

Board Strategic Leadership, Regulatory Framework and Growth of Agricultural Marketing Co-operative Societies in Simiyu, Tanzania

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Abstract

This study examines the relationship between Board Strategic Leadership (BSL) and the growth of Agricultural Marketing Co-operatives (AMCOS) in Simiyu, Tanzania. Concurrently, it assesses the moderating role of the co-operative regulatory framework on this relationship, thereby addressing the notable empirical gap. Resource-Based Theory and Institutional Theory guided it. A cross-sectional survey design was employed, using a structured questionnaire for data collection and stratified random sampling to select 237 AMCOS managers (82.3% response rate). Data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) and linear regression. The findings revealed that BSL has a positive influence on AMCOS growth ($\beta = 0.205$, $p = 0.012$), with membership growth being the most prominent indicator, compared to asset growth and product innovation. Importantly, the regulatory framework significantly moderates this relationship ($\beta = 0.03$, $p = 0.032$) and has a direct effect on AMCOS growth ($\beta = 0.388$, $p = 0.000$). The study concludes that BSL is a significant driver of AMCOS's growth, with membership growth serving as the key indicator. This influence is significantly amplified by a supportive regulatory framework, highlighting a critical interplay between internal and external governance for the sustained co-operative success. The study provides policymakers in Tanzania with valuable insights to refine the cooperative regulatory framework, ensuring accountability, operational autonomy, clarity, and strategic flexibility for the AMCOS board. Additionally, it highlights the need for targeted training and capacity-building for leaders to enhance BSL and promote sustainable co-operative growth.

Keywords: Agricultural Marketing Co-operative Societies, Governance, Co-operative Growth, Regulatory Framework, Strategic Leadership

Introduction

Co-operative societies are widely recognised as vital social and economic institutions that foster inclusive development, social cohesion, and democratic governance. They empower members through shared ownership, participatory decision-making, and fair benefit distribution (Punina et al., 2024). In developing countries like Tanzania, co-operatives enhance access to services, support market entry, and improve livelihoods, particularly in rural and underserved areas (Othman & Shirima, 2024). Agricultural Marketing Co-operative Societies (AMCOS) play a significant role not only in backing agricultural production and market access but also in strengthening community-based economic systems through organised governance and member-led development (Rwela, 2023).

Effective governance, particularly through strategic board leadership, is crucial for cooperative growth and sustainability. It enables boards to define long-term visions, manage risks effectively, allocate resources efficiently, and adapt to external changes (Maina, 2020). In AMCOS, strategic leadership drives innovation in service delivery, enhances financial performance, and fosters members' trust and participation (Magoko, 2023). However, leadership alone may not be enough; the broader institutional environment often influences its success. The co-operative regulatory framework sets operational boundaries, enforces compliance, and shapes the board's strategic freedom (Lilian & Ezike Chimezie, 2024). In Tanzania, this framework oversees the formation, supervision, and management of co-operatives (Msuya, 2024), promoting accountability, transparency, and good governance. While essential, regulatory requirements can sometimes hinder timely decision-making, innovation, or responsiveness (Ivarsson & Rittgård, 2020). On the other hand, well-designed regulations can bring clarity, standardisation, and safeguard members' interests, underlining the dual role of the regulatory environment in influencing the effectiveness of board strategic leadership (Ivarsson & Rittgård, 2020). This duality underscores the significance of investigating how the regulatory environment influences the relationship between board strategic leadership and the growth of AMCOS.

Empirical evidence suggests that board strategic leadership has a significant impact on cooperative growth by promoting long-term planning, innovation, and stakeholder involvement (Mainya, 2021; Maina, 2020). Boards with a clear strategic focus achieve better financial performance, member satisfaction, and service diversification (Muchiri & Muathe, 2024; Salim, 2023). However, inflexible or inconsistent regulatory frameworks can hinder board autonomy and restrict strategic decision-making (Ivarsson & Rittgård, 2020; Mistarihi & Bakhtiyarovich, 2025). Similarly, in African co-operatives, the regulatory environment can either support or undermine governance practices, highlighting the importance of examining regulatory frameworks as potential moderators of leadership-performance relationships (Lilian & Ezike Chimezie, 2024; Mugilwa, 2024).

Although increasing scholarly attention has been devoted to examining strategic leadership in cooperative performance, gaps remain regarding board-level strategic decisions in AMCOS in Tanzania (Mainya, 2021; Mugilwa, 2024; Magoko, 2023; Lilian & Ezike Chimezie, 2024; Muchiri & Muathe, 2024). Previous studies have primarily focused on general governance and leadership dynamics, overlooking the impact of board-level strategic decisions on member expansion, product innovation, and asset growth. Furthermore, the moderating role of co-operative regulatory frameworks, including compliance, internal controls, and operational guidelines, remains insufficiently explored. This study addresses these gaps by analysing the effect of board strategic leadership on AMCOS's growth in Simiyu, Tanzania, and examining

the moderating effect of Tanzania's co-operative regulatory framework. The study makes two key contributions;

- i. It examines the effect of board strategic leadership on the growth of AMCOS in Simiyu, Tanzania.
- ii. Examines the moderating role of the co-operative in the relationship between the board's strategic relationship and the growth of AMCOS

These objectives are addressed through PLS-SEM and regression analysis. The findings aim to enhance the governance literature and inform policy and practice, thereby strengthening leadership and institutional support mechanisms within the co-operative sector.

