Relationship between Strategic Planning and Organizational Performance: A Case of Zambia Medicines Regulatory Authority

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DOI: https://doi.org/10.47772/IJRISS.2026.10100168

Received: 23 December 2025; Accepted: 01 January 2026; Published: 28 January 2026

ABSTRACT

This study examined the influence of strategic planning practices on organizational performance at the Zambia Medicines Regulatory Authority (ZAMRA), with particular attention to strategic alignment, resource utilization, and stakeholder involvement. In the context of increasing public health demands and regulatory complexity in Zambia, ZAMRA has implemented several strategic initiatives aimed at improving regulatory efficiency and service delivery. However, persistent challenges such as misalignment between plans and institutional goals, resource limitations, and weak stakeholder engagement have constrained effective performance. The objective of the study was to assess how strategic planning practices could be optimized to enhance ZAMRA's organizational performance and support improved public health outcomes. Methodologically, the study adopted a cross-sectional descriptive research design using a convergent parallel mixed-methods approach. Quantitative and qualitative data were collected simultaneously and analyzed separately, with greater emphasis placed on quantitative analysis. The findings revealed a statistically significant positive relationship between strategic alignment and organizational performance ($r = 0.330$, $p = 0.019$), as well as a strong positive association between employee feedback mechanisms and strategic effectiveness ($r = 0.572$, $p = 0.000$). Conversely, resource alignment demonstrated a weak negative correlation with performance ($r = –0.289$, $p = 0.042$), indicating inefficiencies in resource utilization. Major challenges included financial constraints, resistance to change, communication gaps, and bureaucratic processes. The study concluded that effective strategic planning is critical to enhancing ZAMRA's performance. It recommended improved strategic alignment, efficient resource allocation, technological upgrades, enhanced stakeholder engagement, and strengthened human resource and operational systems to improve strategic execution and regulatory effectiveness.

INTRODUCTION

Strategic planning is recognized globally as a crucial tool for organizations to define their direction, allocate resources, and align activities with long-term goals. Research by Kantur & İşeri-Say, (2012), suggest that in a rapidly changing economic and regulatory environment, effective strategic planning becomes essential for organizational resilience and adaptability. Organizations worldwide are increasingly adopting strategic planning frameworks that incorporate elements of flexibility and innovation. The rise of digital technologies and a focus on sustainability have influenced strategic approaches, prompting organizations to integrate these factors into their planning processes.

According to Hubbard (2009), organizational performance is often measured through various metrics, including financial performance, operational efficiency, customer satisfaction, and regulatory compliance. The emphasis on outcomes has intensified, as stakeholders demand accountability and transparency. High-performing organizations are characterized by their ability to achieve optimal results across these metrics, often supported by data-driven decision-making processes.

In the healthcare sector, regulatory authorities are crucial for ensuring product safety, efficacy, and quality. Globally, WHO, (2013), states that regulatory bodies face increasing pressures to balance innovation with public health protection, a challenge exacerbated by the rapid development of new medical technologies and treatments.

Studies by Calder, (2016), suggest that in Zambia, the medicines regulatory landscape presents unique

challenges, including resource constraints, capacity building, and the need for adherence to international standards. Understanding how strategic planning can enhance ZAMRA's effectiveness is thus pertinent not only for local public health but also for compliance with global health initiatives.

Strategic planning plays a crucial role in shaping the effectiveness and overall performance of organizations across various sectors. Wittmer and Gundimeda, (2012) in their study cites that in the context of regulatory authorities, such as the Zambia Medicines Regulatory Authority (ZAMRA), the significance of strategic planning is amplified due to the complex interplay of public health, policy-making, and compliance. ZAMRA is tasked with safeguarding public health by ensuring that medicines and healthcare products meet established safety and quality standards. Given the critical nature of its mandate, the relationship between strategic planning and organizational performance within ZAMRA is of paramount importance.

This study delved into how effective strategic planning can enhance organizational performance in ZAMRA, examining both the processes involved and the outcomes achieved. Gates, (2010), states that strategic planning entails setting clear goals, allocating resources, and outlining action plans to navigate the dynamic healthcare landscape. The alignment of these strategic initiatives with ZAMRA's mission directly influences its operational efficiency, regulatory compliance, and capacity to respond to emerging public health challenges. By investigating this relationship, it was better understood how ZAMRA can optimize its strategies to improve service delivery, foster stakeholder trust, and contribute to the overall betterment of Zambia's health system. Abraham. ed, (2012), emphasize that as the authority grapples with various challenges including limited resources, evolving regulations, and the need for technological advancements recognizing the impact of strategic planning on organizational performance becomes essential for its sustained effectiveness and relevance. This analysis provided insights into the mechanisms through which strategic planning can be leveraged to enhance ZAMRA's performance, thereby reinforcing its role in protecting public health and safety in Zambia.

Research problem

Effective strategic planning is essential for improving organizational performance, yet ZAMRA, like many regulatory authorities in low-resource settings, faces challenges in its implementation. Despite having developed several strategic initiatives, ZAMRA’s efforts appear misaligned with its goals, which may hinder its overall effectiveness. The World Health Organization (WHO, 2013) highlights that regulatory bodies globally, especially in resource-constrained environments, struggle with aligning their strategic plans to emerging health needs. In Zambia, these challenges are compounded by ZAMRA’s resource limitations and gaps in regulatory capacity. ZAMRA’s 2021 report indicates that delays in medicine registration, with average approval times exceeding 12 months, negatively impact public health delivery.

Furthermore, studies like Musonda (2015) and Schierhout et al. (2021) point out that the absence of clear performance indicators and the lack of effective stakeholder engagement weaken ZAMRA’s impact. A 2020 internal audit revealed that over 40% of ZAMRA's processes were not aligned with its strategic goals, leading to inefficiencies. These issues hinder the organization's ability to fulfil its mandate of ensuring medicine safety and quality, ultimately affecting public health outcomes in Zambia. This study aimed at identifying how strategic planning can be optimized to improve ZAMRA's performance and contribute to more effective regulatory practices in Zambia’s healthcare sector.

