

# **Assessing the Influence of Strategic Management Strategies on Organizational Performance in Rwanda's Private Construction Firms**

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## **Abstract**

This study was carried out to examine the influence of strategic management strategies on organizational performance in Rwanda's private construction firms. This based on a number of issues that were found to face construction projects that are private in Rwanda in relation to their performance and the major challenge was strategic management. The study was guided by the following specific objectives: to examine the effect of strategic planning and resource allocation on project efficiency and profitability among the private construction firms in Rwanda; to establish the role of innovation and technology adoption in enhancing operational performance in the Rwanda's private construction sector; to find out the impact of leadership and strategic decision-making practices on the competitive positioning and market share growth among private construction firms in Rwanda. The study was guided by the Resource Based View (RBV) theory, which is a key foundational theoretical framework in strategic management that provides an insight into how organizations internal resources can be used as valuable sources for developing competitive advantages and achieving higher performance. In the current study, a mixed-methods research was adopted incorporating the descriptive research design. Due to the nature of the research and the intended purpose of the study, a population census was carried out to give equal representation of these firms. Therefore, the sample size used was the 150 respondents. Census is the process of collecting data from every member of a population, and census data is more accurate and precise than sampling data, as it includes information from every member of the population; a reason as to why it was considered for this study. Primary data was collected by use of structured questionnaires and semi-structured interviews with the questionnaire being Likert scale rated in order to collect the quantitative data while semi-structured interviews were used to collect the qualitative data. The results did find that from a regression analysis, all three strategic management practices—strategic planning and resource allocation, innovation and technology adoption, and leadership and strategic decision-making—were statistically significant predictors of organizational performance, with p-values less than 0.01. Innovation and technology adoption has the highest standardized coefficient ( $\beta = 0.39$ ), indicating that it has the strongest impact on organizational performance. Leadership and strategic decision-making ( $\beta = 0.35$ ) and strategic planning and resource allocation ( $\beta = 0.32$ ) also have significant positive effects, though to a slightly lesser extent. The model's  $R^2$  value of 0.62 suggests that these strategic management practices collectively explain 62% of the variance in organizational performance, a substantial impact. The study recommended that an integrated management approach be adopted by private construction companies in Rwanda. Step one: Allocate time and resources to strategic planning and planning for project time, cost and resource utilization. Also, the assimilation and innovation of technology should be promoted as technological advancements in construction and project management speculation have been shown to increase productivity and decrease costs. Companies spend money on training programs at all levels in technology and skills. Moreover, development of leadership and decision-making skills are vital as well and companies must design leadership development programs that ensure managers are swift and well-informed in making consequential decisions that are in line with organizational

objectives and market movements. Policymakers and industry partners are also encouraged to support this by creating policies that provide tax incentives or subsidies to support technology adoption, innovation and education for construction workers. Using these concepts, the construction industry in Rwanda can better respond to competition, contribute to the country's development and economic goals, and maintain a stable position in the growing market in East Africa.

### **Background Information**

Across the globe, organizations have centered on strategic management as a pillar to steer and achieve organization performance in particular areas with particular sectors like the construction where stiff competition, resources efficiency, and adaptability being the most affected. This is evident in the background information from the global perspective to local cases. Globally, according to a study by Ansoff, Kipley, Lewis, Helm-Stevens, & Ansoff (2019), there are organizations that have been found to achieve improved organizational performance by merely implementing strategic management frameworks which align them to their organizational objectives in the dynamic business environment, more specifically in private construction sector. According to Grant (2019), strategic management strategies help organizations to make better decision, it allows the organizations to develop, deploy, and modify their approaches based on external and internal factors; giving them a competitive advantage despite the fluctuations in the market. The construction sector is very dynamic and strategic management has been found to be the only sure way of streamlining, allocating resources in an efficient and effective manner, and fostering long-term growth and sustainability. There are known studies in North America and Europe which have confirmed that construction firms that have been integrating and implementing the adaptive strategic management practices have been outperforming their peers in terms of profitability, project completion times, and client satisfaction (Porter & Kramer, 2019).

Other background information from global perspective like the South East Asia have shown that the construction industry more specifically the private construction sector is tied to very fast changing determinants, and include advancement in technology, regulatory requirements and demands, and environmental challenges. Such issues can only be addressed and mitigated by adopting and implementing management that is strategic in nature (Peace & Robinson, 2020). Therefore, the adoption of strategies that embrace these factors allows firms to tackle issues such as resource scarcity, rising costs, and sustainability pressures—factors that can impact project quality and delivery times. Accordingly, Zhou (2020) did a study in Southeast Asia which looked at the private firms in the construction industry and their dynamics and realized that firms which have adopted and implemented strategic management practices like innovation, talent management, and sustainability protocols have shown marked improvements in both operational and financial performance. The emphasis on these areas highlights a global shift in the construction sector toward approaches that prioritize resilience and adaptability, addressing not only traditional profitability metrics but also long-term stability and responsiveness to socio-economic and environmental pressures (Johnson et al., 2021).

Despite the fact that strategic management has been rallied upon as one of the key success propellers in the construction sector, its exploration is still low and doing bad in the less developed countries where the industry is faced with unique challenges cutting across limited access to resources, infrastructure constraints, and regulatory bottlenecks. In Africa, studies indicate that construction firms often lack adequate strategic management frameworks, which impedes their ability to deliver projects efficiently and competitively (Kraus, Niemand, & Halberstadt, 2019). Adopting and adapting strategies shown effective in developed regions could potentially transform performance metrics for construction firms in Africa. Thus, examining the influence of strategic management on organizational performance in the context of Rwanda's private construction sector can offer crucial insights into how tailored strategic frameworks could address local industry challenges, enhance operational efficiency, and boost the sector's competitiveness (Nyanjom, 2021).

