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LIEDTKER'S CONCEPTUALISATION AND STRATEGIC THINKING IN THE MINING SECTOR: EVIDENCE FROM A DEVELOPING ECONOMY

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ABSTRACT

Strategic thinking has increasingly emerged as a critical competency for public institutions operating under volatility, uncertainty, complexity, and ambiguity, particularly in resource-dependent economies where governance structures are often under pressure to balance developmental aspirations with sustainability imperatives. This paper explores the manifestation and practical utility of strategic thinking within Zambia's Ministry of Mines and Minerals Development, the central regulatory authority responsible for overseeing the extractive sector, which constitutes a significant proportion of the country's economic base. Using a qualitative case study design, the paper draws sources of evidence, through in-depth interviews with policymakers, focus group discussions with sector stakeholders, and systematic analysis of institutional and policy documents, ensuring triangulation and richness of data. The inquiry focuses on Liedtker's conceptualisation of strategic thinking as lenses through which to assess strengths and weaknesses of strategic orientation. Findings indicate that while the Ministry has articulated an ambitious and forward-looking vision aimed at diversifying Zambia's mineral economy beyond copper dependence, significant gaps persist between strategic intent and practical execution. Similarly, while elements of intelligent opportunism such as responsiveness to emerging prospects in gold and manganese mining are evident, the absence of robust adaptive mechanisms constrains the translation of these opportunities into sustainable developmental gains. There is a weak practice of strategic thinking when developing Ministerial Strategic Plan and hence misalignment with the National Plan (8NDP) programmes. Knowledge gap exists among the framers of the Plan as most of them were not conversant which suggests the need to deepen the strategic thinking when developing plans.

KEYWORDS: *Strategic Thinking, Systems Thinking, Intent Focus, Intelligent Opportunism, Strategic Planning Public Institutions, Zambia*

INTRODUCTION

One area of research in strategic management, whether in the public or private sector, looks at how people, their intellectual property, and their ways of thinking affect the making and carrying out of strategy, as well as the process of strategic leadership (Hambrick and Mason, 1984; Hambrick, 2007; Finkelstein et al., 2009; Adair, 2010). In Zambia, public institutions are increasingly operating in volatile, unpredictable, complex, and ambiguous (VUCA) environments, where traditional linear and short-term planning approaches often prove ineffective. Embracing strategic thinking in strategic planning helps achieve essential milestones such as developing new ideas or approaches, solving critical problems, and improving existing processes (Sinnaiah et al., 2023). For public institutions, it is of utmost importance to elucidate those process innovation actions leading to staying abreast to meeting national plans as they allocate and use their resources accurately to provide service to the public (Bartoloni and Baussola, 2018).

Globally, organisations are increasingly relying on strategic thinking when developing their strategic plans. Strategies driven by strategic plans enable organizations to achieve competitive advantages and realize their visions (Benito-Ostolaza et al., 2014). In the era of rapid globalization, shifting geopolitical dynamics, and heightened environmental

consciousness, the strategic governance of natural resources, particularly minerals, has become increasingly complex and consequential (World Bank, 2020; Humphreys, 2019). Across the globe, ministries and regulatory bodies responsible for mining and minerals development are under pressure to navigate competing imperatives: economic growth, environmental sustainability, community rights, and geopolitical competitiveness (OECD, 2021; African Union, 2009).

This complexity calls for going beyond traditional planning; it necessitates strategic thinking a mindset that integrates long-term vision, adaptive learning, and innovative problem-solving (African Minerals Development Centre, 2021; United Nations Environment Programme, 2020). Further, Global experiences underscore that ministries in resource-rich countries that embrace strategic thinking position themselves advantageously when harnessing their mineral wealth for sustainable development. For instance, countries such as Canada, Australia, and Chile have demonstrated how forward-looking governance frameworks can enhance resilience in the mining sector, attract responsible investment, and balance extraction with social and ecology. These nations have invested in capacity-building initiatives, public-private partnerships, and inclusive policy development approaches anchored in strategic foresight and systemic thinking (World Bank, 2021; OECD, 2022; Australian Government, 2023).

