

# Journal of Strategic Management



**ISSN Online: 2616-8472**



**Stratford**  
Peer Reviewed Journals & books

## **Strategic Management Practices and Clean Energy Sector Performance in Rwanda; A Case of Bboxx Rwanda in Kigali City**

**Marie Merci Hirwa Mupenzi & Dr. Eugenia Nkechi  
Irechukwu (Ph.D)**

**ISSN: 2616-8472**

# Strategic Management Practices and Clean Energy Sector Performance in Rwanda; A Case of Bboxx Rwanda in Kigali City

<sup>1</sup>\*Marie Merci Hirwa Mupenzi & <sup>2</sup>Dr. Eugenia Nkechi Irechukwu (Ph.D)

<sup>1</sup>Postgraduate student, Mount Kenya University, Rwanda

<sup>2</sup>Lecturer, Mount Kenya University, Rwanda

\*Email of the corresponding author: [hirwamerici16@gmail.com](mailto:hirwamerici16@gmail.com)

*How to cite this article:* Mupenzi, M. M. H., & Irechukwu, E. N. (2023). Strategic Management Practices and Clean Energy Sector Performance in Rwanda; A Case of Bboxx Rwanda in Kigali City. *Journal of Strategic Management*, 7 (7), 42-63. <https://doi.org/10.53819/81018102t5277>

## Abstract

This study investigated the effect of strategic management practices on the performance of Bboxx Rwanda in Kigali city. In particular, the study aimed to determine how strategy formulation, strategy implementation, and strategy control affect the performance of Bboxx Rwanda. The study used a descriptive research design to implement the research strategy. Both primary and secondary data was collected using a questionnaire and document review respectively. The descriptive research design with a mixed approach of qualitative and quantitative data were used to collect data by the use of questionnaire. The study participants comprised employees at the managerial level at the Bboxx Africa headquarter (HQ) office in Kigali, Rwanda with the sample size of 80 respondents selected using census method. The collected results were analyzed using descriptive statistical analysis with the use of mean and standard deviation, and inferential statistics by the use of Pearson correlation ( $r$ ) and multiple linear regression analysis. The results were presented in figures, tables, and narratives because the qualitative data were analyzed with the use of thematic analysis which require the study to present the qualitative results in the narrative. The study found that 43.0% of respondents agreed with Bboxx's vision, and a notable portion recognized the importance of SWOT analysis. While customer satisfaction had a minimal correlation, the SWOT analysis significantly influenced new product development. Resource allocation did not notably impact revenue growth but had a weak positive correlation with new product development. The organizational structure didn't drive growth or customer satisfaction, highlighting potential areas for improvement. Additionally, organizational culture and communication channels showed weak associations with their respective metrics, indicating a need for re-evaluation. The results suggest while some strategic elements are effective, others, especially in organizational structure and communication, require refinement. The study recommends that organizations adopt effective strategic management practices, especially as benchmarks evolve. Furthermore, the study emphasizes the importance of clearly presenting factors related to management, both to managerial and non-managerial staff. By doing so, employees can gain a better understanding of the management style in place, which can, in turn, guide their efforts towards realizing organizational goals. The study strongly recommends enhancing communication channels between managerial and non-managerial staff.

**Keywords:** *Strategic Management Practices, Clean Energy, Performance, Bboxx, Rwanda*

<https://doi.org/10.53819/81018102t5277>

## 1.0 Background of the Study

The growing global concern about deaths attributed to household air pollution due to the increase in the number of people who still cook with polluting biomass fuels such as firewood and charcoal has led to increasing in search for strategies that could be developed and implemented to increase the number of people who access clean cooking. Globally, it is estimated that there are 2.4 billion people in the world who still cook with polluting biomass fuels such as wood, charcoal, and animal dung (IEA et al. 2022). The resulting impacts on health, the environment, and gender are devastating. Four million deaths per year can be attributed to household air pollution (HAP) causing pneumonia, lung cancer, and other diseases – a figure greater than the annual mortalities of the human immunodeficiency virus (HIV), malaria, and typhoid combined (WHO 2018). Cooking is responsible for around 2% of total CO<sub>2</sub> emissions each year and it is estimated that up to a third of wood, harvesting is unsustainable (Bailis et al. 2015).

Women and children are disproportionately affected as cooking and the gathering of fuel are tasks that usually fall within their jurisdiction (Hart and Smith 2010; Parikh 2011). These problems are particularly concentrated in sub-Saharan Africa (SSA), where around 950 million people still rely on wood fuels to cook, comprising a third of the global total (World Bank 2022a; 2022b). There exists a range of different clean cooking technologies and fuels, each with its own sets of advantages and disadvantages that lend them to different contexts and user groups. Liquefied petroleum gas (LPG) is widely acknowledged to be one of the most promising solutions (Puzzolo 2014). LPG is widely available and cheap to scale (Rosenthal et al. 2018; Bruce et al. 2017). It emits little carbon and almost no harmful pollutants upon burning, typically meeting World Health Organization (WHO) indoor air quality guidelines for health (Bruce et al. 2015). Although it is a fossil fuel, supply currently exceeds demand, so it is considered to have a near-zero carbon footprint (Wilson et al. 2015). However, switching from biomass to LPG incurs upfront costs that those at the bottom of the pyramid struggle to overcome (Giordano et al. 2018).

The number of people without clean cooking access is rising in Sub-Saharan Africa, increasing by 275 million over the last several years. There are now 860 million people in the region who do not cook cleanly, which accounts for about 70 percent of Africa's population (Melin, 2018). On side of Rwanda particularly despite the effort the government has put in to promote the widespread adoption of clean cooking in Rwanda, Rwandan household cooking practices are still based on traditional fuels and stoves where about only 2% of the population has access to modern cooking fuels and technologies, concentrated in urban areas and high-income households, while about 15% have access to clean cooking stoves. Three-stone and traditionally manufactured stoves are predominant in rural areas, and 76% of Rwandan households spend more than 7 hours per week acquiring and preparing fuel, posing a high burden on women and girls, who are generally in charge of these activities (Energy 4 Impact, 2021)

An emerging innovation seeking to address this challenge is pay-as-you-go (PAYG) LPG, which allows customers to pay as they cook. The customer is provided with the hardware components of the LPG system: a gas canister with an embedded meter and valve in its nozzle

<https://doi.org/10.53819/81018102t5277>

(known as a SMART meter), an LPG cylinder, and a two-burner stove. Credit is purchased from the provider via mobile money. This allows the corresponding amount of gas to be dispensed from the cylinder whenever the customer wishes to use it. Once the credit has been spent, the valve turns off and prevents any more gas from being used until another payment is made. Once the cylinder is nearing empty, the provider replaces it with a new one, ensuring that customers always have access to fuel in their homes. Thus, the inclusion of PAYG LPG in government programs could yield additional and specific benefits. Moreover, the operational expertise of PAYG LPG companies could help governments deliver more cost-effective interventions and help to develop bigger and more sustainable markets that provide clean cooking fuels, such as liquid petroleum gas (LPG), ethanol, and clean burning wood pellets, as well as clean technologies such as improved cooking stoves.