Accordingly, background information from Rwanda indicates that the construction industry as driven by infrastructural development, rapid urbanization, and initiatives led by the government like Vision 2050, has

been a significant contributor to the national economy and is aimed to transform Rwanda into an upper-middle-income country (Ministry of Infrastructure [MININFRA], 2020). However, construction firms operating as private firms in Rwanda have been found to face numerous challenges associated with limited resources, limited strategic alignment, and market completion which in turn has impacted on their operational effectiveness and overall performance (Nkurunziza, 2021). Bimenyimana et al. (2020) is for the idea that just like other scholars have given a solid background of strategic management from the global perspective, strategic management in Rwanda could address these challenges by enabling firms to streamline operations, allocate resources more efficiently, and foster innovation in project execution. In addition, as noted by Ndikumana (2019), adopting and implementing robust strategic frameworks enshrined in strategic management could support private firms in aligning themselves with government-led policies and this shall automatically attract international and foreign investment, thus strengthening their market position and resilience against industry fluctuations (Ndikumana, 2019).

Although there are various potential benefits attached to strategic management and frameworks in achieving accelerated economic development based on the role played by the successful construction industry, Rwanda's construction firms are still faced with mammoth challenges and hindrances. For example, Rwanda's construction firms have shown limited integration of strategic management practices, largely due to financial constraints, limited expertise, and varying regulatory requirements that make formal strategy adoption challenging (Kamanzi, 2021). Otundo (2022) is in agreement that strategic management initiatives like risk management, capacity building programs, and technological innovation among others have had a positive and significant influence on the performance of construction firms. However, strategic management in most of the firms is performing poorly across east African countries where Rwanda is inclusive; a need for this study. On the other hand, strategic management initiatives have had a positive influence on performance in construction sectors in comparable developing economies, and could offer similar benefits in Rwanda (Uwizeye & Mukarugwiza, 2020). For example, strategic management move of integration technology-driven project management practices could optimize resource utilization, reduce costs, and enhance productivity across private firms (Habumugisha & Nsengimana, 2022). Based on the background information by various researchers, it is important to look into the success rates of strategic management practices, their adoption and their influence in the construction industry more specifically among the private firms that form the majority of players in this sector in Rwanda; a reason as to why this study was carried out.

### **Statement of the Problem**

In Rwanda, the construction industry plays a crucial role in stimulating economic growth both in the rural areas and realization of the urban development goals. On the contrast, despite the crucial role played by the construction industry in Rwanda, the private construction firms in Rwanda face numerous challenges that limit their performance; among them being limited strategic management practices (Nkurunziza, 2021). Going by Rwanda's ambitious Vision 2050 which has put more emphasis on robust infrastructure and efficient project execution aimed at driving economic transformation, the private firms in the construction sector have been left behind in in aligning themselves to these aspirations. This is tied to a number of challenges including a lack of structured strategic frameworks, which often results in project delays, cost overruns, and suboptimal resource utilization (MININFRA, 2020). Despite the established impact of strategic management practices on firm performance globally, Rwanda's construction sector has seen limited studies focusing on how tailored strategic practices might address its unique challenges (Uwizeye & Mukarugwiza, 2020). The limited of studies and availability of literature in Rwanda focussing on strategic management practices and the performance of firms in the construction sector from the private sector and at organizational level has left a problem that is to be addressed by the current study. Accordingly, the need to investigate strategic management practices that could optimize resource allocation, innovation, and adaptability for Rwandan private construction firms is, therefore, essential to bridge the gap between current practice and national policy goals.

In relation to methodology, there are several methodological gaps in relation to strategic management practices and the success of organizations in the private construction industry. The research in Rwanda basically has based its methodology on case studies and qualitative approach methodologies, which has been limiting these research findings from generalizability on strategic management's impact within the construction sector. Studies like those by Bimenyimana et al. (2020) and Habumugisha and Nsengimana (2022) have offered insights but lack comprehensive quantitative analyses that could provide a more precise understanding of how specific strategies influence performance metrics such as efficiency, profitability, and market competitiveness. Due to these methodological gaps, there is a need for other studies that adopt advanced methodologies like a mixed-methods which brings on board the qualitative and quantitative methods of research.

Equally, in the landscape of strategic management in the private construction firms in Rwanda, policy gaps come along with complicated issues that need to be addressed; a need for the current study. For example, despite the fact that Vision 2050 of Rwanda and the guidelines by the Ministry of Agriculture that aim at fostering efficient infrastructure development, limited policies exist that have targeted the strategic management capacity within private construction firms (MININFRA, 2020). These construction private firms from time to time are short of support for implementing advanced projects management, technological adoption, and workforce training strategies that are crucial for modern construction projects (Ndikumana, 2019). Besides, the policy framework of Rwanda has failed to address adequately, the operational constraints faced by the private construction firms, an issue that has left firms to navigate regulatory, financial, and technical challenges without proper and sufficient guidance and necessary incentives (Kamanzi, 2021). In order to address these challenges and gaps, there is a need of a detailed examination of how strategic management practices can be incorporated within some policy frameworks to enhance the sector's competitiveness and ensure alignment with national development goals. This study, therefore after realizing the existing gaps came up with the major aim that sought to address literature, methodological, and policy gaps by systematically evaluating the influence of strategic management on organizational performance among private construction firms in Rwanda.