Literature Review

Theoretical Perspectives

The Resource-Based Theory (RBT) guided this study in examining how board strategic leadership influences AMCOS growth in Simiyu, Tanzania. RBT posits that sustainable competitive advantage arises from an organisation's ability to acquire and deploy resources that are valuable, rare, inimitable, and non-substitutable (Zvarimwa & Zimuto, 2022). In this study, board strategic leadership is conceptualised as an intangible internal resource that enhances decision-making, fosters innovation, and supports long-term planning. Such leadership strengthens governance, builds trust among members, and enables AMCOS to respond proactively to market opportunities (Dimingu & Mogaji, 2024). Competent leadership as a resource is particularly critical for performance and growth in dynamic agricultural markets characterised by competition and structural inefficiencies (Dias et al, 2021).

Building on internal perspectives, Institutional Theory highlights that organisational behaviour and success are influenced by formal structures, norms, and rules (Jepperson & Meyer, 2021). The regulatory framework – comprising laws, bylaws, policies, and institutional guidelines – creates an external environment that guides leadership actions and establishes governance boundaries (Jalinik & Łukaszuk, 2020). Institutional environments, which include both formal structures and informal norms, establish the “rules of the game” that impact board effectiveness and organisational conduct (Aguilera & Ruiz Castillo, 2025). As Scott (2007) states, resources must be utilised within a supportive institutional context to achieve optimal performance.

Integrating RBT and Institutional Theory offers a comprehensive perspective: the effectiveness of board strategic leadership, as a vital internal resource, is significantly influenced by the regulatory framework (Mayasari & Musa, 2024). A clear and supportive framework enhances the deployment of strategic leadership, fostering innovation, competitive advantage, and growth by providing legitimacy and stabilising operational processes (Ercantan et al., 2024; Zhang et al., 2024). Conversely, a restrictive environment can weaken strong leadership by imposing structural constraints, reducing strategic flexibility, and increasing the need for adaptive decision-making (Iroha et al., 2024; Sott & Bender, 2025). The interaction between internal capabilities and institutional conditions is therefore crucial for explaining AMCOS performance, as institutional quality directly influences co-operative outcomes (Oliveira et al., 2025). Ultimately, the institutional framework acts as a boundary

condition that determines how effectively board strategic leadership can promote growth by enhancing dynamic capabilities and overall performance (Donnelly et al., 2024).

Empirical Review

Strategic leadership is essential for organisational growth and performance in today's unpredictable environment (Alhyasat & Mat Sharif, 2018). It involves preparing organisations for disruption, fostering adaptable capabilities, and building resilience to achieve objectives amid uncertainty and resource limitations (Bhardwaj et al., 2021). A key aspect is strategic goal alignment, which harmonises human capital, processes, technology, and culture with core aims (Arora et al., 2024). Effective alignment ensures strategic plans are implemented successfully, boosting efficiency and driving performance by aligning organisational priorities with the external environment (Srivastava & Sushil, 2017; Suvvari, 2023; Azzouz et al., 2020). Adaptive decision-making is also vital in complex, evolving settings (Deep, 2023; Kumar, 2024), enabling organisations to respond to sudden changes and seize emerging opportunities (Ludviga & Kalvina, 2025).

Board strategic leadership involves utilising current knowledge and foresight to modify actions for sustained success, making the organisation more resilient and adaptable (Andersen, 2020; Vert et al., 2021). The efficacy of the chairperson is vital in maintaining these capabilities, as their knowledge and skills strengthen the link between board resources and organisational performance (Tuwey & Koske, 2022). Research indicates that effective chairpersons support good governance, facilitate strategic planning, and align board activities with organisational objectives (Tuwey & Koske, 2022; Langan et al., 2022; Bezemer et al., 2018). The chairperson's capacity to communicate vision and mission clearly encourages collaboration, enhances board interactions, and contributes to co-operative growth (Tuwey & Koske, 2022).