### 1.1 Statement of the Problem

Despite the numerous benefits of clean cooking, approximately 2.8 billion people around the world still lack access to clean cooking solutions, according to the International Energy Agency. The continued use of traditional cooking methods such as open fires and inefficient stoves not only contributes to indoor and outdoor air pollution but also has significant negative impacts on health, gender equality, education, and the environment (EnergyPedia, 2018). In Africa, approximately 900 million people still lack access to clean cooking solutions, which is over 80% of the population, according to the International Energy Agency. The continued use of traditional cooking methods, especially in rural areas, has significant negative impacts on health, gender equality, education, and the environment (Khavari, Ramirez, Jeuland & Fuso Nerini, 2023). The use of open fires and inefficient stoves contributes to indoor and outdoor air pollution, resulting in respiratory diseases such as pneumonia, lung cancer, and chronic obstructive pulmonary disease, which are responsible for millions of deaths annually. The burden of collecting fuelwood and cooking falls disproportionately on women and girls, leading to gender inequality and limiting educational opportunities. The continued reliance on fuelwood for cooking also contributes to deforestation, soil erosion, and climate change.

In Rwanda, only 2% of the population has access to modern cooking fuels and technologies, concentrated in urban areas with high income. Those people who use clean cooking energy in Rwanda, including Liquefied Petroleum Gas (LPG), face several challenges that limit their ability to fully benefit from these technologies. These challenges include limited access, affordability, technical challenges, lack of awareness, and availability of fuel. In the case of LPG, additional challenges include affordability, availability and distribution, and safety concerns. Bboxx emerged as one of the energy sectors to address the issue of clean cooking adoption through the SMART metering technology to eliminate the high cost of equipment and allow customers to buy a small amount of fuel at a time as opposed to whole cylinders, increasing the compatibility with low and uncertain incomes households (Center, 2022).

Even for those who have already adopted clean cooking solutions such as LPG (Liquefied Petroleum Gas), there can be challenges and barriers that they face including availability and affordability as it is may not be available in all areas or may be more expensive in some regions, which make it challenging for households to access and afford this type of clean fuel. One of the possible gaps in this research problem could be the lack of a clear and specific focus on the

impact of the Bboxx SMART metering technology in addressing the challenges faced by those using clean cooking energy in Rwanda. Nevertheless, there are still adoption and scalability gaps including being perceived as culturally incompatible and even when clean cooking fuels are adopted, they are usually hindered by fuel stacking which makes it difficult for a business model to reach a sustainable clean cooking adoption. Thus, the study is designed to explore the implementation and impact of this technology, including the barriers and challenges faced by users and potential solutions to overcome them.

## 1.2 Research Objective

The study was guided by the following specific objectives;

- i. To determine the effect of strategy formulation practice on the performance of Bboxx Rwanda.
- ii. To identify the influence of strategy implementation on performance of Bboxx Rwanda
- iii. To examine the contribution of strategy evaluation/control on the performance of Bboxx Rwanda in clean energy technologies

## 2.0 Literature Review

This section provides a literature review that includes empirical literature, theoretical framework and conceptual framework

### 2.1 Empirical Review

Niyibizi et al. (2020) examined the impact of strategic planning on the performance of small and medium-sized enterprises (SMEs) in the clean energy sector in Rwanda. The study used a quantitative approach, where data was collected through structured questionnaires administered to 150 SMEs operating in the clean energy sector in Rwanda. The collected data was analyzed using descriptive statistics and regression analysis. Phillips (2019) showed the positive relationship between strategic planning on the performance of the UK hotel industry. (Sahan Jayawarna & Ravindra Dissanayake, 2019) Phillips used strategic planning sophistication as the independent variable while performance was used as the dependent variable. The author conducted interviews with senior executives from 15 major hotel groups in the UK to gather data on their strategic planning processes and performance metrics. The study found that hotels that engaged in strategic planning were more likely to have higher levels of customer satisfaction, as measured by TripAdvisor ratings, they were more likely to have higher occupancy rates, with a 1% increase in strategic planning resulting in a 0.4% increase in occupancy rates and they were more likely to have higher average daily room rates, with a 1% increase in strategic planning resulting in a 0.5% increase in average daily room rates. These findings suggest that strategic planning is an important factor in the success of hotels in the UK, particularly in terms of customer satisfaction, occupancy rates, and room rates. Moreover, the study found that there was a significant positive relationship between strategic planning and performance, indicating that hotels that engaged in strategic planning were more likely to perform well.



Sophia and Owuor (2015) carried out an investigation on strategic planning and firm performance of Kenya Medical Research Institute (KEMRI). The study used both qualitative and quantitative methods, including questionnaires and interviews. Specifically, the study found that KEMRI's financial performance significantly improved as a result of the adoption of strategic planning. The study found a statistically significant relationship between strategic planning and financial performance, with a correlation coefficient of 0.624 at a significance level of 0.01. Furthermore, the study found that KEMRI's adoption of strategic planning also led to improved employee satisfaction. The study found a statistically significant relationship between strategic planning and employee satisfaction, with a correlation coefficient of 0.547 at a significance level of 0.01. The findings of the study indicated a positive and significant relationship between strategic planning and firm performance. Overall, the study found that KEMRI's adoption of strategic planning had a significant impact on its overall performance, including financial performance, employee satisfaction, and improved service delivery.

Thomaz Cater and Danijel Pucko (2019) conducted a study to identify the factors that contribute to effective strategy implementation in Slovenian business practice. The study used a sample of 172 Slovenian companies, and data was collected through a structured survey questionnaire. The findings of the study revealed that there are several critical factors that contribute to successful strategy implementation in Slovenian companies. These factors include top management support, employee involvement, effective communication, appropriate resources allocation, and monitoring and evaluation of the implementation process. The study found that top management support is the most critical factor that contributes to effective strategy implementation. The results showed that the degree of top management support had a significant positive relationship with the success of strategy implementation, with a correlation coefficient of 0.71. The study also found that employee involvement is another crucial factor that contributes to the success of strategy implementation. The results indicated that there was a positive relationship between employee involvement and the success of strategy implementation, with a correlation coefficient of 0.56. Effective communication was also identified as a critical factor that contributes to successful strategy implementation, with a correlation coefficient of 0.51. The study found that appropriate resource allocation had a positive relationship with the success of strategy implementation, with a correlation coefficient of 0.42.

## **2.2 Theoretical Framework**

### **2.2.1 Resource Based View of the Firm**

The resource-based theory is an influential approach in strategic management that focuses on internal resources as a means of creating a competitive advantage. This model sees resources as key to superior firm performance. It is widely applied as a management framework for companies to identify critical resources to achieve sustainable competitive advantage. (Hesty Utami & Eleftherios Alamanos, 2020) This theory provides an essential framework for explaining and predicting the basis of firm performance and competitive advantage. The managers should continually update their array of capabilities to keep pace with changes in their environment. Thus, this theory plays a crucial role in this paper's objective as it stresses the importance of organizing resources for strategic partnerships to enhance the performance of the organization in terms of its market share and customer satisfaction.