However, mining ministries, particularly in emerging economies, continue to face institutional limitations that hinder the adoption of strategic approaches. These include bureaucratic rigidity, limited data for decision-making, weak inter-agency coordination, and a lack of strategic leadership culture (Schiavone & Tavares, 2023; World Economic Forum, 2022). In sub-Saharan Africa, despite the continent's vast mineral wealth, the full developmental potential of the mining sector lags due to gaps in governance capacity and long-term strategic visioning.

The African Mining Vision (AMV), endorsed by the African Union, calls for transformative governance structures that are driven by strategic thinking and inclusive planning, yet implementation has been uneven across countries (AUC, 2016; AMDC, 2021).

In Zambia the Mining sector continues to play a pivotal role in the development of the economy. It is a dominant industry and the mainstay of the economy, contributing approximately 12% towards the Gross Domestic Product and generating most of the foreign exchange earnings, Foreign Direct Investment, as well as considerable amounts of Government revenue through mining royalties and Value Added Tax (PMRC, 2022). The government's vision to elevate copper production to 3 million metric tons by 2031 underscores the need for robust strategic planning within the Ministry of Mines and Minerals Development (MMMD). However, challenges such as low staffing levels, inadequate institutional capacity, and evolving regulatory landscapes hinder effective strategy formulation and implementation (International Monetary Fund, 2023).

The Ministry of Mines and Minerals Development (MMMD), as the principal regulatory and policy-making institution in Zambia's mining sector, is tasked with not only overseeing mineral exploration and exploitation but also ensuring that the sector contributes sustainably to national development goals (World Bank, 2021). The Strategic plan of Ministry is meant to align with the National Development Plan in this case the 8th National Development Plan. Despite its central role, the Ministry has often faced challenges in aligning short-term operational decisions with long-term strategic objectives. These challenges are exacerbated by volatile commodity markets, environmental pressures, shifting geopolitical landscapes, and evolving public expectations about transparency and sustainability (Chanda et al., 2021).

The sector is one of the strategic development areas under pillar one for economic transformation and a key driver upon which the country's economic growth agenda is anchored (8NDP, 2022). The Government of the Republic of Zambia (GRZ) has consequently recognized the need to promote traditional and non-traditional minerals through the opening of new mines and increasing production in existing ones as one way of mitigating poverty and fostering mining development (Eighth National Development Plan, 2022-2026).On the other hand, routine operational planning is more about following rules and short-term goals, whereas strategic thinking is more about being creative, flexible, and ready for the unknown. It is now widely accepted around the world that strategic thinking is vital for building robust systems of government. In this context, strategic thinking defined as the ability to anticipate, envision, maintain flexibility, and empower others to create strategic change has emerged as a vital capability for public institutions seeking to navigate complexity and drive transformation (Goldman and Casey, 2010; Bouhali et al., 2015; Bryson et

al., 2018; Dionisio, 2017; Ahmadi and Alizadeh, 2018). While strategic planning frameworks exist within the Ministry and related government bodies, these often focus more on procedural compliance and less on fostering a forward-looking, adaptive, and integrative mindset among decision-makers (Geyer, 2022).

The Organisation for Economic Co-operation and Development (OECD, 2023a) believes that strategic foresight helps policymakers make government more effective by discovering opportunities, dangers, and disruptions that are likely to impact the future. The OECD (2023b) demonstrates through case studies in Lithuania, Italy, and Malta that anticipatory governance, underpinned by robust leadership, committed resources, and inter sectoral collaboration, can facilitate the transition of governments from reactive "firefighting" to proactive policy formulation. Strategic thinking is equally important in the African environment. The African Union created the Africa Mining Vision (AMV) in 2009. It says that mining resources are strategic assets that are important for long-term development. Governments should put local beneficiation, openness, and long-term growth at the top of their list of priorities (African Union, 2009).

