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Project Strategic Operation and Project Performance of E-Mobility in Rwanda

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Abstract

Few studies have been undertaken in Rwanda using project drivers for project management performance. Previously, leadership, project planning, and a business-driven strategy were not emphasized as predictors of project performance. There was no special study undertaken to analyze the effect of project strategic operation on project performance of E-Mobility in Rwanda. This study determined the impact of leadership on the performance of an e-mobility project in Rwanda, investigate the impact of project planning on the performance of an e-mobility project in Rwanda, and evaluate the impact of a business-driven strategy on the performance of an e-mobility project in Rwanda. This study directed by three theoretical literature which are the innovation theory, the theory of attribution and theory of change. The targeted population was 145 people, including project managers, stakeholders, and beneficiaries involved in the implementation of Rwanda's e-mobility initiative. The Solvin formula used to calculate the sample size. When this formula is applied to the aforementioned population, the researcher obtains a sample size of 107. For this study, stratified sampling was used, which involves separating the entire population into three strata (Project Managers, Stakeholders, and Vehicle Owners in an E-Mobility Project), then randomly selecting the final subjects proportionally from each stratum. Therefore, this research employed basic random sampling, where each group had an equal probability of being selected. Documents including books and reports, as well as in-depth interviews and questionnaires, were used to compile information for this research. Questionnaires were used to gather, process, analyze, and interpret the data. There was a somewhat favorable relationship between leadership and project success ($r = 0.641$), with a significance level of 0.000. There is a very significant positive relationship between project planning and project success ($r = 0.762$, $p = 0.000$). There is a statistically significant positive relationship between using a business-driven strategy and the success of a project ($r = 0.728$, $p = 0.000$). The results suggest that all three independent variables are important of project strategic operation on project performance for the e-mobility project in Rwanda, with project planning having the strongest correlation with performance. Project is recommended to promote business-driven approach by considering ways to generate revenue and ensure the project is cost effective.

Keywords: *Project Strategic Operation, Project Performance, E-Mobility, Rwanda*

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1. Introduction

The government of Rwanda Rwanda's government has put a lot of time and money into encouraging and motivating local company owners to launch long term, economically beneficial ventures. Multiple elements, both internal and external (sometimes called environmental), give the overall probability of a project's performance.

Nevertheless, fewer studies are said to have been conducted on the Rwandan situation using the project drivers for project management performance. For example, Gahigana (2019) analyzed what factors contributed to successful project management in Rwanda. The findings showed that the sur'eau initiative failed due to inadequate communication from the Society for Family Health (SFH) employees, unpleasant water odors, the use of chemicals that attracted insects, and high costs. According to a study that was conducted on the factors that influence project performance, the motivation of human resources is necessary for the success of any hotel. Incentives that are both financial and non-financial must be used to motivate people. Financial stability, stakeholder satisfaction, and operational efficiency are three key performance indicators for hotels (Ndahimana, 2018). These indicators are bolstered by the incorporation of suitable technological enhancements and marketing mix approaches, and the selection of a suitable spot.

Studies that were conducted in the past did not concentrate on leadership, project planning, or an approach that was business-driven as predictors of the performance of projects. The factors that influence the achievement of the e-mobility project have not been the focus of any systematic study. According to this point of view, the purpose of the current research evaluated the applicability of those determinants to the accomplishment of the e-mobility project in Rwanda.

1.2 Objectives of the study

This section outlined the general and specific goals of this study.

1.2.1 General objective

The primary goal of this research was to analyse the effect of project strategic operation on project performance of e-mobility in Rwanda.

1.2.2 Specific objectives

The following were the study's specific objectives:

- (i) To determine the effect of project leadership on the performance of an e-mobility project in Rwanda.
- (ii) To examine the effect of project planning on performance of e-mobility project in Rwanda.
- (iii) To assess the effect of business-driven approach on performance of e-mobility project in Rwanda.

1.3 Research Hypotheses

H_{o1}: There is no statistically significant effect of strong leadership and the performance of Rwanda's e-mobility project .

H_{o2}: There is no significant effect of project planning on the performance of Rwanda's e-mobility project .

Ho3: The business-driven approach has no significant effect on the performance of Rwanda's e-mobility project.

2.1 Empirical Review

2.1.1 Project Leadership and project performance

Project managers are accountable for project success. Therefore, their role requires management and leadership skills to lead the project team effectively. Leadership and general management competencies are some of the key attributes a successful project manager should possess. Project leadership is very important in linking personal commitment to project team objectives by adding intangible values in order to effectively succeed. Project managers are required to apply leadership concepts effectively, be dynamic and multi-dimensional in their actions, behavior, attitude and approach. Deep connection and linkage between project objectives and goals is key in exercising effective leadership. Any setback or degree of failure in the project is intolerable; As a result, project managers are responsible for informing their team members of the situation. Ideally, project success should be shared by everyone in the project team (Turner, 2010).