Significance, objectives and scope of the study

The aim of the study was to analyse the influence of strategic planning practices on the organizational performance of the Zambia Medicines Regulatory Authority (ZAMRA). The investigation focused on identifying key strategic elements that enhance regulatory efficiency, improve service delivery, and contribute to improved public health outcomes in Zambia. In line with this aim, the study sought to establish the extent to which strategic planning is aligned with institutional performance, examine the challenges encountered during strategic planning and execution, and identify best practices that can strengthen organizational performance at ZAMRA.

To address these concerns, the study was guided by specific research questions that examined the alignment

between strategic planning and performance, the challenges affecting effective strategic execution, and the strategic planning practices that can enhance organizational outcomes. Correspondingly, the study objectives were to evaluate strategic alignment, identify implementation challenges, and determine best practices that improve institutional performance. The study tested the hypothesis that effective strategic planning has a positive and significant relationship with organizational performance at ZAMRA, against the null hypothesis that no such relationship exists. The significance of the study lay in its contribution to improving strategic planning within regulatory institutions by providing evidence-based insights to inform management decisions, policy formulation, resource allocation, and capacity-building initiatives. The study also contributed to the academic literature on strategic management in public regulatory organizations. The scope of the study was limited to ZAMRA in Zambia, focusing on its strategic planning practices and organizational performance over the past five to ten years, within the broader public health regulatory context.

LITERATURE REVIEW

The reviewed literature consistently shows that strategic planning is a fundamental determinant of organizational performance across different contexts. From a global perspective, Kaplan (2015) explains that strategic planning emerged as a formal management practice to address increasing organizational complexity and competition. Steiner (2010) found that strategic planning provides organizations with a clear sense of direction, enabling them to coordinate activities and allocate resources effectively. Similarly, Hinton (2012) demonstrated that organizations with clearly defined strategic goals are better positioned to adapt to environmental changes, while Parmenter (2015) found that the use of key performance indicators enhances strategic alignment and improves overall performance outcomes.

At the regional level, Rimita (2019) observed that African organizations operate in volatile, uncertain, complex, and ambiguous environments, making strategic flexibility essential for sustained performance. Evidence from countries such as South Africa and Kenya indicates that strategic planning has increasingly been adopted to improve efficiency and competitiveness in both public and private sector organizations. However, Inkina (2019) found that resistance to change, bureaucratic rigidity, and limited resources often constrain effective strategy execution, a challenge also noted by Wallerstein (2000), who argued that excessive focus on short-term results undermines long-term organizational sustainability.

Within the Zambian context, Kalungia (2024) found that ZAMRA employs structured strategic planning processes aimed at safeguarding public health and ensuring the quality of medical products. Rodas-Moya et al. (2023) further emphasized that monitoring and evaluation frameworks are critical for tracking progress and maintaining strategic relevance. Nonetheless, Nashoni (2021) found that regulatory institutions in Zambia face significant challenges related to inadequate funding, limited skilled personnel, and outdated technological systems. Matafwali (2024) also reported resistance to technological adoption and coordination challenges with other government agencies.

In response to these challenges, Ågrén (2022) found that agile strategic planning enhances responsiveness in dynamic environments, while Warner and Wäger (2019) demonstrated that aligning strategic goals with digital transformation improves resource utilization. Locally, Nold (2021) found that stakeholder engagement strengthens strategy relevance, and Zulu et al. (2021) concluded that streamlined regulatory processes and improved data management systems enhance organizational performance.

METHODOLOGY

The study adopted a cross-sectional descriptive research design to examine the relationship between strategic planning practices and organizational performance at the Zambia Medicines Regulatory Authority (ZAMRA). This design enabled the collection of data at a single point in time, making it suitable for assessing existing strategic planning processes, challenges, and performance outcomes without manipulating variables or requiring longitudinal observation. The descriptive nature of the design allowed the study to systematically document current practices and provide a clear snapshot of how strategic planning aligns with institutional performance indicators such as regulatory efficiency, key performance indicators, and stakeholder satisfaction.

A convergent parallel mixed-methods approach was employed to strengthen the depth and breadth of analysis.

Quantitative and qualitative data were collected simultaneously but analyzed independently before being integrated at the interpretation stage. Greater emphasis was placed on the quantitative approach, which facilitated statistical examination of the relationship between strategic planning and organizational performance using numerical indicators and standardized measurement tools. The qualitative component complemented this by providing contextual insights into strategic planning processes, employee experiences, organizational culture, and implementation challenges that could not be fully captured through quantitative measures alone.

The study was conducted at ZAMRA headquarters in Lusaka, Zambia. ZAMRA was purposively selected due to its central role in regulating medicines and health-related products and its direct influence on public health outcomes. The target population comprised all 50 ZAMRA employees, including executive management, supervisory staff, and non-supervisory personnel, ensuring representation across organizational levels. In addition, selected external stakeholders such as healthcare professionals and regulatory partners were included to provide independent perspectives on ZAMRA's performance and strategic effectiveness.

A sample size of approximately 50 respondents, representing about 33 percent of the population, was determined using standard sampling procedures based on a 95 percent confidence level and a 5 percent margin of error. Stratified random sampling was applied to internal staff, with stratification based on job roles and departments to ensure balanced representation. External stakeholders were selected using purposive sampling, targeting individuals with relevant knowledge and experience of ZAMRA's regulatory functions.

Data collection involved both quantitative and qualitative methods. Quantitative data were gathered using structured questionnaires incorporating established frameworks such as the Balanced Scorecard and SWOT analysis to assess strategic alignment and performance. Additional quantitative performance data, including key performance indicators, efficiency metrics, and regulatory success rates, were obtained from ZAMRA's internal reports. Qualitative data were collected through semi-structured interviews and focus group discussions, which explored strategic planning effectiveness, implementation challenges, organizational culture, and best practices.