<https://doi.org/10.53819/81018102t5277>

### **2.2.2 Contingency Theory**

The work of Penrose is where the resource-based view (RBV) of the company has its roots (1959). Wernerfelt (1984), Barney (1991), Prahalad, and Hamel (1991), among others, were notable studys who made contributions to the creation of the resource base view. The tangible and intangible assets that make up the stock of firm-specific elements with the ability to improve performance are the primary emphasis of the resource-based view (Crook et al., 2008). The resource-based perspective theory emphasizes the significance of internal resources within the company and the use of such resources in developing a strategy that can aid in the development of a sustainable competitive advantage in the market (Schroeder et al. 2002). Competencies are created by businesses using a variety of resources under their control, and when they are successfully created, they often result in a competitive advantage (Pearce & Robinson, 2007). This suggests that resources are crucial to a firm's strategic management practices and implementation efforts, which, if poorly managed, could seriously harm an organization's performance and ability to survive. The resources method was developed by Learned et al. in 1969. They noted that what a corporation is capable of is not only a function of its opportunities but also the pool of resources in its possession and control. The information presented tends to be in favor of the inside-out approach to business strategy that is essential for pursuing, establishing, and maintaining competitive advantage. The resource-based theory has its roots in the management school of thought that views a company's resources as the basis of its competitive advantage rather than how well-positioned it is in its surroundings. As a result, when a company is conducting business, it should focus on firm-specific resources and competencies rather than simply assessing environmental possibilities and dangers (Barney, 1995). Hence, the resource-based theory asserts that certain resources that businesses own and manage have the ability to produce a competitive advantage and significantly higher performance (Ainnuddin et al., 2007). RBV emphasizes the value of strategies that are concentrated, extremely operationally efficient, and quickly responsive to the dynamic and competitive operating environment since the enterprises that survive are the fittest and most environment-adjustable, in strategic management literature (Abdullah, 2010). The available empirical research on the connection between performance and diversification supports this claim (Wermerfelt & Montgomery, 1988).

### **2.2.3 Dynamic Capabilities Theory**

According to Teece, the dynamic capability theory is all about a company's ability to integrate, build and reconfigure internal and external capabilities to respond to rapidly changing environments. (TEECE, 2018). Dynamic capabilities can give the firm a competitive advantage, but this effect is contingent on the level of dynamism of the firm's external environment. (John Wiley & Sons, Ltd., 2013) This theory emphasizes the need for firms to use their resources to create short-term competitive advantages that can expand into long-term competitive advantages. Its emphasis is on maintaining the competitiveness of the company. Again, this theory matches our objective to put focus on the expansion strategy strategic alliance of an organization which has contributed positively to organizational survival, performance, and sustainability (Cyfert et al., 2021). Teece, Pisano, and Shuen (2017) specify the concept of dynamic capabilities, such as identify and seize new opportunities, reset, and protect knowledge, skills, and assets or resources with the goal of gaining a sustainable competitive advantage and refine the concept of dynamic abilities, such as the ability. This

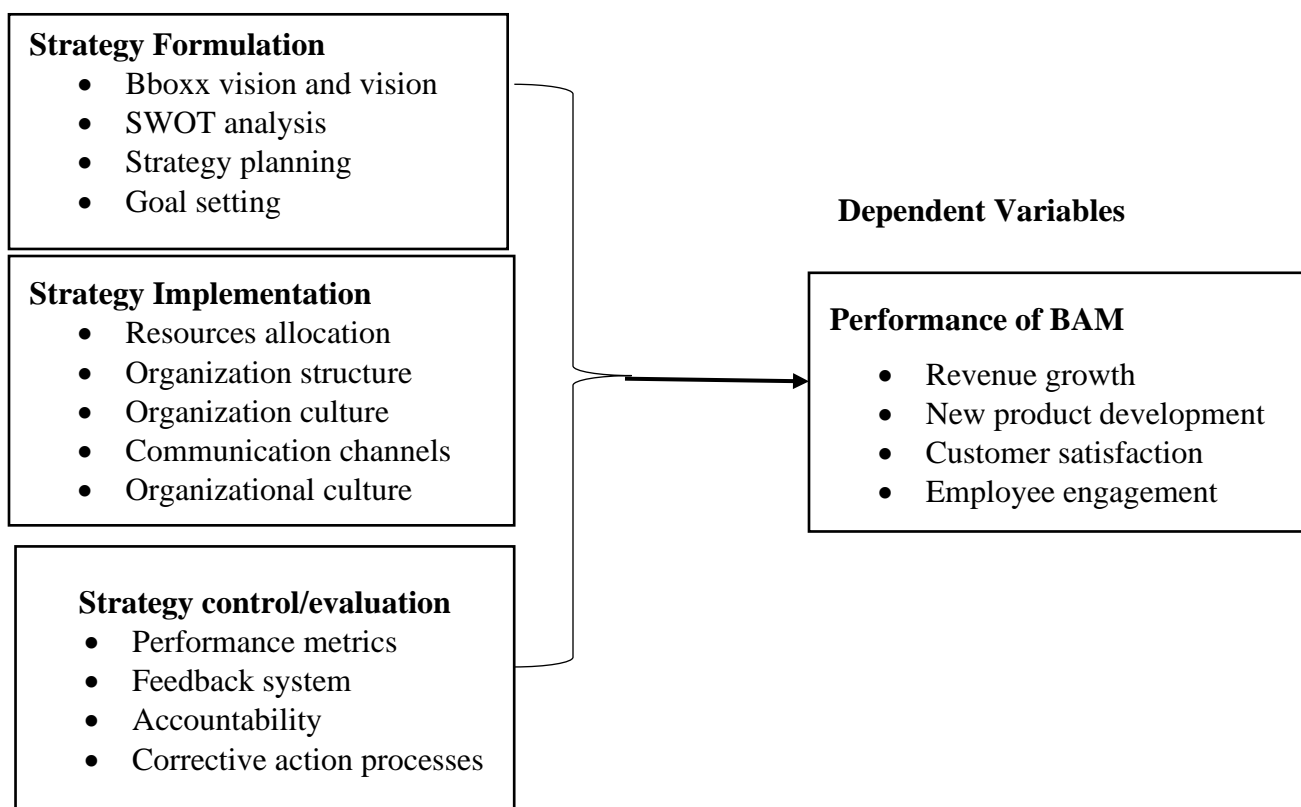
<https://doi.org/10.53819/81018102t5277>

theory, therefore, supports firms to achieve sustainable competitive advantage through our specific goals which address expansion opportunities to maintain competitive advantage through strategic partnerships and strategic planning. It was relevant to our study because it helped provide guidance on the method. (Claudia Cristina Bitencourt & Cristiane Froehlich, 2019)

### 2.3 Conceptual Framework

The framework offers an eye-catching visual representation of the relationship between the independent and dependent variables (Mugenda & Mugenda, 2011). The conceptual framework is presented in Figure 1.

#### Independent Variables



**Figure 1: Conceptual Framework**

Source: Author (2023)

### 3.0 Research Methodology

The research utilized a descriptive design, collecting both quantitative and qualitative data. The qualitative data was gathered through interviews with Bboxx Rwanda executives, while the quantitative data was sourced from questionnaires. The target population consisted of managerial employees at Bboxx Africa's HQ in Kigali, Rwanda, including senior, middle, and functional level managers, totaling 80 individuals. The census method, which included all

<https://doi.org/10.53819/81018102t5277>



managers, was employed as the sampling technique due to its reliability and the small sample size. Data was collected primarily through structured questionnaires and supplemented by a review of published materials from the Bboxx Rwanda website. Prior to the main study, a pilot test was conducted to ensure the reliability and validity of the instruments. The collected data was analyzed using SPSS software, and a model illustrating the relationship between the variables was presented. Ethical considerations were highlighted, emphasizing the importance of obtaining consent, ensuring respondent confidentiality, and maintaining the study's academic focus.