Leadership is one of essentials for project management success (Panagiotis, 2013). The key project front-runners are project managers. A leader might be a mentor, coach, negotiator, team builder, technical problem solver, entrepreneur, or strategic planner (Dubrin, 2010). According to research, more than 60% of organizations fail to meet their projected goals due to a lack of good leadership, team abilities, and stakeholder involvement (2011).

In project management, Leaders are often evaluated and defined based on styles of leadership and models. Importantly, leaders' styles are composed of a set of capabilities and are exercised differently. Various researches done on institution competency have examined and concluded that profiles of effective leaders or managers matters in project success. (Panagiotis, 2013). Project leaders are expected to have 15 competence profiles which are strategic perspective, communication, resource management, empowering others, emotional resilience, self-awareness, intuitiveness, sensitivity, influence, motivation, developing, critical thinking and consciousness, influence, and vision.

Truong, Thao and Tung (2018) define leadership competency as an assimilated set of managers' traits and qualities that can be fixed towards the achievement of project goals within one's job competence sectors, specified work standards, and can be improved through training and development. According to Hoever *et al.* (2012), leadership qualities include adaptability, interpersonal communication, and effective decision making. Sacramento *et al.* (2013) define leadership competency as the ability to fulfill a task. It covers all types of information, but it also includes personality qualities and abilities.

2.1.2 Project planning and project performance

Nteziryayo (2015) investigated the influence of budget planning on project success, the link between communication plans and project success, and the results of risk management plans on project performance in his research on analyzing project planning and project performance in Rwanda. Educational efforts, according to the findings, should be planned in order to ensure long-term project success. Risk management in educational projects should be governed by an emphasis on cognitive competence, managerial competency, and emotional-competency in project planning.

Based on their analysis of the Agaseke project in Kigali, Rwanda, Umulisa *et al.* (2015) concluded that project resource allocation performance can be gauged by gauging the degree to which it affects the project's success or execution. However, even when appropriate

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resources are available, most projects encounter several problems that have an impact on project performance.

2.1.3 Business driven approach and project performance

Gahigana (2019) assess the effect of business -driven approach on project management fail or success. The results revealed customer satisfaction under logistics regression of 81.3% of clients interviewed were not satisfied with sur'eau product only 18.7% clients were satisfied with sur'eau. Customers not being satisfied in other words means that the project was not business driven because they were not able to meet the demands of clients and it led to the failure of the project.

Small software product companies might benefit from focusing and directing business-driven process improvement operations by following the path identified by Jarno (2008). Thus, the project's research question is how to accomplish business-driven process improvement in small software product enterprises by capitalizing on the essential interactions between the business model and the product development process. In order to answer the research topic, it is necessary to examine business models and product development processes in their actual settings, where the boundary between concepts and environment is blurry at best.

