STRATEGIC INNOVATION AND COMPETITIVE ADVANTAGE IN RESOURCE CONSTRAINED SMEs

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Abstract

In this paper, the researcher will explore the connection between strategic innovation and competitive advantage in resource-constrained small and medium-sized enterprises (SMEs). SMEs have to work in a highly competitive and turbulent environment, where financial capital, technological competence, and qualified manpower are usually quite limited. However, there are numerous innovative SMEs that still lead their competition with the implementation of strategic innovation that includes product redesign, process reengineering, business model innovation and strategic renewal. The paper, based on the resource-based view and the theory of dynamic capabilities, synthesizes new literature in affixing how SMEs can be resourceful with existing resources, exploit market opportunities, and create new value propositions despite limitations. The empirical review indicates that strategic innovation has the effect of increasing market responsiveness, customer satisfaction, growth, and long-term competitiveness. Nonetheless, institutional bottlenecks, limited absorptive capacity, and poor innovation ecosystems have been noted to be a challenge. The research gaps described in the paper concern the paths of innovation in low-resource environments, context-specific factors of innovation success and measurement discrepancies. It ends by giving implications to managers, policymakers, and scholars to ensure that there are supportive innovation policies, capacity enhancement, and the development of adaptive business models to maintain competitive advantage.

Keywords: *Strategic Innovation, Competitive Advantage, Resource-Constrained SMEs, Dynamic Capabilities, Business Model Innovation, Market Responsiveness, Innovation Capability.*

Background to the Study

Small and Medium-Sized Enterprises (SMEs) are an influential aspect of economic development in the world and the country in terms of innovation, creation of jobs, and gross domestic product. Although they are important strategically, SMEs in particular those in the developing economies have continued to operate under an all-time resource strains that restrain their growth. Such constraints are poor access to finance, lack of skilled human resources, poor technological infrastructure, poor research and development (R&D) capacity, and a poor regulatory environment (Amoako, 2022). Under these circumstances, SMEs are not able to use traditional competitive approaches like cost leadership and massive investments. Rather, strategic innovation emerges as an important process in which they are able to generate value, enhance performance, and develop competitive advantage.

Strategic innovation is the purposely restructuring of either the firm strategy, business model, processes, products, or even market positioning in a manner that results in the creation of new customer and stakeholder value (Markides, 2021). It entails taking things a notch higher by adopting unique strategies that break the stereotypes in an industry. Strategic innovation is one of the ways to use scarce resources creatively and exploit markets, adopt lean and adaptable ways of doing things, and dissimilar to competitors, which is the case in resource-constrained SMEs (Adegbuyi et al., 2023).

Globalization, technological change, digitalization, and customer sophistication disrupt the SMEs in the modern competitive environments. These interruptions bring about opportunities and threats. The incapable SMEs are easily displaced because they do not have the ability to be innovative at the tactical level. Conversely, low cost innovation, business model redesign, digital transformation and strategic partnerships allow SMEs to increase their survival and growth opportunities (Singh and Mahmood, 2022).

The tension of limited resources creates a necessity of strategic innovation in resource-constrained environments as it enables firms to extend, merge or re-assemble their scarce financial, human and technological assets into creating something unique. As compared to large organizations, SMEs are not able to depend on big budgets on research and development; therefore, strategic innovation uses creativity, entrepreneurial orientation, improvisation, and flexibility as competitive advantages (Nair and Blomkvist, 2021).

In addition, customer preferences are also changing fast to be personalized, digital and high value solutions. The SMEs who are able to take advantage of the strategic innovation will be able to navigate through the uncertainty that exists in the market and react to the dynamics of the customer in a more efficient manner. This ability assists them in developing high-quality value propositions and distinguishing themselves among competitors and maintaining competitive advantage even with limited resources (Hossain, 2021).

Despite the plethora of research on innovation, studies in the recent past indicate that strategic innovation rather than just product or process innovation is the key factor in determining the competitive outcomes in the SMEs. Strategic innovation can combine organizational strategy, leadership, culture, and market orientation in such a manner that generates learning, agility, and co-creation of value (Gutierrez et al., 2023). That is why it is very appropriate

with SMEs that work in turbulent or resource-less environments.