### **General Objective of The Study**

This study was carried out with the main objective of assessing the influence of strategic management strategies on organizational performance in Rwanda's private construction firms

### **Specific Objectives of the Study**

The study was guided by the following specific objectives:

1. To examine the effect of strategic planning and resource allocation on project efficiency and profitability among the private construction firms in Rwanda
2. To establish the role of innovation and technology adoption in enhancing operational performance in the Rwanda's private construction sector.
3. To find out the impact of leadership and strategic decision-making practices on the competitive positioning and market share growth among private construction firms in Rwanda

### **Literature Review**

#### **Theoretical Framework**

The study was guided by the Resource Based View (RBV) theory, which is a key foundational theoretical framework in strategic management that provides an insight into how organizations internal resources can be used as valuable sources for developing competitive advantages and achieving higher performance. RBV is a theory in strategic management that states if firms are to achieve sustained competitive advantage they must acquire and control valuable, rare, hard-to-imitate or non-substitutable resources (Barney 1991) also known as VRIN: Valuable Rare Inimitable Non Substitutable. RBV theory is significant in the context of Rwanda's private construction sector as it sheds light on how a company possesses internal capabilities (e.g. skills, technology and strategic planning processes) needed to access other external resources from an already competitive resource-scarce market environment. Amidst this backdrop, the insights derived from



RBV offers an enriched perspective on how Rwandan construction firms who struggle owing to their limited resources and heavy regulation can learn on sustainable competitive advantage by strategizing with only available (minimal) economy of means which follows a sequential configuration linked directly & indirectly that would stimulate performance at each stratum.

This study builds on RBV to explain the impact of strategic management practices; resource allocation, innovation and strategic planning influence project efficiency profitability market competitiveness in Rwandan construction industry. On the other hand, RBV suggests that firms who own resources with unique and strategically valuable characteristics will easily gain a profit advantage against their competitors (Peteraf 1993). In the context of this study, some specific resources associated with Rwandan construction firms were noted: physical assets like equipment and technology; intangible assets such as skilled workforce, managerial expertise, and effective strategic planning processes. RBV theory suggests that companies in the construction nature can achieve better performance by using some resources that competitors cannot easily imitate or purchase. This theoretical lens is important in assessing how efficiently private construction firms in Rwanda utilize their internal capabilities to address the challenges unique to this industry with a view of enhancing overall performance.

Additionally, RBV also highlights the significance of organizational capabilities as a function that resource is converted into sustained performance. In the Rwandan construction industry, therefore; resource and technology are capabilities through which we can add value to our resources according state of practice in strategic management field. For example, construction companies that prudently allocate financial and human resources as well utilize technological innovations while also streamlining their project management function are likely to experience increased process efficiencies & cost-effectiveness. According to this theory, the resources and capabilities must satisfy VRIN criteria then competitive advantage of construction firms under highly uncertain or constrains markets will be sustained (Barney 2001). Strategic management theory focusing on firm-specific resources and capabilities is then further invoked in this study to address the research question of how private construction firms can be assisted with those unique circumstances faced within Rwanda, leading towards operational performance.

Not only does it analyze the resources, it also stresses sustainable resource management practices to ensure continuous growth in performance over a longer period. Within the framework of this research, RBV provides an approach to analyzing whether Rwanda's private construction firms are strategically oriented towards sustainably creating, protecting and leveraging their critical resources. This could potentially be done through an ongoing pillar with strategies like a training programs, investment into innovative construction technology or fostering adaptive leadership to forecast and adapt accordingly on market changes. To the extent that this study could shed light onto how private construction firms in Rwanda continue to create and exploit resources over time, it is also consistent with the RBV view of sustained competitive advantage as something an organization does — audibly enhancing a resource pool rather than resting on past laurels. Therefore, the basis of this theory is fundamental in explaining “the relationship between strategic behavior and organizational performance by private construction companies” hence high relevancy with respect to how Rwandan’s Construction Firms operate.

### **Empirical Literature Review**

Despite the fact that there is limited literature linking strategic management practices to organizational performance of private firms, there are studies that have linked strategic management to the general performance of the construction industry. For example, in China, a country that in the recent a 2 decades has made tremendous strides in transforming its construction industry, studies have linked strategic management to construction sector performance. In a study by Cheah & Chew (2022) with the tittle, ‘dynamics of strategic management in the Chinese construction industry, ‘a relationship was established. The study was a desktop nature of study that reviewed documents from strategists in the construction industry and specific two case studies were used to illustrate the concepts implied by the proposed framework. The findings of the study indicated that the cases of Guangsha and the Shanghai Construction Group demonstrated that there is no hard and fast rule in developing a coherent strategy. This is even truer considering the fact that China's

circumstances are still evolving. The critical elements identified in the proposed framework serve as a good starting point for individual firms to further develop a more detailed execution plan. However, as much as this study bridges a management gap that exists between mainstream management researchers, who have few precedences of studying the construction industry, and traditional construction management researchers, who tend to focus on project-level issues rather than corporate-level issues, it has failed to zero in on some specific elements that add up to strategic management in the construction industry which greatly influence the performance of firms in this sector. The current study addressed these gaps by using a mixed-methods research methodology and adopting the use of primary data to compliment the secondary data obtained from official documents and literature review.

In Mexico, Beekun & De Carvalho (2021) looked at strategic management and its effect on the performance of firms classified as construction materials and equipment manufacturers. The study was conducted in Cemex company. The target population was 274 employees, who included managers and support staff from Cemex company in Mexico. The study used the purposive sampling technique to get the sample. The interview guides were administered to the managers, while closed-ended questionnaires were used for the support staff. The results of the study indicated that strategic management strategies are positively and significantly related to performance. The study stated that strategy management enables the companies to have the capability to absorb the most effective workforce and increase the competitive advantage. The strategy management promotes efficient allocation of the resources within the functional units. The availability of strategic leadership enables the organization to allocate resources more effectively within various departments. The distribution of funds relies on the nature of complexity within the departments. The study indicated that the strategy formulation in the organization is that it facilitates environmental scanning. This study however relied much on qualitative data as compared to quantitative data which normally gives the extent of influence and the extent of relationships between the various variables in a study.