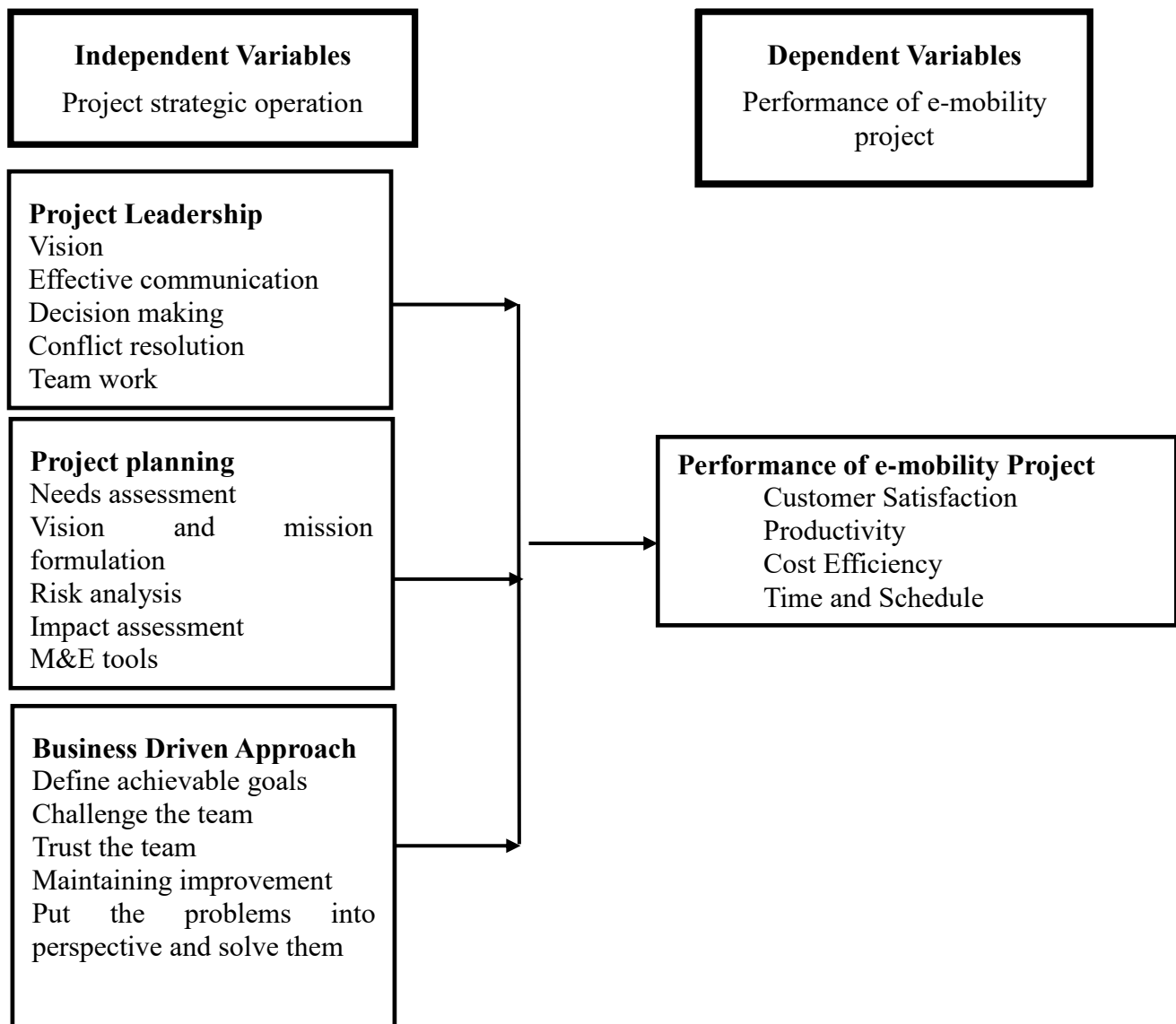
2.2 Research Gap

The existing literature provides valuable insights into various aspects of project management, yet critical gaps remain unaddressed. Previous studies, such as Müller and Turner's (2010) research on project leadership, emphasized the importance of leadership competence in project success but failed to consider factors such as project maturity and business-driven approaches. Similarly, Gahigana's (2019) investigation into project success or failure in Rwanda identified organizational maturity as a significant factor, yet it did not specifically analyze the complexities of the e-mobility project. Jarno's (2008) work highlighted the significance of business-driven process improvement but lacked an in-depth analysis of the correlations between variables. Mählmann, Groß, and Breitner's (2012) study focused solely on critical success factors for the information system infrastructure in e-mobility, neglecting a comprehensive understanding of the determinants of overall e-mobility project success.

This current study aims to bridge these gaps by examining the influence of project leadership, project planning, and a business-driven approach on the performance of e-mobility projects in Rwanda. By integrating a comprehensive analysis of various factors, including the specific complexities of the e-mobility project, this research seeks to provide a nuanced understanding of the key determinants of success in the context of e-mobility initiatives. Additionally, this study intends to explore the interrelationships between project leadership, organizational maturity, and business-driven approaches to offer a more holistic perspective on the intricacies of project management in the Rwandan e-mobility sector.

2.3 Conceptual Framework

The framework was used to describe essential concepts or parameters that need to be investigated, as well as potential connections among them. Independent variables of this study are project leadership, project planning and business driven approach while dependent variable is project performance with indicators including customer satisfaction, productivity, cost efficiency, time and schedule.



Source: Researcher, 2023

Figure 2.1 Conceptual framework

Project leadership has indicators comprising vision, effective communication, decision making, conflict resolution and team work when those indicators are effective they will lead to the performance of e-mobility project. Project planning has indicators comprising needs assessment, vision and mission formulation risk analysis, impact assessment; Monitoring and evaluation tools which its effects improve project performance. Business driven approach deal with define achievable goals, challenge the team, trust the team, maintaining improvement, put the problems into perspective and solve will lead to project performance if they are well managed.