Accordingly, the strategic innovation and competitive advantage interaction in resource-constrained SMEs is worth intensive conceptual and empirical research. The paper offers a well-developed literature base through which the existing knowledge, theoretical speculations, empirical trends, and gaps in the research are integrated.

Statement of the Problem

Although the advantages of strategic innovation have been admitted, lots of SMEs operating in resource-scarce settings fail to make use of effective innovation strategies. The problems are based on the internal and external constraints.

First, SMEs under developing backgrounds are generally in dire financial conditions which restrict their ability to invest in both technology, skilled labour and research. In the absence of proper resources, the process of strategic innovation stagnation and loss of competitiveness occurs (Amoako, 2022).

Second, SME managers are usually lacking strategic skills, innovation and visionary leadership that would enable them to implement innovative business models or new opportunities that present themselves. The lack of managerial capability compromises the process of determining strategy required in adopting innovation.

Third, the existing empirical research on strategic innovation in SMEs has not yielded a consistent result. Others propose that innovation positively contributes to competitive advantage, whereas others indicate the modulating roles of environmental dynamism, market turbulence, and the organizational capabilities (Gutierrez et al., 2023). These contradictions point out that the connection between strategic innovation and competitive advantage is difficult and scenario-specific.

Fourth, the importance of frugal innovation, improvisation, and bricolage types of innovation, which are quite crucial to resource-constrained SMEs, has not been exhaustively discussed in the realm of strategic innovation. This creates significant gaps in explaining how the SMEs really maneuver themselves through the lack of resources to be strategically innovative.

Fifth, institutional weaknesses, lack of infrastructures, and market uncertainties are typical of most SMEs. Such conditions demand the adaptive and strategic types of innovation and the research has not adequately factored in the institutional and environmental perspectives in the analysis.

Lastly, where the amount of theoretical discussion has grown, there is scant concept synthesis of the resource-based, dynamic capability, and business model innovation perspectives into a coherent platform of understanding resource limitations on strategic innovation as a source of competitive advantage.

This knowledge gap is caused by the absence of extensive conceptual clarity and incomplete empirical evidence which this paper aims to fill.

Literature Review

Conceptual Review

Strategic Innovation in Resource Constrained SMEs.

Strategic innovation is a process that involves organization-wide rethinking where to compete and how to compete by finding new configurations of strategy, activities, and the logic of value creation and capture of the firm. Strategic innovation should be characterized in the context of SMEs as a set of interdependent innovation moves (e.g., strategic renewal, business model change, market repositioning, and capability reconfiguration) that in combination with each other redefine competitive positioning in the situation of resource scarcity (Agazu and Kero, 2024; Teece, 2025). This framing moves focus off the reductionist interpretations of product novelty and to the restructuring of activity systems, alliances, channels and operating routines to generate and capture value by small firms (Barney et al., 2021).

Business model innovation (BMI) is especially relevant in limited environments since it emphasizes innovation as a strategic and organizational issue (not a decision to adopt technology). As Markides (2023) notes, BMI is often about dealing with migration across models, alignment issues and internal tensions (e.g., ambidexterity and coherence), that are heightened in SMEs with minimal managerial leeway and weak cash flows. In line with the value-creation reasoning within the modern strategy research, the economic value of strategic innovation is eventually seen as an increase in customer willing-to-pay and/or decrease in cost-delivered in terms of better activity design and coordination (Barney et al., 2021).

In resource-constrained SMEs, strategic innovation could be found to be a constraint-induced phenomenon, which is formed through the necessity of scarcity-based experimentation, learning and recombination of available resources. SMEs often embrace lean testing, co-creation with customers, modular redesign, and building on a platform to create strategic novelty instead of using huge investments in research and development (OECD, 2021). There is also systematic evidence that indicates that innovation strategy tends to be linked with increased competitiveness although the magnitude and stability of effects are contextual, capability endowment, and isn't always measured in the same way (Agazu & Kero, 2024; Fabrizio et al., 2022).

Dimensions of Strategic Innovation.

A more detailed conceptualization takes strategic innovation as a multidimensional construct that is manifested through overlapping pathways:

Business Model Innovation (BMI): Design renewal of the value offer, revenue logic, partner design, and interaction/distribution models; has a two-model management and migration problems (Markides, 2023).

