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Synergizing Resource Leveraging and Innovativeness for Enhanced SME Performance: Evidence from Tanzania's Agro-Processing Sector.

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Abstract

This study examines the interplay of resource leveraging and innovativeness on the performance of Small and Medium-sized Enterprises (SMEs) in the agro-processing industry in Tanzania. Data were gathered from 254 SMEs operating in the agro-processing sector in Dar es Salaam, Tanzania, and used Structural Equation Modeling (Partial Least Squares SEM) with the SEMinR package for data analysis. Findings show that innovativeness have a significant impact on SME performance under partial mediation of resource leveraging. furthermore, Resource leveraging (RL) emerges as a pivotal factor for SME success, whereas the impact of innovativeness (IN) on performance is less pronounced. These outcomes underscore the need for business strategies that optimize resource use and embrace an innovative approach to market opportunities, especially given the distinct challenges faced by SMEs in Tanzania's competitive agro-processing sector. Research was limited as the sample was confined to a specific region and industry in Tanzania, potentially limiting the generalizability of the findings to other contexts. Additionally, relying on self-reported data introduces potential bias, and measuring constructs like innovativeness may not fully capture their multifaceted nature. However, This study provides practical implications for agro-processing SMEs looking to achieve SME performance and competitiveness, contributing to both RBT and DCT.

Keywords: SMEs, Agro-processing Industry, Resources based view theory, Dynamic capability theory, Innovativeness, Resource leveraging and Performance

Introduction

Small and Medium Enterprises (SMEs) play a crucial role in driving economic growth worldwide. They contribute significantly to employment, innovation, and GDP. SMEs make up around 90% of businesses and provide over 50% of jobs globally. Their resilience and stability are vital for overall economic health (Olaniyan & Adepeju, 2023). In emerging economies, SMEs are even more critical. They help reduce poverty and distribute wealth. However, SMEs in the agro-processing industry face several challenges, including tough competition, limited funding options, and unpredictable market conditions (Clark, 2020). To overcome these hurdles, SMEs are adopting entrepreneurial strategies that emphasize innovation and resource utilization (Hanaysha & Al-Shaikh, 2022). In Tanzania, SMEs significantly contribute to the country's economic development. They constitute a substantial portion of the GDP and offer employment opportunities to millions of people (Nkwabi & Mboya, 2019). Despite their importance, Tanzanian SMEs in the agro-processing sector encounter obstacles such as inadequate infrastructure, regulatory complexities,

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and limited access to advanced technologies (Rutta, 2022). To thrive, these businesses must explore innovative marketing and management approaches.

Tanzania's agro-processing sector plays a vital role in the country's economy. It adds value to agricultural products, creates jobs, and contributes to income generation (Kundu *et al*., 2024). Picture this: crops, livestock, and fisheries undergo processing for both local consumption and international markets. This strengthens the entire agricultural value chain, especially in rural areas (Nkwabi & Mboya, 2019). However, like any sector, agro-processing faces its fair share of challenges. These hurdles include limited access to financing, outdated technology, and a shortage of skilled labour (FAO, 2018). Many SMEs struggle to secure capital for advanced machinery and infrastructure, which affects their competitiveness. Additionally, the sector's reliance on raw materials—impacted by climate change and inadequate infrastructure—adds complexity to these challenges. So, what's the solution? Resource leveraging and innovation hold the key (Traboulsy, 2023). While we recognize the importance of resource leveraging and innovation for SMEs performance, there's a gap in research. Specifically, we lack a comprehensive understanding of how these factors interact in Tanzania's agro-processing sector (Lwesya & Achanta, 2023; Sari *et al*., 2023). Resource-Based View (RBV) Theory suggests that firms gain a competitive edge by effectively using internal resources—think financial capital, skills, and technology (Freeman *et al*., 2021) , and dynamic Capabilities Theory (DCT) emphasizes a firm's ability to adapt and innovate in a constantly changing environment (Denrell & Powell, 2016). Despite the extensive literature on RBV and DCT, we're still missing insights into how resource leveraging and dynamic capabilities (innovativeness) jointly impact SMEs performance, especially in Tanzania's agro-processing context (Kiyabo & Isaga, 2020; Dejardin *et al*., 2023).