3. Materials and Methods

The research design is the framework that encompasses all aspects of the study, providing a blueprint for the investigation. In this study, a quantitative research design was employed to analyze the effect of project strategic operation on the performance of Rwanda's e-mobility project. The research also incorporated a mixed methods approach to comprehensively explore the various determinants impacting e-mobility project performance. The target population comprised 145 individuals, including project managers, stakeholders, and e-

mobility vehicle owners, with a stratified sampling technique ensuring the selection of respondents from different strata.

Both primary and secondary data were used, with primary data collected through closed-ended questionnaires and secondary data gathered through document analysis. A pilot study was conducted to enhance questionnaire quality, and reliability and validity were established using Cronbach's alpha coefficients. Data were analyzed using IBM SPSS, employing descriptive and inferential statistics and multiple linear regression analysis to draw conclusions. Ethical considerations were paramount, with the researcher prioritizing respondent privacy and confidentiality and ensuring an unbiased selection process.

The methodology followed a systematic approach guided by the research design, ensuring a comprehensive and rigorous investigation. The use of both primary and secondary data sources enabled a well-rounded analysis, while the application of quantitative techniques enhanced the precision and accuracy of the findings. The researcher's meticulous attention to ethical considerations helped maintain the integrity and credibility of the study, demonstrating a commitment to responsible research practices. By adhering to established standards and employing a robust research design, this study aimed to contribute valuable insights to the field of e-mobility project management in Rwanda.

4.1 Presentation of findings

Using descriptive statistics like frequency, mean, and standard deviation, the researcher presents study results based on Likert scale data. The questions are frequently provided in the form of statements, and participants are then questioned about how much they agree or disagree with the statements using a rating scale. To sum up and make sense of the data, descriptive statistics like frequency, mean, and standard deviation were used.

4.1.1 Findings on the effect of project leadership on the performance of an e-mobility project in Rwanda.

The primary objective of the inquiry was to ascertain the impact of project leadership on the performance outcomes of an e-mobility project in Rwanda. The researcher assigned a rating to this item using a scale ranging from 1 to 5. The numerical scale ranging from 1 to 5 is used to express varying degrees of disagreement. Please provide a numerical value to each option: 1 for strongly disagree (SD), 2 for disagree (D), 3 for neutral (N), 4 for agree (A), and 5 for strongly agree (SA). The range of values from 1.0 to 1.80 was classified as being of an extremely low nature, while the range of values from 1.81 to 2.60 was categorized as being low. The range of values from 2.61 to 3.40 was classified as being neutral, however the range of values from 3.41 to 4.20 was regarded high. Lastly, the range of values from 4.21 to 5.0 was classified as being very high. Homogeneous distributions have a standard deviation of 0.5 or below, while distributions with a higher standard deviation are classified as heterogeneous.

Table 4.1: Effect of project leadership on the performance of an e-mobility project in Rwanda

Statements	SD	D	N	A	SA	Mean	Std.
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	fi	%	fi	%	fi	%	fi	%	fi	%	Dev.
Project managers are qualified to lead the project	4	4.3	5	5.4	3	3.3	23	25.0	57	62.0	4.35 1.074
Project leaders are interested in expanding staff perceptions and finding appropriate solutions to their problems	5	5.4	6	6.5	3	3.3	50	54.3	28	30.4	3.98 1.048
Project leadership has high level of insight and wisdom	4	4.3	5	5.4	4	4.3	40	43.5	39	42.4	4.14 1.033
Project leadership focuses on stakeholder satisfaction	5	5.4	7	7.6	3	3.3	35	38.0	42	45.7	4.11 1.133
Leadership effectively monitors project performance in order to address challenges	8	8.7	5	5.4	8	8.7	43	46.7	28	30.4	3.85 1.176
Project leadership studies project aspects for informed decision making	5	5.4	8	8.7	15	16.3	38	41.3	26	28.3	3.78 1.118
Overall											4.05 1.097

Source: Field Data, 2023

Based on the information provided in Table 4.1 the researcher interpreted views on the result of project leadership on the performance of an e-mobility program in Rwanda as perceived by the 92 respondents: Project managers are perceived to be qualified to lead the project: The numerous participants (62%) strongly-agreed that project leaders are qualified to lead the project, with an average rating of 4.35 and a relatively low standard deviation of 1.074. This suggests that the participants have a high level of confidence in the qualifications of the program leaders. Project leaders are interested in expanding staff perceptions and finding appropriate solutions to their problems: A significant number of respondents (54.3%) strongly agreed that project leaders are interested in expanding staff perceptions and finding appropriate solutions to their problems, with an average rating of 3.98 and a standard-deviation of 1.048. This suggests that participants believe project leaders are proactive in addressing staff concerns and are committed to finding effective solutions to challenges.

