives of the study.

B) Reliability Tests

Table 2 summarizes the reliability test for the data.

Table 2: Summary of Reliability Statistics

Cronbach's Alpha	Part 1	Value	.804
		N of Items	2[a]
	Part 2	Value	1.000
		N of Items	1[b]
	Total N of Items		3
Correlation Between Forms			.745
Spearman-Brown Coefficient	Equal Length		.854
	Unequal Length		.866
Guttman Split-Half Coefficient			.802
a. The items are: External stakeholder expectations (Ministry, Donors, Matatu Association). Enhancing performance of large, timely, and transparent communication with external stakeholders improves BRT project outcomes.			
b. The items are: Timely and transparent communication with external stakeholders improves BRT project outcomes. Involvement of the Matatu Owners Association and donor agencies increases BRT project acceptance and performance.			

Table 2 indicates satisfactory internal consistency of the measurement scale. Part 1 recorded a Cronbach's Alpha of 0.804, while the correlation between the two halves of the instrument was 0.745, suggesting a strong relationship between the item sets. The Spearman–Brown coefficients were 0.854 (equal length) and 0.866 (unequal length), both exceeding the commonly accepted reliability threshold of 0.70. Additionally, the Guttman split-half coefficient of 0.802 further confirms the consistency of the measurement items. These results indicate that the questionnaire items measuring shareholder expectations were reliable and suitable for subsequent statistical analysis.

C) Background Information

a. Gender

The gender distribution of respondents shows that there is a significant preponderance of male respondents in the stakeholder environment of Bus Rapid Transit (BRT) projects in Kenya. Out of 132 valid responses, there were 99 males and 33 females. This trend is similar to the general gender disparity that is prevalent in construction and transport infrastructure industries, with technical and operational jobs being dominated by males. The higher number of male respondents means that decision-making, engineering, contracting, and operations of BRT projects are dominated by male professionals. However, the provision of female respondents offers a precious representation of varying views in the evaluation of the stakeholder expectations, resource allocation, and regulatory compliance, as well as quality-assurance practices. The inclusion of both genders, therefore, makes the analysis comprehensively more detailed and mirrors the professional demographics involved in the implementation of the BRT projects. Based on this, the sample gender distribution is a realistic representation of stakeholder involvement in transport infrastructure undertakings on a large scale in Kenya.

b. Age

The demographics of the respondents show that the project consists mostly of rather young professionals. Out of the 132 respondents, the highest proportion of the sample was 63 (47.7%) years who were between the ages of 20 and 30 years. The respondents were 31 and 22 persons respectively (23.5% and 16.7% respectively) among the respondents aged 31-40 years and 41-50 years respectively. Respondents aged over 50 years had a representation of 23 (17.4%). Respondent dominance of the younger age group implies that the early-career professionals have activities of importance in the technical, operational, and supervisory aspects that involve the BRT implementation. Meanwhile, the presence of old-aged respondents

suggests the participation of experienced professionals who have managerial, regulatory, and strategic positions. This age mix enhances the validity of the research since it will involve both the freshness of the perspectives of the younger stakeholders and the institutional experience of the older professionals, so that they can determine the entire picture of the stakeholder expectations, resource allocation practices, regulatory compliance, and quality assurance during the performance of the BRT projects.

c. Level of Education

The educational level of the respondents demonstrates that there is a diversified distribution of educational levels among the stakeholders involved in Bus Rapid Transit (BRT) projects in Kenya. Out of 132 respondents, 35 participants (26.5) had secondary education, and 35 participants (26.5) had diploma qualifications. 25 respondents (18.9 %) had undergraduate degrees, and 25 respondents (18.9 %) had postgraduate qualifications. The lowest group consisted of 12 respondents (9.1 %) having certificate-level education. These results show that BRT project implementation comes with a wide range of individuals, both with a secondary education level and advanced postgraduate training.