The governance environment, particularly the regulatory framework, has a significant influence on the effectiveness of board strategic leadership (Buang & Samah, 2021). Clear regulations establish accountability mechanisms, legal standards, and guidelines that enable boards to exercise oversight, align objectives, and make informed decisions (Akinsola, 2025). By strengthening governance practices, the framework moderates the relationship between strategic leadership and growth, enabling boards to translate their vision into tangible outcomes, such as member expansion, asset growth, and product innovation (Oluoch et al., 2021). Conversely, weak or ambiguous regulations can weaken effectiveness, leading to misaligned strategies and limited growth (Vardhan & Alam, 2024). Although strategic leadership—encompassing goal alignment, adaptive decision-making, and chairperson efficacy—has been examined in various contexts, its impact on Tanzania's AMCOS remains underexplored, particularly in terms of its interaction with local socio-economic and regulatory conditions.

Conceptual Framework

The study developed its conceptual framework as illustrated in Figure 1, by synthesising insights from theoretical and empirical literature to clarify the influence of board strategic leadership and the moderating role of the regulatory framework on the growth of AMCOS. The framework highlights strategic goal alignment, adaptive decision making, and an effective chairperson as critical components of board strategic leadership (independent variable). AMCOS growth (dependent variable) is measured by metrics such as membership growth, new product introduction and asset growth, with the regulatory framework acting as a moderating influence. It is hypothesised that a conducive regulatory framework

environment strengthens the effect of board strategic leadership on fostering the growth of AMCOS.

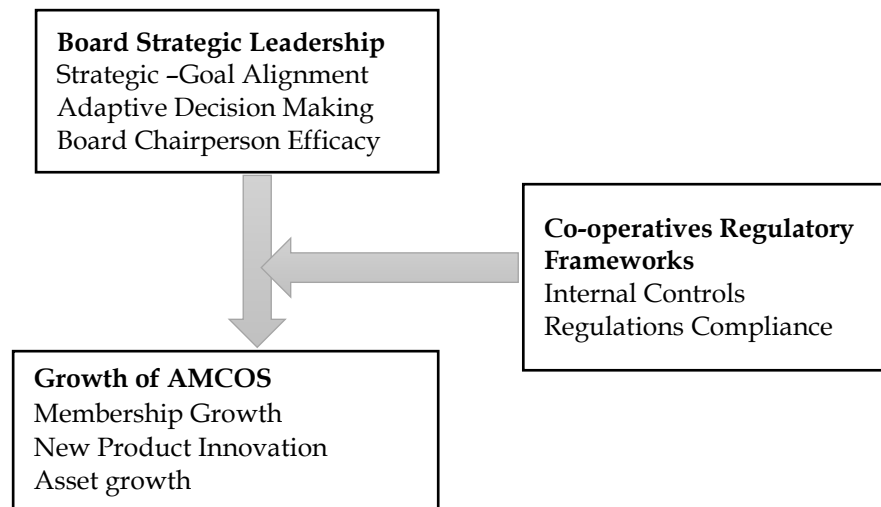


Figure 1: Conceptual framework. Source: Author Computation developed from the literature

The board strategic leadership component of this study involved strategic-goal alignment, defined as the integration of co-operative resources and activities with organisational priorities, emphasising collaboration toward common goals (Gede & Huluka, 2023). This ensures performance measures and strategic objectives are aligned for effective management control (Smith & Thomas, 2024). Adaptive decision-making is the deliberate process by which board members make flexible, responsive choices in unpredictable situations, adjusting actions quickly through anticipatory judgment and adaptive flexibility (London, 2023). Board chairperson efficacy refers to the chairperson’s confidence in their knowledge and skills to lead the board and guide co-operative strategy (Tuwey & Koske, 2022), enabling them to negotiate and influence strategic and governance decisions effectively (Tuwey & Koske, 2022).

Material and Methods

Study Design, Population and Sample Size

The study employed a cross-sectional survey design to examine the relationship between board strategic leadership and AMCOS growth in Simiyu, Tanzania, and to assess the moderating role of the co-operative regulatory framework. This design enables data collection from multiple respondents at a single point in time, allowing for quantitative analysis. The population consisted of 336 AMCOS across six councils: Bariadi Town (25), Bariadi (50), Busega (46), Maswa (83), Itilima (58), and Meatu (74) (TCDC, 2023), with one manager per AMCOS acting as a respondent. Simiyu was chosen because of its high concentration of AMCOS and its leading role in cotton cultivation, which ensures reliable data. Stratified random sampling was used by dividing the population into strata based on councils, then randomly selecting within each group. The minimum sample size of 288 AMCOS was calculated using Yamane’s (1967) formula for finite populations, as shown in Table 1, to ensure representative and reliable coverage for analysis. Yamane’s (1967) formula for determining a sample from a finite population is expressed as;

$$n = \frac{N}{(1 + Ne^2)}$$

Where n = sample size, N = population of the study, e = is the precision error of 0.05, equivalent to a 95% confidence level used.