In scholarly circles, resource leveraging and innovativeness have often been treated as separate entities when examining firm performance. For instance, Zhang *et al*. (2022) emphasize that innovation—especially through research and development (R&D) and patents—significantly enhances sustainable performance in small and medium-sized enterprises (SMEs). This suggests a direct link between innovativeness and positive economic outcomes. On the flip side, Oduro and De Nisco (2023) shed light on Industry 4.0 technologies, which foster innovation ambidexterity. These technologies mediate the relationship between technological adoption and firm performance. In other words, leveraging resources through technology adoption is crucial for achieving performance gains. Interestingly, Zhang *et al*. (2020) argue that innovation at the industry and country levels can even surpass the effects of firm-level innovation. However, the existing literature tends to overlook potential synergies between resource leveraging and innovation. By treating them as distinct, we risk missing out on effective strategies for SMEs operating in resource-constrained environments, such as Tanzania's agro-processing sector.

Moreover, empirical research exploring the interaction between innovativeness and resource reallocation remains scarce, especially in resource-constrained contexts like Tanzania. While related studies have investigated themes like entrepreneurial orientation and innovation capabilities in enhancing sustainable SMEs performance within emerging economies (e.g., Pakistan and Lebanon), they often sidestep the Tanzanian landscape (Abid *et al*., 2024; Taleb *et al*., 2023; Traboulsy, 2023; Vătămănescu *et al*., 2020; Zhang and Walton, 2017). Therefore, further empirical investigation is essential. We need to unravel how innovativeness and resource reallocation specifically interact to impact SMEs performance in Tanzania's unique resource-

constrained environment. This study aims to explore the synergy between resource leveraging and dynamic capabilities, particularly innovation. Does combining these elements yield better performance than considering them separately? By understanding how leveraging resources enhances innovation and vice versa, we gain a holistic view of their interplay, ultimately contributing to SMEs success and sustainability. This research is crucial for helping Tanzanian SMEs succeed in a competitive market Understanding the combined effects of resource leveraging and innovation is crucial. These synergies can provide SMEs with a strategic advantage, optimizing their operations and ensuring sustainable growth (Quaye & Mensah, 2019; Yang et al., 2022). This study bridges a gap in existing literature, offering valuable insights for policymakers and business leaders. Specifically, we explore effective strategies tailored to SMEs in the agro-processing sector. Key research question is How does the interplay between resource leveraging and innovation affect SMEs performance in Tanzania's agro-processing sector? Is there a performance boost when these factors work together, rather than in isolation? By addressing this question, our research aims to enhance SMEs strategic management, bolstering their performance and competitiveness in both local and global markets.

Theoretical Perspective

The **Resource-Based View (RBV)** stands as a foundational theory in strategic management. It posits that a firm's competitive advantage and overall performance hinge on how effectively it leverages its unique resources (Barney, 1991). These resources encompass both tangible assets (like financial capital, skilled labor, and advanced technology) and intangible assets (such as brand reputation, intellectual property, and organizational culture) (Freeman *et al*., 2021). For SMEs, financial capital is essential for acquiring necessary inputs, investing in growth opportunities, and managing operational risks. Skilled labor enhances innovation, problem-solving abilities, and production efficiency. Meanwhile, technology empowers SMEs to boost productivity, reduce costs, and offer distinctive products or services (Vasilescu, 2014). According to RBV, firms possessing resources that are valuable, rare, inimitable, and non-substitutable (VRIN) are more likely to maintain a competitive advantage, leading to superior performance (Barney, 1991). However, mere possession of these resources isn't sufficient; effective management and deployment are critical for success.

While RBV emphasizes resource possession, the Dynamic Capabilities Theory (DCT) expands upon this by highlighting a firm's adaptability, integration, and resource reconfiguration in response to changing environments (Teece *et al*., 1997). Dynamic capabilities refer to the processes and routines that enable firms to innovate, respond to market shifts, and renew their resource base to stay competitive (Denrell and Powell, 2016). For SMEs, the ability to innovate whether through new product development, process enhancements, or exploring new markets is a crucial dynamic capability. It allows them to not only survive but thrive in competitive and volatile industries (Rumanti *et al*., 2022). Innovativeness enables firms to apply existing resources in novel and more effective ways, meeting evolving customer demands and seizing emerging opportunities (Munodawafa and Johl, 2019). In summary, possessing resources alone isn't sufficient; firms must also cultivate dynamic capabilities to deploy these resources effectively in response to environmental changes.