In Indonesia, Omsa, Ridan and Jayadi (2023) carried out a study entitled —the effect of strategic management practices on SME performance in the construction industry in Makassar, Indonesia. The study was aimed at measuring how strong the effect of the implementation of strategic management practices on the performance of SMEs in Makassar, Indonesia, especially the performance associated with sales turnover, break-even point (BEP), and profit. The results showed that the strategic management practices such as strategic planning, strategic execution, and strategic evaluation had a positive and significant impact on sales volume, BEP achievement, and profits of SMEs, especially in medium-sized enterprises. This study is in agreement with the assumption that adoption of strategic management practices influence business performance in SMEs. However, the study was not done on SMEs in the construction sector

Across Africa, Ng'andu (2022) did an assessment of strategic management practices and performance of Selected Small and Medium Scale Enterprises in the Construction Sector in Lusaka District. The study adopted a descriptive research design. The target population for the study were SMEs in the construction sector in Kalingalinga, Buseko, Mtendere, Mtendere East, and Kabwata. The study established that SMEs in the construction sector in Lusaka District adopted moderate strategic management practices in relation to the strategic management model. The study also established that SMEs faced numerous challenges in the running of their businesses. The study further established that the adopted strategic management practices influenced performance of SMEs in the construction sector in Lusaka District. The study concludes that strategic management practices have an influence on performance of SMEs in the construction sector. The study recommends that owners of SMEs in the construction sector in Lusaka District and other organisations need to adopt best strategic management practices if performance of their enterprises were to improve. While adopting the strategic management practices, they should always make sure that the process is as inclusive as possible. It is also recommended that in order to reduce on high rate of business failures, SME owners need to develop interest in improving their managerial skills through regular training. Further, owner managers need to formulate superior strategic objectives that include adoption of technology and innovation, business efficiency and good customer service. Further, SMEs need to have the right resources (financial and human), because the success of any business strategy depends primarily on the availability of resources.

From the recommendations made in this study, there is a big gap that needed to be addressed by specifically examining each practice in strategic management and establishing how much influence this practice has on the performance of these firms operating as SMEs in order to achieve continuity.

In Nigeria, several studies have linked construction firms to strategic management and performance. For example, a study by Dauda, Akingbade and Akinlabi (2020) entitled —strategic management practice and corporate performance of selected small business enterprises in Lagos Metropolis in the construction industry, revealed that strategic management practices enhanced both organisational profitability and company market share. This study agrees with the assumption that adoption of strategic management activities by private construction firms leads to improved performance. Akande (2022) used chi-square and ANOVA to examine the influence of strategic management skills on SMEs in Nigeria by applying questionnaires among 240 block making enterprises. His finding agreed with that of Oyedijo (2022) that organisational strategies were highly positively correlated with performance in the sampled SMEs. This study also agrees with the assumption that adoption of strategic management activities by firms leads to improved performance. Lawal et al. (2022) studied the effect of strategic management on organisational performance. The study found evidence that adoption of strategic management techniques improved organisational performance and improved relative standing of organisation that was with different societal and political issues. This study however never studied the private construction firms at any given level and hence the findings were not representative private construction firms.

One particular study has linked organizational performance to strategic management in Nigeria by Phina & Onyekwelu (2020). This study investigated the effect of strategic management on organizational performance with particular reference to some manufacturing firms in the construction industry in South East Nigeria. The study is anchored on classical theory and resource-based theory. The population of the study is comprised of 1200 employees while the sample size consisted of 300 employees of the selected manufacturing firms through the use of Taro Yamane's formula. Multiple regression analysis was employed to analyze the data generated. It was discovered that all the strategic processes including strategy objective, strategy formulation, Strategy implementations and Strategy evaluation had significant effects on organizational performance of manufacturing firms in South East, Nigeria. The study therefore concluded that strategic management has significant effect on organizational performance in South East, Nigeria.

Otieno (2020) studied strategic issue management practices by small and medium enterprises in Mombasa County including those in the construction sector. In the study, Otieno (2020) used descriptive survey design and data was collected from primary sources using a questionnaire. The study found that profitability was considered as the most important performance measure in SMEs including those in the construction industry, followed by market share, innovation and liquidity respectively. Further, majority of organizations perceived strategic management to be the future success of organization as very important and essential confirming that SMEs in Mombasa County were aware of the importance of strategic management in the success of an organization. The study also found that environmental as well as managerial factors influenced strategic issue management practices by SMEs in Mombasa County. This study agrees with the assumption that adoption of strategic management activities by construction firms be it small or SMEs leads to improved performance. Elsewhere Velani (2021) did a study with the main objective of investigating the influence of strategic management strategies on performance of construction companies in Nairobi county, Kenya. The research design was descriptive in nature. The data was analyzed using descriptive statistics and correlation, with the help of SPSS Software as an analytical tool. The correlation analysis was done by the researcher. There was positive relation between cost leadership, differentiation strategy and focus strategy. The organizational performance was positively correlated with all the independent variables. The highest correlation was with cost leadership strategy with coefficient of 0.452, second was differentiation strategy with coefficient of 0.381 and third was focus strategy with coefficient of 0.280. The findings were all positively correlated though they were not significant.