However, empirical research demonstrates that substantial differences remain between individuals' aspirations and their actual conduct. Muneku (2022) says that the African Mining Vision (AMV) can't be put into action in nations like Zambia, Ghana, and Tanzania because the institutions aren't strong enough, the policies aren't clear enough, and there aren't enough ways to enforce them. Kamundia (2021) asserts that African nations might revert to a state of dependency on extractive industries, consequently hindering the prospects for inclusive development through minerals governance. In Zambia, the need for strategic thinking is especially important because the country relies heavily on copper sales for money. In 2024, the Government of Zambia put in place the Critical Minerals Strategy to protect the country from the dangers of relying too much copper considering that energy minerals are now the global resources. The strategy aims to diversify mineral output, provide a complete geological resource map, and align the industry with the worldwide need for sustainable technology (Zambia Ministry of Mines and Minerals Development, 2024). Recent policy declarations emphasize the imperative for reforms, including the creation of a special purpose entity for investment, the amendment of the Geological and Minerals Development Bill, and the improvement of supervisory procedures (Chambers and Partners, 2025). These policies demonstrate elements of foresight and adaptive governance; however, their execution is impeded by capacity deficits, insufficient inter-ministerial coordination, and resource constraints (Muneku, 2022).

Strategic thinking, therefore, includes the ability to see the big picture, understand systems, flexibility is very important for public institutions. It is connected to changes in how minerals are managed in Zambia, continental frameworks like the AMV in Africa, and reforms of how governments plan for the future around the world. But it's hard to turn strategic concepts into successful actions because institutions and skills are still having problems. To use strategic thinking as a way to promote long-term growth in countries that depend on resources, will call for improved adaptive ability, policy coordination, and implementation procedures. It is important to note that there are no established theories on strategic thinking, apart from conceptual frameworks, which has constituted a persistent deficiency in theoretical development.

Researchers have argued that, related to the fact that real-world strategic interactions are ambiguous, complicated, and dynamic (Halevy, 2016). "Key Elements of Thinking Strategically" can be split and grouped like: Conceptual Understanding: Vision, mission, values, long-term goals (Senge 1990; Hamel and Prahalad 1994; Liedtka 1998). Analytical Skills: SWOT analysis, market research, competition analysis, data interpretation (Day, 1994; Liedtka, 1998; Bonn, 2005). Critical thinking: questioning what you think you know, weighing your options, and making plans for different scenarios (Day, 1994; Liedtka, 1998; Bonn, 2005). Creativity: Coming up with new ideas and thinking beyond the box (Hamel and Prahalad, 1994; Day, 1994; Liedtka, 1998; Bonn, 2005) and strategic Alignment: Linking projects to big goals and how resources are used (Senge, 1990; Liedtka, 1998; Day, 1994).

Liedtka's dimensions, illustrated, serve as cognitive frameworks that illustrate the potential influence strategic thinking capabilities of framers of organizational strategic planning go through. The ideas that make up Liedtka's dimensions and Schutzian lifeworld constructionism were created utilizing the logic of induction as shown below.

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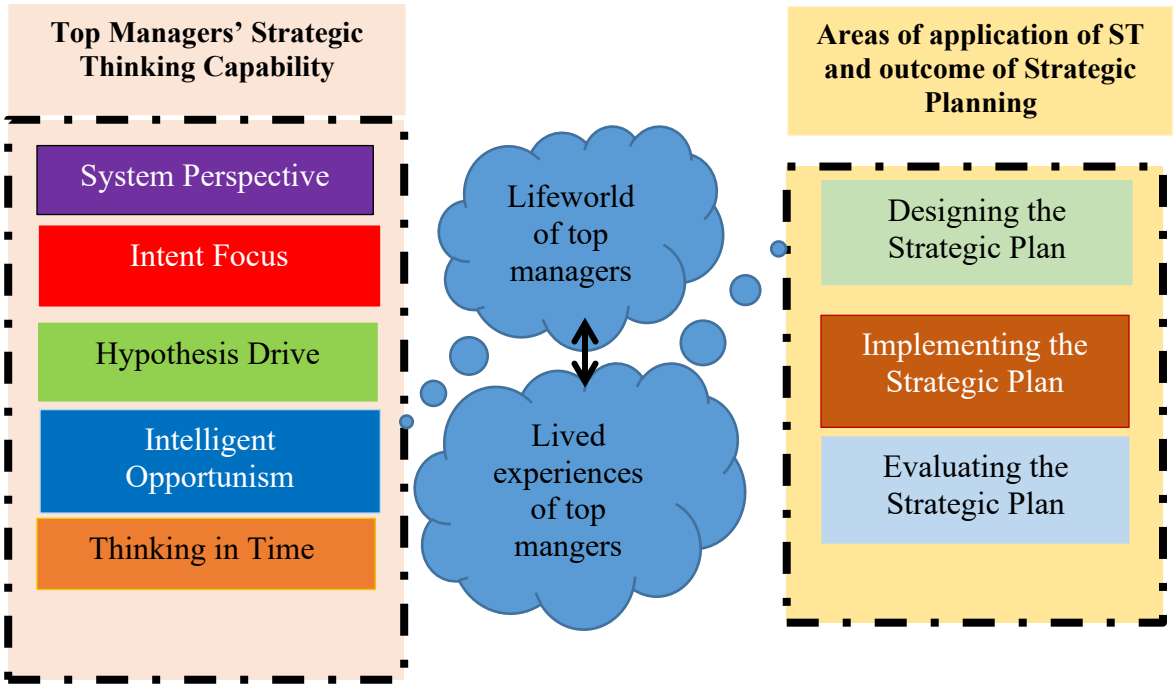