Hypothesis Development

Innovativeness and Performance

In the dynamic landscape of business, innovativeness emerges as a critical driver of firm performance. Research indicates that an innovation-oriented approach positively influences entrepreneurial orientation and marketing performance in small and medium enterprises (SMEs) (Karnowati *et al*., 2023). Moreover, various forms of innovativeness—ranging from product and process innovation to marketing and value innovation—significantly impact market share, sales, turnover, return on investment, and overall profitability (Parra-Requena *et al*., 2020; Zheng *et al*., 2023; Hirshleifer *et al*., 2018). Fegada and Veres (2024) underscore the role of innovation orientation in enhancing SMEs performance, especially when technological capabilities come into play. This intersection highlights the importance of entrepreneurial marketing strategies in fostering competitiveness. Additionally, Hanaysha and Al-Shaikh (2022) emphasize that innovativeness positively influences firm performance from an entrepreneurial marketing perspective within small and medium enterprises. Furthermore, Zhang *et al*. (2022) reveal that innovation contributes to sustainable performance, particularly in SMEs practicing circular economy principles. Notably, investments in research and development (R&D) further enhance economic performance. In summary, empirical evidence supports the notion that SMEs prioritizing innovativeness can effectively adapt to market changes, leading to improved overall performance.

Hypothesis 1 (H1): Innovativeness is positively related to SMEs' performance.

Resource Leveraging and Performance

Turning our attention to **resource leveraging**, we find that it significantly influences firm performance. Studies consistently demonstrate the positive impact of resource leveraging, underscoring its relevance for small and medium enterprises (Ouragini & Lakhal, 2024). The resource-based view (RBV) theory reinforces this perspective, emphasizing that effective resource utilization contributes to entrepreneurial firm performance, especially in emerging markets (Hanaysha and Al-Shaikh, 2022). Khan *et al*. (2022) delve into the mechanisms through which resource leveraging affects entrepreneurial firm performance, considering both inside-out and outside-in marketing capabilities. Panjaitan (2022) highlights the need to safeguard competitiveness mechanisms, leveraging entrepreneurial creativity and product innovativeness to enhance marketing performance. Furthermore, Sadiku-Dushi *et al*. (2019) affirm that resource leveraging positively impacts SME performance, particularly when viewed through an entrepreneurial marketing lens. In summary, SMEs that strategically focus on resource leveraging consistently demonstrate improved performance outcomes.

Hypothesis 2 (H2): Resource leveraging is positively related to SMEs' performance.

The Mediating Role of Resource Leveraging Between Innovativeness and SME Performance

Numerous empirical studies underscore the pivotal role of resource leveraging as a mediator in the relationship between innovativeness and SMEs performance. Yoshikuni and Dwivedi (2023) emphasize that resource orchestration, facilitated by enterprise information systems, enhances organizational innovativeness, leading to improved performance outcomes. Similarly, Cai and Wang (2009) discuss how entrepreneurial orientation and learning capabilities drive resource leveraging, ultimately strengthening SMEs performance. The strategic bundling of resources, as demonstrated by Carnes *et al*. (2017), significantly enhances a firm's ability to innovate and

outperform competitors during both growth and maturity stages. Furthermore, Fu *et al*. (2021) and Gao *et al*. (2021) highlight that effective resource allocation is essential for sustaining innovation activities, particularly when faced with resource constraints. This body of evidence supports the assertion that innovativeness alone is insufficient; resource leveraging serves as a critical mediator, amplifying the impact of innovativeness on SMEs performance.

Hypothesis 3 (H3): Innovativeness has a positive relationship with SMEs performance, with resource leveraging acting as a mediator.

Research Model

Drawing on the Resource base theory (RBT) and Entrepreneurial marketing theory (EMT), empirical literature, and formulated hypotheses, Figure 1 substantiates the research framework underpinning this study.

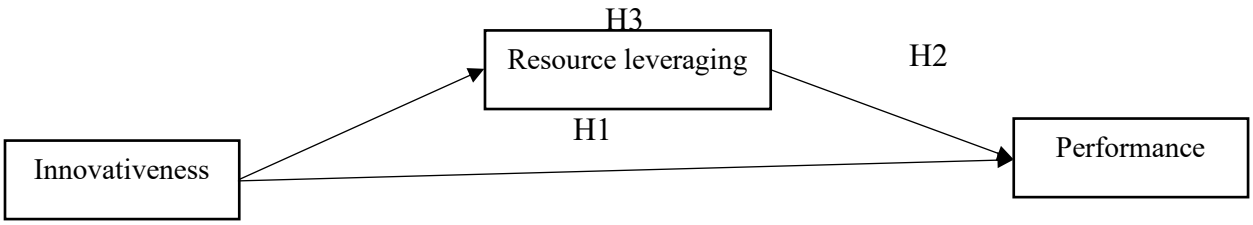

Figure 1: The Conceptual Framework

Source: Developed from literature review (2024)