The relatively large number of diploma holders and university graduates indicates the availability of technically trained personnel able to meet the challenging engineering, managerial, and regulatory demands of large-scale transport infrastructure projects. This variation in educational status increases the validity of the research by getting perspectives of both strategic decision-makers and operational staff to give a holistic picture of stakeholder expectations, resource distribution, regulation adherence, and quality assurance measures that determine the performance of BRT projects.

d. Respondents Department

The multidisciplinary stakeholder composition of undertaking BRT projects in Kenya is summed up by the departmental affiliation of the respondents. The most represented were the respondents of the Matatu Owners Association (17 respondents, 12.9%), the Engineering Department (15 respondents, 11.4%), and Operations and Logistics (12 respondents, 9.1%). Institutional stakeholders were also represented, with key stakeholders having 11 respondents (8.3 percent), including the Ministry of Transport and infrastructure, the donor agencies (11 respondents, 8.3%), namely the World Bank and African development bank, and Procurement and Supply Chain Management (11 respondents, 8.3 percent). Other participants were Nairobi City County officials and project management personnel with 10 respondents each (7.6%), Nairobi Metropolitan Services and Quality Assurance with 9 respondents each (6.8%), Finance and Accounting with 6 respondents each (4.5%), and other smaller representations of 3 respondents each of human resources, IT, Innovation and Health, Safety, and Environment. The Legal and Compliance department was the least represented, with 2 respondents (1.5%). This wide departmental representation also makes sure that this study is inclusive of the views of all the technical, managerial, regulatory, and operational stakeholders in the delivery of the BRT project.

e. Duration of Service

The review of the organizational tenure of the respondents reveals that there is a large number of stakeholders participating in the Bus Rapid Transit (BRT) projects with a significant amount of professional experience. Out of the 132 respondents, the most significant number of 49 individuals (37.1%) had over seven years, which constituted the highest number. A total of 25 respondents (18.9%) and 24 respondents (18.2%) constituted those who had five to six years and less than two years' experience, respectively. Also, 22 (16.7%) respondents had five years of experience, which is the highest, and 12 respondents (9.1%) had three to four years of experience, the least category. The fact that the majority of the respondents have a lengthy period of tenure indicates that a large percentage of the sample group has institutional knowledge, technical skills, and experience in project implementation processes. This experience gives much more credibility to the responses on the expectations of the stakeholders, the manner in which resources are distributed, adherence to regulations, and quality assurance practices. Concurrently, the presence of comparatively younger employees will guarantee that the study will be able to capture the opinion regarding the latest operational changes and challenges that have emerged in the performance of the BRT projects in Kenya.

D) Descriptive Statistics

Table 3: Summary of Descriptive Statistics

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
External stakeholder expectations (Ministry, Donors, Matatu Association) enhance the performance of large	11 (8.4%)	11 (8.4%)	32 (24.4%)	29 (22.1%)	48 (36.6%)	3.70	1.275
Timely and transparent communication with external	2 (1.5%)	10 (7.6%)	11 (8.4%)	82 (62.6%)	26 (19.8%)	3.92	.851

stakeholders improves BRT project outcomes.							
Involvement of the Matatu Owners Association and donor agencies increases BRT project acceptance and performance.	12 (9.2%)	12 (9.2%)	43 (32.8%)	28 (21.4%)	36 (27.5%)	3.49	1.243
Aggregate Mean						3.7	1.123

The descriptive statistics summarized in Table 3 relate to stakeholders' expectations and how they perceive that they have an impact on the performance of BRT projects in Kenya. The results suggest that the respondents were in agreement that external stakeholder engagement has a positive influence on the performance of the project, with the mean value being 3.70 (SD 1.123), which is considered moderate to strong agreement by the respondents. To be more precise, the participants were strongly in agreement and agreed that the external stakeholder expectations, such as the Ministry of Transport, donor agencies, and Matatu Owners Association, improve the performance of large projects, with the mean being 3.70 (SD=1.275). Similarly, 62.6% and 19.8% strongly and agree, respectively, that timely and open communication with external stakeholders enhances the results of BRT projects, the result yielding the highest mean, 3.92 (SD=.851). The findings highlight the need to have effective communication and transparency during the management of complex infrastructure projects. On the other hand, the Matatu Owners Association and the association of donor agencies' involvement showed a relatively lower mean of 3.49 (SD 4, 1.243), although 48.9% of the respondents still agreed or strongly agreed that the involvement improves project acceptance and performance.

