Influence of Environmental Scanning on Performance of Parastatals in Mombasa County

Wilmina Uchi Tunje[1*], Maria W. Mungara[2]

[1]*Student, Faculty of Business and Economics, Department of Management. Mount Kenya University, Kenya*
[2]*Lecturer, Faculty of Business and Economics, Department of Management Mount Kenya University, Kenya*

Abstract—This study investigates the influence of environmental scanning on the performance of parastatals in Mombasa County, Kenya. Environmental scanning entails the organized collection and strategic use of information concerning the occurrences, trends, and interrelations that manifest in the external environment of an organization. This collated information is instrumental in defining potential business risks or opportunities that the organization can capitalize on. An explanatory research design was employed, utilizing surveys and questionnaires to collect quantitative and qualitative data from 60 employees across various management levels within 15 parastatals. The findings reveal that 45.2% of respondents believe that environmental scanning significantly impacts performance. The study concludes that parastatals can enhance their performance by strengthening their environmental scanning techniques. The analysis further underscores that the practice is a key strategic management tool that contributes significantly to performance enhancement. It is recommended that parastatals prioritize the establishment of comprehensive frameworks dedicated to the persistent monitoring and assessment of both external and internal factors in order to maintain adaptability in the face of changes in the business environment. This is essential for aligning organizational strategies with market demands and improving overall effectiveness, enabling parastatals to fulfil their mandates and contribute meaningfully to economic development in Kenya.

Index Terms— **Environmental scanning, Performance, Parastatals, Mombasa County.**

1. Introduction

Environmental scanning has emerged as a crucial aspect of strategic planning for state-owned enterprises (SOEs) and parastatals on a global scale. This analytical approach enables these organizations to effectively respond to global trends, such as technological disruptions, evolving regulatory frameworks, and changes in political and economic landscapes. According to Bhardwaj and Kumar (2014), environmental scanning entails gathering and using information regarding external events, trends, and relationships relevant to an organization. This information serves as a crucial resource for management, facilitating effective planning and the direction of future organizational efforts. A firm's operational context consists of three dimensions: the internal environment, the industry environment, and the macro (or mega) environment (David, 2015). Organizations' relevance is contingent upon their ability

to effectively respond to the challenges arising from changes within each dimension (Wheelan & Hunger, 2014). Enterprises that perform environmental scanning are more adept at addressing uncertainties and improving their competitive position (Bhardwaj & Kumar, 2014). Effective strategic planning necessitates that an enterprise actively engages in environmental scanning (Agbim, Oriarewo & Zever, 2014).

In countries like China, where parastatals hold significant economic influence, the practice of environmental scanning has been vital in fostering efficiency, promoting innovation, and enhancing competitiveness. Chinese state-owned enterprises utilize scanning as a strategic tool to assess international market trends, competitive forces, and technological advancements, which has proven essential for sustaining their strong performance in a highly competitive global environment (Chen, 2020).

Within the European Union, the practice of environmental scanning is embedded within the performance management frameworks of state-owned enterprises (SOEs), particularly in sectors like energy and telecommunications. Studies indicate that organizations that integrate environmental scanning into their strategic frameworks are more adept at identifying and addressing risks, ensuring financial stability, and fostering long-term sustainability (European Commission, 2021). For instance, state-owned enterprises in Scandinavia employ environmental scanning to proactively adapt to regulatory shifts, which enhances their competitive performance on the international stage.

In the African context, environmental scanning is increasingly recognized as a crucial factor influencing the performance of parastatal organizations, especially within sectors such as energy, transportation, and agriculture. The continent grapples with distinct challenges, including political volatility, variable economic conditions, and swiftly changing technological environments. Parastatals that prioritize environmental scanning are more adept at addressing these challenges, thereby enhancing their operational and financial viability.