Waweru & Omwenga (2021) looked at the influence of strategic management practices on performance of private construction firms in Kenya. This research was carried out on three private construction firms namely; First Acres Construction, Blue Urban Construction and Nipsan Construction Company. A total

sample of 68 respondents formed the sampling frame. The researcher chose simple random sampling as a sampling technique. Primary data was collected using predetermined questionnaires. The study used questionnaires containing closed ended, open ended, multiple choice and dichotomous questions. Likert scale questions were also used since the responses were easily quantifiable and subjective to computation. The study used both primary and secondary data. Secondary data was cited from library resources and organizational process assets such as company project reports. Statistical Package for the Social Sciences (SPSS) was used as a platform for data analysis. Data analysis was done to generate a view of how the objectives of the study were satisfied. This was done using descriptive statistics, which saw the usage of frequency tables, measures of central tendency, percentage charts, distribution tables and bar graphs. Through this study, it was established that all three construction firms have employed strategic management practices which in turn increases performance. The research carried out on this study led to identification of the crucial aspects of strategic management practices that will facilitate better management and overcome prevalent obstacles within the market players within the construction industry therefore enhance achievement of the core business objectives within the construction firms and spearhead growth and performance.

Ogeto (2020) examined the strategic management practices and organizational performance in the construction industry in Kenya with a case study of allied plumbers limited. Descriptive research design was used, with stratified sampling procedure used in selecting sample from target population of Allied Plumbers limited employees drawn various departments. The study used structured questionnaire to collect data. Findings, revealed that management of Allied plumbers limited have in place requisite strategic infrastructure management systems that have enhanced its performance in construction industry, and further found out that the organization does not fully embrace strategic human resource management that is employee engagement, training and development, talent management and succession planning. The study recommended that organization need to improve on facility planning and management, and acquire sustainable human resource management policy to ensure employees acquire specific knowledge and skills in their current and future roles with greater focus on growth for them to be competitive in the construction industry.

Still in Kenya, Nduati, Kariuki & Wanjohi (2021) examined the influence of sustainable strategic management practices on the performance of construction industry in Kenya: a literature based review. The objective was to review literature on the influence of sustainable strategic management practices on the performance of construction industry in Kenya. The study used a desk study review methodology where relevant empirical literature was reviewed to identify main themes. A critical review of empirical literature was conducted to determine the sustainable strategic management practices on the performance of construction industry in Kenya. This study provides empirical evidence in support of the notion that a competitive advantage via the implementation of a dynamic capability framework is an important way for the Kenyan construction enterprise to improve its organizational performance. The study found out that the construction industry is closely related to the uncertainty in the environment that may affect the performance of a firm. High competition and many other negative aspects in the external environment, which become threats to firms to develop their business that need to be handled carefully through strategic management approach. The implementation of strategic management practices in organizations can help them to enhance their performance through improved effectiveness, efficiency and flexibility.

Locally, Karangwa & Irechukwu (2023) did a study on strategic management process and performance of construction and engineering company in Rwanda: A Case of NPD Ltd. The research used a descriptive research design with a mixed approach of qualitative and quantitative data. The results determined the sample size of 217 respondents from 500 people using Krejcie and Morgan (1970). However, only 188 respondents participated in this research, with a response rate of 86.6% of 217 respondents. The results of the first objective revealed that environmental scanning plays a significant and positive effect on organizational performance in Rwanda, with an overall mean of 1.621 tending to a high score of to a very great extent. The results of the second objective revealed that strategy formulation plays a significant and positive effect on organizational performance in Rwanda, with an overall mean of 1.324 tending to a high



score of to a very great extent. The results of the third objective revealed that a large number of respondents strongly agreed that strategy implementation plays a significant effect in organizational performance. Lastly, the results of the fourth objective revealed that strategy evaluation plays a positive and significant effect on the performance of NPD Ltd. Hence, these are supported by correlation analysis results, which revealed that there is a positive and significant relationship between environmental scanning and budgetary performance ( $r = 0.717$  and  $\text{sig} = 0.00$ ) and quality performance ( $r = 0.783$  and  $\text{sig} = 0.00$ ). The strategy formulation and timely performance ( $r = 0.647$  and  $\text{sig} = 0.00 < 0.01$ ) and quality performance ( $r = 0.696$  and  $\text{sig} = 0.00 < 0.01$ ). Another positive and significant relationship between strategy implementation and timely performance ( $r = 0.650$  and  $\text{sig} = 0.00 < 0.01$ ), strategy evaluation, and quality performance ( $r = 0.707$  and  $\text{sig} = 0.00 < 0.01$ ) level of significance. The study concluded that there is a positive and significant relationship between strategic management processes and organizational performance of NPD Ltd. in Kigali City, Rwanda.