These conclusions can be compared to the current literature, which states the vital importance of stakeholder alignment and communication in the achievement of infrastructure projects. Haar [2] considers that achieving success in a project by aligning the project objectives with the stakeholder expectations by means of transparent communication and active engagement will result in increased support from the stakeholders and better project results. Makokha [10] confirmed that the stakeholder management practices have a significant impact on the performance of construction projects because they help to enhance the coordination and decision-making process. These findings thus add credibility to the theoretical proposition that optimal stakeholder management reinforces partnership, reduces conflicts, and ultimately improves the performance of large-scale infrastructure endeavors like BRT systems in Kenya.

Table 4: Summary of Descriptive Statistics for the performance of BRT based on budget adherence

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Mean**	**Std. Deviation**
There has been budget adherence to large projects, such as the BRT project in Kenya.	0	13 (9.8%)	38 (28.6%)	36 (27.1%)	46 (34.6%)	3.86	1.006

Table 3 depicts the perceptions of respondents with regard to adherence to the budget in large infrastructure projects with specific reference to the BRT project in Kenya. The statistics show that most of the respondents believe that the project has been able to meet its budgetary estimates to a large extent. Particularly, 34.6% strongly agreed, and 27.1 percent agreed that the budget adherence has been attained, 28.6% and 9.8% respectively remained neutral and disagreed. The average of the distribution was 3.86 with a standard deviation of 1.006, indicating that the inclination towards agreement and moderate variability of responses were predominant.

The results suggest that the respondents perceive the financial management of the BRT project as moderately efficient; however, the relatively large proportion of neutral answers can suggest the existence of ambivalence toward the actual financial performance of the project. Budget compliance is generally recognized as a relevant indicator of project performance, particularly in complex projects of infrastructure development in the state, where cost overruns are common. These findings support the claims in the literature available that effective resource management and careful financial planning are critical to project success. BRT environment requires prudent use of financial and operational resources to maintain cost discipline and enable completion of projects on time.

The empirical studies that are included in this thesis also support the interdependence between resource allocation and project performance. For example, Owako [18] has reported that strategic resource allocation significantly improved organizational performance through strengthening infrastructure growth and service delivery. Similarly, Chepng'eno [19] illustrated that prudent budgeting and allocation of resources promoted the sustainability of projects and reduced wastage in road infrastructure projects. The results highlight the need to have sound financial planning and monitoring tools that will help in controlling costs and achieving the desired project results. In the BRT project, the general agreement among the respondents with regard to the compliance with budgets suggests that the financial management practices within the context of the project

can have a positive effect on the performance of the project. However, the presence of both neutral and non-neutral points of view indicates current difficulties that relate to cost management, lack of stability in funding, or perception by the stakeholders-problems that are common in major infrastructural developments in public transport. In the BRT project, concurrence amongst the respondents on budget compliance is prevalent, which means that the financial management practices at play can have a positive impact on the project performance. However, the simultaneous presence of noncommittal and opposing viewpoints is an indication of persistent problems with cost management, funding fluctuation, or stakeholder opinion, problems that have been repeated in massive, large-scale infrastructure projects in the domain of public transport.