Study Methodology

Sample and Data Collection

Before collecting data, we rigorously examined the survey questions to ensure their content validity. Seeking input from experts was a critical step in evaluating the relevance and appropriateness of the questions. Insights from these experts guided us in making necessary adjustments to enhance the precision of the questionnaire. To establish face validity, we engaged two experienced senior experts from Tanzania, both with extensive backgrounds in business and economic research within the African context. They conducted a preliminary test of the questionnaire, refining it by eliminating unclear language and ensuring clarity and conciseness. This iterative process ensured that the survey accurately captured the intended concepts. It's worth noting that when time or budget constraints exist, conducting a preliminary test with friends or family members can still be valuable for ensuring validity (Saunders *et al*., 2023). Additionally, our study incorporated content validity from diverse geographical locations to improve the scale items and mitigate the risk of common method bias (Spoto *et al*., 2023).

Table 1. Sample firm description.

Demographic	Group	Frequency	Percentage %
Gender	Male	121	47.6
	Female	133	52.4
Experience	1-2 years	19	7.5
	3-5 years	79	31.1
	6-10 years	88	34.6
	Above 10 years	68	26.8

Position	Owner director/owner manager	229	90.2
	Manager/CEO	25	9.8
Education	Form 4	107	42.1
	Diploma	74	29.1
	Degree	31	12.2

Sample and Data Collection Process

Our study, conducted between August and December 2022, gathered data from 254 usable responses provided by small and medium-sized enterprises (SMEs) engaged in agro-processing. Specifically, the participants were owner-managers or managers of agro-processing SMEs with an average of three years of experience in both domestic and international trade, ensuring their relevance to the study's focus. The sampling frame was derived from a list of registered agro-processing SMEs provided by the Tanzania Regulatory Authority (TRA). To ensure representation across various sectors within the agro-processing industry, we employed stratified random sampling.

Sampling and Data Collection: We adopted stratified random sampling, a method that involves dividing the population into similar subgroups (strata) and randomly selecting samples from each subgroup. This approach ensures comprehensive representation across all relevant population segments (Lohr, 2010). Our sample size was carefully determined to align with our study objectives, considering the use of Partial Least Squares Structural Equation Modeling (PLS-SEM) and R Programming version 4.3.3 (Hair *et al*., 2021). We distributed survey questionnaires to businesses operating in different geographical regions via email or in person. Our focus was on areas with a significant presence of small and medium-sized agro-processing enterprises, specifically targeting owner-managers and managers. Notably, all questionnaires were distributed within Dar es Salaam, the primary commercial and economic hub of Tanzania (Kaale *et al*., 2023). Out of the 300 questionnaires distributed, 257 were returned and considered usable, resulting in an 84 percent response rate.

Measures: We employed a five-point Likert scale, where 1 represented "strongly disagree" and 5 represented "strongly agree," to measure our variables. The Likert scale, commonly used in social science research, provides a straightforward and reliable way to assess attitudes, opinions, and perceptions (Tehseen *et al*., 2017). For our study, we adapted the measurement of innovativeness from Becherer *et al*. (2012), using three items for the independent variable. Additionally, we measured resource leveraging, as a mediating variable, based on the work of Sadiku-Dushi *et al*. (2019), utilizing six items. When evaluating SME performance, we considered both financial and non-financial indicators. Financial metrics such as profitability, market share, sales growth rate, and operational costs were adapted from Çağlıyan *et al*. (2022). Non-financial indicators, including managerial capability and product quality, were sourced from Yu *et al*. (2017).

Data Analysis Methods: For our data analysis, we selected Partial Least Squares Structural Equation Modeling (PLS-SEM). This choice was driven by its suitability for research questions involving prediction, small sample sizes, and the expected non-normal distribution of data (Hair *et al*., 2021). PLS-SEM allows us to evaluate measurement models that incorporate both reflective and formative constructs. Furthermore, SEM addresses measurement errors, statistically tests

predefined theoretical and measurement assumptions against empirical data, and handles observable variables indirectly measured by indicator variables (Chin, 1998; Hair *et al*., 2021).