Quantitative data were analyzed using descriptive statistics, correlation analysis, and regression analysis to assess relationships between strategic planning elements and performance outcomes. Qualitative data were analyzed thematically, with responses coded to identify recurring patterns and themes. A SWOT analysis further supported the identification of internal and external factors influencing strategic performance. Validity and reliability were enhanced through the use of validated instruments, triangulation of multiple data sources, and a representative sampling design. Ethical considerations were strictly observed, including informed consent, confidentiality, voluntary participation, and institutional ethical approval, ensuring compliance with academic and professional standards.

RESULTS

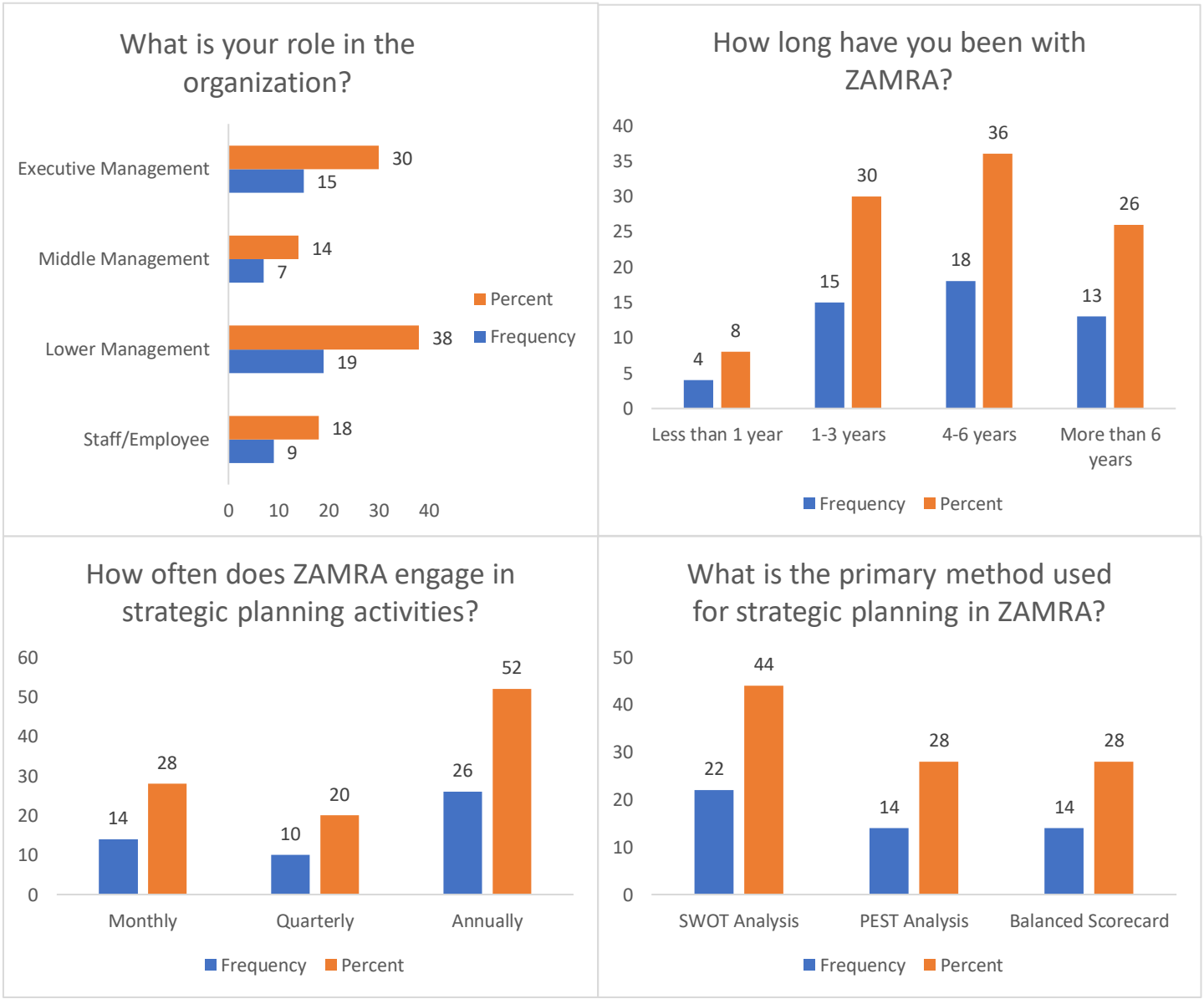
Demographic analysis

The study analyzed key organizational characteristics and strategic planning practices at the Zambia Medicines Regulatory Authority (ZAMRA) by examining respondents' roles, tenure, planning frequency, planning methods, and perceived effectiveness of the strategic planning process. The distribution of participants by organizational role indicated a strong representation of management-level staff. Lower Management constituted the largest group, accounting for 38.0% of respondents, followed by Executive Management at 30.0%. Staff or Employees in non-management positions represented 18.0%, while Middle Management accounted for 14.0% of the respondents. This distribution demonstrates that the study captured perspectives from both operational and strategic leadership levels, with a stronger emphasis on individuals directly involved in decision-making and implementation processes.