Project leadership has a high level of insight and wisdom: Respondents generally had a positive perception of project leadership, with 42.4% strongly agreeing and 43.5% agreeing that project leadership has a high level of insight and wisdom. The average rating was 4.14, with a relatively low standard-deviation of 1.033. This suggests that the participants believe project leadership has the necessary knowledge and experience to make informed decisions. Project leadership focuses on stakeholder satisfaction: The numerous participants (45.7%) strongly-agreed that program leadership focuses on stakeholder satisfaction, with an average rating of 4.11 and a standard-deviation of 1.133. This showed that the participants believe project leadership is committed to meeting the needs and expectations of stakeholders.

Leadership effectively monitors project performance in order to address challenges: Respondents had mixed opinions on this statement, with 46.7% agreeing and 30.4% strongly agreeing that leadership effectively monitors project performance in order to address challenges. However, a significant number-of participants (14.1%) disagreed or strongly-disagreed with this idea. The average rating was 3.85, with a high standard deviation of 1.176. This suggests that there may be some variation in the effectiveness of project leadership in monitoring project performance. Project leadership studies project aspects for informed decision making: Respondents generally agreed that project leadership studies

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project aspects for informed decision making, with 28.3% strongly agreeing and 41.3% agreeing. However, a significant number-of participants (22.2%) disagreed or strongly-disagreed with this idea. The average rating was 3.78, with a standard deviation of 1.118. This suggests that there may be some room for improvement in the ability of project leadership to make informed decisions based on their study of project aspects. The findings are in agreement with Truong, Thao and Tung (2018) mentioned leadership competency as an assimilated set of managers' traits and qualities that can be fixed towards the achievement of project goals within one's job competence sectors, specified work standards, and can be improved through training and development.

The respondents had a positive perception of project leadership's results on the performance of an e-mobility program in Rwanda, with an average-rating of 4.05 and a standard-deviation of 1.097. However, there were variations in their perceptions of specific aspects of project leadership, particularly trough their accuracy in monitoring program performance and making informed decisions based on their study of project aspects.

4.1.2 Findings on the effect of project planning on performance of e-mobility project in Rwanda.

The second objective of the study was to analyze how well thought out plans influence e-mobility projects in Rwanda. The researcher assigned a score between 1 and 5 for this. How strongly you disagree is represented by a number between 1 and 5. Assign a value of 1 to SD, 2 to D, 3 to N, 4 to A, and 5 to SA. Extremely low scores ranged from 1.0 to 1.80, low scores from 1.81 to 2.60, neutral scores from 2.61 to 3.40, high scores from 3.41 to 4.20, and extremely high scores from 4.21 to 5.0. Homogeneous distributions have a standard deviation of 0.5 or less, while those with a larger standard deviation are considered heterogeneous.

Table 4.2: The effect of project planning on performance of e-mobility project in Rwanda.

Statements	SD	D	N	A	SA	Mean	Std.
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	fi	%	fi	%	fi	%	fi	%	fi	%	Dev.
The project's activities, tasks, and work packages are all well specified.	5	5.4	6	6.5	7	7.6	41	44.6	33	35.9	3.99 1.094
The budget for personnel is accurate, which helps keep the project team inspired by providing enough compensation.	3	3.3	6	6.5	6	6.5	29	31.5	48	52.2	4.23 1.049
The demands of the recipients were taken into account while developing and refining the strategic objectives.	4	4.3	9	9.8	4	4.3	26	28.3	49	53.3	4.16 1.160
Project scope was mostly determined by the services that needed to be carried out.	7	7.6	9	9.8	4	4.3	45	48.9	27	29.3	3.83 1.182
Scope planning made clear to stakeholders, seniors and team members	5	5.4	10	10.9	3	3.3	50	54.3	24	26.1	3.85 1.099
Project team roles and responsibilities are in line with the project's objectives.	3	3.3	10	10.9	3	3.3	51	55.4	25	27.2	3.92 1.019
Overall											3.99 1.101

Source: Field Data, 2023

Project planning had a significant effect on the outcome of the e-mobility initiative in Rwanda, as shown in table 4.8. Five alternatives on a five point Likert scale ranging from strongly disagree (SD) to strongly agree (SA) were used to quantify the answers. Based on the data presented, the numerous participants agreed that Project is well defined in terms of activities, task, and work packages (mean score of 3.99, standard-deviation of 1.094). 44.6% of respondents selected A and 35.9% selected SA. Overall, respondents were in agreement that Staff cost is well estimated so that the project team is motivated because of fair remuneration, with a mean score of 4.23 and a standard deviation of 1.049. For the argument, Strategic goals were clearly defined and refined according to the needs of beneficiaries, the mean score was 4.16 and the standard deviation was 1.160, indicating that most participants agreed. A total of 48.9% of respondents agreed with the claim, Services to be performed were essentially in defining the scope of the project, with a mean score of 3.83 and a standard-deviation of 1.182.