#### 4.0 Research Findings and Discussion

The general objective of the study was to examine the strategic management practices and clean energy sector performance in Rwanda with a case of Bboxx Rwanda. The specific objectives of the study were to determine the effect of strategy formulation practice on the performance of Bboxx Rwanda; to identify the influence of strategy implementation on performance of Bboxx Rwanda, and examine the contribution of strategy evaluation/control on the performance of Bboxx Rwanda in clean energy technologies. Before analysing each objective, the study started by providing information regarding the level of clean energy sector performance.

**Table 1: Level Clean Energy Sector Performance in Rwanda**

Items	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Total		
	N	%	N	%	N	%	N	%	N	%	N	Mean	Std
Revenue growth	17	14.1	31	26.5	4	3.7	30	25.5	34	29.2	118	3.3020	1.475
New product development	8	7.0	11	9.1	4	3.0	44	37.2	51	43.6	118	4.0134	1.2115
Customer satisfaction	5	4.4	17	14.8	6	4.7	46	39.2	41	34.6	118	3.8121	1.2356
Employee engagement													
<b>Composite Mean</b>											3.9114		

**Source: Primary Data (2023)**

Level clean energy sector performance in Rwanda. In this regards, 26.5% and 29.2 accepted and show a strong agreement on Revenue growth. This reflects the average of response equal to 3.30 and std was 1.475. Participants accepted that new product development as well as 37.2% agreed with the statement, while 43.6% show a strong agreement, Customer satisfaction was improved used as confirmed as show by 39.6% and 34.6% respectively. Information from interview argued that Employee engagement.

#### 4.1 Effect of Strategy Formulation Practice on Performance of Bboxx Rwanda

The study examined Effect of strategy formulation practice on the performance of Bboxx Rwanda; before establishing influence of Effect of strategy formulation practice on the performance of Bboxx Rwanda. It was pertinent to give generate descriptive data on strategy

formulation practice. Strategy formulation practice was assessed through Bboxx vision and vision, SWOT analysis, Strategy planning and Goal setting show in Table 2

**Table 2: Strategy Formulation Practice of Bboxx Rwanda**

Statement	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		%	Total Mean	Std
	N	%	%	%	N	%	N	%	%	%			
Bboxx vision and vision	7	6.0	20	16.8	3	2.7	51	43.0	45	38.2	118	3.9530	1.1910
SWOT analysis	13	10.7	29	24.2	5	4.4	36	30.5	44.6	37.6	118	3.6745	1.3991
Strategy planning	13	10.7	10	8.4	5	4.0	40	34.2	32	26.8	118	3.4228	1.3838
Goal setting	17	14.0	14	12.1	3	2.3	40	33.9	48	40.6	118	3.7718	1.4313
<b>Composite mean</b>												<b>3.8198</b>	

**Source: Primary Data (2023)**

Results on strategy formulation practices demonstrated that 43.0% accepted and 38.3 show a strong agreement with Bboxx vision and vision 34.2% as well as 37.6% of respondents SWOT analysis, Therefore, 68 .4% show an agreement and demonstrated a strong agreement, Strategy planning while, 34.2 % of respondents accepted Goal setting.

**Table 2: Correlations between Strategy Formulation and Performance of BAM**

		Bboxx vision and vision	SWOT analysis	Strategy planning	Goal setting	Revenue growth	New product development	Customer satisfaction
Bboxx vision and vision	Pearson Correlation	1.000						
	Sig.(2-tailed)							
	N	118						
SWOT analysis	Pearson Correlation	.045	1.000					
	Sig.(2-tailed)	.435						
	N	118	118					
Strategy planning	Pearson Correlation	.006	.115*	1.000				
	Sig.(2-tailed)	.918	.048					
	N	118	118	118				
Goal setting	Pearson Correlation	.031	.151**	.076	1.000			
	Sig.(2-tailed)	.591	.009	.190				
	N	118	118	118	118			
Revenue growth	Pearson Correlation	.003	-.022	.028	.039	1.000		
	Sig.(2-tailed)	.953	.701	.629	.502			
	N	118	118	118	118	118		
New product development	Pearson Correlation	.035	.206**	.060	.068	.050	1.000	
	Sig.(2-tailed)	.542	.000	.305	.241	.385		
	N	118	118	118	118	118	118	
Customer satisfaction	Pearson Correlation	.013	.047	.009	.011	.005	.023	1.000
	Sig.(2-tailed)	.825	.417	.874	.850	.926	.692	
	N	118	118	118	118	118	118	118

**Source: Primary Data (2023)**

<https://doi.org/10.53819/81018102t5277>

Correlation data show insignificant relationship between Bboxx vision and vision and Revenue growth (Pearson correlation =0.003, significance level =0.953), Bboxx vision and vision with New product development (Pearson was 0.003, significance was 0.542) Bboxx vision and vision were not associated with Customer satisfaction (Pearson correlation =0.013, significance =0.825). The association between SWOT analysis and performance of Bboxx show that the SWOT analysis was not linked with Revenue growth (Pearson Correlation =0.022, significance= 0.701), Customer satisfaction (Pearson correlation =0.047 and significance = 0.417). Dissimilarly, SWOT analysis with new product development (Pearson correlation was 0.206, significance was 0.000). The association effect of Strategy planning demonstrated that Strategy planning did have a clear effect on Revenue growth (Pearson correlation was 0.028, significance was 0.629), Strategy planning did not affect new product development (Pearson correlation was 0.060, significance was 0.305), Strategy planning did not affect strongly the Customer satisfaction (Pearson correlation was 0.009, significance level was 0.874).

**Table 3: Regression Coefficients Strategy Formulation and Revenue growth**

Model	Unstandardized Coefficient		Standardized Coefficients		
	b	std. Error	Beta	t	Sig
(Constant)	3.588	.449		7.994	.000
Bboxx vision and vision	.002	.072	.002	.026	.979
SWOT analysis	.015	.063	.014	.240	.810
Strategy planning	.025	.063	.024	.405	.686
Goal setting	.036	.061	.035	.591	.555

a. Dependent Variable : Revenue growth

**Source: Primary Data (2023)**

Results on impact of Strategy Formulation variables to Performance of BAM. Data demonstrated that Bboxx vision and vision was not associated with Revenue growth (Pearson correlation =0.002, significance was 0.979), strategy planning did not affect Revenue growth (Pearson correlation was 0.810), SWOT analysis did not Revenue growth (Pearson correlation was 0.024, significance level 0.686). Strategy planning is insignificant associated with Revenue growth (standardized coefficient was 0.035, sig was 0.555).