Research Findings and Measurement Model Assessment

In our research, we employed the SEMinR package, seamlessly integrated within R programming version 4.3.3 (Hair *et al*., 2022). SEMinR, an open-source library, offers a specialized domain-specific language for defining, estimating, visualizing, and validating structural equation models (SEMs) using the partial least squares (PLS) method. Its advantages include cost-effectiveness, flexibility, reproducibility, and robust community support (Sarstedt *et al*., 2022).

Assessing Measurement Models

Before delving into the analysis of the structural (inner) model, we meticulously evaluated the measurement (outer) model, adhering to the guidelines outlined by Klarner *et al*. (2013). To assess the significance of path coefficients, we employed a bootstrapping procedure with 10,000 replications, following the approach recommended by Hair *et al*. (2021) and Henseler *et al*. (2015).

Reflective Measurement Model Assessment: The indicators for dependent variables in our measurement model were reflective. To establish the reliability and validity of partial least squares measurement models, specific criteria must be met (Henseler *et al*., 2015). In our quantitative study, we deemed an item reliable if its outer loading was at least 0.40 for the corresponding construct. Items falling within the 0.40 to 0.70 range were evaluated for potential removal, but only if excluding them led to an improvement in composite reliability and average variance extracted (AVE) beyond the recommended AVE threshold of 0.5 (Hair *et al*., 2021). Importantly, all indicators in our model met this requirement (see Table 2).

Table 2 Reflective measurement model evaluation results

	Construct/Indicator	Loading	reliability	AVE
	SMEs Performance		0.926	0.731
1	Our firm has been highly profitable over the past year.	0.865		
2	Our market share has increased over the past three years.	0.894		
3	The sales revenue of our firm has grown consistently over the past three years.	0.778		
4	Our operational costs are efficiently managed.	0.83		
5	The quality of our goods or services is excellent.	0.855		
6	Our managerial team is highly capable	0.901		

Assessing Construct Reliability and Validity

we evaluated construct reliability using composite reliability (ρc), with a value between 0.60 and 0.70 considered acceptable (Hair *et al*., 2019). Importantly, all constructs surpassed the minimum threshold for ρc, indicating reliable internal consistency of the construct measures (see Table 2). Convergent validity was assessed using the average variance extracted (AVE), and all reflective constructs demonstrated convergent validity with AVE values of 0.5 or higher.

To evaluate discriminant validity, we employed the heterotrait-monotrait ratio of correlation (HTMT) method, which is considered more effective than traditional Fornell-Larcker and cross-loading criteria (Henseler *et al*., 2015). The primary criterion for the HTMT test is whether the HTMT ratio approaches 1.0; values near or exceeding 1.0 may signal a potential violation of discriminant validity (Ab Hamid *et al*., 2017). While the exact HTMT ratio indicating a discriminant validity issue can vary, Henseler *et al*. (2015) recommend using 0.85 and 0.90 as benchmarks.

Table 3 HTMT

Construct	IN	RL	Performance
IN	.	.	.
RL	0.762	.	.
Performance	0.293	0.173	.

Referring to Table 3, we observe that the maximum heterotrait-monotrait ratio of correlation (HTMT) value is 0.8, falling below the conservative critical threshold of 0.85. Furthermore, bootstrapping results indicate that all upper confidence interval limits remain well below 1, signifying significant deviation of all HTMT values from 1. Consequently, both the HTMT0.85 and HTMT0.90 criteria confirm the discriminant validity of the dependent construct. It's important to note that three specific aspects within the HTMT assessment warrant attention.

Formative Measurement Model Evaluation

We assessed the indicators for the independent variables—proactiveness, customer intensity, and value creation—within a formative measurement model. Following Hair *et al*. (2021), evaluating formative measurement models involves several critical steps. First, we assessed convergent validity through redundancy analysis, requiring a correlation of ≥ 0.708 between the formative construct and a reflective measure of the same concept. Next, we examined collinearity using the variance inflation factor (VIF), with acceptable values being VIF < 3. The statistical significance of indicator weights was determined by t-values, where a t-value greater than 1.960 is significant at $\alpha = 0.05$, and a t-value greater than 1.645 is significant at $\alpha = 0.10$. Additionally, the 95% confidence interval must not include zero. Significant weights indicate the relevance of the indicators, with loadings ≥ 0.50 considered relevant even if their weights are not statistically significant (Hair *et al*., 2022). All indicators in the model successfully met these criteria, as detailed in Table 4.