Environmental scanning has proven to be a significant tool in South Africa, particularly for parastatals like Eskom, which is the national electricity provider. This practice has enabled the organization to adjust to evolving government energy policies

*Corresponding author: wilminatumaini@gmail.com

and changes in the global energy market (Ndlovu, 2019). By systematically tracking external variables, Eskom can foresee variations in demand and regulatory challenges, which allows for strategic modifications that enhance its overall performance. In a similar vein, Nigeria is increasingly recognizing the critical role of environmental scanning in bolstering the effectiveness of public enterprises in sectors such as oil and gas, telecommunications, and transportation. Parastatals in Nigeria that embrace environmental scanning are more adept at responding to market fluctuations, regulatory developments, and technological progress, thereby improving their ability to meet their mandates and ensure profitability (Olaniyan, 2020).

The significance of environmental scanning in Kenya has grown, particularly for parastatals that are integral to sectors like transport, energy, and agriculture. These organizations function within a fluid environment shaped by changing political, economic, and social conditions. Their mandate to provide essential public services necessitates the use of environmental scanning to predict changes and effectively manage external pressures. Prominent parastatals in Kenya, such as the Kenya Power and Lighting Company (KPLC) and the Kenya Ports Authority (KPA), have increasingly integrated environmental scanning into their operations to ensure competitiveness and efficiency. For example, KPLC utilizes environmental scanning to keep abreast of developments in energy regulations, economic trends, and technological innovations, such as the integration of renewable energy sources into the national grid (Mutua, 2022). This practice enables the company to make strategic decisions that bolster service delivery and operational effectiveness. The practice of environmental scanning assists Kenyan parastatals in adjusting to changing economic landscapes and evolving government policies. This capability is particularly significant considering the government's persistent efforts to reform these entities and amplify their contributions to the national economy. By scrutinizing both domestic and international market trends, parastatals in Kenya are better positioned to align their strategic objectives with the national development agenda, ultimately improving their performance (Mutua, 2022).

A. Problem Statement

Performance is a critical goal for any organization seeking to thrive in a competitive market (Kakanda et al., 2016). The Kenyan government has acknowledged that inadequate performance in the public sector, especially in managing public resources, has hindered sustainable economic growth (Joseph, 2019). In response, the government has launched several reform initiatives, such as the Economic Recovery Strategy for Wealth and Employment Creation (ERSWRC) for 2003-2007 and Vision 2030, to enhance public service delivery. Despite these efforts, the goal of achieving high performance in parastatals and government entities remains unfulfilled, indicating a need for further investigation into the influence of environmental scanning on their performance in Mombasa County.

Numerous studies have examined the impact of strategic management on the performance of parastatals, including those by Wanyama and Aila (2022), Mzera (2024), Karanja and Juma

(2020), and Gabow (2019). However, none have specifically focused on parastatals headquartered in Mombasa County. This contextual gap serves as the motivation for the current study, which aims to explore the influence of environmental scanning on the performance of these entities.

B. Study Objective

To establish the influence of environmental scanning on the performance of parastatals in Mombasa County.

2. Literature Review

A. Theoretical Framework

The Contingency Theory of Leadership developed in 1958 by Fred Fiedler has profoundly influenced strategic management and is particularly influential in studies on strategy and organizational behaviour (Barney, 2005, cited by Gathungu Ndungi, 2018). The Contingency theory posits that the appropriate designated method of proceeding in the institution is contingent upon elements that impact the organization from both internal sources and external environments. Shin and Konrad (2017) argue that the success and efficiency of an organization are contingent upon its environmental conditions and context. In the early stages of contingency theories, it was believed that high-performing organizations effectively aligned themselves with their environmental circumstances. This alignment encompassed elements including the scale of the organization, its proficiency in integrating new technological advancements, and its responsiveness to evolving customer demands (Miller, 2003, as cited in Gathungu Ndungi, 2018). This theory proves valuable in the association between environmental scanning and operational outcomes of public sector entities. Addressing the contingent variable, it aids management in enhancing the calibre of decision-making within organizations. Therefore, executives of Mombasa County's parastatals can apply the theory to their decision-making because the theory emphasizes the significance of the natural surroundings in managerial decision-making. The theory highlights the need to customize decisions to fit an organization's particular circumstances by considering its internal and external environment because it acknowledges that an organization's environment is dynamic and always changing.