More than half of the participants agreed with the argument, Scope planning made clear to stakeholders, seniors, and team members, with a mean score of 3.85 and a standard-deviation of 1.099. A mean score of 3.92 and a standard deviation of 1.019 was given for the claim Project team roles and responsibilities are in line with the project's objectives, with 55.4% of respondents agreeing and 27.2% disagreeing. These findings are consistent with those of Nteziryayo (2015), who, in his analysis of project planning and execution in Rwanda, looked into how budgeting affected program success, how communication plans affected project performance, and how risk management plans affected project performance. It seems that the majority of respondents agree or strongly agree that project planning was crucial to the achievement of the e-mobility project's goals in Rwanda. Standard deviation values, however, show that there was some discordance in the consensus.

4.1.3 Findings on the effect of business driven approach on performance of e-mobility project in Rwanda.

Third, we wanted to see what kind of impact a business-driven strategy would have on the viability of an e-mobility initiative in Rwanda. The investigator assigned a score between 1 and 5 for this. How strongly you disagree is represented by a number between 1 and 5. Assign a value of 1 to SD, 2 to D, 3 to N, 4 to A, and 5 to SA. Extremely low scores ranged from 1.0 to 1.80, low scores from 1.81 to 2.60, neutral scores from 2.61 to 3.40, high scores from 3.41 to 4.20, and extremely high scores from 4.21 to 5.0. Homogeneous distributions have a standard deviation of 0.5 or less, while those with a larger standard deviation are considered heterogeneous.

Table 4.3: The effect of business-driven approach on performance of e-mobility project in Rwanda

Statements	SD		D		N		A		SA		Mean	Std. Dev.
	fi	%	fi	%	fi	%	fi	%	fi	%		
E-mobility project in Rwanda adopted a business driven approach from the beginning	4	4.3	11	12.0	5	5.4	53	57.6	19	20.7	3.78	1.046
E-mobility project achieved its commercial purpose	6	6.5	13	14.1	5	5.4	31	33.7	37	40.2	3.91	1.237
Business driven approach was adopted at all stages of e-mobility project implementation	6	6.5	10	10.9	4	4.3	26	28.3	46	50.0	4.04	1.257
E-mobility business-driven approach leads to better alignment between organizational goals and project outcomes.	2	2.2	9	9.8	3	3.3	29	31.5	49	53.3	4.24	1.052
A business-driven approach involves regularly reviewing and adjusting E-mobility plans based on changes in the market.	6	6.5	13	14.1	4	4.3	29	31.5	40	43.5	3.91	1.281
A business-driven approach focused on E-mobility goals and deliverables.	8	8.7	10	10.9	9	9.8	35	38.0	30	32.6	3.75	1.263
Overall											3.93	1.189

Source: Field Data, 2023

The info in Table 4.3 highlight the responses of 92 respondents on the effect of business-driven approach on the performance of e-mobility project in Rwanda. The numerous participants (57.6%) agreed that the e-mobility project in Rwanda adopted a business-driven approach from the beginning. The numerous participants 33.7% agree and 40.2% strongly agreed that E-mobility project achieved its commercial purpose. Furthermore, the respondents also agreed that a business-driven approach was adopted at all stages of e-mobility project implementation (50%).The data also shows that respondents have a positive perception of the benefits of a business-driven approach to project performance. Respondents agreed that a business-driven approach leads to better alignment between organizational goals

and project outcomes (53.3%) and that the approach involves regularly reviewing and adjusting e-mobility plans based on changes in the market (43.5%). Additionally, the majority of respondents agreed that a business-driven approach focused on e-mobility goals and deliverables (38.0%).

The results are not far for Gahigana (2019) who assessed the effect of business -driven approach on project management fail or success. The results revealed customer satisfaction under logistics regression of 81.3% of clients interviewed were not satisfied with sur'eu product only 18.7% clients were satisfied with sur'eu. Customers not being satisfied in other words means that the project was not business driven because they were not able to meet the demands of clients and it led to the failure of the project. Overall, answers were fairly uniform, with a mean score of 3.93 and a standard deviation of 1.189. This data implies a market focused strategy may improve Rwanda's e-mobility initiatives.

