Factors affecting the performance of cooperatives: A case study in Vietnam

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Abstract
Background: Cooperatives are independent organizations in which members voluntarily collaborate to meet mutual economic, social, and cultural goals through collective ownership and democratic management. The role of cooperatives in socioeconomic development is increasingly being recognized, and they are becoming the target of economic managers.
Objective: The study aims to explore the key factors affecting cooperatives' performance in Vietnam. Besides, the authors proposed policy recommendations for enhancing the performance of cooperatives.
Methodology: The authors conducted a group discussion of managers experts with ten persons with doctoral degrees in business administration, quantitative methods, and primary data collected directly from the sample size of 400 managers of cooperatives from five major cities and five provinces in Vietnam, using a random sampling technique, offline and online serving.
Result: The results show that five main factors affect the performance of cooperatives in Vietnam, with a significance level of 0.05 and a substantial impact on cooperative management capacity. Research results suggest that managers should strengthen and enhance cooperative management capacity to promote cooperative performance.
Conclusion: Studying the performance of cooperatives in Vietnam reveals that it depends on many main factors. External factors directly include the socioeconomic environment and support policies for cooperatives. Internal factors are non-economic factors that indirectly contribute to cooperative performance.
Unique Contribution: Cooperatives' novelty in performance lies in their unique business model, which emphasises collective ownership, democratic decision-making, and a focus on community and member benefits rather than profit maximisation, especially in offering innovative solutions.
Key Recommendation: The study has pointed out the five critical factors affecting cooperative performance. It also helps managers have an overview of cooperative performance to provide directions and policies for cooperative development in the coming time, significantly improving cooperative management capacity.
Keywords: Management capacity; production capacity; performance of cooperatives.

Introduction

The cooperative sector plays an essential role in developing Vietnam's economy. The collaborative sector was established to benefit members and help improve the living standards of society, especially in low and middle-income groups. In addition, it helps reduce the financial burden of civil servants, who are the majority of cooperatives (Emmanuel, 2023). The cooperative is an autonomous association of persons united voluntarily to meet their everyday economic, social, and cultural needs and aspirations through a democratically owned and controlled institution business. From a broader perspective, the cooperative is an organisation established to benefit its members through various services offered instead of other services.

The cooperatives refer to a member-owned business, through which its performance can be seen through the benefits provided to its members from time to time (Jamaluddin et al., 2023; Ghosh & Ansari, 2018; Gezahegn et al., 2020).

The Vietnam Law on Cooperatives, which was first enacted in 2012 and has since been revised and updated twice (most recently in 2023 and again on July 1, 2024), makes it very clear: The cooperative is a legally recognised group of at least seven people who have come together to form a shared economic enterprise that produces goods and services and creates jobs for its members. The cooperative's management is based on democracy, equality, self-reliance, and autonomy among its members. The cooperative industry has made considerable contributions thanks to the improved regulations in the Law on Cooperatives. The government formed the National Cooperative to boost the country's economy. The policy aims to promote cooperative performance by enhancing efficiency in all areas.

According to a report by the Vietnam Cooperative Alliance, there will be 29,021 cooperatives, 123,241 cooperative groups, and 125 cooperative unions in Vietnam by December 31, 2022. With 2.6 million employees and 6.94 million members, cooperatives have raised 54.15 trillion VND in charter capital, or 1.86 billion VND per cooperative. The total value of their assets is 187.75 trillion VND or 6.5 billion VND per cooperative. Sustainable socio-economic development, the creation of new rural regions, the elimination of hunger, the reduction of poverty, and the assurance of social security have all been aided by the collective economy and cooperatives on a national level. For cooperatives to operate effectively, the development of cooperatives not only depends on the characteristics of the cooperative, the assets of the cooperative, and the support policies of the local government but also requires management capacity, production capacity, and market strategy. Previous studies have examined factors affecting the performance and development of cooperatives; however, limited studies have been conducted to examine the above factors in general through the perspective of cooperative members. Therefore, the study aims to explore the key factors affecting cooperatives' performance in Vietnam. Besides, the authors proposed policy recommendations for enhancing the performance of cooperatives.

Literature Review
The performance of cooperatives (PC)
Many studies have shown that a cooperative's performance refers to sustainably meeting its stated goals and objectives that benefit its members. Financial, operational, social, and environmental factors are some of the usual metrics used to assess a cooperative's performance (Benavides & Ehrenhard, 2021; Guyalo & Ifa, 2023). The ratio of financial success to financial sustainability by measuring cooperatives' profitability, revenue growth, cost management, and overall economic health. The financial health of a cooperative is shown by its capacity to make a surplus or profits, which it can then use to fund its operations or distribute as dividends to its members (Zhang & Xin, 2023; Jin et al., 2022).