The tenure of respondents with ZAMRA reflected a balanced mix of experience levels. The largest proportion of participants, 36.0%, had worked at the organization for 4–6 years, indicating substantial institutional knowledge and familiarity with internal processes. This was followed by respondents with 1–3 years of service, who accounted for 30.0%, suggesting moderate organizational experience. Long-serving employees with more than six years of tenure represented 26.0%, while a smaller group of relatively new employees, accounting for

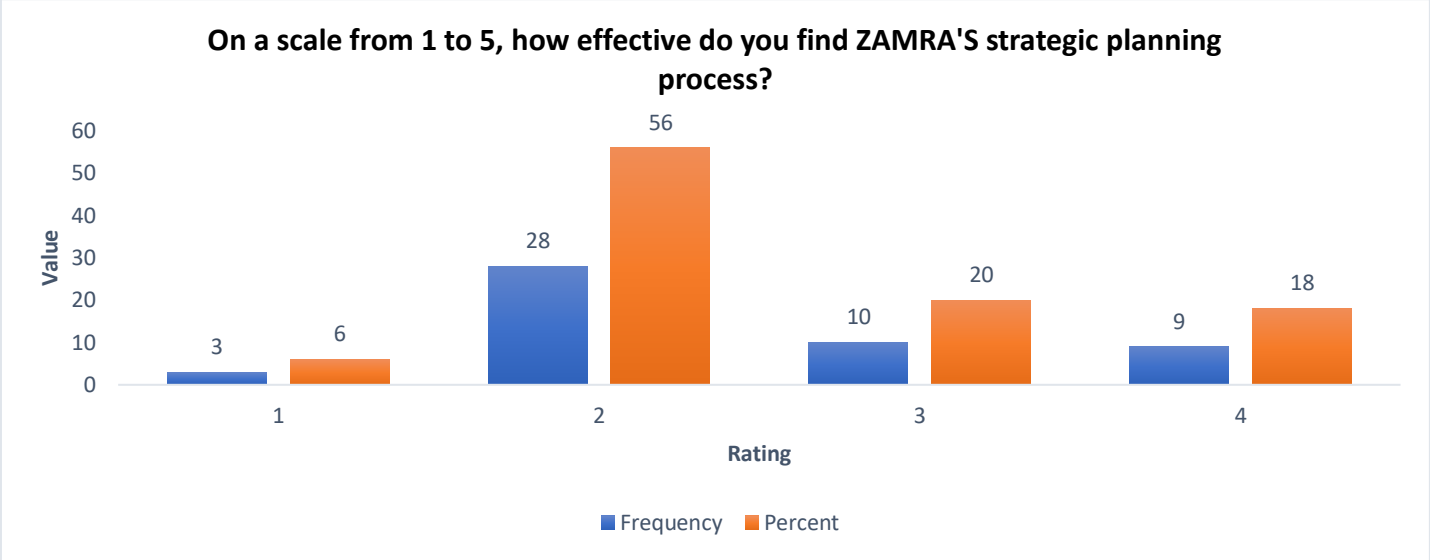
8.0%, had less than one year of service. Overall, this distribution highlights a workforce composed of both experienced and newer employees, which may support operational continuity while allowing for innovation and fresh perspectives. The frequency of strategic planning activities at ZAMRA was predominantly perceived as annual. More than half of the respondents (52.0%) indicated that strategic planning is conducted on an annual basis, suggesting that planning is largely structured around formal yearly cycles. Monthly strategic planning was reported by 28.0% of participants, reflecting ongoing or continuous planning efforts within certain units, while 20.0% indicated that planning occurs quarterly. These findings suggest that although annual planning dominates, some level of periodic review and adjustment is present within the organization (see figure 1).

Figure 1. Respondents' roles, work experience at ZAMRA and extent of strategic planning activities



Regarding strategic planning methods, SWOT analysis emerged as the most commonly used tool, with 44.0% of respondents identifying it as the primary method. PEST analysis and the Balanced Scorecard were each reported by 28.0% of participants, indicating moderate adoption of external environmental scanning and performance measurement frameworks. This pattern suggests that ZAMRA relies on a combination of internal and external analytical tools to inform strategic decisions. Despite the use of established planning methods, perceptions of the effectiveness of ZAMRA's strategic planning process were generally low. A majority of respondents (56.0%) rated the process as minimally effective, while 6.0% viewed it as highly ineffective. Only 38.0% rated the process as moderately to fairly effective, and none rated it as highly effective. These findings indicate significant concerns regarding the efficiency and outcomes of strategic planning at ZAMRA and underscore the need for improvements to enhance its overall effectiveness (see figure 5).

Figure 2. Effectiveness of ZAMRA's strategic planning process



Relationship between strategic planning and organizational performance

The results obtained in this study indicate varied perceptions regarding the alignment of the strategic plan with overall organizational goals at ZAMRA. A considerable proportion of participants reported that the strategic plan was aligned or highly aligned with organizational goals, accounting for 36.0 percent and 6.0 percent respectively. This suggests that a notable segment of the institution perceives a clear link between strategic intentions and organizational direction. However, a substantial share of respondents expressed reservations, with 34.0 percent indicating that the plan was only somehow aligned and 14.0 percent reporting that it was not aligned at all. These findings imply that while strategic alignment exists to some extent, it is not uniformly experienced across the organization, pointing to potential gaps in communication, implementation, or shared understanding of strategic priorities.

With respect to the effectiveness of the strategic planning process in achieving set objectives, the results show a generally moderate to low level of perceived effectiveness. A combined 42.0 percent of respondents rated the process as ineffective or minimally effective, selecting ratings of 1 or 2. A further 26.0 percent rated the process as moderately effective, indicating neutrality or uncertainty regarding its impact. Although 32.0 percent rated the process as effective or very effective, the overall distribution suggests that confidence in the strategic planning process is not strong. This pattern indicates that the strategic planning process may be well designed in principle but faces challenges in translating plans into measurable and satisfactory outcomes. The findings on resource alignment with strategic goals reveal notable weaknesses. A majority of respondents, totaling 60.0 percent, rated the alignment of allocated resources as low, selecting scores of 1 or 2. Only 18.0 percent perceived resource alignment as strong, while 22.0 percent provided a moderate rating. These results suggest that resources may not be consistently directed toward strategic priorities, potentially undermining the successful implementation of strategic initiatives. Ineffective resource alignment may limit the organization's ability to achieve intended goals despite having a strategic framework in place (see table 1).