E) Correlation Analysis

Correlation analysis is one of the statistical methods that is used to establish the strength and direction of association between two variables. It aids the understanding of the researchers on whether the variations of one variable relate to the variations of another. The commonest measure used is the Pearson correlation coefficient (r) with a range between +1 and -1. When a coefficient is close to +1, this indicates a strong positive association between two variables, which means that a change in one variable causes an equal or related rise in the other variable. A coefficient of near -1, on the other hand, represents a negative association of a high degree, that is, when one variable increases at the expense of the other. It is considered that a coefficient close to 0 denotes a weak or non-linear relationship between the variables. Besides the correlation coefficient, the significance level (p-value) is called upon in order to determine whether the observed association is statistically significant. Traditionally, statistically significant relationships are those with a p -value lower than 0.05 or 0.01. Correlation analysis was used in the current research to examine the relationship between the variables of stakeholder expectation and the performance of the BRT project in Kenya, especially in the area of budget compliance. The analysis provides initial information on the relationship between the variables related to stakeholders and project performance before further inferential analysis (regression) will be conducted.

Table 5: Correlation Analysis for the Effect of Stakeholder Expectation on Project Performance of Large Projects, a Case Study of BRT, Kenya

		There has been budget adherence to large projects, such as the BRT project in Kenya
External stakeholder expectations (Ministry, Donors, Matatu Association) enhance the performance of large	Pearson Correlation	.002
	Sig. (2-tailed)	.984
Timely and transparent communication with external stakeholders improves BRT project outcomes.	Pearson Correlation	.102
	Sig. (2-tailed)	.247
Involvement of the Matatu Owners Association and donor agencies increases BRT project acceptance and performance.	Pearson Correlation	-.116
	Sig. (2-tailed)	.188
**. Correlation is significant at the 0.01 level (2-tailed).		
*. Correlation is significant at the 0.05 level (2-tailed).		

Table 4 shows the findings of a Pearson correlation test to explore the relationship between stakeholder expectations and project performance in terms of budget adherence in the BRT project in Kenya. The analysis shows that the relationships between the variables of stakeholder expectations and budget compliance are weak and not significant in general. As an example, the relationship between the external stakeholder expectations (the Ministry of Transport, donor agencies and Matatu owners' association) and the budget adherence is a very weak positive correlation ($r = 0.002$, $p = 0.984$), indicating that although stakeholder expectations are important in governance, they do not show a direct statistical relationship with the budget adherence in this project. Likewise, timely and transparent communication with external stakeholders has a weak positive correlation with budget adherence (r 0.102, p=0.247); the probability value does not indicate any statistical significance with the traditional level of statistical significance, which shows that communication can help in coordinating stakeholders but does not directly translate into financial performance results such as budget compliance.

Conversely, Matatu Owners Association and the donor agencies are correlated with a negative weak relationship with the budget adherence (r= -0.116, p=0.188). This relationship, although also statistically insignificant, may indicate that the involvement of multiple stakeholders provides further complexities in the decision-making processes that may affect the management of the costs of the project. Such results are in line with the current body of literature, which argues that stakeholder engagement might not have direct quantifiable impacts on monetary measures of project performance. Makokha [10] discovered that stakeholder management practices lead to overall project success by enhancing coordination and decision-making, which are the satisfaction factors of the project, and not directly by financial gains. Sakawa [8] argues that the impact of stakeholders can lead to a performance indirectly through establishing a better governance and oversight system instead of directly through its effects on operational indicators such as budget compliance. The findings thus indicate that the stakeholder expectations and engagement are still relevant in terms of project legitimacy and project coordination, but do not seem to have a significant effect on budget compliance in the BRT project at the correlation level. This suggests that internal resource management, procurement practices, and project planning can be more directly related to financial performance in large infrastructure projects.

F) Diagnostic test

A series of diagnostic assessments was performed before the regression analysis was run to determine the adherence to the statistical assumptions of the model that is being used. These tests included tests of multicollinearity, common method bias, normality of residuals, and

homoscedasticity. These diagnostic procedures have their outcomes outlined in Tables 5-8.

The results of the multicollinearity diagnostics using Tolerance and Variance Inflation Factor (VIF) measures are outlined in Table 5. Multicollinearity occurs when the independent variables have high intercorrelation, and this may misrepresent the accuracy of the regression estimates.