Strategic Renewal: Essential changes in the strategic direction, market scope or competitive logic - usually facilitated by sensing and reconfigurative capabilities in turbulent environments (Teece, 2025).

Market Innovation: The penetration into new segments, the reorganization of channels, the redefinition of customer issues, and the formation of niches are increasingly supported with the involvement of platforms and digital channels (OECD, 2021).

Process and Operational Reengineering: Restructuring the workflows and delivery systems to be more flexible, fast, and cost-effective; empirically linked with the ability to acquire external knowledge and absorptive capacity in SMEs (Aliasghar et al., 2020).

Organizational Innovation: Structural, decision rights, cultural, and routine changes that facilitate experimenting and accelerating the learning cycle- many of which are required to maintain repeated renewal and performance persistence (Fabrizio et al., 2022; Teece, 2025).
Frugal and Resource-Effective Innovation: Good-enough solutions that can provide high customer utility at a material lower cost; it is increasingly being considered as a strategic reaction to scarcity and underserved-market constraints (Dabic et al., 2022; De Marchi et al., 2022).
Taken together, these dimensions highlight the fact that strategic innovation is largely concerned with reconfiguration, that is, the way SMEs organize constrained resources and relationships into market value that is unique, as opposed to technological novelty (Barney et al., 2021; Teece, 2025).

Competitive advantage in SMEs.
The theorization of competitive advantage in SMEs is on the rise as a relative creation of economic value: the ability to produce more value than competitors through more willing-to-pay or reduced costs, or both, given similar competitive conditions (Barney et al., 2021). Such definition is analytically valuable as it does not confuse the concept of advantage with the overall performance results and allows making it more rigorously operationalized in empirical studies (Fabrizio et al., 2022).
As a situational and capability-based advantage, speed and responsiveness, (ii) customer intimacy and localized value propositions, (iii) operational flexibility, (iv) niche positioning, and (v) digitally enabled reach and lower-cost scaling when in a position to do so are often characteristic features of advantage and situational in SME contexts (OECD, 2021; Teece, 2025). Notably, modern work also highlights how temporary in the turbulent markets benefit can be and how reconfiguration and renewal become key elements to lasting competitiveness (Fabrizio et al., 2022; Teece, 2025).

Resource Constraint Nature in SMEs.
Finance is not the only form of resource constraints in SMEs; other forms encompass resource constraints in the form of limited specialized talent, poor managerial bandwidth, poor technological infrastructure, and limited absorptive capacity and ecosystem bottlenecks. According to the evidence on the policy of digital transformation, there are frequent cases when SMEs are below the advanced level of digital adoption despite potentially scalable and pay-as-you-go technologies, mainly due to skills mismatch, financing frictions, security issues, and disproportionate support of intermediaries (OECD, 2021).
The institutional constraints are often compounded in conditions of developing and institutionally weak environments, with appearance of credit market frictions and thin markets of specialized services. Using the example of cross-country data on African SMEs, the role of collateral regimes, gender biases, and institutional imperfections in involuntary financial exclusion is noted as determining the strategic choices and growth paths of firms (Simba et al., 2024). These situations may indirectly impose a constraint on the ability to experiment, pivot business models, and cut-off sustained innovation investments (OECD, 2021; Simba et al., 2024).

The Genesis of Competitive Advantage of Strategic Innovation in Constrained Environments.
Recent synthesis studies show that innovation strategy has a positive correlation with competitiveness, however, the route depends on capabilities, industry situation, and measurement regimes (Agazu and Kero, 2024; Fabrizio et al., 2022). Expanding on this line of reasoning, strategic innovation reinforces a competitive advantage amid limited SMEs in a number of ways:
Resource recombination and capability reconfiguration: SMEs reconfigure local knowledge, routines, and relationships in more difficult to imitate activity configurations enhancing value creation (Barney et al., 2021; Teece, 2025).
Shifts of the cost-value frontiers (frugality + utility): Frugal innovation is the way to match functionality to customer constraints and reduce cost systems allowing adoption and strategic positioning (Dabic et al., 2022; De Marchi et al., 2022).
Speed-based competition: When absorptive capacity has been established, process redesign and the external sourcing of knowledge can be able to enhance time-to-market and adaptive delivery (Aliasghar et al., 2020).
Open and networked innovation: Alliances increase the knowledge base and the opportunity set but gains are contingent on the ability to govern and the capacity of the firm to cover the costs of engagement (Costa et al., 2023).
Digital leverage: Digital tools and platforms make it possible to acquire customers cheaply, develop new forms of revenues, and reach large masses of customers, but the impact of this phenomenon is limited by the level of readiness, skills, and security capacity (OECD, 2021).
Strategic renewal and resilience: Repeating sensing-seizing-transforming processes can assist SMEs to shift in times of shock and remain advantaged following a change in circumstances (Fabrizio et al., 2022; Teece, 2025).