Table 1. Perceptions of Strategic Alignment, Strategic Planning Effectiveness, and Resource Allocation at ZAMRA

On a scale of 1 to 5, how aligned do you think the strategic plan is with the overall organizational goals?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not aligned	7	14.0	14.0	14.0
	Somehow aligned	17	34.0	34.0	48.0

	Moderately aligned	5	10.0	10.0	58.0
	Aligned	18	36.0	36.0	94.0
	Highly aligned	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

Rate the effectiveness of the current strategic planning process in achieving set objectives. (1 = Not effective, 5 = Very effective)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	18.0	18.0	18.0
	2	12	24.0	24.0	42.0
	3	13	26.0	26.0	68.0
	4	6	12.0	12.0	80.0
	5	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

How well do you believe the resources allocated to projects align with ZAMRA's strategic goals? (1-5 scale)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	13	26.0	26.0	26.0
	2	17	34.0	34.0	60.0
	3	11	22.0	22.0	82.0
	4	9	18.0	18.0	100.0
	Total	50	100.0	100.0	

How effective do you find the current resource allocation in achieving the organizational objectives? (1-5 scale)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	10	20.0	20.0	20.0
	2	11	22.0	22.0	42.0
	3	16	32.0	32.0	74.0
	4	6	12.0	12.0	86.0
	5	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

Similarly, perceptions of the effectiveness of resource allocation in achieving organizational objectives were largely moderate to low. Over 40.0 percent of respondents rated resource allocation as ineffective or minimally effective, while 32.0 percent considered it moderately effective. Only 26.0 percent viewed resource allocation as effective or very effective. This distribution reinforces concerns regarding inefficiencies in how financial, human, and operational resources are deployed to support strategic objectives (see table 1). In conclusion, the results obtained in this study suggest that while strategic planning at ZAMRA demonstrates a reasonable level of alignment with organizational goals, significant challenges remain in its effectiveness and execution. Weak resource alignment and moderate perceptions of planning effectiveness indicate that strategic intentions are not fully supported by operational realities. Strengthening communication, improving resource allocation mechanisms, and enhancing the implementation of strategic plans are essential to improving overall organizational performance and achieving strategic objectives.

In this study, participants were asked to rate various aspects of the resource allocation process within the organization. The results for the statement "I feel that my input is considered in the resource allocation during the strategic planning process" showed a mean score of 2.12, with a standard deviation of 0.87, indicating a general perception of disagreement among respondents, although there was some variability in responses. For the question on how well the current resource allocation supports meeting organizational goals, the mean score was 2.30, with a standard deviation of 0.86, further suggesting that respondents were not highly satisfied with the effectiveness of the current allocation in supporting organizational goals.

Table 2. Adaptability to organization dynamics, employee engagement and organization priorities

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Rate your agreement with the statement: "I feel that my input is considered in the resource allocation during the strategic planning process." (1-5 scale)	50	1.00	4.00	2.1200	.87225
In your opinion, how well does the current resource allocation support meeting organizational goals? (1-5 scale)	50	1.00	4.00	2.3000	.86307
How flexible do you find the resource allocation process in adapting to changing organizational needs? (1-5 scale)	50	1.00	4.00	2.0400	.90260
Do you believe the assessment process for determining resource needs is sufficient? (1-5 scale)	50	1.00	3.00	1.7600	.62466
How well does the organization prioritize resource allocation to projects that align with strategic goals? (1-5 scale)	50	1.00	3.00	2.2200	.70826
How effective is the current process for monitoring and evaluating resource allocation in relation to strategic goals? (1-5 scale)	50	1.00	5.00	2.5000	1.16496
Valid N (listwise)	50				

When assessing the flexibility of the resource allocation process in adapting to changing organizational needs, the mean score was 2.04, with a standard deviation of 0.90, indicating that participants felt the process lacked

flexibility. Regarding the sufficiency of the assessment process for determining resource needs, the mean score was 1.76, with a standard deviation of 0.62, which suggests that most respondents believed the assessment process was insufficient. The mean score for how well the organization prioritizes resource allocation to projects that align with strategic goals was 2.22, with a standard deviation of 0.71, indicating that there was some level of concern about the alignment of resource allocation with strategic goals (see table 2).

Finally, for the effectiveness of the monitoring and evaluation process for resource allocation in relation to strategic goals, the mean score was 2.50, with a standard deviation of 1.16, suggesting that respondents perceived the monitoring and evaluation process as moderately effective but with a considerable amount of variation in opinions.

In conclusion, the findings highlight a general dissatisfaction with the current resource allocation process across multiple dimensions. The results suggest that improvements are needed in terms of considering input from stakeholders, flexibility, assessment sufficiency, prioritization, and monitoring to ensure better alignment with organizational goals and responsiveness to changing needs (see table 2).

The findings indicate that opportunities for employees to provide feedback on the strategic plan are perceived as very limited. This is reflected in a low mean score of 1.60 with a small standard deviation, suggesting strong consensus among participants that feedback mechanisms are inadequate. The results imply that many employees feel excluded from contributing to the strategic planning process, which may negatively affect their sense of ownership, commitment, and support for the strategic plan. Limited feedback opportunities also suggest weaknesses in internal communication and participatory decision-making (see table 2).

In contrast, accessibility of strategic planning documentation was rated relatively positively. A mean score of 3.60 indicates that most participants believe relevant documents are available and accessible. However, the variation in responses suggests that access may not be uniform across all departments or staff categories. While documentation availability appears sufficient overall, ensuring consistent and timely access for all employees remains an important consideration for strengthening transparency and understanding of the strategic planning process (see table 2).

Perceptions of alignment between the strategic plan and overall organizational goals were moderate, with a mean score of 2.62. This result suggests uncertainty among employees regarding whether the strategic plan effectively supports broader institutional objectives. The relatively high standard deviation indicates differing views, implying that alignment may be clear in some units but less evident in others. Such inconsistencies may weaken the coherence of strategic efforts and reduce confidence in the plan's relevance.