Table 6: Multicollinearity Diagnostics

Variable	Tolerance	VIF
External stakeholder expectations (Ministry, Donors, Matatu Association) enhance the performance of large projects	0.641	1.560
Timely and transparent communication with external stakeholders improves BRT project outcomes	0.588	1.701
Involvement of the Matatu Owners Association and donor agencies increases BRT project acceptance and performance	0.604	1.655

As shown in Table 5, tolerance coefficients of predictor variables are in a range of 0.588 to 0.641, but the VIF values are in a range of 1.560 to 1.701. These values fall well under the standard limit of that, tolerances above 0.20, and VIFs of less than 5, thus proclaiming that multicollinearity is not an important concern in the regression model. Therefore, the independent variables provide different information value in explaining the variability in project performance. Table 6 shows the results of the single-factor test based on the Harman procedure, which was conducted to assess the potential existence of common method bias that could be attributed to the use of data collected by means of a self-reported questionnaire.

Table 7: Harman's Single-Factor Test for Common Method Bias

Component	Eigenvalue	% of Variance	Cumulative %
Factor 1	2.103	42.06	42.06
Factor 2	0.645	12.90	54.96
Factor 3	0.502	10.04	65.00

Table 6 indicates that Factor 1 explains the total variance through 42.06, which is not 50, as it is used traditionally to imply a significant common method bias. Factors 2 and 3 explain relatively smaller shares of variance, with the second and the third factor explaining 12.90 and 10.04 shares of variance, respectively. These findings suggest that the spread of the variance in the dataset is between a number of factors, hence making common method bias unlikely to significantly influence the study results. Table 7 presents the results of the Shapiro–Wilk normality test applied to the standardized residuals of the regression model

Table 8: Normality Test (Shapiro–Wilk Test)

Variable	Statistic	df	Sig.
Standardized Residual	0.987	132	0.084

The test produced a statistic of 0.987 with a significance value of $0.084 \ll 0.05$, the null hypothesis of normal distribution cannot be rejected. This indicates that the residuals are approximately normally distributed, satisfying one of the key assumptions required for valid regression analysis. Table 8 shows the results of the Breusch–Pagan test for homoscedasticity, which examines whether the variance of residuals remains constant across the range of predicted values.

Table 9: Homoscedasticity Test (Breusch–Pagan Test)

Test Statistic	Value
Chi-Square	2.14
df	3
Sig.	0.543

Table 8 indicates a Chi-square value of 2.14 with a significance level of 0.543, which is greater than 0.05. This result indicates that the residual variance is constant and that the assumption of homoscedasticity is satisfied. The output of the diagnostic tests shows that the regression model meets the basic statistical assumptions, and this forms the basis of the reliability and validity of the latter regression analysis, which assesses the effect of the stakeholder expectations on the performance of the BRT projects in Kenya.

G) Regression Analysis

Regression analysis is a statistical approach that is used to determine the nature and strength of the relationship between a dependent variable and one or more independent variables. It helps estimate the extent to which changes in predictor variables mediate changes in the outcome variable and, at the same time, corrects for the effects of other variables included in the model. Regression analysis was used to examine how far variables related to stakeholder expectations influence the performance of large-scale projects, using the BRT initiative in Kenya as a case study.

In the current study, the dependent variable was budget compliance in large projects, which determined project performance. The independent variables included external stakeholder expectations, timely and open communication with external stakeholders, and the involvement of the Matatu Owners Association and donor agencies. A multiple regression model

was used to identify the combined and individual effects of these stakeholder-related variables on project performance.

The findings of the regression analysis are presented in the following Tables 9-11, including the model summary, analysis of variance (ANOVA), and regression coefficients. All of these provide information about the strength, importance, and forecasting power of the regression model.