Figure 1: Conceptual Model of Strategic Thinking and Outcome of Strategic Planning Based on Liedtka's Dimensions

Strategic Thinking and Resource Governance

Developing economies encounter challenges marked by enduring policy inconsistencies and institutional instability, which substantially obstruct effective resource governance and impede sustainable development efforts. Modern scholarly highlight the importance of strategic thinking, defined by foresight, systems awareness, and adaptation, as a crucial skill for public organizations aiming to tackle complex governance issues (Etichaa, Brunnige, & Tessema, 2024). In this context, the quality of institutions is increasingly recognized as the fundamental component of resource governance, as strong institutions promote both policy coherence and the diversification of economic activities in resource-dependent countries (Mini, Moyo, & Phiri, 2025).

Scholars that have looked at Strategic thinking in Higher learning institutions in Zambia, argues that to understand the motives of managers one must study their lived experiences. Their lived experiences point to organsational culture and corporate structural factors which from an interpretivist lens explain the reality that University Managers are not proactive and this sheds more light as to why the application of strategic thinking is low,Msusa et al (2023). He further argued that the applicability of ST is contradicted by managerial motives which are reactive and not proactive as the case should be for strategic thinkers. The applicability of ST is also impeded by constructs that emerged in the corporate culture and the underlying organizational structure factors. Therefore, very few Organisations apply strategic thinking at all stages of strategic planning it gets worse at the implementation stage.

Botswana: An Exemplary Model of Efficient Systems Integration

Botswana exemplifies efficient system integration within its governance structure for diamond resources. Recent studies demonstrate that the country's focus on building strong institutions, upholding the rule of law, and fostering participatory democracy through mechanisms like the kgotla has substantially enhanced long-term economic and political stability (Molutsi, 2024; Tsie, 2025). Despite governance reforms promoting progress in infrastructural and human capital development, it is essential to recognize that Botswana's economic growth remains vulnerable, largely due to inadequate structural transformation and a significant dependence on diamond resources. Academics promote diversification as an essential strategy for ensuring long-term economic resilience (Molutsi, 2024). This dual approach highlights the importance of continuous strategic foresight in maintaining institutional legitimacy and improving economic adaptability.

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South Africa: Dangers of Disjointed Reforms

The situation in South Africa illustrates the intrinsic dangers linked to disjointed and divided reform efforts. Efforts to enhance industrial benefits in the mineral sector have been hindered by insufficient institutional capacity and fragmented policy execution, hence constraining the results of industrialization. Recent research highlights recurrent issues in the implementation of strategies inside South African public institutions, where a disconnect between strategy planning, monitoring, and institutional capacity consistently hampers service delivery and developmental results (Zulu & Mabena, 2023). The identified trends support the claim that effective resource governance requires not only ambitious policy frameworks but also strong institutional coherence and adaptability, ensuring that reforms achieve their intended goals.