Similarly, the effectiveness of strategic plan implementation was rated moderately low, with a mean score of 2.56. Responses varied widely, indicating uneven implementation across the organization. These findings suggest that while certain aspects of the plan may be executed satisfactorily, others face challenges that limit overall effectiveness. Inconsistent implementation may stem from differences in leadership support, capacity, or operational conditions across departments (see table 2).

Resource allocation for strategic plan implementation emerged as a significant concern. The mean score of 2.06, coupled with a narrow standard deviation, indicates widespread agreement that financial and human resources are inadequately allocated. This perception highlights a critical constraint on the successful execution of strategic initiatives and suggests the need for improved prioritization and alignment of resources with strategic objectives.

Regarding resistance to change, participants generally reported low personal resistance, as indicated by a mean score of 1.96. However, perceptions of resistance among colleagues were notably higher, with a mean score of 3.60. This suggests that while individuals may view themselves as open to change, resistance at the departmental level is perceived as a substantial barrier. Additionally, respondents expressed moderate dissatisfaction with how well the strategic planning process addresses concerns about change (see table 6).

Hence, the results indicate the need for improvements in communication, employee involvement, resource allocation, and change management. Enhancing feedback mechanisms, strengthening alignment with organizational goals, and addressing resistance to change are essential for improving the effectiveness of the strategic planning process (see table 6).

Table 6. Descriptive Statistics for Employee Perceptions of the Strategic Planning Process

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
On a scale of 1 to 5, how clear is the communication regarding the strategic planning process within the organization?	50	1.00	5.00	2.4800	1.32849
How often do you receive updates about the strategic planning process? (1 = Never, 5 = Very frequently)	50	1.00	4.00	2.1600	1.07590
How would you rate the opportunities for providing feedback on the strategic plan? (1 = Very poor, 5 = Excellent)	50	1.00	3.00	1.6000	.67006
How accessible do you find the documentation related to the strategic planning process? (1 = Not accessible, 5 = Very accessible)	50	1.00	5.00	3.6000	.94761
To what extent do you believe the current strategic plan aligns with the overall organizational goals? (1 = Not aligned at all, 5 = Highly aligned)	50	1.00	4.00	2.6200	1.10454
How effective do you perceive the implementation of the strategic plan to be? (1 = Very ineffective, 5 = Very effective)	50	1.00	4.00	2.5600	1.12776
On a scale of 1 to 5, how well do you think resources (financial, human, etc.) have been allocated to implement the strategic plan? (1 = Very poorly, 5 = Very well)	50	1.00	3.00	2.0600	.61974
On a scale of 1 to 5, how resistant are you personally to changes in the current strategic planning process?	50	1.00	4.00	1.9600	1.04900
To what extent do you feel that other employees in your department resist changes proposed by the strategic planning process?	50	1.00	5.00	3.6000	.98974
Rate the following statement: "I believe that the current strategic planning process effectively handles my concerns about change."	50	1.00	4.00	2.7600	1.04119
Valid N (listwise)	50				

The results obtained in this study indicate several significant correlations among variables related to the strategic planning process and organizational performance at ZAMRA. The effectiveness of the current strategic planning process in achieving set objectives was found to be moderately and positively correlated with the frequency of strategic planning activities ($r = 0.406$, $p = 0.003$), suggesting that organizations engaging in more frequent planning activities are perceived to achieve objectives more effectively. Additionally, the incorporation of

employee feedback into the strategic planning process demonstrated a strong positive correlation with perceived effectiveness (r = 0.472, p = 0.001), highlighting the critical role of employee participation in enhancing the success of strategic initiatives.

The alignment of the strategic plan with organizational goals was positively associated with the effectiveness of strategic planning (r = 0.330, p = 0.019), indicating that greater congruence between planned initiatives and institutional objectives enhances the perceived success of the planning process. Similarly, resource alignment with strategic goals showed a positive correlation with plan alignment (r = 0.302, p = 0.033), emphasizing the importance of allocating resources in accordance with organizational priorities. However, a weak negative correlation was observed between resource alignment and the perceived effectiveness of the strategic planning process (r = -0.289, p = 0.042), suggesting that even when resources are aligned, challenges in their utilization may limit overall effectiveness (see table 7).

Longer-tenured employees were more likely to observe frequent strategic planning activities, as indicated by a strong positive correlation (r = 0.821, p = 0.000). Moreover, the frequency of strategic planning was positively correlated with employee feedback incorporation (r = 0.572, p = 0.000), indicating that more regular planning facilitates greater employee involvement. Regular review and updating of strategic goals were positively associated with plan alignment (r = 0.348, p = 0.013), feedback incorporation (r = 0.476, p = 0.000), and resource alignment (r = 0.485, p = 0.000), demonstrating the importance of iterative planning to maintain relevance and support effective implementation (see table 7).

Resistance to changes in the strategic planning process was positively correlated with the frequency of goal reviews (r = 0.348, p = 0.013), suggesting that while reviews are essential, they may also elicit resistance from employees. Although resistance was negatively correlated with planning effectiveness, this relationship was not statistically significant. Employee feedback was also positively associated with strategic plan alignment (r = 0.402, p = 0.004), underscoring the importance of engaging employees in shaping strategies to enhance goal congruence (see table 7).

Therefore, the results indicate that frequent strategic planning, incorporation of employee feedback, alignment of the strategic plan with organizational objectives, and regular goal reviews are key factors that enhance the effectiveness of strategic planning at ZAMRA. Challenges such as resistance to change and inconsistencies in resource utilization highlight areas requiring targeted interventions. By fostering inclusive, iterative planning processes, prioritizing employee engagement, and improving resource allocation, the organization can strengthen strategic execution and achieve better alignment with institutional goals (see table 7).