**Table 5: Regression Coefficients between Strategy Formulation and New product development**

Model	Unstandardized Coefficients		Standardized Coefficients		
	b	std. Error	Beta	t	Sig.
1 (Constant)	4.682	.360		13.001	.000
Bboxx vision and vision	.047	.058	.046	.802	.423
SWOT analysis	.172	.050	.199	3.419	.001
Strategy planning	.030	.050	.034	.596	.551
Goal setting	.031	.049	.037	.639	.523

a. Dependent Variable : New product development

**Source: Primary Data (2023)**

<https://doi.org/10.53819/81018102t5277>

Data on Strategy Formulation and new product development demonstrated that Bboxx vision and vision did not impact New product development (standardized coefficients was 0.046, sig was 0.423), SWOT analysis was not associated with New product development (standardized coefficient was 0.034, sign was 0.551 Strategy planning did not affect New product development (Standardized Coefficients was 0.037, sig was 0.523). This implies that a variation for Strategy Formulation practices did not influence new product development. Finally, Goal setting did not affect project New product development (standardized coefficients (Standardized coefficients, sig was 0.001). It denotes that any adjustment in strategy formulation impact New product development. The research may recognize as pertinent to show strategies to ensure strategy formulation and its influence on new product development.

**Table 4: Coefficient for Strategy Formulation and Customer satisfaction**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std.Error	Beta	t	Sig
1 (Constant)	3.90	.376		10.591	.000
Bboxx vision and vision	.011	.061	.011	.183	.855
SWOT analysis	.042	.052	.048	.804	.422
Strategy planning	.013	.053	.015	.257	.798
Goal setting	.004	.051	.005	.078	.938

a. Dependent Variable: Customer satisfaction

**Source: Primary Data (2023)**

The findings evidenced that Bboxx vision and vision did not affect Customer satisfaction (Standard coefficients was 0.011, sig was 0.855), SWOT analysis did not affect Customer satisfaction (standardized coefficients was 0.048 and sig was 0.422), Strategy planning is insignificant in affecting Customer satisfaction (standardized coefficients was 0.015 and sig was 0.798 Goal setting is insignificant in affecting Customer satisfaction (Standardized coefficients was 0.005, sig was 0.983). It implies that adjustment in strategy formulation did not product any effect on Customer satisfaction.

**4.2 Influence of Strategy Implementation on Performance of Bboxx Rwanda**

The study investigated influence of Strategy Implementation to the performance of Bboxx Rwanda in Rwanda, strategy implementation analysed utilizing Resources allocation, Organization structure, Organization culture and Communication channels.

**Table 5: Strategy Implementation**

Statement	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Total N	Mean	Std
	N	%	N	%	N	N	N	%					
Resources allocation	20	16.8	16	13.4	4	3.4	33	27.8	43	38.6	118	3.5805	1.51598
Organization structure	10	8.4	15	12.8	5	4.0	56	47.6	32	27.2	118	3.7248	1.22740
Organization culture	21	18.1	25	21.5	5	4.0	43	36.3	24	20.1	118	3.1879	1.44189
Communication channels	12	10.1	15	13.1	2	1.3	41	34.6	48	40.9	118	3.8322	1.35290
<b>Composite Mean</b>											<b>3.7321</b>		

**Source: Primary Data (2023)**

Data presented in Table 7 demonstrated 27.9% accepted show an agreement that resources allocation. Giving the resources allocation accepted. Therefore, resources allocation was pertinent as indicated by 36.2%. The study evidenced that 34.6% accepted and 40.9% show a strong agreement that the Organization structure.

**Table 6: Correlation Analysis between Strategy Implementation and Performance of BAM**

		Resources allocation	Organization structure	Organization culture	Communication channels	Revenue growth	New product development	Customer satisfaction
Resources allocation	Pearson Correlation	1.000						
	Sig.(2-tailed)							
	N	118						
Organization structure	Pearson Correlation	.076	1.000					
	Sig.(2-tailed)	.189						
	N	118	118					
Organization culture	Pearson Correlation	.135*	.126*	1.000				
	Sig.(2-tailed)	.020	.029					
	N	118	118	118				
Communication channels	Pearson Correlation	.153**	.070	.063	1.000			
	Sig.(2-tailed)	.008	.230	.276				
	N	118	118	118	118			
Revenue growth	Pearson Correlation	.041	.122*	-.123*	.031	1.000		
	Sig.(2-tailed)	.481	.035	.034	.600			
	N	118	118	118	118	118		
New product development	Pearson Correlation	.009	.077	.025	.019	.050	1.000	
	Sig.(2-tailed)	.883	.187	.666	.742	.385		
	N	118	118	118	118	118	118	
Customer satisfaction	Pearson Correlation	.000	.000	.035	.050	.005	.023	1.000
	Sig.(2-tailed)	.988	.988	.552	.394	.926	.692	
	N	118	118	118	118	118	118	118

**Source: Primary Data (2023)**

<https://doi.org/10.53819/81018102t5277>



Findings evidences that resources allocation did not affect Revenue growth (Pearson correlation was 0.041, sig was 0.481). The resources allocation was positively correlated with new product development (Pearson correlation was 0.009, sig was 0.883). Moreover, resources allocation is statistically significant with customer satisfaction. The Organization structure was not connected to the revenue growth (Pearson correlation was 0.077, sig was 0.187), Organization structure is insignificantly with Customer satisfaction (Pearson correlation was 0.007, sig was 0.988). Therefore, they are not statistically associated because the p-value is under 5% suggesting a variation organization structure was not able to stimulate revenue growth, new product development and customer satisfaction. organization culture felt insignificantly associated new product development ( $r=-.025^*$ ; p value=0.666), while, Organization culture did not affect the level of success suggesting that any adjustment in Organization culture duties did not automatically increase the revenue growth. Communication channels were not affecting cost efficient (Pearson correlation was 0.031, sig was 0.600), new product development (Pearson correlation was 0.019, sig was 0.742), strategy implementation are not associated with customer satisfaction (Pearson correlation was 0.50, sig was 0.394).

**Table 7: Strategy Implementation and Revenue growth**

Model		Unstandardized Coefficients		standardized	t	Sig
		b	std. Error	Beta		
1	(Constant)	3.449	.400		8.626	.000
	Resources allocation	.037	.057	.038	.657	.512
	Organization structure	.143	.059	.140	2.412	.016
	Organization culture	.166	.070	.138	2.364	.019
	Communication channels	.039	.063	.035	.608	.543

a. Dependent Variable: Revenue growth

**Source: Primary Data (2023)**

The study felt that resources allocation did not impact revenue growth (Standardized coefficients was 0.038, sig was 0.512). The means that a change in resources allocation cannot influence the Revenue growth. Findings indicated that resources allocation is significantly affecting Revenue growth (standardized coefficients was 0.140, sig was 0.016), it implies that an adjustment in Resources allocation affect significantly revenue growth. Furthermore, findings on Organization structure denoted that it was affecting the revenue growth (Standardized coefficients was 0.138, sig was 0.019). Thus, the study denoted organization culture significant affect the revenue growth and the vice versa. Finally, use of information in problem solving were not associated with resources allocation (Standardized coefficients was 0.035, sig was 0.0543). Findings implies that a change in utilizing data in communication channels did not impact of revenue growth.