Zambia: Deep-Seated Copper Reliance

Zambia's deep-seated reliance on copper exemplifies the relationship between resource governance and institutional vulnerability. Recent estimates indicate that Zambia's considerable reliance on copper remains a major obstacle to economic diversification, making the economy highly vulnerable to variations in global commodity markets (World Bank, 2025). Moreover, actions designed to enhance resource nationalism and increase state regulation in the mining industry sometimes reveal political objectives, showing a weak alignment with institutional capacities or public expectations (Musonda & Larmer, 2023). Despite ongoing reforms, frequent changes in mining taxes and royalties' rules have created an atmosphere of uncertainty that jeopardizes long-term investment and reduces resilience (CSIS, 2024). The dynamics indicate that strategic governance in Zambia requires the use of foresight and systems thinking to improve institutional capacity, strengthen human capital, and diversify the economy beyond its dependence on copper.

These case studies collectively validate that good resource governance goes beyond policy formation, involving strategic discussion, institutional strength, and adaptation. In emerging countries such as Zambia, it is crucial to invest in strategic thinking skills in resource governance.

The research gap in this study highlights the gap by most studies on strategic thinking, that they have not combined with strategic planning in a mining set up, representing the knowledge gap. The review demonstrates that, although global scholarship on strategic thinking has matured emphasising systemic intelligence, the element of strategic thinking in applying long-term foresight, and adaptive governance empirical evidence in African contexts remains limited and fragmented. In advanced economies highly institutionalised mechanisms for strategic cognition exist enabling continuous policy learning and scenario planning. In contrast, most African mineral governance systems face constraints including from political to economic pressures.

Within Zambia, these constraints manifest in strategic thinking that is largely rhetorical rather than operational. Ministries demonstrate selective engagement with foresight, scenario analysis, or long-term planning, often prioritising administrative protection and political feasibility over developmental transformation. Collectively, the identified research gaps justify the development of a strategic thinking framework tailored to Zambia's Ministry of Mines and Minerals Development using Liedtker's elements of strategic thinking. Such a framework will advance both scholarly understanding and practical interventions at the intersection of using strategic thinking, when developing strategic plans in resource governance.

Interms of methodology most studies on resource governance and planning has taken the view of quantitative research, but this study looks at qualitatative case employing phenomenology as one of those epistemological and methodical approaches to examine the lived experiences of framers of the strategic plan for the Ministry.

Method

This paper is based on qualitative methodology and Schutzian phenomenology anchored the study. The theoretical framework will encompass two domains. The first pertains to the examination of the lived experiences and life contexts of strategic planning participants, while the second involves the identification of restrictions. This method integrates effectively with Schutzian lifeworld phenomenology. The researcher contends that the existence of a lifeworld strategic planning constitutes a social phenomenology, focusing on how strategic planning participants employ routine strategic thinking interactions to create a sense of reality regarding the contents and execution of strategic plans inter subjectively (Hisashi and Waksler, 2012). Schutzian constructionism was chosen because it

promotes an epistemological framework for creativism and spontaneous problem-solving methodologies to address complex, difficult scenarios characterized by ambiguity, volatility, and uniqueness (Schutz, 1964). This is what strategic planning does when it uses strategic thinking.

Philosophy applied in this study was rooted in post-positivist philosophy, which embraces research principles emphasizing lifeworld experiences, meaning-making processes, and the social construction of knowledge (Fox, 2008; Neuman, 2014). Post-positivism was selected as the guiding philosophy because it acknowledges that reality is socially and culturally interpreted and constructed by research participants, while still maintaining systematic inquiry procedures that enhance validity and credibility. Interpretivism as the epistemology was used to explain how social reality is constructed through human interaction and that understanding requires accessing participants' interpretations of their experiences (Smith & Osborn, 2007).

The study technique, followed the framework set forth by Yin (2018), which is particularly suitable for an in-depth analysis of institutional processes and practices within their genuine contextual settings. While maintaining a phenomenological focus, the study also employed multiple data collection methods (document review, interviews, focus groups) and multiple analytical approaches (Interpretive Phenomenological Analysis and Thematic Analysis). The qualitative paradigm was selected for its capacity to clarify the complex insights related to the viewpoints, experiences, and decision-making processes of public sector officials engaged in strategic planning.