B. Empirical Literature

Patrick (2022) investigated the effect of environmental scanning intensity on innovation among SME owners in Oyo State, Nigeria. The study, which involved 400 SME owners, used a multistage sampling technique and analyzed the data collected through questionnaires using both descriptive and quantitative methods. The findings highlighted the critical role of environmental scanning intensity in enhancing innovation among SME owners. YahiaMarzouk and Jin (2022), in their analysis of SMEs in Egypt, examined how environmental scanning influenced competitive advantage and organizational resilience. Their research, based on 249 SMEs, employed the Smart partial least square structural equation modeling method and found that environmental scanning positively impacted competitive advantage, both directly and indirectly, through

organizational resilience.

Other studies, such as Asiomanokai (2021), focused on small-scale businesses in FCT, Abuja, revealing that most business owners regularly used environmental scanning to identify threats, which was essential for corporate survival. Nyagaki, Munga, and Nzioki (2021) also found that environmental scanning improves organizational performance in commercial parastatals in Nairobi, Kenya. Similarly, Awiti, Oloki, and Rambo (2017) demonstrated that environmental scanning moderately enhanced the effectiveness of HIV and AIDS interventions by NGOs in the Nyanza region. These studies underscore the significance of environmental scanning as a strategic tool for innovation, resilience, and organizational performance across various sectors (Awiti et al., 2017; Nyagaki et al., 2021; Asiomanokai, 2021).

3. Research Methodology

A. Research Design

The study employed an explanatory research design to explore the relationship between strategic management practices and parastatal performance. Data collection was done through surveys and questionnaires, using both quantitative and qualitative methods. A 5-point Likert scale measured quantitative responses, while qualitative data was gathered through open-ended questions.

B. Target Population

The study focused on 15 parastatals, targeting 60 employees across three management levels: administrative (15), executory (30), and operative (15) levels.

C. Sampling Procedures and Techniques

A census approach was used, involving all 15 parastatals. Data was collected from four respondents in each parastatal, covering key management levels to ensure comprehensive insights.

D. Data Collection Methods and Procedures

Primary data was gathered through questionnaires using both closed-ended (quantitative) and open-ended (qualitative) questions. The drop-and-pick method and email were used for questionnaire distribution.

E. Data Analysis Techniques and Procedures

Qualitative data was analyzed using content analysis, while quantitative data was processed using SPSS for descriptive statistics (mean, standard deviation) and inferential statistics (multiple regression) to explore the relationships between variables.

4. Results and Discussions

A. Socio-demographic Characteristics

Table 1 on socio-demographic characteristics of the respondents reveals a predominance of male participants, with 56% being male and 44% female. A significant proportion, 64.8%, were aged above 40 years, while 35.2% were younger than 40. Regarding educational attainment, nearly half (48.2%)

held a bachelor's degree, 28.6% had achieved a master's degree, and 14.8% possessed a PhD, with only 8.4% holding a diploma. Furthermore, most respondents (68.8%) had more than 5 years of work experience, while 31.2% had 0-5 years of experience, indicating a well-established workforce.

Table 1
Socio-demographics

Socio-demographics		Percentage
Gender	Male	56%
	Female	44%
Age	Below 40 years	35.2%
	Above 40 years	64.8%
Education level	Diploma	8.4%
	Degree	48.2%
	Masters	28.6%
	PhD	14.8%
Years of experience	0-5 years	31.2%
	Above 5 years	68.8%