<https://doi.org/10.53819/81018102t5277>

**Table 8: Strategy Implementation and new product development**

Modl		Unstandardized Coefficients		Standardized	t	Sig
		b		Coefficients		
1	(Constant)	3.449	.400		8.626	.000
	Resources allocation	.037	.057	.038	.657	.512
	Organization structure	.143	.059	.140	2.412	.016
	Organization culture	.166	.070	.138	2.364	.019
	Communication channels	.039	.063	.035	.608	.543

a. Dependent Variable : New product development

**Source: Primary Data (2023)**

Results demonstrated that articulation of performance expectations affect new product development (Standardized coefficients= 0.038, sig= 0.038). It means that a change in resources allocation affect significantly new product development. Findings indicated that organization structure influence new product development (standardized coefficients=0.140, sig was 0.016. Moreover, results on organization culture demonstrated strong influence on new product development (standardized coefficients was 0.138, sig was 0.019). Thus, it implies that organization culture significant affect the new product development and the vice versa. Finally, using communication channels are insignificantly affecting new product development (standardized coefficients=0.035, sig was 0.543). Data denotes that an adjustment in communication channels to pertinent issues did not impact new product development.

**Table 9: Strategy Implementation and Customer satisfaction**

Model		Unstandardized Coefficients		Standardized	t	Sig
		B	std. Error	Coefficients		
1	(Constant)	4.126	0.333		12.383	.000
	Resources allocation	.010	.048	.013	.214	.830
	Organization structure	.068	.049	.081	1.372	.171
	Organization culture	.034	.058	.035	.587	.558
	Communication channels	.016	.053	.018	.299	.765

a. Dependent Variable: Customer satisfaction

**Source: Primary Data (2023)**

Resources allocation did not impact project quality (b=0.081, significance, 0.171). It implies that an adjustment within resources allocation affect significantly customer satisfaction and the vice versa. Results show that organization structure did not affect significantly customer satisfaction (b=0.035, p-value =0.058). Moreover, data on organization culture was insignificantly customer satisfaction (Pearson correlation was 0.035, sig was 0.558). Thus, it indicated that organization culture insignificant did not customer satisfaction and the vice versa. Finally, utilization of evidences in communication channels are insignificantly affecting customer satisfaction (Pearson correlation was 0.018, sig was 0.7650. Therefore, a change in communication channels did not affect customer satisfaction.

### 4.3 Contribution of strategy evaluation/control on the performance of Bboxx Rwanda in clean energy technologies.

The study examined Contribution of strategy evaluation/control on the performance of Bboxx Rwanda in clean energy technologies. Measures of Performance metrics are Feedback system, Accountability, and Corrective action processes.

**Table 10 Strategy Evaluation/Control**

Statement	Strongly Disagree		Disagree		Neural		Agree		Strongly Agree		Total		Std
	N	%	N	%	N	%	N	%	N	%	N	Mean	
Performance metrics	5	4.0	25	21.1	7	5.7	40	33.9	42	35.2	118	3.7517	1.24941
Feedback system	17	14.8	23	19.1	2	2.0	30	25.5	46	38.6	118	3.5403	1.51537
Accountability	8	6.7	24	20.1	6	4.7	44	36.9	37	31.5	118	3.6644	1.29027
Corrective action processes	6	4.7	29	24.5	4	3.7	43	36.6	35	30.5	118	3.6376	1.27242
<b>Composite mean</b>												<b>3.6957</b>	

**Source: Primary Data (2023)**

Performance metrics has been adopted (33.9%). Data concerning this adequately in the Feedback system has been accepted by 25.5% of respondents. Therefore, it was evidenced that 36.9% accepted the existence of Accountability, 36.6% of participants accepted the Corrective action processes.

**Table 11: Strategy Evaluation/Control on Performance of Bboxx Rwanda in Clean Energy Technologies**

		Performance metrics	Feedback system	Accountability.	Corrective action processes	Revenue growth New	New product development	Customer satisfaction
Performance metrics	Pearson Correlation	1.000						
	Sig.(2-tailed)							
	N	118						
Feedback system	Pearson Correlation	.020	1.000					
	Sig.(2-tailed)	.736						
	N	118	118					
Accountability.	Pearson Correlation	.123	.060	1.000				
	Sig.(2-tailed)	.034	.300					
	N	118	118	118				
Corrective action processes	Pearson Correlation	.113	.187	.007	1.000			
	Sig.(2-tailed)	.052	.001	.909				
	N	118	118	118	118			
Revenue growth	Pearson Correlation	.052	.045	.080	.021	1.000		
	Sig.(2-tailed)	.373	.443	.169	.720			
	N	118	118	118	118	118		
New product development	Pearson Correlation	.027	.085	.105	.045	.050	1.000	
	Sig.(2-tailed)	.646	.145	.071	.440	.385		
	N	118	118	118	118	118	118	
Customer satisfaction	Pearson Correlation	.031	.041	.013	.037	.005	.023	1.000
	Sig.(2-tailed)	.597	.482	.822	.524	.926	.692	
	N	118	118	118	118	118	118	118

**Source: Primary Data (2023)**

<https://doi.org/10.53819/81018102t5277>

Findings demonstrated weak correlation between performance metrics and revenue growth (Pearson correlation = 0.052, sig =0.373). Performance metrics and New product development ( $r = -.027$ , significance was 0.646), the performance metrics and customer satisfaction (Pearson correlation was 0.031, sig was 0.597). The study evidenced that a change in performance metrics enhance the revenue growth, new product development and customer satisfaction. Weak relationship was established between feedback system and increase of revenue growth (Pearson correlation was 0.045, sig was 0.443). Feedback system did not affect new product development (Pearson correlation was 0.085, sig was 0.145). Feedback system was negatively insignificant with customer satisfaction. Therefore, a feedback system did not increase effective use of Revenue growth, new product development, customer satisfaction. Furthermore, accountability are insignificant with the revenue growth (Pearson correlation was 0.080, sig was 0.169), accountability has been not connected to adequacy as well as customer satisfaction (Pearson correlation was 0.013, p-value was 0.822). The research established an association to the independent variable and new product development (Pearson correlation was between 0.105, sig was 0.071).

**Table 12: Strategy control/evaluation and Revenue growth**

Model		Unstandardized Coefficients		Standardized Coefficients		
		b	std. Error	Beta	t	Sign
1	(Constant)	2.737	.481		5.695	.000
	Performance metrics	.069	.070	.059	.997	.320
	Feedback system	-.041	.058	.043	.719	.473
	Accountability	.097	.067	.085	1.445	.149
	Corrective action processes	.026	.069	.023	.382	.703

a. Dependent Variable: Revenue growth

**Source: Primary Data (2023)**

Findings on Performance metrics and cost efficient indicated that performance metrics did not affect revenue growth (Standardized coefficients was 0.059, p-value was 0.320). Thus, Feedback system is insignificantly affecting revenue growth (Standardized coefficients was 0.043, sig was 0.473). Accountability was not statistically associated with revenue growth (standardized coefficients was 0.703).

**Table 13: Strategy control/evaluation and new product development**

Model		Unstandardized Coefficients		Standardized	t	Sign
		b	Std.Error	Coefficients beta		
1	(Constant)	4.888	.393		12.448	.000
	Performance metrics	.039	.057	.040	.678	.498
	Feedback system	.070	.047	.088	1.487	.138
	Accountability	.108	.055	.115	1.973	.049
	Corrective action processes	.024	.056	.025	.417	.677

a. Dependent Variables : New product development

**Source: Primary Data (2023)**

Findings performance metrics and New product development indicated that number of Findings Performance metrics has been insignificantly affecting New product development (standardized coefficients was 0.040, sig was 0.498). Feedback system did not affect New product development (standardized coefficients was 0.088, sig was 0.138).