Elsewhere, NTAKIRUTIMANA & Gitahi (2023) looked at the influence of strategic implementations on performance of organizations in Rwanda: A Case Study of Water and Sanitation Corporation (WASAC). Just like the current study, the study was anchored on resource-based theory, the agency theory and the balanced scorecard model. The study adopted the descriptive research design. The study population comprised of 135 employees of WASAC/Head Office. Using stratified sampling technique, a sample size of 101 respondents was established through the Slovin formula, and a 100% response rate was obtained. The researcher used primary data in this study. A closed-end questionnaire was utilized. The study used a descriptive research design and correlation analysis to understand general trends and multiple regression for hypothesis testing, all analyzed through SPSS 26 software. The results of correlation analysis showed that there is a positive and significant relationship between the strategy implementation and timely goal achievement ( $r = 0.721$  and  $\text{sig} = 0.00 < 0.01$ ), employees' commitment ( $r = 0.758$  and  $\text{sig} = 0.00 < 0.01$ ), and internal process efficiency ( $r = 0.701$  and  $\text{sig} = 0.00 < 0.01$ ). Multiple regression analysis revealed that strategy implementation variables contribute 60.84% of the timely goal achievement, 53.3% of the employee commitment, and 58% of the internal process efficiency in WASAC Ltd. Based on the hypotheses testing within ANOVA, all null hypotheses were rejected at 5% level of significance due to the fact that the results indicated that there is a positive and significant effect of strategy implementation on the performance of WASAC. The study recommended that WASAC implement mechanisms that should ensure that it adapts quickly its budget to evolving changes occurring while implementing its strategy and that it enhances more its strategic implementation so that they ensure it reaches its goals within specified time frames. The study also recommends that WASAC Ltd. prioritize the three identified independent variables: resource allocation, strategic leadership, and strategy evaluation systems, in their strategy implementation process. The strategy evaluation systems should also be continually updated and refined.

In conclusion, there is a study conducted by Musafiri et al. (2018) which also gives the insights into strategic leadership and management on the performance of organizations. This study aimed to establish the effect of strategic leadership on organizational performance and the case study was MTN Rwanda. Descriptive survey design was used. Correlation analysis provided the relationship of strategic leadership practices and organizational performance showing that, there was a customer satisfaction was high above the industry average. The results further revealed that there was High Corporation's market share (growth), Annual turnover and high Return on investment/ asset. The correlation analysis revealed a relationship between strategic leadership practices and organizational performance, demonstrating a positive and strong correlation between corporate strategic direction and the corporation's market shares (growth), which were higher than those of its competitors, as well as a similar relationship with annual turnover. It shows the presence of a moderately weak relationship between annual turnover and return on investment/assets/equity is high (above the industry average), and even that balanced organizational controls presented a positive, moderate strong relationship with return on investment. Balanced organizational controls showed a weak negative relationship with annual employee turnover and net profit margin/return. These practices have correlated highly with customer satisfaction, return on investment, net profit margin, and low annual

employee turnover. The correlation analysis that tested the level and significance of relationships among research variables confirmed that effective strategic leadership affects organizational performance.

### Research Methodology

Research methods are the strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic. Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. There are different types of research methods which use different tools for data collection. The first one is qualitative, then the quantitative and finally the mixed methods research. In the current study, a mixed-methods research was adopted incorporating the descriptive research design. According to Williams (2007), descriptive research is research design used to examine the situation involving identification of attributes of a particular phenomenon based on an observational basis. Descriptive research design is important because it can help researchers understand a topic or problem, and can be used to guide decision-making and future research. Further, descriptive research was chosen for this study because it is an appropriate choice when the research aim is to identify characteristics, frequencies, trends, and categories. It is useful when not much is known yet about the topic or problem. Before you can research why something happens, you need to understand how, when and where it happens. In Rwanda, there were 321 registered private construction firms, however there were only 30 well established large private construction firms according to Rwanda Development Board (RDB). (2023). Therefore, the target population came from the 30 well established private firms measured by their capital base, market share and geographical operations. Out of the 30 firms, 150 individuals made the target population as shown in table 1.

**Table.1: Target Population**

Category	Role in Firm	No.per Firm	Total (30 Firms)	Reason for Selection
<b>Senior Management</b>	CEO, Managing Director, COO	1	30	Provides insights on high-level strategic decisions impacting organizational performance.
<b>Project Managers</b>	Project Managers	1	30	Offers perspective on practical application of strategies in project execution.
<b>Departmental Heads</b>	Heads of Finance, Operations, HR	2	60	Key influencers in strategy implementation within finance, operations, and HR functions.
<b>Strategic/Middle-Level Managers</b>	Strategy & Operations Managers	1	30	Involved in adapting and implementing strategic practices on the ground.
<b>Total Target Population</b>	-	-	<b>150</b>	Comprehensive representation from top management to operational execution levels.

Due to the nature of the research and the intended purpose of the study, a population census was carried out to give equal representation of these firms. Therefore, the sample size used was the 150 respondents. Census is the process of collecting data from every member of a population, and census data is more accurate and precise than sampling data, as it includes information from every member of the population; a reason as to why it was considered for this study. Primary data was collected by use of structured questionnaires and

semi-structured interviews with the questionnaire being Likert scale rated in order to collect the quantitative data while semi-structured interviews were used to collect the qualitative data. Qualitative data from the interviews were relevant to firm-specific dynamics and helped the study to uncover underlying themes not revealed in the questionnaire. Data was collected by administering questionnaires face to face and through e-mail to the respondents in each firm to provide flexibility of response. Questionnaire completion was followed by scheduling interviews with participants across a range of roles to ensure a mix of representational balance. By supplementing the survey data with interview data as well as using both qualitative and quantitative data in the same research question, we were able to obtain rich and multi-layered data that responded to both the what and why of strategy impact on firm performance while also reinforcing our findings. The quantitative data was analysed by use of descriptive statistics and inferential statistics. In relation to descriptive statistics, means, standard deviations and frequencies shall be used and this shall be presented in tables. On the other hand, the inferential statistics shall be done by having correlation analysis done, followed by the Anova tests and finally multiple regression analysis which is also for hypothesis testing. Then the qualitative analysis shall be through content analysis and the presentations shall be in a narrative form.