The Research was conducted within the Ministry of Mines and Minerals Development (MMMD), focusing on the Ministry's headquarters in Lusaka and the Mine Safety Department located in Kitwe, Copperbelt Province. The Ministry headquarters in Lusaka was selected because strategic planning processes are coordinated centrally, with all departmental inputs synthesized at headquarters. The inclusion of the Mine Safety Department in Kitwe was essential because: It is the only department located outside Lusaka, providing geographic representation. Mine safety Department was a critical regulatory function with direct implications for strategic planning and its central location primary the mining region providing proximity to operational mining realities. This two-site approach ensured representation of both central planning functions and field-level implementation perspectives.

A wide array of data sources was utilized to enable a comprehensive understanding of the phenomenon being examined. Primary data were collected through semi-structured interviews with top management involved in strategy planning and resource governance. This methodology allowed participants to articulate their experiences and perceptions, therefore facilitating the creation of comprehensive data. A focus group of eight individuals was assembled to examine collective viewpoints, encourage discussion, and identify shared difficulties and practices. Secondary data were obtained through a systematic analysis of strategic documents, including the Ministry's strategic plan, Mining Policy, Critical Minerals Strategy and the Eighth National Development Plan (8NDP) among others. The document analysis provided contextual insights, corroborated interview findings, and enabled an assessment of the alignment between formal policy frameworks and the execution of strategic thinking.

Purposive sampling was employed to choose participants directly involved in strategic planning processes, ensuring the study captures the perspectives of those with pertinent skills and experience. This sample technique adheres to the fundamental tenets of qualitative research, prioritizing depth and richness of information over mere statistical representativeness (Palinkas et al., 2015). Participants were selected based on their proficiency in institutional methods, leadership methodologies, and resource governance procedures.

Data analysis was performed thematically, using the six-step process established by Braun and Clarke (2006). The process involved initial data engagement, the creation of preliminary codes, the identification of thematic elements, a comprehensive analysis of these topics, the definition and labelling of themes, and the development of a coherent analytical narrative. The NVivo program was employed to facilitate systematic categorization, organizing, and retrieval of data, hence enhancing analytical rigor. The analytical approach was guided by Liedtka's (1998) definition of strategic thinking, highlighting intent, systems awareness, and intelligent opportunism. This framework provided a methodical approach for analysing participants' responses and recording content.

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RESULTS AND FINDINGS

The results are systematically arranged based on the fundamental aspects of Liedtka strategic thinking, including intent focus, systems thinking, hypothesis driven and intelligent opportunism. Additionally, the findings analyse the institutional barriers impacting the Ministry of Mines and Minerals Development in Zambia. The analysis is based on a thorough examination of interview data, focus group discussions, and a detailed review of strategy papers, thereby clarifying the strengths and limits inherent in the implementation of strategic thinking within the Ministry.

Objective Concentration

The Ministry delineated a comprehensive strategy for diversifying into non-traditional minerals, highlighting the imperative to diminish dependence on copper while fostering the development of the sector, (MMMD Strategic Plan, 2022). However, the investigation revealed that the level of staff engagement was inconsistent, consequently underscoring discrepancies between leadership ambitions and the existing organizational culture. Participants observed that, despite the continuous communication of the strategic vision by leadership, mid-level managers and technical staff frequently prioritized regular operational duties, thereby hindering the progress of strategic initiatives. This misalignment underscores the complex difficulties in converting high-level intent into actionable actions, some phenomena that aligns with contemporary academic research on strategic alignment in resource-dependent economies within the public sector.

Systems Analysis the Ministry demonstrated awareness of interdependencies by engaging a varied range of stakeholders, including industry participants, academic institutions, and regional entities. Nonetheless, the investigation revealed a lack of institutional channels for continuous collaboration among ministries. As a result, strategic initiatives often displayed fragmentation and were only partially aligned with the overarching goals outlined in the Eighth National Development Plan (8NDP). The conclusions reported here align with contemporary academic discussions, emphasizing the importance of stakeholder engagement and the establishment of systematic coordinating frameworks in public institutions to attain coherence and sustainability in systems thinking.