Table 4.4: Performance of e-mobility project in Rwanda

Statements	SD		D		N		A		SA		Mean	Std. Dev.
	fi	%	fi	%	fi	%	fi	%	fi	%		
Project objectives met	4	4.3	10	10.9	9	9.8	49	53.3	20	21.7	3.77	1.049
The project is well managed and fully implemented	2	2.2	13	14.1	8	8.7	46	50.0	23	25.0	3.81	1.037
Project budget efficiently used to meet project objectives	0	0.0	2	2.2	11	12.0	55	59.8	15	16.3	3.88	.676
Project schedule met	4	4.3	3	3.3	18	19.6	54	58.7	16	17.4	3.84	.888
The project stakeholders are satisfied with the project outcomes.	3	3.3	8	8.7	4	4.3	58	63.0	19	20.7	3.89	.942
The project deliverables are of high quality.	6	6.5	4	4.3	5	5.4	39	42.4	38	41.3	4.07	1.111
Overall											3.87	0.951

Source: Field Data, 2023

The table 4.4 provides information on respondents' ratings of the performance of an e-mobility project in Rwanda based on six statements. Project objectives met: The mean rating for this statement is 3.77, which is between agree and neither agree nor disagree. The standard deviation is 1.049, showing that the ratings of participants are widely dispersed around the mean.53.3% of participants agreed or strongly agreed that project objectives were met. The project is well managed and fully implemented: The mean rating for this statement is 3.81, which is between agree and strongly agree. The standard deviation is 1.037, showing the ratings of participants are widely dispersed around the mean.75.0% of participants agreed or strongly agreed that the project was well managed and fully implemented. Project budget efficiently used to meet project objectives: The mean rating for this statement is 3.88, which is between agree and strongly agree. The standard deviation is 0.676, showing the ratings of participants are closely dispersed around the mean.75.8% of participants agreed or strongly agreed that program budget was efficiently used to meet project objectives. Project schedule met: The mean rating for this statement is 3.84, which is between agree and strongly agree. The standard-deviation is 0.888, showing the ratings of participants are closely dispersed around the mean.58.7% of respondents agreed or strongly agreed that the project schedule was met. The project stakeholders are satisfied with the project outcomes: The mean rating for this statement is 3.89, which is between agree and strongly agree. The standard deviation is 0.942, showing the ratings of participants are closely dispersed around the mean.83.0% of

participants agreed or strongly agreed that the project stakeholders were satisfied with the project outcomes. The project deliverables are of high quality: The mean rating for this argument is 4.07, closer to strongly agree. The standard deviation is 1.111, showing the ratings of participants are widely dispersed around the mean. 83.7% of participants agreed or strongly agreed that the program deliverables were of high quality.

The results are in complement with Fakher (2017) mentioned that project performance has over the time been the central target of many scholars examining different angles that contribute to project success or failure. Findings have revealed various factors that lead to project performance though with varying ideas such as; time, cost and on the other hand; human resource management, competency, customer satisfaction as project success factors or determinates. The respondents rated the success of the e-mobility project in Rwanda positively, with an average rating of 3.87 and a standard deviation of 0.951. However, the ratings of participants for each argument are widely dispersed around the mean, indicating that some respondents strongly agreed or disagreed with the statements, while others were neutral.

Table 4.5: Correlations matrix between project leadership, project planning, business driven approach and project performance

		Project performance	Project leadership	Project planning
Project planning	Pearson Correlation	.762**	.632**	1
	Sig. (2-tailed)	.000	.000	
	N	92	92	92
Business Driven approach	Pearson Correlation	.728**	.623**	.734**
	Sig. (2-tailed)	.000	.000	.000
	N	92	92	92

Source: Field Data, 2023

In correlation matrix Table 4.5, Researcher revealed the linkage within the independent-variables (Project leadership, Project planning, and Business-driven approach) and the dependent variable (Project performance) in terms of Pearson Correlation coefficients and p-values. All the correlations among the independent variables and the dependent variable are positive and statistically significant at the 0.01 level (2-tailed), showing strong and positive linkage among these variables. Specifically, Project leadership has a moderate positive correlation with project performance ($r = 0.641$) with a p-value 0.000. Project planning has a strong positive correlation with project performance ($r = 0.762$) with a p-value 0.000. Business-driven approach has a strong positive correlation with project performance ($r = 0.728$) with a p-value 0.000. The results suggest that all three independent variables are important of project strategic operation on project performance for the e-mobility project in Rwanda, with project planning having the strongest correlation with performance.