Table 7. Correlation Matrix of Strategic Planning Effectiveness, Goal Alignment, Employee Feedback, and Resource Allocation at ZAMRA

Correlations							
	Rate the effectiveness of the current strategic planning process in achieving set objectives. (1 = Not effective	How long have you been with ZAMRA?	How often does ZAMRA engage in strategic planning activities?	On a scale of 1 to 5, how aligned do you think the strategic plan is with the overall organizational goals?	How often do you think strategic goals are reviewed and updated to align with organizational needs? (1 =	In your opinion, how well does the strategic planning process incorporate feedback from employees? (1 = Does not incorpor	How well do you believe the resources allocated to projects align with Zamra's strategic goals?

		, 5 = Very effective)				Rarely, 5 = Very frequently)	ate, 5 = Fully incorporates)	(1-5 scale)
Rate the effectiveness of the current strategic planning process in achieving set objectives. (1 = Not effective, 5 = Very effective)	Pearson Correlation	1	.258	.406**	.330*	.078	.472**	-.289*
	Sig. (2-tailed)		.070	.003	.019	.593	.001	.042
	N	50	50	50	50	50	50	50
How long have you been with ZAMRA?	Pearson Correlation	.258	1	.821**	.477**	.199	.467**	-.204
	Sig. (2-tailed)	.070		.000	.000	.166	.001	.155
	N	50	50	50	50	50	50	50
How often does ZAMRA engage in strategic planning activities?	Pearson Correlation	.406**	.821**	1	.509**	.280*	.572**	-.085
	Sig. (2-tailed)	.003	.000		.000	.049	.000	.557
	N	50	50	50	50	50	50	50
On a scale of 1 to 5, how aligned do you think the strategic plan is with the overall organizational goals?	Pearson Correlation	.330*	.477**	.509**	1	.348*	.402**	.302*
	Sig. (2-tailed)	.019	.000	.000		.013	.004	.033
	N	50	50	50	50	50	50	50
How often do you think strategic goals are reviewed and updated to align with organizational needs? (1 = Rarely, 5 = Very frequently)	Pearson Correlation	.078	.199	.280*	.348*	1	.476**	.485**
	Sig. (2-tailed)	.593	.166	.049	.013		.000	.000
	N	50	50	50	50	50	50	50
In your opinion, how well does	Pearson Correlation	.472**	.467**	.572**	.402**	.476**	1	-.091

the strategic planning process incorporate feedback from employees? (1 = Does not incorporate, 5 = Fully incorporates)	Sig. (2-tailed)	.001	.001	.000	.004	.000		.532
	N	50	50	50	50	50	50	50
How well do you believe the resources allocated to projects align with Zamra's strategic goals? (1-5 scale)	Pearson Correlation	-.289*	-.204	-.085	.302*	.485**	-.091	1
	Sig. (2-tailed)	.042	.155	.557	.033	.000	.532	
	N	50	50	50	50	50	50	50
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Responses from interviews

To understand the challenges Zambia Medicines Regulatory Authority (ZAMRA) faces in its strategic planning, participants were asked to reflect on obstacles they encounter and provide concrete examples from their experiences. Respondents painted a picture of an organization grappling with multiple internal and external constraints that hinder effective planning and execution. One recurring concern was financial limitation, as one participant observed, "*One of the major challenges is limited financial resources. There are times when strategic activities are planned, but the funds to execute them are not available, delaying critical projects like inspections*." Similarly, another explained, "*Limited financial resources make it hard to execute strategic plans. When funding is delayed or insufficient, projects are postponed, which affects the organization's ability to achieve set objectives*." (see table 8).

Beyond finances, communication gaps emerged as a critical barrier. Participants reported that employee input was often overlooked, creating misalignment across departments. One noted, "*Poor communication is a challenge. Many employees, especially junior staff, are not consulted during the planning process. This creates unrealistic goals that do not consider our daily operational constraints*," while another added, "*Ineffective communication between senior management and staff causes confusion during the implementation process*."

Resistance to change also slowed strategic execution. As one respondent put it, "*Resistance to change among employees is a real issue. When new performance evaluation systems were introduced, most staff were hesitant to accept them, which slowed the process*," and another confirmed, "*When employees resist new processes or systems, it slows implementation. For instance, resistance to digitization delayed efforts to streamline the regulatory process*."

Other challenges included outdated technology, slow decision-making, misaligned resource allocation, and insufficient skilled personnel, with one participant noting, "*There are insufficient skilled human resources. While the strategic plan aims to improve compliance, the shortage of trained inspectors prevents us from meeting targets*." Environmental and organizational factors, such as bureaucracy, policy changes, and donor influence, compounded these difficulties. Yet, amid these barriers, respondents highlighted successes achieved through strategic enablers. Effective leadership, stakeholder engagement, technological investments, and careful planning turned challenges into achievements. As one reflected, "*The rollout of regional offices succeeded because of improved interdepartmental communication*," and another shared, "*The licensing system upgrade*

succeeded because milestones were regularly monitored." Collectively, these narratives reveal that while ZAMRA faces multifaceted challenges in strategic planning, targeted interventions and resourceful execution can enhance organizational performance and achieve its regulatory mission. (see table 8).