**Table 14: Strategy control/evaluation and Customer satisfaction**

Model		Unstandardized Coefficients		Standardized	t	Sig
		b	std. Error	Coefficients beta		
1	(Constant)	3.843	.404		9.509	.000
	Performance metrics	.036	.059	.036	.606	.545
	Feedback system	.027	.049	.033	.550	.583
	Accountability	.015	.056	.015	.260	.795
	Corrective action processes	.034	.058	.035	.583	.561

a. Dependent Variable: Customer satisfaction

**Source: Primary Data (2023)**

The study demonstrated ways of Performance metrics and Customer satisfaction indicated that Performance metrics was insignificantly affecting Customer satisfaction (Standardized coefficients was 0.036 and sig was 0.545). Moreover, Feedback system was insignificant with Customer satisfaction (standardized coefficients was 0.033 and sig was 0.583). Accountability insignificant with efficient and Customer satisfaction (standardized coefficients was 0.035 and sig was 0.561).

**4.4 Correlation between Strategic Management Practices and Clean Energy Sector Performance in Rwanda**

This research demonstrated correlation for Correlation between Strategic Management Practices and Clean Energy Sector Performance in Rwanda.



**Table 15: Correlation between Strategic Management Practices and Clean Energy Sector Performance in Rwanda**

		Strategy Formulation	Strategy Implementation	Strategy control/evaluation	Revenue growth	New product development	Customer satisfaction
Strategy Formulation	Pearson Correlation	1.000					
	Sig.(2-tailed)						
	N	118					
Strategy Implementation	Pearson Correlation	-.020	1.000				
	Sig.(2-tailed)	.736					
	N	118	118				
Strategy control/evaluation	Pearson Correlation	.274**	.187**	1.000			
	Sig.(2-tailed)	.039	.035				
	N	118	118	118			
Revenue growth	Pearson Correlation	.854	.231**	.159**	1.000		
	Sig.(2-tailed)	.018	.006	.043			
	N	118	118	118	118		
New product development	Pearson Correlation	.873	.085	.105	.050	1.000	
	Sig.(2-tailed)	.035	.145	.071	.385		
	N	118	118	118	118	118	
Customer satisfaction	Pearson Correlation	.750	.041	.013	.005	.324	1.000
	Sig.(2-tailed)	.036	.482	.822	.926	.032	
	N	118	118	118	118	118	118

**Source: Primary Data (2023)**

Results evidenced that strategy formulation was associated with the customer satisfaction (Pearson correlation was 0.231, sig was 0.006), with new product development (Pearson correlation was 0.151, sig was 0.043), revenue growth (Pearson correlation was 0.174, sig was 0.041). Information demonstrated a strong association for Strategy Implementation and customer satisfaction (Pearson correlation was 0.274, p-value was 0.039). New product development (Pearson correlation was 0.187, p-value was 0.035), the Strategy Implementation, Strategy control/evaluation and Revenue growth (Pearson correlation was 0.324, sig was 0.032). There was a correlation between strategy control/evaluation and the customer satisfaction (Pearson correlation was 0.854, sig (0.018), strategy control/evaluation new product development was =.873\*\*, sig was 0.035), strategy control/evaluation (r=.750\*\*, p-value .0036). The aforementioned associations are positive since a p-value was 0.05 suggesting

that adjustment within strategic management practices produce a variation in and Clean Energy Sector Performance in Rwanda.

**Table 16: Model Summary**

Model	R	R Square	Adjusted Square	St. Error of Estimate
1	.924a.	.853	.851	.38506

a. Predictors (Constant): Strategic Management Practices

**Source: Primary Data (2023)**

The study demonstrated that regression square in the study was 0.8530 and the Clean Energy Sector Performance in Rwanda has been explained by strategic management practices at 85.3%. It explained the model has been strong as strategic management practices. R<sup>2</sup> has been 85.1% for Clean Energy Sector Performance in Rwanda.

**Table 19: ANOVA**

Model		Sum of Square	Df	Mean Square	F	Sig.
1	Regression	65.565	1	65.565	442.190	.000 <sup>b</sup>
	Residual	11.269	76	.148		
	Total	76.833	77			

a. Dependent Variable: Clean Energy Sector Performance in Rwanda

a. Predictors: Constant strategic management practices

**Source: Primary Data (2023)**

Evidences indicated that the level of significance is below 5% with 0.190 strategic management practices did not affect clean energy sector performance in Rwanda has not been confirmed.

**Table 17: Coefficients of Determination**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	b	std. Error	beta			
1(Constant)	2.788	.422		6.607	.000	
	Strategy Formulation	0.752	0.1032	0.152	4.223	.0192
	Strategy Implementation	0.487	0.3425	0.054	3.723	.0269
	Strategy control/evaluation	0.545	0.2178	0.116	3.936	.0251

a. Dependent Variable: Clean Energy Sector Performance in Rwanda

**Source: Primary Data (2023)**

The study assessed evidenced that variation in strategy formulation use will be 0.054 the clean energy sector performance in Rwanda, a change in strategy implementation stimulate a change in the clean energy sector performance in Rwanda, strategy control/evaluation may led to 0.116 clean energy sector performance in Rwanda. This implies that strategy formulation is more to

increase clean energy sector performance in Rwanda followed by strategy implementation and strategy control/evaluation.

## **5.0 Conclusions**

The study concludes that almost half of the respondents (43.0%) were in agreement with Bboxx's vision. This is a positive sign as it indicates that Bboxx's vision resonates with a significant portion of the respondents. Meanwhile, 34.2% and 37.6% recognized the importance of a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, which suggests that SWOT is considered an essential tool among them. It's noteworthy that only customer satisfaction showed a minimal correlation, as indicated by a Pearson correlation coefficient of 0.047, which is close to zero and has a significance level greater than 0.05. In stark contrast, there was a significant correlation between SWOT analysis and new product development. The strong correlation coefficient of 0.206 with a significance of 0.000 suggests that SWOT analysis might be pivotal in influencing new product development in the company. The results reveal that while resource allocation does not significantly affect revenue growth, it does show a positive correlation with new product development, albeit weak. It's interesting to see that even with a very small correlation (0.009), its significance is high at 0.883, suggesting that other factors might be at play. The data also emphasizes the significance of resources in influencing customer satisfaction. However, the organizational structure does not seem to stimulate any growth or customer satisfaction, which might mean that the current structure might need to be re-evaluated for better efficiency and effectiveness.

The lack of significant association between organizational culture and new product development as well as the insignificance of communication channels in influencing cost efficiency, new product development, and customer satisfaction in strategy implementation further underscores the need for possible re-evaluation and re-strategizing. The correlations for all three were weak, indicating that current performance metrics might not be the primary drivers for these areas of the business. This is supported by the observation that feedback systems and accountability measures don't have a substantial impact on revenue growth, product development, or customer satisfaction. However, there's a glimmer of hope as a relationship was observed between an independent variable and new product development, suggesting that while current metrics might not be optimal, there are other factors that can be leveraged to spur growth in new product development. In summary, while Bboxx seems to have certain aspects of its strategy and operations that resonate well with respondents, there are clear areas of opportunity, especially in organizational structure, performance metrics, and communication channels, to further enhance its performance and growth.