Theoretical Review

Value Creation Logic and Resource-Based Theory.
The modern resource-based theory elucidates advantage on the context of economic value creation and underscores that the implication resources become strategic when integrated in consistent systems of activity that increase readiness-to-pay and/or decrease expenses (Barney et al., 2021). It is this framing that is especially helpful in the context of SMEs as these intangible and non-scale resources entrepreneurial judgment, relational resources, local market knowledge, and improvisation routines-must be legitimized when organized into defensible structures (Barney et al., 2021; Fabrizio et al., 2022). In limited settings, it does not imply a stocking of resources but rather coordinating and re-packaging what the company already possesses into limited-copy bundles (Barney et al., 2021).

Dynamic Capabilities Theory
Dynamic capabilities describe how companies reestablish a competitiveness in turbulence by sensing opportunities/threats, exploiting opportunities, and transforming/reconfiguring resources and routines (Teece, 2025). This point of view is also very relevant to SMEs since their benefit is not so much in scale but rather in strategic adjustment with repetition and reconfiguring in a timely manner (Fabrizio et al., 2022; Teece, 2025). In this

perspective, strategic innovation can be understood as a capacity articulation: it is the ability of the firm to redesign business models, processes and partnerships more (or more intelligently) rapidly than competitors (Teece, 2025).
Creating Strategy in the Market and the Logic of the Blue-Ocean.
The modern use of the term nondisruptive market creation by Kim and Mauborgne changes the blue-ocean logic to focus on creating demand without necessarily destroying the industries or causing disruptive competition (Kim and Mauborgne, 2023). In the case of constrained SMEs, the view is more consistent with niche creation, reframing of customer problems, and removal of non-value-adding costs and enhancement of buyer utility-mechanisms that are simply mapped onto strategic innovation under scarcity (Kim and Mauborgne, 2023; OECD, 2021).

Business Model Innovation Theory.
The BMI theory focuses on the value creation, delivery and capture architecture. Markides (2023) demonstrates that BMI is not about creating a new model but also managing migration, organizational tensions and strategic coherence-issues which are especially significant to SMEs seeking to scale innovation without compromising its operational stability.

Explanatory power of Complementary Strengthening Lenses.
In order to describe deviation in the strategic innovation-advantage relationship in low-resource environments, recent studies typically combine:
Absorptive capacity as a tool of external knowledge translation into viable outcomes of innovation in SMEs (Aliasghar et al., 2020).
Supported by access costs and governance costs (Costa et al., 2023), open innovation as a route to complimentary resources.
Competitiveness frameworks-innovation strategy to describe the differences in the results based on the context, measurement and ability endowment (Agazu and Kero, 2024).

Empirical Review

Competitive Outcomes, Dynamic Capabilities, and Strategic Innovation.
The evidence on systematic reviews indicates that dynamic capabilities are positively associated with competitive advantage in SMEs, which is usually mediated by constructs and performance gains, but in addition, significant heterogeneity in constructs and measures is reported (Fabrizio et al., 2022). This helps to affirm the fact that strategic innovation is not a managerial decision but a repeated application of sensing, seizing and transforming capabilities (Teece, 2025).

Process Innovation, External Knowledge and Absorptive Capacity.
Empirical studies show that external source of knowledge can empower process innovation of SMEs, although its gains are conditional on absorptive capacity-i.e., the routine of the firm that identifies, assimilates, and exploits external knowledge (Aliasghar et al., 2020). This observation is particularly significant to resource-scarce SMEs since it explains what can be done to obtain innovation without incurring significant internal investment in R&D, as long as learning capabilities are developed (Aliasghar et al., 2020).