Table 1: Distribution of the Sample Size. *Source: Tanzania Co-operative Development Commission (2025)*

N.	Stratum	Target Population (AMCOS /Managers)	Calculations (Yamane formula)	Sample Size
1.	Bariadi Town	25	$25 / \{1 + [25](0.05)^2\}$	23
2.	Bariadi DC	50	$50 / \{1 + [50](0.05)^2\}$	44
3.	Busega DC	46	$46 / \{1 + [46](0.05)^2\}$	41
4.	Itilima DC	58	$58 / \{1 + [58](0.05)^2\}$	50
5.	Maswa DC	83	$83 / \{1 + [83](0.05)^2\}$	68
6.	Meatu DC	74	$74 / \{1 + [74](0.05)^2\}$	62
	Total	336		288

Data Collection

Data collection was undertaken between June and August 2025 using trained enumerators, and a total response rate of over 82.3% (237) was achieved, consistent with recommendations for survey studies (Kelley et al., 2003). To measure the study's construct, the structured questionnaires were designed based on validated scales from the literature. Board strategic leadership (BSL) was an independent variable operationalised through three dimensions: strategic goal alignment, adaptive decision-making, and chairperson efficacy (Vickneswaran, 2025; Tuwey & Koske, 2022; Bezemer et al., 2018). The dependent variable was AMCOS growth, which was measured through membership expansion, product innovations and asset growth (Magoko, 2023; Muchiri. The moderating variable (regulatory framework) was measured through regulatory compliance and internal controls mechanisms (Akinsola, 2025). All items were measured using a five-point Likert scale ranging from 1 (strongly Disagree) to 5 (Strongly Agree), allowing respondents to indicate their level of agreement with each statement. The instrument was pretested with 15 AMCOS managers from Kishapu District in Shinyanga Region to ensure content validity and clarity, with minor modifications based on pretest feedback, before complete administration.

Data Analysis

Data analysis in this study was conducted in two phases. In the first phase, Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed to evaluate both measurement and structural models regarding the effect of board strategic leadership on the growth of AMCOS. The measurement model was assessed for internal consistency reliability, convergent validity, and discriminant validity. Cronbach's alpha and composite reliability values above 0.70 were considered evidence of internal consistency, while Average Variance Extracted (AVE) values above 0.50 indicated convergent validity (J. Hair & Alamer, 2022). Discriminant validity was confirmed using the Heterotrait-Monotrait ratio (HTMT) and the Fornell-Larcker criterion (Ab Hamid et al., 2017). In the structural model, path coefficients and p-values were obtained through bootstrapping procedures. In the second phase, a regression model was employed to test the moderating effect of the regulatory framework on the relationship between board strategic leadership and AMCOS growth. The interaction term (board strategic leadership \times regulatory framework) was calculated and included in the model, with its statistical significance assessed to determine the moderation effect (Aiken & West, 1991).

PLS-SEM was selected for this research due to its suitability in predicting complex relationships among latent constructs (Hair & Alamer, 2022). It effectively manages small to medium sample sizes and accommodates both reflective and formative measurement models (Hair & Alamer, 2022). These features align with the study's aims, enabling comprehensive analysis even with complex theoretical frameworks and diverse data structures (Hair & Alamer, 2022).

Limitations of Partial Least Squares Structural Equation Modelling (PLS-SEM)

Although PLS-SEM was effectively employed to evaluate the measurement and structural models in this study, it has certain inherent limitations that warrant caution (Hair et al., 2019). First, it may induce attenuation bias and produce inconsistent estimates because latent constructs – such as board strategic leadership, regulatory framework, and AMCOS growth – are approximated using weighted composites of indicators rather than direct measures (Schubert et al., 2022). Second, PLS-SEM is mainly prediction-oriented and may be less suitable for complex theory testing or confirming overall model fit, unlike covariance-based SEM, which focuses on explanation (Dash & Paul, 2021). Third, improper construct specification or low-quality indicators can lead to misleading results, potentially identifying effects that do not truly exist (Guenther et al., 2023). To address these limitations, this study carefully specified constructs as reflective or formative (Crocetta et al., 2021), ensured an adequate sample size (Wolf et al., 2013), employed bootstrapping to enhance significance testing, and aligned the study objectives with the predictive capacity of PLS-SEM, thereby improving the robustness and credibility of the findings (Hair et al., 2024).

Presentation of Results

Respondents Demographic Characteristics

The results revealed that among 237 respondents, 209 were male (88.2%) and 28 were female (11.8%). This reflects significant male dominance within AMCOS's managerial structure, highlighting the underrepresentation of women in African agricultural co-operatives due to the persistence of gender imbalance and traditional norms (Achandi et al., 2023). The findings also indicated that most respondents were aged 31-40 (41.8%) and 41-50 (28.3%), with small proportions in other age groups. This suggests a mature workforce predominantly in their prime working years, which is beneficial for AMCOS's stability (Okumu & Mchaponwa, 2020). Moreover, the respondents' education level showed that most had primary (45.1%) or secondary (44.3%) education, while fewer held a certificate (3.8%), a diploma (1.7%), or a bachelor's degree (5.1%). This suggests a limitation in adopting effective governance practices, highlighting the need for targeted capacity building to improve efficiency (Liu et al., 2020). Lastly, regarding work experience, most respondents had 1-5 (64.1%) and 6-10 years (22.4%), indicating a moderately experienced workforce with fundamental knowledge and active engagement to contribute to co-operative stability (Berge et al., 2021).