Table 4: Formative Measurement model evaluation results

			t values	Outer loadings	t stat	VIF	Convergent validity
	Indicators	**Outer weights**	**>1.96**	**>0.5**	**>1.96**	**<5.0**	**>0.7**
Innovativeness	IN1	0.667	2.991	2.991	2.991	1.317	0.864
	IN2	0.204	0.843	0.843	0.843	1.467	
	IN3	0.425	2.362	0.664	3.586	1.22	

Resource leveraging	RL1	0.511	3.345	0.818	7.067	1.365	0.773
	RL2	0.293	2.249	0.627	5.437	1.227	
	RL3	0.146	0.65	0.339	1.512	1.111	
	RL4	0.145	1.003	0.507	3.488	1.244	
	RL5	0.404	2.997	0.745	6.501	1.309	
	RL6	-0.061	-0.481	0.409	3.228	1.293	

The redundancy analysis results for each construct surpassed the 0.78 threshold, confirming convergent validity. Additionally, all Variance Inflation Factor (VIF) values consistently remained below 3, indicating acceptable levels of collinearity. Although most formative indicators showed statistical significance at the 10% level, a few indicators had t-values below 1.680 and 95% confidence intervals that included zero, suggesting a lack of statistical significance. Despite this, we retained these indicators in the model due to their theoretical significance and support from prior research, emphasizing their relevance in capturing the dimensions of entrepreneurial marketing (Sadiku-Dushi et al., 2019; Deku et al., 2023)

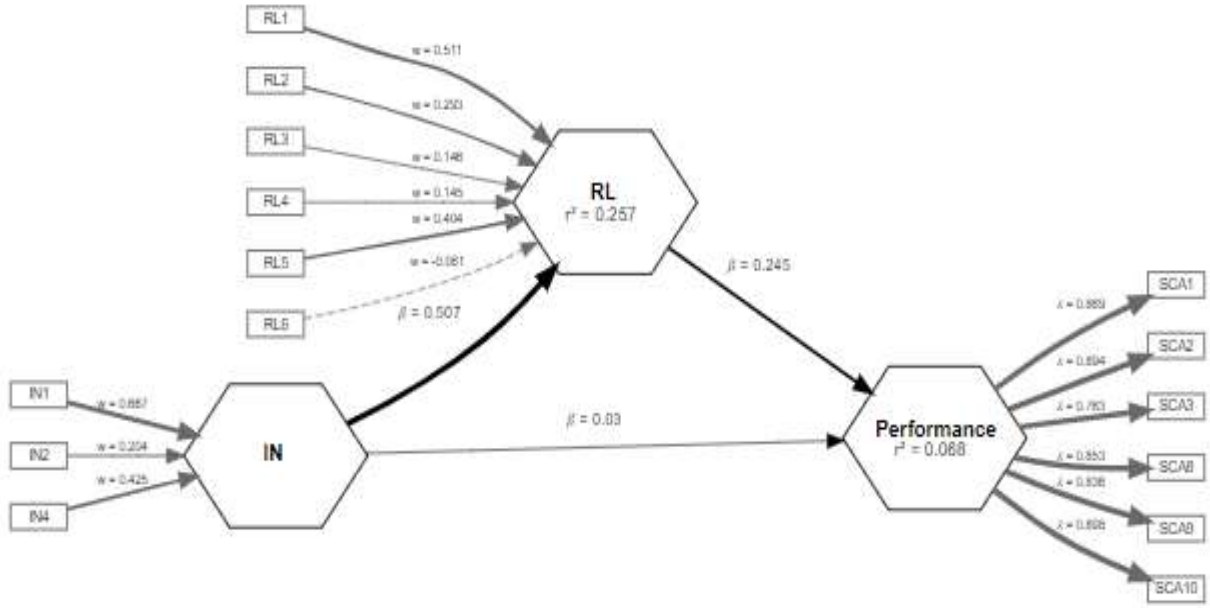

Figure 2: PLS Path Model Result
Source: Field Data Extracted from Smart PLS3 (2024)

Significance Testing Results of the Structural Model

In structural model significance testing (as presented in Table 5), we find that Resource Leveraging (RL) significantly and positively impacts SMEs performance, with a path coefficient of 0.245. Bootstrapping analysis further confirms this relationship, showing a significant positive effect ($\beta = 0.245$, $p < 0.05$, C.I. [0.075; 0.419]), thereby supporting Hypothesis 2. However, the direct effect of Innovativeness (IN) on SMEs performance is weaker, with a path coefficient of 0.030. Bootstrapping analysis indicates that this relationship is not statistically significant ($\beta = 0.304$, $p = 0.761$, C.I. [-0.119; 0.201]), leading us to reject Hypothesis 1.