## **6.0 Recommendations**

The study recommends that organizations adopt effective strategic management practices, especially as benchmarks evolve. As these benchmarks shift, it is crucial to realign strategies, redefine roles and responsibilities, and ensure that these modifications are clearly communicated to all staff members. Moreover, should any mistakes arise during this process, they should be promptly addressed and rectified to ensure that the organization remains on track to achieve its objectives. Furthermore, the study emphasizes the importance of clearly presenting factors related to management, both to managerial and non-managerial staff. By doing so, employees can gain a better understanding of the management style in place, which

<https://doi.org/10.53819/81018102t5277>

can, in turn, guide their efforts towards realizing organizational goals. Lastly, the study strongly recommends enhancing communication channels between managerial and non-managerial staff. This enhancement will not only foster a more collaborative environment but also promote the smooth flow of information and strengthen feedback mechanisms.

## REFERENCES

- Claudia Cristina Betancourt & Christiane Froehlich. (2019). *Dynamic Capabilities for the Development of Innovation Capability*. Retrieved from <https://www.redalyc.org/journal/2734/273460054006/html/>
- Center, M. (2022). *Bboxx Rwanda launches Bboxx Cook, a 'pay-as-you-cook' asset financing model to enable customers own LPG stoves*. Retrieved from <https://bboxx.rw/news/bboxx-rwanda-launches-bboxx-cook-a-pay-as-you-cook-asset-financing-model-to-enable-customers-own-lpg-stoves/>
- DJS Research. (2023). *Target Population*. Retrieved from <https://www.djsresearch.co.uk/glossary/item/Target-Population>
- Emeritus. (2022). *5 Types of Research Design – Elements, Needs, and Characteristics*. Retrieved from <https://emeritus.org/in/learn/types-of-research-design/>
- European Commission. (2022). *Clean energy competitiveness*. Retrieved from [https://energy.ec.europa.eu/topics/research-and-technology/clean-energy-competitiveness\\_en](https://energy.ec.europa.eu/topics/research-and-technology/clean-energy-competitiveness_en)
- F I Zaidi<sup>1</sup>, E M A Zawawi<sup>2</sup>, R M Nordin<sup>2</sup>, E M Ahnuar<sup>2</sup>. (2018) *an empirical analysis of strategy implementation process and Performance of construction companies*. Retrieved from <https://iopscience.iop.org/article/10.1088/1755-1315/117/1/012026/pdf>
- HAYES, A. (2022). *How Stratified Random Sampling Works, with Examples*. Retrieved from [https://www.investopedia.com/terms/stratified\\_random\\_sampling.asp](https://www.investopedia.com/terms/stratified_random_sampling.asp)
- Hesty Utami & Eleftherios Alamanos. (2020). *Resource-Based Theory: A review*. Retrieved from <https://open.ncl.ac.uk/theories/4/resource-based-theory/>
- John Wiley & Sons, Ltd. (2013). Retrieved from The nonlinear moderating effect of environmental dynamism
- Kelley, K. (2023). *What is Data Analysis? Methods, Process, and Types Explained*. Retrieved from <https://www.simplilearn.com/data-analysis-methods-process-types-article>
- Muchira, W. N. (2013). *Relationship between Strategy Implementation and Performance in Commercial Banks in Kenya*. Retrieved from <http://erepository.uonbi.ac.ke/handle/11295/60817>
- Nandakumar, M. (2014). *Strategic Planning and Performance - A Systematic Review of the Literature*. Retrieved from <https://forms.iimk.ac.in/websiteadmin/FacultyPublications/Working%20Papers/152abs.pdf?t=24>
- Porter, M. E. (1990). *COMPETITIVE*. Retrieved from <http://www.mim.ac.mw/books/Michael%20E.%20Porter%20-%20Competitive%20Strategy.pdf>

<https://doi.org/10.53819/81018102t5277>

- QuestionPro. (2023). Data Collection: What It Is, Methods & Tools + Examples. Retrieved from <https://www.questionpro.com/blog/data-collection/>
- Rwanda Utilities Regulatory Authority. (2022). STRATEGIC PLAN. Retrieved from [https://rura.rw/fileadmin/publication/Strategic\\_Plan\\_2022-2027\\_for\\_RURA\\_vision.pdf](https://rura.rw/fileadmin/publication/Strategic_Plan_2022-2027_for_RURA_vision.pdf)
- Sahan Jayawarna & Ravindra Dissanayake. (2019). *Strategic Planning and Organization Performance: A Review on Conceptual and Practice Perspectives*. Retrieved from [https://www.researchgate.net/publication/334453666\\_Strategic\\_Planning\\_and\\_Organization\\_Performance\\_A\\_Review\\_on\\_Conceptual\\_and\\_Practice\\_Perspectives](https://www.researchgate.net/publication/334453666_Strategic_Planning_and_Organization_Performance_A_Review_on_Conceptual_and_Practice_Perspectives)
- Surbhi. (2017). *Difference between Census and Sampling*. Retrieved from <https://keydifferences.com/difference-between-census-and-sampling.html>
- TARVER, E. (2022). *What Is a Balanced Scorecard (BSC), and How Is It Used in Business?* Retrieved from <https://www.investopedia.com/terms/b/balancedscorecard.asp>
- Tavakol, M. (2011). *Making Sense of Cronbach's Alpha*. Retrieved from [https://www.researchgate.net/publication/270820426\\_Making\\_Sense\\_of\\_Cronbach's\\_Alpha](https://www.researchgate.net/publication/270820426_Making_Sense_of_Cronbach's_Alpha)
- TEECE, D. J. (2018). *DYNAMIC CAPABILITIES*. Retrieved from <https://www.davidjteece.com/dynamic-capabilities>
- Tomaz Čater, Danijel Pučko. (2010). *Factors of effective strategy implementation: Empirical evidence from Slovenian business practice\**. Retrieved from [https://www.researchgate.net/publication/260099461\\_Factors\\_of\\_effective\\_strategy\\_implementation\\_Empirical\\_evidence\\_from\\_Slovenian\\_business\\_practice](https://www.researchgate.net/publication/260099461_Factors_of_effective_strategy_implementation_Empirical_evidence_from_Slovenian_business_practice)
- Uwizeye, J. D., Mutimukwe, E., & Murekezi, A. (2017). *Strategic management practices and organizational performance: A case of energy sector in Rwanda*. International Journal of Management and Commerce Innovations, 5(2), 26-33.
- Vedantu.com. (2023). *Census and Sample Survey*. Retrieved from <https://www.vedantu.com/commerce/census-and-sample-survey>
- Wikipedia. (2021). *Strategic management*. Retrieved from [https://en.wikipedia.org/wiki/Strategic\\_management](https://en.wikipedia.org/wiki/Strategic_management)
- World Health Organization. (2020). *Household air pollution*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>
- Zaidi (2018). *An empirical analysis of strategy implementation*. Retrieved from <https://iopscience.iop.org/article/10.1088/1755-1315/117/1/012026/pdf>