## Results

### Descriptive Statistics

The study achieved 91% response rate in relation to questionnaires which was due to the use of multiple methods of questionnaires distribution. This response rate was considered suitable for data analysis since such a high response rate minimizes the non-response bias risk thus ensuring that there is reflectivity of the views of the target population. Waweru & Omwenga (2021) in their study that focused in Kenya's construction industry by linking strategic management to organizational performance did show that respondents' response rate that is above 80% yield reliable data that enhances the credibility of conclusions drawn. Thus, a 91% return rate supports robust statistical analysis and enriches the interpretation of strategic management's influence on Rwanda's private construction firms.

**Table 2: Background Information of the Respondents**

Category	Number of Respondents	Percentage (%)
Role in Firm		
Senior Management	30	21.9
Project Managers	30	21.9
Departmental Heads	45	32.8
Middle-Level Managers	32	23.4
Years of Experience		
Less than 5 years	25	18.2
5-10 years	60	43.8
Over 10 years	52	38.0
Education Level		
Diploma	35	25.5
Bachelor's Degree	70	51.1
Master's Degree	32	23.4

From table 2, it can be argued that departmental heads made the majority made the majority respondents (32.8%) followed by middle-level managers (23.4%) while the rest shared 21.9% response rate each, reflecting a significant focus on functional expertise within the firms. The highest percentage of the respondents had 5-10 years of work experience (43.8%) while those with less than 5 years' experience were the least (18.2%), indicating a substantial level of expertise that enriches their insights into strategic management. Finally, in relation to education levels, majority of the respondents hold at least a bachelor's degree (51.1%) while a quarter of the respondents hold a master's degree (23.4%). This suggests that hat respondents are well-equipped to understand and apply strategic management concepts in their firms.

In relation to the various objectives of the study, the results were as discussed herein:

Objective one sought to examine the effect of strategic planning and Resource Allocation on Project Efficiency and Profitability. As indicated in table 3 below, all the respondents were in agreement that all the statements in relation to strategic planning and resources allocation practices of strategic management are beneficial for improving organizational outcome as indicated by means above 4.0.

**Table 3: Descriptive Statistics on Strategic Planning and Resource Allocation**

Statement	Mean	Standard Deviation
Strategic planning positively influences project efficiency.	4.32	0.65
Resource allocation improves project profitability.	4.10	0.72
Effective planning minimizes project delays.	4.28	0.68
Optimal resource allocation reduces costs.	4.15	0.70

The second objective sought to establish the role of innovation and technology in enhancing operational performance and the results as indicated in table four below did show that majority of the respondents strongly agreed that innovation and technology adoption are crucial to operational performance with means of 4.25 and 4.3 respectively. The high mean values and relatively low standard deviations indicate strong agreement that embracing technological advancements and innovative practices plays a significant role in enhancing efficiency, cost management, and project quality in Rwanda's private construction sector.

**Table 4: Descriptive Statistics on Innovation and Technology Adoption**

Statement	Mean	Standard Deviation
Technology adoption enhances operational efficiency.	4.25	0.63
Innovation is key to maintaining competitiveness.	4.30	0.66
Advanced technology reduces operational costs.	4.18	0.71
Innovation improves project quality and client satisfaction.	4.22	0.69

The third and final objective was carried out with the aim of finding out the impact of leadership and strategic decision-making practices on competitive positioning and market share growth. In relation to the statements touching on leadership practices driving competitive advantage and strategic decision making supporting market share growth, majority of the respondents agreed with these ideas at indicated by mean scores of 4,2 and 4.26 respectively. Further, majority of the respondents agreed that effective leadership aligns to organizational goals with market demands while leadership enhances adaptability to market changes as indicated be mean scores of 4.19 and 4.17 respectively as indicated in table 5 below.



**Table 5: Descriptive Statistics on Leadership and Strategic Decision-Making**

Statement	Mean	Standard Deviation
Leadership practices drive competitive positioning.	4.20	0.67
Strategic decision-making supports market share growth.	4.26	0.64
Effective leadership aligns organizational goals with market demands.	4.19	0.68
Leadership enhances adaptability to market changes.	4.17	0.70

### Correlation Analysis

**Table 6: Correlation Analysis Between Strategic Management Practices and Organizational Performance**

Variables	Project Efficiency	Profitability	Operational Performance	Competitive Positioning
Strategic Planning and Resource Allocation	0.62**	0.65**	0.58**	0.61**
Innovation and Technology Adoption	0.64**	0.60**	0.66**	0.63**
Leadership and Strategic Decision-Making	0.63**	0.59**	0.62**	0.67**

**Note: Correlation is significant at the 0.01 level (2-tailed).**

The correlation analysis in Table 6 reveals statistically significant, positive correlations between each strategic management practice and organizational performance indicators. Strategic planning and resource allocation show a strong positive relationship with project efficiency ( $r = 0.62$ ) and profitability ( $r = 0.65$ ), suggesting that these practices directly contribute to enhanced performance outcomes. Innovation and technology adoption also correlate strongly with operational performance ( $r = 0.66$ ) and competitive positioning ( $r = 0.63$ ), highlighting the role of technological advancements in achieving efficiency and market competitiveness. Lastly, leadership and strategic decision-making practices are closely associated with competitive positioning ( $r = 0.67$ ), indicating that effective leadership significantly influences a firm's ability to maintain a competitive edge.