Table 5. Significance testing results

Path	Path coefficient (β)	t-values	Significance levels	p-value	95% confidence intervals
IN -> PM	0.030	0.304	NS	0.761	[-0.119, 0.201]
RL -> PM	0.245	2.105	*	0.035	[0.075, 0.419]

Note: NS = Not significant; CI= Customer intensity; VC= Value creation; P= Proactiveness; PM = SMEs Performance . *if p<0.1, **if p<0.05, ***if p<0.01.

Mediation results

Table 6: Mediation analysis results

Relationship	Original Est.	Bootstrap Mean	Bootstrap SD	T Stat.	5% CI	95% CI	Significance
Total Indirect Effect (IN -> RL -> Performance)	0.124	0.129	0.056	2.235	0.043	0.207	*
Product of Direct Paths (IN -> RL -> Performance)	0.0037	-	-	-	-	-	-

In our mediation analysis (as presented in Table 6), we observe that Innovativeness (IN) exerts a notable indirect influence on Performance through Resource Leveraging (RL). The total indirect effect is calculated at 0.124, with a bootstrap mean of 0.129 and a standard deviation of 0.056. A t-statistic of 2.235 indicates that this effect is statistically significant at the 0.1 level, with a 95% confidence interval between 0.043 and 0.207, confirming that the indirect effect does not include zero. This underscores that IN indirectly affects Performance through RL, thereby confirming Hypothesis 3. Similarly, the specific indirect effect, which also reflects the relationship between IN, RL, and Performance, mirrors the total indirect effect, reinforcing the importance of this mediation pathway. Although the product of the direct paths among IN, RL, and Performance is small at 0.0037, it suggests that the mediation is partial or complementary rather than full. This indicates that both direct and indirect effects are at play, though the indirect effect through RL remains the dominant pathway. Overall, the mediation effect of IN on Performance via RL is both statistically significant and meaningful, highlighting RL's critical role as a complementary mediator in this model. In summary, our analysis reveals that RL significantly contributes to SME performance, validating Hypothesis 2. However, the direct effect of IN on performance is weaker, leading to the rejection of Hypothesis 1. Interestingly, IN indirectly influences performance through RL, emphasizing the critical role of RL as a complementary mediator in this model, thus validating Hypothesis 3.

Discussion

The statistical results for Tanzania's Agro- agro-processing industry indicate that the relationship between Innovativeness (IN) and SMEs' performance (Hypothesis 1) is not significant. This finding may reflect the unique challenges faced by agro-food processing SMEs in Tanzania. Factors such as limited access to new technologies, insufficient funding for research and development, and a shortage of skilled personnel could hinder innovation. Additionally, the industry may struggle with low levels of technological advancement and limited access to resources that support innovation. SMEs often encounter difficulties in adopting and implementing new practices due to financial constraints and insufficient infrastructure. Moreover, the market demand for highly innovative products may be limited, as consumers tend to prioritize price sensitivity. While innovation is crucial for long-term growth, it may not directly boost performance in this context unless effectively paired with resource leveraging. This finding aligns with prior research, which suggests that in developing countries, the impact of innovativeness on firm performance can be constrained by external environmental factors (Chiao *et al*., 2010). Supporting this result, Américo Hurtado-Palomino *et al*. (2024) found that while innovativeness is important, its impact on performance can be influenced by risk-taking and proactiveness in the tourism industry. Similarly, Cannavale and Nadali (2019) proposed that the explanatory power of innovativeness on performance varies depending on the industry context

The statistical results support Hypothesis 2, which posits that Resource Leveraging (RL) is positively related to SMEs performance. This positive influence can be attributed to the efficient utilization of available resources, including raw materials, labor, and technology. By optimizing these resources, SMEs enhance productivity, reduce costs, and maintain competitiveness. In the agro-food processing sector, where profit margins can be slim, effective resource management becomes critical for sustained profitability. Successful resource leveraging equips SMEs to scale up production, improve product quality, and achieve overall performance gains. These findings align with the resource-based view (RBV), emphasizing the strategic use of internal resources to gain a competitive advantage (Barney, 1991). Supporting this hypothesis, Ouragini and Lakhal (2024) found that entrepreneurial marketing, which encompasses resource leveraging, significantly impacts firm performance. Additionally, Khan *et al*. (2022) demonstrated that integrating both outside-in and inside-out entrepreneurial marketing capabilities, including resource leveraging, enhances overall firm performance.