Table 2 : Respondents' Demographic Characteristics. Source: Field Data (2025)

Demographic	Category	Frequency (n=237)	Percentage%
Gender	Male	209	88.2%
	Female	28	11.8%
Age	18-30yrs	31	13.1%
	31-40yrs	99	41.8%
	41-50yrs	67	28.3%
	51-60yrs	30	12.7%
	Above 60yrs	10	4.2%

Education	Primary	107	45.1%
	Secondary	105	44.3%
	Certificate	9	3.8%
	Diploma	4	1.7%
	Bachelor Degree	12	5.1%
Work Experience	Below 1yr	12	5.1%
	1-5yrs	152	64.1%
	6-10yrs	53	22.4%
	11-15yrs	10	4.2%
	16-20yrs	4	1.7%
	21yrs and above	6	2.5%

The Influence of Board Strategic Leadership on the Growth of AMCOS

Common Method Bias

The researchers began by applying Harman's single-factor test to examine the potential presence of common method bias, as supported by Matekele et al. (2025). Results from the unrotated factor solution indicated that the first factor accounted for 30.331% of the variance, below the 50% critical threshold (see Appendix 1). Since no single factor emerged and the variance was distributed across several factors, common method bias is not a significant concern in this study (Podsakoff et al., 2003).

Assessment of the Measurement Model

The measurement model was considered to establish the precision of the estimated results, as shown in Table 2. The model results affirm the appropriateness of the construct in the study, where for Board Strategic Leadership (BSL), the factor loadings for Adaptive Decision-Making (ADM = 0.813), Board Chairperson Efficacy (BCE = 0.804), and Strategic Goal Alignment (SGA = 0.895) were all above the recommended threshold of 0.70 (J. Hair & Alamer, 2022). This shows that indicators provide a strong representation of the latent construct. The Cronbach alpha of 0.858 and the composite reliability of 0.778 both exceed the minimum benchmark of 0.70, suggesting high internal consistency and reliability. On the other hand, the AVE value of 0.702 surpasses the acceptable threshold of 0.50, confirming convergent validity

Table 2: Measurement Model. Source: Field Data (2025)

Variable	Outer Loadings	Cronbach Alpha	Composite Reliability	AVE
Board Strategic Leadership (BSL)				
ADM	0.813			
BCE	0.804	0.858	0.778	0.702
SGA	0.895			
Growth of AMCOS				
Assets_Gr.	0.219			
Membership_Gr.	0.992	0.832	0.518	0.346
New_Product_Innov.	-0.083			

Furthermore, as shown in Table 2 regarding the growth of AMCOS, membership increase has shown a very strong loading of 0.992, indicating that an increase in membership is the primary indicator of AMCOS expansion in Simiyu. This aligns with the co-operative philosophy that

values inclusiveness and collective participation, highlighting the importance of member-driven growth in AMCOS. The Cronbach's alpha for this construct was 0.832, showing good reliability. The composite reliability (0.518) and AVE (0.346) suggest that growth is mainly driven by membership expansion. The lower contributions of assets growth (0.219) and new product innovations (-0.083) demonstrate that co-operative success depends more on increasing the number of members rather than diversifying products or expanding assets. This suggests a strategic focus on core services and community engagement, indicating that growth in these AMCOS is not primarily driven by product innovation or asset accumulation.

The discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio of correlations alongside the Fornell-Larcker criterion, both widely recognised methods for establishing construct distinctiveness in PLS-SEM (Ab Hamid et al., 2017; J. Hair & Alamer, 2022). The HTMT values presented in Table 3 below show that the correlations are well below the recommended threshold of 0.85, indicating sufficient discriminant validity (Ab Hamid et al., 2017).

Table 3: Heterotrait-Monotrait Ratio. Source: Field Data (2025)

Variable	AMCOS Growth	Board Strategic Leadership	Regulatory Framework
AMCOS Growth			
Board Strategic Leadership	0.397		
Regulatory Framework	0.401	0.518	

The Fornell-Larcker criterion was further applied to assess discriminant validity by comparing the square root of each construct's Average Variance Extracted (AVE) with its correlations with other constructs (Fornell & Larker, 1981). As shown in Table 4, the square roots of AVE appear on the diagonal and are higher than the corresponding off-diagonal correlations, confirming that each construct shares more variance with its own measures than with other constructs in the model.