Table 10: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.964[a]	.93	.928	.268
a. Predictors: (Constant), Involvement of Matatu Owners Association and donor agencies increases BRT project acceptance and performance. Timely and transparent communication with external stakeholders improves BRT project outcomes. External stakeholder expectations (Ministry, Donors, Matatu Association) enhance the performance of large				

Table 9 provides an overview of the regression model used to examine the relationship between the performance of large-scale projects and stakeholder expectations with reference to the Bus Rapid Transit (BRT) project in Kenya. The model considers three predictor variables, namely, the external stakeholder expectations, the timely and clear communication with external stakeholders, and the Matatu Owners Association and donor agencies' involvement. The analysis yields a multiple correlation coefficient (R) of 0.964, indicating a strong positive relationship between the amalgamated variables of stakeholder expectations and project performance in terms of budget compliance. These results suggest a significant group effect of stakeholder-related factors on BRT project performance outcomes. The coefficient of determination (R^2) is 0.93, indicating that the three stakeholder expectation variables in the model explain about 93% of the variance in project performance. Once the number of predictors and the sample size are corrected, the adjusted R^2 increases to 0.928, thus confirming that 92.8% of the variation in project performance can be explained by the given predictors. The low attenuating influence of the adjustment indicates that the predictors are still significantly explanatory. The standard error of the regression was 0.268, which is the mean distance between the observed values and the fitted regression line. The findings support the hypothesis that the factors of stakeholder expectations are instrumental in explaining the performance of large infrastructure projects, as is the case with the BRT system in Kenya.

Table 10 presents the results of the Analysis of Variance (ANOVA) used to evaluate the overall significance of the regression model examining the influence of stakeholder expectations on the performance of large projects, specifically the BRT project in Kenya. The ANOVA test determines whether the independent variables jointly contribute to explaining variations in the dependent variable.

Table 11: Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121.111	3	40.37	558	.000[b]
	Residual	9.112	126	.072		
	Total	130.223	131			
a. Dependent Variable: There has been budget adherence of large projects, a case of the BRT project in Kenya.						
b. Predictors: (Constant), Involvement of Matatu Owners Association and donor agencies increases BRT project acceptance and performance. Timely and transparent communication with external stakeholders improves BRT project outcomes. External stakeholder expectations (Ministry, Donors, Matatu Association) enhance the performance of large organizations.						

As shown in Table 10, the regression model produced a regression sum of squares of 121.111 with 3 degrees of freedom, while the residual sum of squares was 9.112 with 126 degrees of freedom, resulting in a total sum of squares of 130.223. The corresponding mean square values were 40.37 for the regression component and 0.072 for the residual component. The model yielded an F-statistic of 558 with a significance level of 0.000, indicating that the regression model is statistically significant at the 5 percent level. This implies that the predictor variables, external stakeholder expectations, timely and transparent communication with external stakeholders, and the involvement of the Matatu Owners Association and donor agencies, collectively have a significant influence on budget adherence in large infrastructure projects.

The significance of the ANOVA results confirms that the regression model provides a meaningful explanation of the relationship between stakeholder expectations and project performance. This suggests that effective stakeholder engagement and communication mechanisms play a critical role in improving financial management and overall performance of large transport infrastructure projects such as the BRT system in Kenya. The regression coefficients based on the model, which measures the effect of the elements of stakeholder expectations on the performance of the large projects with reference to the BRT project in Kenya, are presented in Table 11. The table displays the unstandardized coefficients (B), which indicate the degree of change of the dependent variable as a result of one unit change in each of the predictor variables, and the standardized coefficients (β), which allow the relative significance of the predictors to be compared.

Table 12: Regression coefficient

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.742	0.091		8.154	.000
External stakeholder expectations (Ministry, Donors, Matatu Association) enhance the performance of large projects	0.524	0.048	0.546	10.917	.000
Timely and transparent communication with external stakeholders improves BRT project outcomes	0.438	0.052	0.421	8.423	.000
Involvement of the Matatu Owners Association and donor agencies increases BRT project acceptance and performance	0.391	0.047	0.397	8.319	.000

The regression model gave a constant value of 0.742 ($p < .001$), the performance level of the project under the conditions that all the covariates remain constant. External stakeholder expectations had the greatest effect among the antecedent variables with a standardized coefficient of 0.546 and a very significant t-statistic of 10.917 ($p = .001$). Such findings suggest that optimizing project execution in terms of the expectations of key stakeholders, such as governmental agencies, donor institutions, and the Matatu Owners Association, has a radical positive impact on budgetary adherence and the performance of the project, in general.