Table 4.6: Model Summary on effect of project leadership, project planning, business driven approach on project performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1 .813^a .661 .649 8.35118

a. Predictors: (Constant), Business driven approach, Project leadership, Project planning

Source: Field Data, 2023

The regression model in Table 4.6 aimed to predict the project performance of the e-mobility program in Rwanda based on the independent variables of project leadership, project planning, and business-driven approach. The R-squared value of 0.661 implies that the included independent variables account for 66.1% of the variance in project outcomes. A more cautious assessment of the model's actual predictive ability may be seen in the adjusted R-squared value of 0.649, which indicates that the model has been corrected for certain independent variables included. The results indicated that project leadership, project planning, and business-driven approach are significant predictors of project performance for the e-mobility project in Rwanda, as indicated by the significant R value.

Table 4.7: ANOVA between project leadership, project planning, business driven approach and project performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	11963.152	3	3987.717	57.178	.000 ^b
1	Residual	6137.316	88	69.742		
	Total	18100.467	91			

a. Dependent Variable: Project performance

b. Predictors: (Constant), Business driven approach, Project leadership, Project planning

Source: Field Data, 2023

The significance of the regression model as a whole is shown in ANOVA Table 4.7. Business-driven approach, Project leadership, and Project planning are significant predictors of the performance of the e-mobility program in Rwanda, as shown by the ANOVA table, which indicates that the regression model is statistically significant with F-values of 57.178 and p-values 0.000 (less than the conventional alpha level 0.05).

Table 4.7: Coefficientsa of project leadership, project planning, business driven approach and project performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	7.213	4.122		1.750	.084
	Project leadership	.795	.361	.185	2.201	.030
1	Project planning	1.391	.318	.424	4.380	.000
	Business driven approach	1.039	.331	.301	3.142	.002

a. Dependent Variable: Project performance

Source: Field Data, 2023

Multiple linear regression analysis was used to draw conclusions from the survey data in the research. The regression analysis model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$: employed.

Y is performance of E-mobility project, **X₁** is project planning, **X₂** is project leadership and **X₃** is business driven approach

Project performance = 7.213 + 0.795(Project leadership) + 1.391(Project planning) + 1.039(Business driven approach). The constant value of 7.213 indicates that if all three independent variables are equal to zero, the predicted project performance score would be 7.213. The coefficients for Project leadership, Project planning, and Business Driven approach are 0.795, 1.391, and 1.039, respectively. For every one unit increase in Project leadership, it predicts a 0.795 increase in performance of e-mobility project in Rwanda. For every one unit increase in Project planning predict a 1.391 increase in of performance e-mobility project in Rwanda. For every one unit increase in Business Driven approach predict a 1.039 increase in performance of e-mobility project in Rwanda. The t-values for each coefficient indicate whether the coefficient is significantly different from zero.

All three independent variables have significant relationships with project performance, with p-values less than 0.05. The regression model indicated that the combination of Project leadership, project planning, and business driven approach are strong predictors of project performance for the e-mobility project in Rwanda.

5.1 Conclusion

In conclusion, the study concluded that project leadership significantly impacts the e-mobility project's performance, highlighting the pivotal role of effective leadership in ensuring project success. Additionally, the analysis revealed that project planning significantly influences project performance, emphasizing the importance of comprehensive planning strategies in driving project outcomes.

Moreover, the research findings indicated that the business-driven approach significantly affects the performance of Rwanda's e-mobility project, underscoring the crucial role of aligning business strategies with project objectives. The study's results collectively demonstrate the critical interplay of project leadership, planning, and business-driven approaches in shaping the performance of the e-mobility project in Rwanda.

These findings offer valuable insights into the key determinants of project success in the context of e-mobility initiatives, thereby contributing to the existing knowledge base in project management and fostering informed decision-making for similar projects in Rwanda.

5.2 Recommendations

For the successful implementation of Rwanda's e-mobility project, it is imperative to strengthen the project's leadership structure to enhance goal definition and resource allocation. Additionally, investing in comprehensive training and capacity building for local staff will ensure the proficient operation and maintenance of the e-mobility infrastructure. Prioritizing stakeholder engagement during the project planning phase, along with the development of a robust communication strategy to keep stakeholders well-informed, is vital for project performance. Furthermore, promoting a business-driven approach that focuses on revenue generation and cost-effectiveness, alongside the implementation of consistent monitoring and evaluation practices will enable the identification of areas for improvement and further success.

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