Table 4: Fornell-Larcker Criterion. Source: Field Data (2025)

Variable	AMCOS Growth	Board Strategic Leadership	Regulatory Framework
AMCOS Growth	0.589		
Board Strategic Leadership	0.385	0.838	
Regulatory Framework	0.483	0.464	1.000

This confirms that the constructs are empirically distinct and do not exhibit problematic overlap. The results from the Fornell-Larcker test, along with the HTMT ratios, consistently indicate that Board Strategic Leadership, AMCOS Growth, and Regulatory Framework represent separate conceptual domains. This enhances the robustness of the measurement model and increases confidence that the relationships examined in the structural model genuinely reflect the hypothesised theoretical framework.

Assessment of the Structural Model

The evaluation of the structural model was conducted by examining path coefficients, t-values, p-values, and effect sizes (f^2) in accordance with Hair & Alamer (2022). The results in Table 5 indicate that BSL has a positive, statistically significant impact on AMCOS growth ($\beta = 0.205$, $t = 2.523$, $p = 0.012$). Although the effect size is small ($f^2 = 0.045$), it indicates that strategic leadership by AMCOS boards significantly contributes to co-operative growth outcomes. This suggests that strategic goal alignment. Adaptive decision-making and

chairperson efficacy lead to measurable improvements in growth, particularly in membership expansion. Additionally, the findings further revealed that the regulatory framework has a strong and highly significant effect on AMCOS growth ($\beta = 0.388$, $t = 5.279$, $p = 0.000$), with a moderate effect size of ($f^2 = 0.161$). This highlights the importance of a cooperative regulatory environment in fostering growth. Specifically, compliance requirements, operational guidelines, and accountability mechanisms enable AMCOS to strengthen governance, build member confidence, and enhance sustainability.

Table 5: Structural Model. Source: Field Data (2025)

	Original sample	Sample mean	Standard deviation	T-statistics	P-values	f ²
Board Strategic Leadership -> AMCOS Growth	0.205	0.206	0.081	2.523	0.012	0.045
RF -> AMCOS Growth	0.388	0.387	0.073	5.279	0.000	0.161
RF -> Board Strategic Leadership	0.464	0.466	0.055	8.397	0.000	0.274

Furthermore, the analysis reveals a statistically significant relationship between the regulatory framework and board strategic leadership ($\beta = 0.464$, $t = 8.397$, $p = 0.000$), with a relatively large effect size of 0.274 ($f^2 = 0.274$), as indicated in Table 5. This result implies that a well-structured regulatory frameworks enhance the effectiveness of strategic leadership within AMCOS boards. Regulations that provide clarity, enforce accountability and encourage transparency create an environment in which board members can exercise their strategic roles more effectively. As further illustrated in Figure 2, the structural model visually confirms these findings by showing a strong path from the Regulatory Framework to Board Strategic Leadership ($\beta = 0.464$) and to AMCOS Growth ($\beta = 0.388$), together with a smaller but significant path from Board Strategic Leadership to AMCOS Growth ($\beta = 0.205$).

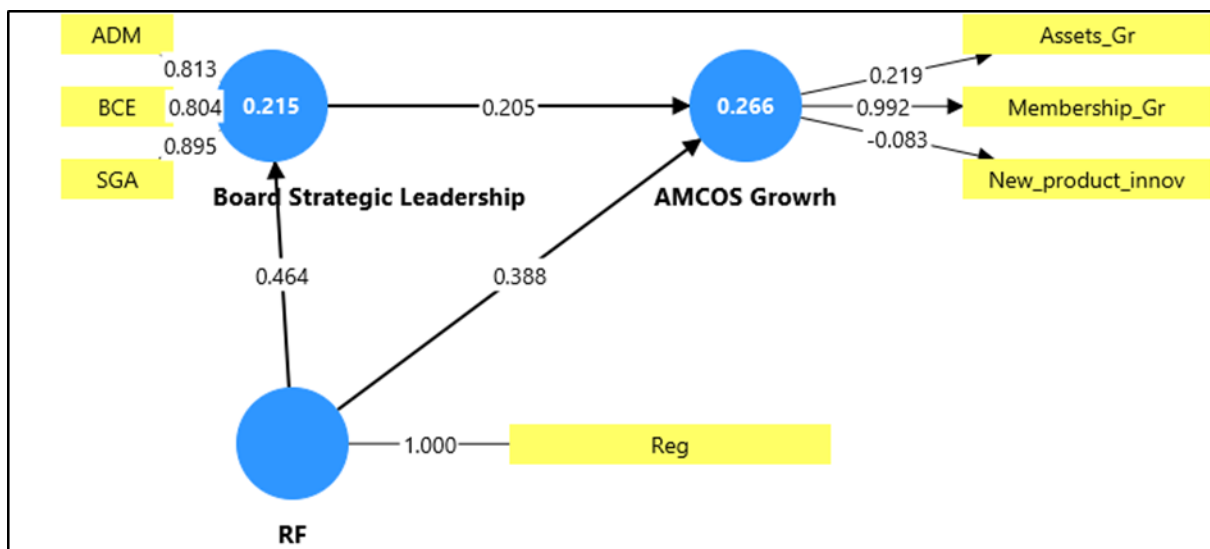


Figure 2: Structural Model. Source: Field Data (2025)