B. Strategic Management Practices
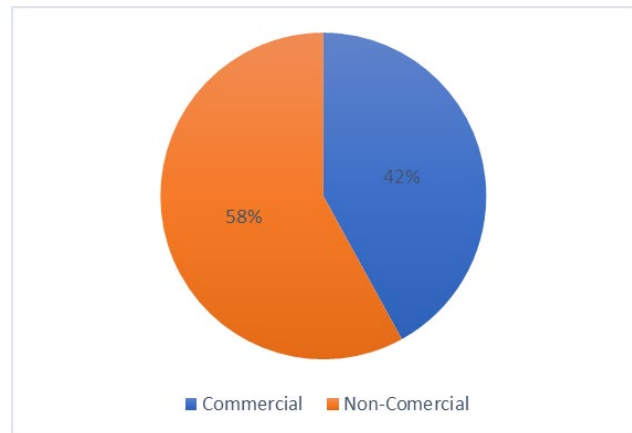
1) Nature of Parastatal

Fig. 1. Nature of parastatal

The findings on the nature of the parastatals in Figure 1 showed that 58% of the respondents worked in non-commercial parastatals, while 42% were from commercial parastatals. This indicated that a more significant proportion of the study participants were employed in organizations that did not primarily focus on profit generation, such as government agencies or regulatory bodies.

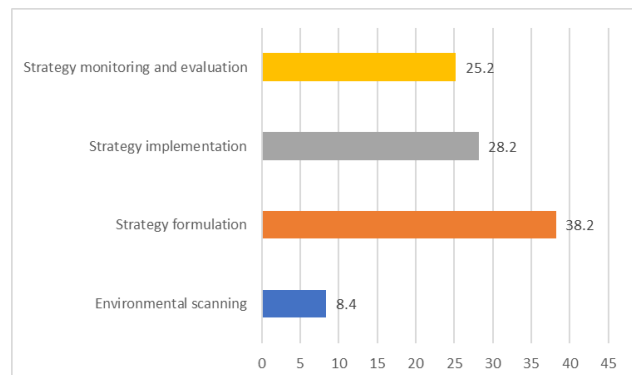### 2) Strategic Management Practice Adopted

Fig. 2. Practices adopted

Table 2
Environmental scanning

Environmental Scanning	5	4	3	2	1
The parastatal assesses its internal, external, and competitive environment.	22.6	54.8	16.1	3.2	3.2
Information from the outside and inner environments is tracked, analyzed, and circulated to vital individuals/organs within the parastatal	25.8	61.3	9.7	3.2	
Environmental scanning enables the parastatal to align its strategies with market demands of the industry	41.9	48.4	3.2	0	6.5
Environmental scanning enables the parastatal to effectively maximize the utilization of its resources	45.2	38.7	6.5	6.5	3.2
Environmental scanning informs the parastatal's optimal decision-making process	48.4	38.7	12.9	0	0
The parastatal performs at a higher level because of examining its environments	38.5	24.8	11.4	15.5	9.8

Table 3
Performance of parastatals

Performance	1	2	3	4	5
Adopting strategic management practices boosts efficiency (increases productivity minimizes costs).	1.3%	15.5%	18.4%	25%	40.8%
Adopting strategic management practices contributes to higher levels of employee satisfaction.	6.7%	6.7%	10.7%	45.3%	25.3%
Embracing strategic management practices has made it easier for the parastatal to innovate	5.3%	17.1%	28.9%	35.5%	11.8%
Implementing strategic management practices enables the parastatal to increase its market share.	12.2%	9.5%	12.2%	47.3%	17.6%
The parastatals performance is in line with expectations because of adopting strategic management techniques	14.5%	13.2%	17.1%	27.6%	26.3%
Adopting strategic management practices boosts efficiency (increases productivity minimizes costs).	5.3%	6.7%	13.3%	41.3%	30.7%

Figure 2 revealed that among parastatals in Mombasa County, strategy formulation was the most widely adopted strategic management practice, with 38.2% of parastatals focusing on developing clear and actionable plans. Strategy implementation closely followed this, with 28.2% of organizations indicating a significant effort to implement formulated strategies. Strategy monitoring and evaluation, which is crucial for assessing and adjusting strategies over time, was adopted by 25.2% of organizations. In contrast, environmental scanning, which involves analyzing external and internal factors that could impact the organization, was the least adopted practice at 8.4%.