Cooperative management capacity (CMC)
A company's capacity for leadership and operation can be defined as its level of cooperative management capability. Good management is crucial for handling issues, allocating resources, and making significant choices (Lorenz et al., 2020; Limbach, 2023). Effective leadership results include new ideas, more involvement from members, and better management. Inefficiency, misdirected objectives, and operational failures are all symptoms of incompetent management (Zeren et al., 2023).

Socioeconomic environment (SE)
Socioeconomic variables that cooperatives confront include economic stability, population

increase, customer demand, and social development level (Kyazze et al., 2017). By enhancing their access to human capital, financial services, and markets, cooperatives can broaden their impact in an enabling social and economic environment (Calafat-Marzal et al., 2023). Conversely, the cooperative may fail in unfavorable socioeconomic contexts, such as recessions or rural poverty, and promote rural development if cooperation continues.

Support policies for cooperatives (SPC)
Some examples of government support policies that substantially impact cooperative performance are subsidies, tax incentives, regulatory frameworks, and the availability of financial resources (Ashraf et al., 2024). Well-planned support policies can help cooperatives, particularly in less developed regions, by lowering operational costs, providing technical assistance, and increasing access to funding (Aluko & Ntsalaze, 2021). With the support of more robust cooperative legislation, increased government support, and financial incentives, Vietnamese cooperatives can prosper and adjust to evolving market circumstances.

Development characteristics of cooperatives (DCC)
Size, governance, membership base, and sectoral specialization are essential factors that affect a cooperative's ability to compete and adapt to changing market conditions (Spicer, 2020). In times of economic uncertainty, cooperatives with solid internal governance and a diverse membership are better able to weather the storm (Sutton, 2019). Vietnam needs development traits that align with market expectations to improve its performance and sustainability. Cooperative size and knowledge of a particular industry are two of these attributes.

Production capacity of cooperatives (PCC)
A cooperative's ability to meet consumer demands is directly proportional to its production capacity, based on its efficiency in handling and utilizing its many resources (Onyango et al., 2023). More excellent production increases the likelihood of realizing economies of scale, allowing for higher-quality goods at reduced costs (Zheng et al., 2023). A combination of modern technology, skilled labor, and efficient production methods is essential for Vietnamese cooperatives to boost output and maintain competitiveness in both domestic and international markets.

Theoretical Framework
Cooperative management capacity affecting the performance of cooperatives
The studies indicated that cooperative management capacity (CMC) determines how well a cooperative leads, organizes, and manages itself to achieve its goals. Multiple factors explain how CMC affects cooperative efficiency: (1) The members' efficiency and contentment depend on managers' ability to discover, hire, and inspire staff and members (Lorenz et al., 2020; Limbach, 2023). Effective management emphasizes teamwork, open communication, and a positive environment. In cooperatives, communal action is crucial; therefore, good human resource management ensures every member can contribute. (2) Cooperative management affects resource distribution and utilization. Thus, H1 proposed in Figure 1.

Socioeconomic environment affecting the performance of cooperatives
The socioeconomic environment, among other factors, affects cooperative success. Market access, labor supply, infrastructure, and government laws affect cooperatives, generating potential and limits. National or regional economic stability affects cooperatives' effectiveness (Calafat-Marzal et al., 2023). Cooperatives benefit from economic prosperity due to better market circumstances, higher demand for cooperative goods and services, and easier capital availability. During a financial crisis or economic downturn, consumers may have less money

to spend, have problems receiving loans, and pay more to run their enterprises (Jamaluddin et al., 2023). Therefore, H2 proposed in Figure 1.