This study employed Importance–Performance Matrix Analysis (IPMA) to supplement the results of the structural model by assessing the relative significance of predictor constructs for AMCOS growth and comparing them with their performance levels. As shown in Table 6, the Regulatory Framework (RF) emerged as the most important and highest-performing driver

of AMCOS growth, with a total effect of 0.483 and a performance score of 82.363, ranking first among the predictors. This finding highlights the vital role of well-structured regulatory systems in fostering co-operative success. Robust legal frameworks, clear operational guidelines, and compliance mechanisms appear to enhance member confidence, promote accountability, and help cooperative boards align their strategies with national and institutional priorities. The high performance score further suggests that, in the context of Simiyu, AMCOS already operates within a relatively supportive regulatory environment that effectively encourages its growth.

Table 6: Importance-performance matrix. *Source: Field Data (2025)*

	Total effects	Performance	Ranking
Board Strategic Leadership -> AMCOS Growth	0.205	77.361	2
RF -> AMCOS Growth	0.483	82.363	1

The results also indicate that Board Strategic Leadership (BSL) has a positive overall influence of 0.205 on AMCOS growth and a performance score of 77.361, ranking it second in the matrix. Although the relative importance of leadership is lower than that of regulation, the performance score shows that AMCOS boards excel in areas such as strategic goal alignment, adaptive decision-making, and effective chairperson leadership. This confirms that leadership remains a vital internal resource, enabling AMCOS to seize opportunities, mobilise resources, and promote member-driven development.

Interaction Regression Model for the Moderating Effect of the Regulatory Framework

The researcher established the regression model to assess the interaction (moderating role) of the regulatory framework on the relationship between board strategic leadership and AMCOS growth. Table 7 below indicates that the interaction term (Board Strategic Leadership × Regulatory Framework) has a statistically significant positive relationship with AMCOS growth. With the coefficient of ($\beta = 0.03$, $t = 2.147$, $p = 0.032$). This result suggests that the regulatory framework has a significant moderating effect on the relationship between board strategic leadership and AMCOS growth. In practical terms, it suggests that the impact of leadership practices such as strategic goal alignment, adaptive decision-making, and effective board chairpersonship on AMCOS growth is strengthened when they are exercised within a supportive regulatory environment. The significance of the interaction term further confirms that regulation not only directly contributes to co-operative growth but also enhances the effectiveness of leadership as a strategic resource.

Table 7: Regression Interaction Model. *Source: Field Data (2025)*

Variable	Original sample	Sample mean	Standard deviation	T-statistics	P values
Interaction (Board Strategic Leadership x Regulatory Framework)	0.03	0.03	0.014	2.147	0.032
Intercept	2.87	2.869	0.27	10.628	0.000

Discussion of the Findings

The first objective of this study was to examine the relationship between board strategic leadership and the growth of AMCOS. Findings reveal a significant link between board strategic leadership and AMCOS growth, with membership growth emerging as the most prominent indicator, followed by asset accumulation and product innovation. These results

align with research by Singh et al. (2021) and Simkhada & Bhattarai (2023), which emphasise that effective leadership qualities and strategic management practices are crucial for promoting cooperative success and growth by enhancing stakeholder engagement and membership. From the RBT perspective, BSL constitutes a vital intangible resource, possessing valuable, rare, inimitable, and non-substitutable traits that differentiate cooperatives and generate competitive advantages, thereby enabling the AMCOS to achieve growth (Mailani et al., 2024). This strategic leadership primarily promotes growth by increasing membership, a core principle of cooperative philosophy that emphasises inclusiveness, democratic control, and member economic participation as fundamental indicators of success and collective well-being (Santos et al., 2024).

The observed de-emphasis on asset growth and negative association with product innovation reveals a critical insight into AMCOS's strategic priorities. Diverging from conventional business models, AMCOS's success in Simiyu is fundamentally linked to membership growth, reflecting a commitment to broad member inclusion and direct services like the core AMCOS business in supporting farmers in cotton collection and marketing services, rather than intensive asset accumulation or new product diversification (Fawen & Cheng, 2020; Nwankwo et al., 2013). The strategic orientation is particularly salient within the Tanzanian context, where historical and ongoing regulatory frameworks, as well as government interventions, have significantly shaped the cooperative movement (Rwekaza & Anania, 2018). These influences can sometimes lead to collective dependency on entrepreneurship, potentially guiding decisions to prioritise member welfare and stability, and mitigating higher-risk undertakings such as new product development that may face market uncertainties or require substantial resources not readily available (Dadzie et al., 2022; Reed & Hickey, 2016). Therefore, the AMCOS board, through its strategic leadership, aligns their growth strategies with the core principle of its member-driven model while adapting to its specific economic and regulatory environment.