Table 8. Challenges, Examples, and Success Factors in ZAMRA's Strategic Planning and Execution

Theme	Challenges Identified	Examples from Participants	Success Factors / Enablers
Financial Constraints	Limited funding delays projects and implementation; budget prioritization favors short-term needs	Strategic activities like inspections postponed due to insufficient funds	Donor funding and strong leadership support enabled successful digital registration system implementation
Human Resource Limitations	Shortage of skilled staff, technical expertise gaps, staff overload, and insufficient training hinder execution	Compliance inspections delayed; quality assurance programs slowed	Hiring additional technical staff, external expert partnerships, and capacity-building programs improved execution
Poor Communication	Misalignment between departments; inadequate feedback from staff; limited stakeholder engagement	Departments not on same page; employee input not considered in planning	Effective interdepartmental communication and inclusive stakeholder engagement facilitated rollout of regional offices and inspection standards
Resistance to Change	Employee reluctance to adopt new processes or systems; slow adaptation to new initiatives	Digitization, stricter reporting systems, and new evaluation methods met with hesitancy	Staff buy-in, clear communication, and recognition of efforts enabled successful pharmacovigilance training and digital licensing adoption
Outdated Technology / Infrastructure	Manual processes, inefficient systems, and poor IT infrastructure slow down implementation	Delays in digitizing regulatory processes and launching new platforms	Investments in IT upgrades and digital tools allowed successful e-submission platform launch and reduced staff workload
Strategic Plan Alignment & Updates	Strategic goals rarely updated; plans sometimes misaligned with ZAMRA's mission or operational constraints	Plans focusing on minor issues, outdated due to policy changes	Regular monitoring, flexible planning, and phased implementation improved alignment and execution (e.g., quality control processes)
Decision-Making & Bureaucracy	Slow approvals, long internal procedures, and weak accountability hinder progress	Months-long fund approval delays; delayed strategic program rollouts	Expedited approvals, leadership prioritization, and clear accountability mechanisms facilitated timely project completion
Resource Allocation	Misallocation of funds; priorities not aligned with strategic goals	High-priority projects underfunded	Realistic planning and proper prioritization allowed risk-based inspections and internal audit frameworks to succeed

External Factors / Environmental Challenges	Political interference, donor dependency, changing government policies, and industry fluctuations disrupt implementation	Strategic initiatives diverted or delayed	Full stakeholder support, flexible project designs, and internally driven initiatives ensured successful outcomes
Leadership & Oversight	Weak focus and inconsistent supervision affect plan execution	Strategic goals not prioritized; inconsistent enforcement	Strong and consistent leadership oversight enabled successful medical product surveillance and licensing digitization
Monitoring & Performance Metrics	Lack of clear KPIs, performance tracking, and evaluation mechanisms hinder progress	Unclear progress tracking reduces accountability	Regular monitoring of milestones, phased implementation, and clear performance reviews improved execution and accountability

DISCUSSION

The discussion of findings revealed that the alignment of strategic planning with organizational goals significantly enhances ZAMRA's institutional performance. Respondents indicated that when strategic plans are closely aligned with the organization's objectives, operational effectiveness improves markedly, supporting Steiner's (2010) assertion that coherent planning provides a clear roadmap for daily operations. Employee feedback also emerged as a key factor, with a strong positive correlation (0.402, $p = 0.004$), highlighting the importance of inclusive planning processes. However, the study noted inefficiencies in resource utilization, as reflected in the negative correlation between resource alignment and plan effectiveness (-0.289, $p = 0.042$), suggesting misallocation or scarcity that hinders strategy execution. Frequent updates to strategic goals were positively associated with better alignment (0.348, $p = 0.013$), underscoring the value of agile planning in adapting to changing conditions.

The research identified multiple challenges in ZAMRA's strategic planning and execution. Financial constraints, resistance to change, poor communication, and outdated systems were recurrent obstacles, limiting the organization's ability to achieve its objectives. Operational inefficiencies, including slow decision-making and shortages of skilled personnel, further complicated implementation. External pressures such as political interference and donor dependency also emerged as significant barriers, constraining autonomy and effective planning, consistent with prior studies in African regulatory contexts. The study highlighted several best practices for enhancing performance. Effective leadership, employee involvement, frequent goal reviews, technological investments, and stakeholder engagement were all identified as critical enablers. Frequent monitoring and integration of staff feedback were particularly influential, with employee involvement showing the strongest association with strategic planning effectiveness ($r = 0.572$, $p = 0.000$). Collectively, these practices promote adaptability, accountability, and efficient resource use, ensuring that strategic plans remain realistic, actionable, and aligned with ZAMRA's institutional mission.

CONCLUSION

In conclusion, this study has demonstrated that effective strategic planning is critical for enhancing the organizational performance of the Zambia Medicines Regulatory Authority (ZAMRA). The findings revealed that alignment between strategic plans and institutional goals, inclusive planning processes incorporating employee feedback, regular updates to objectives, and efficient resource allocation are central to achieving desired outcomes. Conversely, challenges such as financial constraints, resistance to change, limited human and technological resources, bureaucratic inefficiencies, and inadequate stakeholder engagement hinder strategic execution and compromise overall performance. Addressing these barriers is essential for ensuring that ZAMRA's strategic initiatives are both realistic and actionable.

Based on these findings, several recommendations are proposed. Strengthening strategic alignment through

frequent plan reviews and integration of employee input can enhance ownership and operational relevance. Resource allocation mechanisms should be data-driven and aligned with strategic priorities to reduce execution bottlenecks. Leadership capacity and structured change management initiatives are vital for promoting accountability and reducing resistance to new processes. Upgrading technological systems and training staff in digital tools will support monitoring, evaluation, and data-driven decision-making. Enhanced stakeholder engagement and improved internal communication are also crucial for fostering buy-in and minimizing operational silos. Finally, addressing operational and human resource constraints through targeted recruitment, skills development, and streamlined bureaucratic procedures will facilitate more efficient strategic implementation.

For future research, it is recommended that comparative studies involving multiple regulatory authorities across Zambia or Southern Africa be conducted to broaden understanding of strategic planning in the public sector. Longitudinal research could examine how strategic planning effectiveness evolves over time, considering policy changes or external shocks. Additionally, exploring the role of digital transformation, organizational culture, and leadership styles in shaping strategic outcomes would provide deeper insights into the internal and external factors influencing performance. Collectively, these measures and areas for future inquiry can guide ZAMRA and similar institutions toward improved strategic management and sustainable organizational success.

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