C. Environmental Scanning

Table 2 shows that most parastatals actively assess their internal, external, and competitive environments, with 77.4% agreeing to this practice. A large majority (87.1%) confirmed that relevant information from both internal and external environments is tracked, analyzed, and circulated to key stakeholders. Additionally, 90.3% agreed that environmental scanning helps align parastatals' strategies with industry market demands, while 83.9% believed it maximizes resource utilization. A significant portion (87.1%) also indicated that environmental scanning enhances decision-making, though only 63.3% felt it leads to higher overall performance.

D. Performance

Table 3 shows that the evaluation of performance highlights the positive impact of adopting strategic management practices within parastatals, particularly in enhancing efficiency, with 66.5% of respondents affirming that these practices increase productivity and minimize costs. Additionally, 70.6% of respondents recognize that strategic management contributes to higher levels of employee satisfaction, indicating a connection between management practices and workforce morale. Although the adoption of strategic management practices facilitates innovation, with only 47.3% acknowledging this

improvement, it remains a critical factor in organizational growth. Furthermore, 64.9% of participants believe that implementing these practices enables the parastatal to increase its market share. The alignment of the parastatals' performance with expectations is reflected by 53.9% of respondents, emphasizing the effectiveness of strategic management techniques in achieving desired outcomes.

E. Inferential Statistics

1) Fitness of the Model

Table 4
Model fitness

R	R Square	Adjusted R Square	Std. Error of the Estimate
.76	.578	.536	8.87221

The regression analysis results show a correlation coefficient (R) of 0.76, indicating a strong positive relationship between the independent and dependent variables. The R Square value of 0.578 reveals that approximately 57.8% of the variability in the dependent variable can be explained by the independent variables included in the model. The Adjusted R Square value of 0.536, which adjusts for the number of predictors in the model, is slightly lower but still indicates a substantial proportion of explained variance.

F. Regression Analysis

The regression analysis reveals that environmental scanning has a positive and statistically significant effect on the performance of parastatals. The unstandardized coefficient (B = 1.751) indicates that for every one-unit increase in environmental scanning, the performance of parastatals improves by 1.751 units, holding other factors constant. The standardized coefficient (Beta = 0.479) suggests that environmental scanning has a moderately strong influence on performance relative to other variables. The t-value (3.515) and the significance level (p = 0.002) further confirm that this relationship is statistically significant. Moreover, the constant of -20.149, while negative, provides the baseline when

Table 5
Regression coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-20.149	5.177		-3.892	.001
Environmental scanning	1.751	.498	.479	3.515	.002

environmental scanning is absent, though it becomes more meaningful when combined with the positive contribution of environmental scanning. The regression analysis indicates that environmental scanning significantly enhances parastatal performance, with a strong positive coefficient of 1.751 and a p-value of 0.002. Consequently, the analysis highlights the critical role of environmental scanning in enhancing parastatal performance in Mombasa County.

5. Conclusion and Recommendation

A. Conclusion

The results of the study highlight the vital role of environmental scanning in bolstering the performance of parastatals. By aligning strategies with market requirements, it enhances decision-making capabilities and fosters greater organizational effectiveness. As a result, the study recommends that parastatals should prioritize environmental scanning to achieve optimal performance outcomes. The analysis indicates a strong and statistically significant relationship, suggesting that parastatals engaged in environmental scanning are more adept at improving their overall performance. This practice is identified as a key strategic management tool that contributes significantly to performance enhancement.

B. Recommendations

1) Parastatals ought to emphasize the importance of thorough environmental scanning to gain a deeper understanding of the internal and external factors that affect their operations. This necessitates the implementation of structured processes for monitoring market trends, competitive forces, and stakeholder expectations, thereby ensuring that their strategies are informed by current data and insights.

2) Parastatals must prioritize the establishment of comprehensive frameworks dedicated to the persistent monitoring and assessment of both external and internal factors, which will help them maintain adaptability in the face of changes in the business environment.

3) The strategic planning process must include environmental scanning to effectively align decisions with emerging trends, risks, and opportunities, thus contributing to improved overall performance.

4) Parastatals must leverage modern technological advancements, such as data analytics, to optimize the accuracy and effectiveness of environmental scanning, thereby promoting proactive decision-making and establishing a competitive edge.

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