Open Innovation: Non-Trivial Costs Advantages.
Recent knowledge highlights the fact that open innovation not only increases the knowledge base and set of opportunities of SMEs, but also participation also has significant short-run costs and coordination costs (Costa et al., 2023). The implications of these findings are that open innovation is not beneficial across the board, and good performance requires the discipline of partner selection, routines of governance, and the ability of the firm to deal with transaction and integration costs (Costa et al., 2023).

Frugal innovation as Competitiveness Pathway.
Frugal innovation is systematized in multidisciplinary review evidence that can create affordability and good-enough value propositions as a strategic reaction to resource scarcity, especially in underserved markets (Dabic et al., 2022). In addition to this, the results of systematic reviews also relate frugal innovation to economic sustainability, environmental sustainability, and social sustainability, without ignoring the necessity to define when and under what circumstances they can be more likely to occur (De Marchi et al., 2022).

Business Model Innovation and Digital Transformation.
The policy-based syntheses Put forward to try to reduce the disadvantages of SMEs through the availability of new operating models, access to platforms, and scalable reach offered by digital technologies, but gaps in the adoption remain because of capability constraints, financing frictions, and uneven support of the ecosystem (OECD, 2021). This suggests that digital strategic innovation can be best practiced alongside capability-building and facilitative institutional structures as opposed to an organization considering it a technical upgrade (OECD, 2021).

Resource Bricolage, Networks, and Innovation Performance.
It has been shown that network embeddedness has the potential to enhance the performance of SME innovation based on resource bricolage, and the organizational preparedness determines the intensity of the impacts (Li and Shafait, 2025). This supports the claim that doing more with less relies not just on the external connections but also internal readiness and practices that can allow the application of disciplined recombination of resources (Li & Shafait, 2025).

Gaps in the Literature.
Lack of proper incorporation of scarcity-based mechanisms into strategic models of innovation: Frugal innovation and bricolage are frequently discussed as parallel literatures, as opposed to structuralized mechanisms within the strategic innovation theory (Dabic et al., 2022; Li and Shafait, 2025).
Inconsistency of measurement: Strategic innovation, competitive advantage, and innovation capability are measured inconsistently which reduces cross-study consistency and leads to conflicting results (Agazu and Kero, 2024; Fabrizio et al., 2022).

Backgrounding of context There is no explicit specification of institutional quality, ecosystem thickness, and financing environments, but it is very clear that strategic choice can be constrained by institutional deficiencies (OECD, 2021; Simba et al., 2024).Weak longitudinal support: Cross-sectional supremacy limits the generalization of the ability of strategic innovation to provide sustained benefit or short-term performance fads (Fabrizio et al., 2022).
Phone-book-trade-offs: The concept of open innovation and digital transformation is often modeled as net-positive, whereas the costs of engagement, security threats, and governance overheads are not theorized among the SMEs (Costa et al., 2023; OECD, 2021).
Demand of integrated models to apply to low-resource environments: It is still possible to bring together value creation logic (RBV), renewal (dynamic abilities), BMI migration/ambidexterity, and institutional constraint into a single testable model (Barney et al., 2021; Markides, 2023; Teece, 2025).

Conclusion and Implications.
Strategic innovation is central in facilitating the attainment of competitive advantage in the SMEs particularly in the environments where there is scarcity of resources. Through resource limitation, SMEs may strategize using their creativity, business model redesign, digital transformation, and value innovation to empower themselves in the marketplace. Strategic innovation should be favored by policy makers by capacity-building, innovation hubs, monetary rewards and digital infrastructure. Frugal innovation, dynamic capabilities, and institutional influences will have to be extended to understand the impacts of these elements further in the future.

REFERENCES

Adegbuyi, A., Ogunnaike, O., & Olokundun, M. (2023). Strategic partnerships, innovation capability, and competitive advantage among SMEs. Journal of Small Business Management, 61(2), 455–472.

Agazu, B. G., & Kero, C. A. (2024). Innovation strategy and firm competitiveness: A systematic literature review. *Journal of Innovation and Entrepreneurship, 13*, Article 24.