The statistical results also support Hypothesis 3, which posits that Resource Leveraging (RL) mediates the relationship between innovativeness and SMEs performance. The indirect effect of innovativeness on SMEs performance through resource leveraging reveals a crucial pathway for success in Tanzania's agro-processing sector. While innovation alone may not immediately boost performance, when combined with effective resource leveraging, it leads to significant improvements.These findings resonate with prior research in other contexts. . Zheng *et al*. (2013) demonstrate that network resources, when leveraged through technological capabilities and relative bargaining power, enhance innovation performance, indicating the critical role of resource leveraging. Similarly, Lee *et al*. (2023) show that organizational culture, structural capital, and human resource management practices enhance innovation performance through resource leveraging. Capelleras *et al*. (2021) further reinforce this by showing that HR practices improve firm performance via increased innovativeness. Monteiro *et al*. (2019) add that leveraging intangible resources and dynamic capabilities strengthens the link between innovativeness and

export performance. Aslam *et al*. (2018) discuss how resource leveraging combined with innovativeness boosts firm performance through entrepreneurial marketing strategies. Finally, Hou *et al*. (2019) explore how resource allocation and innovation strategies, mediated by entrepreneurial orientation, impact firm performance, underlining the significance of resource leveraging in this relationship. These studies collectively affirm the hypothesis that resource leveraging is a vital mediator between innovativeness and performance outcomes

Conclusion

In summary, our study revisits the relationship between entrepreneurial aspects and the performance of small and medium enterprises (SMEs) in Tanzania's agro-processing industry. While existing research often emphasizes the significance of innovativeness, our findings present an alternative perspective. Specifically, we find that resource leveraging (RL) emerges as a pivotal factor for SMEs success, whereas the impact of innovativeness (IN) on performance is less pronounced. However, the complementary mediation of resource leveraging enhances the positive influence of innovativeness on SMEs performance. This suggests that while innovation remains vital, its true value lies in enhancing an SME's ability to effectively leverage available resources. This finding holds particular relevance for Tanzanian SMEs operating in a resource-constrained environment, where optimizing resource utilization is essential for survival and growth. Additionally, these outcomes underscore the need for business strategies that optimize resource use and embrace an innovative approach to market opportunities, especially given the distinct challenges faced by SMEs in Tanzania's competitive agro-processing sector. The limited impact of value creation implies the necessity of supplementary strategies beyond solely focusing on value creation

Theoretical Implications

Our study contributes to theoretical understanding by combining the Resource-Based View (RBV) with Dynamic Capability Theory (DCT) to explain SMEs performance in the agro-processing industry. The results support the RBV's assertion that internal capabilities play a crucial role in maintaining competitive advantage. Furthermore, our focus on innovativeness aligns with dynamic capability theory, emphasizing innovative market engagement as a key driver of business success. Interestingly, our findings challenge the conventional belief that innovativeness universally benefits firms, suggesting that its effectiveness may depend on specific contextual factors and the strategic leveraging of resources.

Practical Implications

Managerial Implications*:* For managers in Tanzania's agro-processing industry, these results underscore the vital importance of prioritizing customer engagement and maximizing resource efficiency. Managers should strive to understand and meet customer needs, optimize resource utilization, and adopt a proactive approach to market opportunities. Implementing these strategies positions businesses for sustainable long-term growth.

Policy Implications*:* From a policy perspective, our study highlights the need to create an enabling environment for effective customer engagement and resource utilization among small and medium-sized enterprises (SMEs). Policymakers should consider measures to enhance access to market information, facilitate resource acquisition, and promote proactive business practices.

Study Limitations

While this study provides valuable insights, it is essential to acknowledge its limitations. First, the sample was confined to a specific region and industry in Tanzania, potentially limiting the generalizability of the findings to other contexts. Second, the cross-sectional design employed does not allow for establishing causal relationships between variables. Additionally, relying on self-reported data introduces potential bias, and measuring constructs like innovativeness may not fully capture their multifaceted nature. Future research could address these limitations by employing longitudinal designs, expanding the sample size, and incorporating more objective performance metrics. Furthermore, exploring external environmental factors and additional internal firm characteristics would enhance our understanding of SMEs performance in the agro-processing sector. In summary, this study contributes to our understanding of SMEs performance in Tanzania's agro-processing industry and opens avenues for further refinement and application of these findings across diverse industries and contexts.

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