Intent thinking Despite the Ministry's reliance on previous experiences to inform its decision-making, the use of organized foresight and scenario planning was limited. The absence of a comprehensive methodology for future-oriented planning impaired the Ministry's capacity to anticipate uncertainties, such as variations in global commodity prices, technological innovations, and geopolitical threats. The interviewees underscored that most strategic adjustments were reactive rather than proactive, as the case was with illegal mining in Chingola, Mufumbwe among others, thereby underscoring the need for institutional mechanisms that enable long-term scenario analysis and strategic foresight.

Intelligent Opportunism the Ministry's SWOT analysis found favourable opportunities, such as the increasing worldwide demand for lithium and petroleum. Nonetheless, the conversion of these insights into implementable solutions was irregular. Participants observed that the Ministry frequently reacted to possibilities instead of proactively formulating strategies to attain competitive advantages. This discovery reflects wider public sector patterns in underdeveloped economies, where scarce resources and inflexible institutional frameworks frequently hinder the implementation of strategic opportunism.

Embracing a Hypothesis-Driven Approach The interviews with strategic planning participants indicated that hypothesis creation and testing were not utilized as fundamental activities in the implementation of program 1, "Mineral and Petroleum Exploration and Exploitation." Strategic thinking, being hypothesis-driven, bypasses the analytical-intuitive dichotomy that has largely influenced discussions over the significance of formal planning. The data indicate that hypothesis generation was not achieved due to the absence of evidence addressing the question, "What if?". Hypothesis testing culminates in the pivotal inquiry, "If." ... Subsequently.The research found multiple institutional obstacles that hinder the successful implementation of strategic thinking. These encompassed resource deficiencies, skill gaps among essential staff, and postponements in policy ratifications and legislative procedures. These structural and operational constraints impede the Ministry's capacity to comprehensively execute its strategic objective, mirroring issues encountered by other resource-dependent ministries in Africa (Munyinda & Chikonde, 2022; Phiri & Zulu, 2023). Overcoming these obstacles is crucial for improving the Ministry's ability to convert strategic objectives into concrete results.

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Dialogue The results delineate substantial distinctions between formal strategic planning and strategic thinking as implemented within the Ministry of Mines and Minerals Development. While formal strategies, including the Ministry's documented operational and development plans, provided guidance on objectives and institutional priorities, they were largely prescriptive and lacked adaptive mechanisms such as foresight, scenario planning, and contingency planning. This observation corresponds with Mintzberg (1994) claim that traditional planning often emphasizes static, linear models, whereas strategic thinking is defined by its dynamic quality, contextual adaptability, and emphasis on learning and adjustment. In practice, the formal plans set by the Ministry served as a reference framework; however, they inadequately equipped personnel to proactively navigate the uncertainties of global mineral markets or to rapidly exploit emerging opportunities.

The study elucidates the constrained application of systems thinking inside the Ministry. Notwithstanding the participation of industrial stakeholders, academic institutions, and regional organizations in the engagement process, the coordination among different departments and ministries remained somewhat fragmented. The observed fragmentation severely limited the Ministry's ability to cohesively integrate efforts with the overarching national development objectives, particularly those outlined in the Eighth National Development Plan (8NDP). This discovery aligns with prior studies that emphasize the importance of organized coordination, cohesive information exchange, and frameworks for inter sectoral collaboration in promoting effective systems thinking within public sector entities (Banda, 2023; Lungu et al., 2022). The inadequate implementation of systems thinking has hindered the Ministry's capacity to anticipate systemic difficulties, manage interdependencies, and use synergies within the mineral industry. The notion of clever opportunism, a crucial element of strategic thinking, has also been insufficiently utilized. Although rising opportunities in global marketplaces have been identified using SWOT analyses and other evaluation frameworks, the conversion of these insights into effective strategies has been inconsistent. The Ministry's approach often demonstrated a reactive disposition, prioritizing the resolution of pressing challenges over proactively seizing opportunities to improve Zambia's competitive edge in resource governance. This discovery clarifies predominant trends in resource-dependent economies, where bureaucratic rigidity, limited adaptive ability, and institutional inertia hinder the effective execution of opportunistic tactics (Tembo & Mumba, 2021; Chikuni et al., 2023). The inability to effectively utilize global mineral transitions, particularly in high-demand sectors, underscores the consequences of poorly established strategic thinking in public resource organizations. The strategic planning participants overlooked strategic thinking, a crucial analytical process that bolsters company potential and is particularly emphasized by industrial strategists, as argued by Pisapia et al. (2011).