Aliasghar, O., Sadeghi, A., & Rose, E. L. (2020). Process innovation in small- and medium-sized enterprises: The critical roles of external knowledge sourcing and absorptive capacity. *Journal of Small Business Management*.

Amoako, G. K. (2022). Resource constraints, strategic innovation, and SME performance: Evidence from Ghana. Journal of African Business, 23(1), 89–108.

Barney, J. (2020). Resource-based theory: Creating and sustaining competitive advantage. Oxford University Press.

Barney, J. B., Ketchen, D. J., Jr., & Wright, M. (2021). Resource-based theory and the value creation framework. *Journal of Management, 47*(7), 1936–1955.

Costa, A., Crupi, A., De Marco, C. E., & Di Minin, A. (2023). SMEs and open innovation: Challenges and costs of engagement. *Technological Forecasting and Social Change, 194*, 122731.

Dabić, M., Vlačić, B., Paul, J., Dana, L.-P., Sahasranamam, S., & Glinka, B. (2022). Frugal innovations: A multidisciplinary review and agenda for future research. *Journal of Business Research, 142*, 306–324.

De Marchi, V., Pineda-Escobar, M. A., Howell, R., Verheij, M., & Knorringa, P. (2022). Frugal innovation and sustainability outcomes: Findings from a systematic literature review. *European Journal of Innovation Management, 25*(6), 984–1007.

Fabrizio, C. M., Kaczam, F., de Moura, G. L., da Silva, L. S. C. V., da Silva, W. V., & da Veiga, C. P. (2022). Competitive advantage and dynamic capability in small and medium-sized enterprises: A systematic literature review and future research directions. *Review of Managerial Science, 16*, 617–648.

Foss, N., & Saebi, T. (2020). Business model innovation: Concepts, analysis, and cases. Long Range Planning, 53(4), 101–118.

Gutierrez, R., Solis, R., & Hernandez, P. (2023). Business model innovation and strategic renewal in SMEs: A resilience perspective. Strategic Entrepreneurship Journal, 17(1), 45–68.

Hossain, M. (2021). Strategic innovation and competitive advantage: A study of small firms in emerging markets. Technovation, 102, 1–10.

Kim, W. C., & Mauborgne, R. (2020). Blue ocean shift: Creating new markets and opportunities. Harvard Business Review Press.

Kim, W. C., & Mauborgne, R. (2023). *Beyond disruption: Innovate and achieve growth without displacing industries, companies, or jobs*. Harvard Business Review Press.

Li, C., & Shafait, M. (2025). Assessing the impact of network embeddedness on SMEs innovation performance through resource bricolage: A mediated-moderated model. *Operations Management Research, 18*, 72–88.

Markides, C. (2021). Strategic innovation reconsidered: A conceptual framework. Journal of Strategy and Management, 14(3), 299–315.

Markides, C. C. (2023). *Business model innovation: Strategic and organizational issues for established firms* (Elements in Business Strategy). Cambridge University Press.

Nair, S., & Blomkvist, K. (2021). Frugal innovation and resource scarcity: SMEs in emerging markets. International Journal of Innovation Management, 25(2), 215–230.

Nyamongo, M. (2023). Digital strategic innovation and SME competitiveness in East Africa. Africa Journal of Management, 9(2), 160–178.

OECD. (2021). *The digital transformation of SMEs* (OECD Studies on SMEs and Entrepreneurship). OECD Publishing.

Okwu, A., & Abiola, R. (2024). Resource scarcity, improvisation, and strategic innovation in Nigerian SMEs. International Journal of Management Innovation, 8(1), 90–112.

Porter, M. (2020). Competitive strategy: Techniques for analyzing industries and competitors. Free Press.

Simba, A., Tajeddin, M., Dana, L.-P., & Ribeiro Soriano, D. E. (2024). Deconstructing involuntary financial exclusion: A focus on African SMEs. *Small Business Economics, 62*, 285–305.

Singh, J., & Mahmood, R. (2022). Strategic innovation capabilities and competitive advantage of SMEs. Journal of Small Business and Enterprise Development, 29(4), 612–630.

Teece, D. (2021). Dynamic capabilities and strategic management: Organizing for innovation and growth. Oxford University Press.

Teece, D. J. (2025). *Dynamic capabilities: Foundational concepts* (Elements in Business Strategy). Cambridge University Press.