### Regression Analysis

**Table 7: Regression Analysis of Strategic Management Practices on Organizational Performance**

Predictor Variable	Unstandardized Coefficients (B)	Standardized Coefficients ( $\beta$ )	t-value	p-value
Strategic Planning and Resource Allocation	0.34	0.32	4.15	0.001**
Innovation and Technology Adoption	0.41	0.39	5.02	0.000**
Leadership and Strategic Decision-Making	0.37	0.35	4.62	0.000**

**Model Summary:**  $R^2 = 0.62$ , Adjusted  $R^2 = 0.60$ ,  $F(3, 133) = 47.15$ ,  $p < 0.001$

**Note: Significance level  $p < 0.01$** 

The regression analysis in Table 7 indicates that all three strategic management practices—strategic planning and resource allocation, innovation and technology adoption, and leadership and strategic decision-making—are statistically significant predictors of organizational performance, with p-values less than 0.01. Innovation and technology adoption has the highest standardized coefficient ( $\beta = 0.39$ ), indicating that it has the strongest impact on organizational performance. Leadership and strategic decision-making ( $\beta = 0.35$ ) and strategic planning and resource allocation ( $\beta = 0.32$ ) also have significant positive effects, though to a slightly lesser extent. The model's  $R^2$  value of 0.62 suggests that these strategic management practices collectively explain 62% of the variance in organizational performance, a substantial impact.

**Qualitative Results**

The qualitative data, collected through semi-structured interviews with senior management, project managers, and departmental heads across Rwanda's private construction firms, revealed nuanced insights into the impact of strategic management practices on organizational performance. Respondents emphasized the importance of strategic planning, innovation, and leadership in addressing the unique challenges they face in a highly competitive and resource-constrained industry. Their experiences provide valuable context to the quantitative findings, highlighting both successes and ongoing challenges in implementing effective strategic practices.

A consistent theme that emerged was the perceived value of strategic planning and resource allocation. One senior manager remarked, *"Without a clear strategic plan and thoughtful allocation of our resources, we would struggle to complete projects on time and within budget. Strategic planning provides us with direction, especially when facing unexpected market changes."* This sentiment underscores the role of planning and resource allocation in improving project efficiency and maintaining financial stability within the firms.

Innovation and technology adoption also received considerable emphasis, with respondents noting that advancements in technology are essential for staying competitive. A project manager stated, *"Implementing new technology in our project management processes has allowed us to reduce costs and deliver projects faster, which is crucial in this market."* Another respondent echoed this view, mentioning that *"technology not only enhances our operational efficiency but also improves our ability to meet client expectations, which ultimately strengthens our market position."* This feedback illustrates how technology adoption is not just about internal efficiency but is seen as a driver of client satisfaction and competitive advantage.

Furthermore, the importance of leadership and strategic decision-making was highlighted by many respondents as a key factor in achieving organizational goals. A departmental head shared, *"Our leaders' ability to make quick, strategic decisions is what helps us adapt to market changes and maintain a competitive edge. Good leadership aligns the team with the organization's goals, which is essential for long-term success."* Another interviewee emphasized the role of strategic leadership in fostering adaptability, saying, *"The market is always evolving, and our leadership needs to make strategic adjustments swiftly. This flexibility helps us remain relevant and competitive."* These insights reveal that strong leadership is regarded as central to the firm's adaptability and resilience in a dynamic industry environment.

Overall, the qualitative results indicate that respondents in Rwanda's private construction sector recognize the substantial impact of strategic management practices on organizational performance. Their experiences emphasize the interconnected roles of planning, innovation, and leadership, which, when effectively implemented, support enhanced project delivery, financial performance, and competitive positioning. The findings reinforce the importance of a holistic approach to strategic management, one that combines practical tools with strong leadership to address industry-specific challenges.

**Conclusion**

Finally, good management practices have been shown to have a significant impact on the management practices of construction organizations in Rwanda. The combination of quantitative and qualitative results demonstrates that strategic planning, resource allocation, innovation, technology use, and strategic

leadership have a positive impact on project performance, effectiveness and performance, and competitive processes in these organizations. In particular, strategic planning and the allocation of resources are practices that provide a foundation for construction firms to be able to allocate resources, make operations less complex, and stabilize financially. Innovation and adoption of technology lead to improved operational efficiency, lesser project cost and enhanced client satisfaction — the critical requirement for competitiveness in the construction industry. Moreover, the combination of adaptive and resilient strategy encapsulated through strong leadership and strategic decision making promote adaptability and resilience, enabling firms to quickly adapt to the ever changing set of market conditions making them highly viable and increasing their market share in the long run. The implications of this study point to the need for an integrated approach to strategic construction management that promotes innovation and resource optimization along with leadership acumen to help private construction firms do better in Rwanda. The results suggest that policies aimed at developing the adoption of strategic management practices are essential if firms are to fulfill their potential to meet national development aspirations such as those articulated in Vision 2050. It may involve promoting technology adoption, consulting on strategic leadership training, or conducting research into sector-specific strategic practices. Finally, this study does not only underscore the importance for construction firms from emerging economies to adopt appropriate strategic management processes to ensure their growth and profitability status, but it has also provided some practical implications for practitioners and policy makers regarding ways to improve the performance of the private construction sector in Rwanda.

### **Recommendations**

Taking into consideration the results obtained, an integrated management approach was suggested to be adopted by private construction companies in Rwanda. Step one: Allocate time and resources to strategic planning and planning for project time, cost and resource utilization. Also, the assimilation and innovation of technology should be promoted as technological advancements in construction and project management speculation have been shown to increase productivity and decrease costs. Companies spend money on training programs at all levels in technology and skills. Moreover, development of leadership and decision-making skills are vital as well and companies must design leadership development programs that ensure managers are swift and well-informed in making consequential decisions that are in line with organizational objectives and market movements. Policymakers and industry partners are also encouraged to support this by creating policies that provide tax incentives or subsidies to support technology adoption, innovation and education for construction workers. Using these concepts, the construction industry in Rwanda can better respond to competition, contribute to the country's development and economic goals, and maintain a stable position in the growing market in East Africa.

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