The second objective was to examine how a co-operative regulatory framework, as a moderator, influences the relationship between board strategic leadership and AMCOS growth. Results showed that the regulatory framework significantly moderates this relationship. This aligns with scholarly work emphasising that external rules and regulations are vital for co-operative success and can significantly impact organisational performance (Altman, 2015; Hailu et al., 2005), as a supportive regulatory environment provides the necessary stability and enables co-operatives to operate effectively (Capellán-Pérez et al., 2018). Additionally, research in the agricultural co-operative sector demonstrates that environmental regulations can indeed influence the effect of specific production factors on co-operative performance (Zhang et al., 2024), supporting the idea that the overall regulatory system shapes how sound board strategic leadership can foster co-operative growth by guiding decisions and operational environment (Haas et al., 2020). The Institutional Theory perspective, as applied by AMCOS, encourages the organisation to respond to regulative pressures from its environment to ensure survival and legitimacy (Khasawneh & Elrehail, 2022). A clear and supportive regulatory framework serves as the rule of the game (Abraham, 2015), enabling BSL to align its goals and strategic practices with promoting AMCOS growth and improving its effectiveness within a cooperative institutional setting.

Conclusion and Recommendation

Conclusion

The study concludes that BSL plays a key role in driving the growth of AMCOS. It highlights a significant relationship where effective strategic leadership directly influences the expansion of AMCOS, with membership growth being the primary indicator of success rather than asset accumulation or product innovation. The strategic approach shows AMCOS prioritising core services, such as supporting cotton farmers in production and marketing, aligned with the economic and regulatory frameworks that limit high-risk innovation. Additionally, the study finds that a co-operative regulatory framework notably moderates this relationship. A supportive and clearly defined regulatory framework enhances leadership effectiveness, grants legitimacy, and provides clear operational guidance, thereby amplifying the positive impact of strategic leadership on the prosperity of co-operatives.

Recommendation

The study findings have significant implications for the sustained growth of AMCOS in Tanzania. Policy makers are advised to review and refine co-operative regulations to ensure clarity and effective accountability mechanisms. The study recommends simplifying the regulatory process to foster innovation and responsiveness, enabling strategic leaders to effectively navigate market dynamics and seize growth opportunities. By creating an environment that encourages compliance with rules and adaptation to change, the Tanzania Ministry of Agriculture and the Tanzania Co-operative Development Commission (TCDC) can support AMCOS in increasing member participation, expanding its membership, and promoting the development of new innovative products within AMCOS. Considering the respondents' educational backgrounds, the study recommends targeted training for AMCOS managers in strategic management, financial literacy, governance, and innovation, as well as succession planning to cultivate future leaders. Strengthening these areas will enhance human capital, enabling leaders to manage market challenges and drive sustainable growth for AMCOS. These combined efforts, linking policy and practice, are key to unlocking the co-operative sector's full potential.

Limitations of the Study and Areas of Further Study

While providing valuable insight into the relationship between BSL and the regulatory framework on the growth of AMCOS in Tanzania, the study acknowledges certain limitations inherent in its design. First, the empirical scope was restricted to the Simiyu region, which advises caution against generalising findings to more diverse geographical contexts or other agricultural co-operative models. Moreover, the study focused on three indicators of growth, including membership, asset growth, and product innovation, while other indicators, such as social impact and environmental sustainability, also exist. The study suggests that future research could expand the geographical scope or replicate this study in other regions of Tanzania, concentrating on different crops and operational models. Further studies could also explore other aspects of AMCOS growth, such as social impact.

Declarations

Artificial Intelligence (AI) Use in Manuscript Preparation: During manuscript preparation, the author(s) utilised ChatGPT and Grammarly to enhance the article's readability; however, no content was generated or analysed using these tools. The authors then reviewed and edited the content.

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APPENDICES

Appendix I: Common Factor Bias -

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.189	30.331	30.331	7.584	28.089	28.089
2	4.021	14.894	45.224			
3	2.753	10.196	55.420			
4	1.991	7.373	62.793			
5	1.189	4.403	67.196			
6	.995	3.687	70.883			
7	.972	3.601	74.484			
8	.827	3.062	77.546			
9	.745	2.761	80.306			
10	.695	2.574	82.880			
11	.577	2.136	85.016			
12	.518	1.917	86.933			
13	.506	1.874	88.807			
14	.397	1.470	90.277			
15	.361	1.339	91.616			
16	.319	1.182	92.797			
17	.294	1.088	93.885			
18	.258	.957	94.842			
19	.235	.869	95.711			
20	.217	.804	96.516			
21	.184	.682	97.198			
22	.168	.623	97.821			
23	.152	.565	98.385			
24	.134	.496	98.882			
25	.109	.403	99.284			
26	.097	.361	99.645			
27	.096	.355	100.000			

Extraction Method: Principal Axis Factoring.