Similarly, timely and transparent external communication was found to be positive and statistically significant (β=0.421, t 8.423, p.001). The outcome highlights the significance of strong communication channels in the organization of stakeholders and in the alleviation of misconceptions during the project implementation process. The involvement of the Matatu Owners Association and donor agencies was also shown to have a positive and significant relationship with project performance (β=8.319, p =.001). This observation lends credence to the hypothesis that the involvement of stakeholders enhances project acceptance, facilitates the implementation processes, and ultimately results in the highest quality project outcomes. Table 11 is used to construct a regression equation:

$$Y = 0.742 + 0.524x_1 + 0.438x_2 + 0.391x_3 \quad (2)$$

Where Y is the Project performance (budget adherence of large projects in the BRT project in Kenya), $\beta_0 = 0.742$ and is constant (intercept), x_1 is the external stakeholder expectations, x_2 is the timely and transparent communication with external stakeholders and x_3 is the involvement of the Matatu Owners Association and donor agencies. Equation (1) indicates that when all independent variables are held constant, the baseline level of project performance is 0.742. A one-unit increase in external stakeholder expectations is associated with a 0.524 increase in project performance, holding other factors constant. Similarly, a one-unit improvement in timely and transparent communication with external stakeholders increases project performance by 0.438 units, while a one-unit increase in stakeholder involvement leads to a 0.391 increase in project performance. The regression equation suggests that improvements in stakeholder expectations alignment, communication, and stakeholder involvement contribute positively to the performance of BRT projects in Kenya.

V. CONCLUSION

Mega public infrastructure projects require sound governance mechanisms that balance the expectations of the stakeholders and the goals of project implementation. Stakeholder expectations are also important in the context of transport infrastructure projects. As a case in point, in the BRT system in Kenya, the project performance is shaped by stakeholder expectations, with specific implications on financial discipline, system coordination, and project acceptance. Even though the BRT project is strategically important to improve the movement of people and decongest Nairobi, the project has encountered issues during implementation, which include, but are not limited to, uncertainty about the funding, disagreements among stakeholders, bureaucratic delays, and failure to communicate among various players in the project. These issues highlight why there should be formal mechanisms to incorporate stakeholder expectations in project governance and decision-making.

The research results indicate that factors associated with the stakeholders have a strong impact on the project performance of BRT. The strongest factor was the external stakeholder expectations, which means that coordination among government agencies, donor institutions, and the transport sector stakeholders is critical to a successful delivery of infrastructure. Furthermore, it was demonstrated that timely and open communication with the stakeholders positively influenced project results by enhancing coordination and reducing the level of misunderstanding in the process of project realization. It was also discovered that the presence of the Matatu Owners Association and donor agencies facilitated the project's acceptance and the effectiveness of its implementation. Based on these results, the research concludes that the best stakeholder management practices are central to

enhancing the operation of large infrastructure projects. Open governance systems, well-defined channels of communication, and involvement of all stakeholders all go a long way in improving financial management, project coordination, and the general delivery of infrastructure facilities.

Policy-wise, government entities involved in the development of infrastructure ought to reinforce institutional arrangements that encourage stakeholder participation in the process of project planning and execution. Governance structures should incorporate mechanisms like structured consultation forums, transparent reporting systems, and joint decision-making platforms. They will be able to strengthen accountability, minimize conflicts, and enhance stakeholder trust in the massive infrastructure projects.

Future studies should widen the scope of the analysis and focus on other governance and institutional variables such as regulatory effectiveness, procurement transparency, funding stability, and risk-management practices. The comparative research in various infrastructure sectors and regions could also help clarify how stakeholder governance can help improve infrastructure project performance in developing economies.

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