CONCLUSION

This study explored strategic thinking capabilities within Zambia's Ministry of Mines and Minerals Development, examining how strategic planners applied Liedtka's five dimensions of strategic thinking across the formulation, implementation, and monitoring phases of the 2022-2026 Strategic Plan development. Using phenomenological methodology grounded in Schutzian philosophy and interpretive analysis of 25 key informant interviews and focus group discussions, the study investigated patterns of strategic thinking capability, lived experiences of applying strategic thinking dimensions, antecedents contributing to plan misalignment, and motives underlying dimension selection.

The findings revealed severely constrained and unevenly developed strategic thinking capabilities characterized by resource-bounded rationality, concentration in formulation with virtual absence during implementation and monitoring, limited application of systems perspective and hypothesis-driven thinking, and selective dimension application driven by pragmatic feasibility, political risk mitigation, and capability-leveraging motives. These patterns were shaped by a collection of interconnected antecedents including severe resource constraints, institutional culture and bureaucratic inertia, political economy dynamics and stakeholder power asymmetries, weak strategic alignment, limited stakeholder engagement, inadequate policy frameworks, and temporal pressures.

The study makes significant theoretical contributions by introducing the concept of resource-bounded strategic thinking, demonstrating how phenomenological approaches illuminate strategic cognition, explaining formulation gaps in multi-level planning systems, adapting Liedtka's framework for resource-constrained contexts, and integrating multiple theoretical perspectives. Practically, the study provides diagnostic frameworks for assessing strategic thinking capability, develops the Strategic Thinking Framework for Mining Sector Governance offering integrated

guidance for capability building, and provides evidence supporting policy advocacy for strategic planning system reforms.

The comprehensive recommendations address multiple stakeholder groups with specific, prioritized actions targeting systemic constraints identified. The study acknowledges important limitations while proposing extensive directions for future research including comparative studies, longitudinal investigations, stakeholder-focused research, intervention evaluations, and theoretical development.

Ultimately, this study demonstrates that strategic thinking in severely resource-constrained African public sectors operates under fundamentally different logics than in resource-adequate contexts, requiring contextually adapted frameworks, interventions addressing systemic constraints, and realistic expectations about what strategic planning can achieve absent adequate resources, institutional reforms, and political commitment. The present study confirms that the incorporation of strategic thinking, as opposed to solely strategic planning, is imperative within the framework of Zambia's mining governance to facilitate sustainable development, especially in the context of the ongoing global energy transition. The study results confirm the non-application wholesomely of the proposed theoretical linking between strategic thinking and strategic planning. Strategic thinking is a key analytical process to support and strengthen corporate potential and has a special attention by users of industrial strategists. Incorporating strategic thinking into the institutional culture, processes, and capacity-building initiatives is essential for empowering the Ministry to effectively manage resource volatility, capitalize on emerging opportunities, and facilitate the broader socio-economic transformation of Zambia.

Practical implication of the study reveals that Strategic planning cannot deliver alignment without deliberate cultivation of strategic thinking capabilities. When not applied Compliance-driven planning undermines long-term development outcomes and Institutional survival logic often overrides developmental rationality in public sector strategy. Further research can be conducted to include stakeholders of the mining sector, since the study was a Single case study design, focusing exclusively on MMMD this limited generalizability. Strategic thinking patterns observed may not fully represent dynamics in other ministries or countries. Mining sector's distinctive political economy may create unique challenges and not present elsewhere hence more findings can be pursued to underscore the importance of strategic thinking in developing strategic plans.

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