Support policies for cooperatives affecting the performance of cooperatives

Support policies for cooperatives (SPC) help cooperatives succeed by providing the structure, resources, and incentives they need to operate more efficiently and sustainably. These policies include government initiatives, laws, and financial aid to help cooperatives accomplish social and economic goals (Ashraf et al., 2024). Financial resources like loans, grants, and subsidies are the most direct ways to support policies that affect cooperative performance. Financial aid helps cooperatives invest in new technology, grow, and gain working capital (Aluko & Ntsalaze, 2021; Gezahegn et al., 2020). Therefore, the authors proposed H3 in Figure 1.
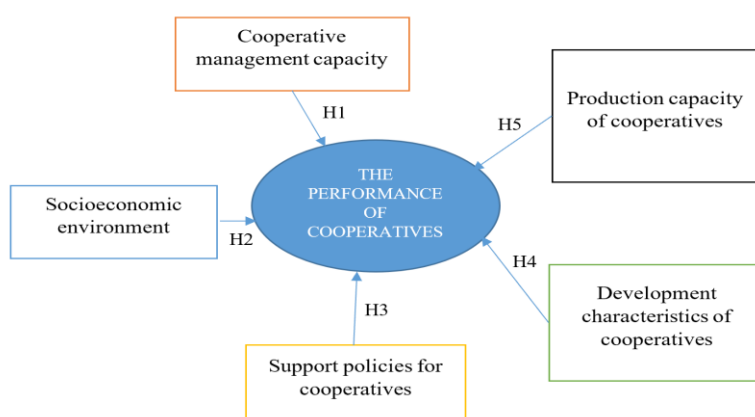
Development characteristics of cooperatives affecting the performance of cooperatives

Development characteristics (DCC) make cooperatives unique and affect their growth, operations, and performance. Size, structure, membership base, and sectoral specialization affect cooperatives' ability to prosper in competitive marketplaces (Spicer, 2020; Guyalo & Ifa, 2023). Effectiveness depends on a cooperative's size, governance structure, industry focus, membership participation, and innovation (Zhang & Xin, 2023; Jin et al., 2022). These features are essential for Vietnamese cooperatives to adapt to the country's changing economy. Therefore, the authors proposed H4 in Figure 1.

Production capacity of cooperatives affecting the performance of cooperatives

A cooperative's performance depends on its ability to create goods and services, meet market demands, and stay competitive (Onyango et al., 2023). Cooperative production capacity is the ability to maximize output by efficiently managing labor, technology, and raw materials. Production capacity affects a cooperative's efficiency, market reaction, product quality, and competitiveness (Zheng et al., 2023; Jin et al., 2022). Cooperatives require modern technologies, skilled personnel, and money to satisfy market needs, decrease costs, and grow sustainably. Therefore, H5 proposed in Figure 1.

Based on the things mentioned above, in theory, the relationship between the performance of cooperatives and these factors is also indissoluble. Consequently, a research model is proposed herein, encompassing the analysis of the five factors mentioned above.

Source: Synthesized by the author group

Figure 1: *The framework for five factors influencing the performance of cooperatives*

Figure 1 illustrates that there are five key factors influencing the performance of cooperatives in Vietnam: (1) Cooperative management capacity (CMC), (2) socioeconomic environment (SE), (3) support policies for cooperatives (SPC), (4) development characteristics of

cooperatives (DCC) and (5) production capacity of cooperatives (PCC).

Research Methods

These stages are essential for examining, assessing, and analyzing the relationship between variables in a theoretical model and detailed contents, followed by 05 steps.

Step 1: The study uses a combination of document research, qualitative research, and quantitative research methods to build models, scales of research variables, and model regression. The technique of document research aims to analyze and synthesize theories on cooperative development and access existing research models to build models and preliminary scales (Hair et al., 2018).

Step 2: The survey was formed on a 5-point Likert scale with values ranging from totally disagree to totally agree. The statements were edited and supplemented to measure the factors that must be studied and suit the research context. The author stated that the previous scales were unsuitable for reality due to differences in some objective factors. Therefore, this scale was researched and built based on the earlier scales and a preliminary survey of some cooperatives. Through the initial survey and group discussion, the study adjusted and developed the final scale to suit the research objectives and context. The authors had conceptual measure development based on the conceptual measures developed through empirical research and group discussions involving 10 business managers from major cities and provinces in Vietnam, including Ho Chi Minh City, Can Tho, Hai Phong, Da Nang, and Hanoi. Dong Nai province, Binh Duong, Long An, Ba Ria – Vung Tau, and Binh Thuan province. Moreover, 10 business managers are interviewed to provide insights and suggestions on the performance of the cooperatives scale. This step adjusts and refines the scale of the concepts.

Step 3: Drawing on data obtained from 385 processed replies (out of 400 disseminated), the authors conducted an exploratory factor analysis (EFA) and Cronbach's alpha to evaluate the reliability and validity of the preliminary scale. (i) One of the most essential methods is Cronbach's alpha, which checks for scale dependability and requires a value higher than 0.6. (ii) Applying exploratory factor analysis (EFA) to determine the scale's validity while meeting specific criteria, such as A factor loading of at least 0.4, a factor uniqueness with loading of at least 0.3, and a total variance explained of at least 50%. (iii) KMO must be more than 0.5, and Bartlett's test must have a significance threshold below 0.05.

Step 4: The authors used Cronbach's alpha to reassess the scales' reliability after the formal examination. Scale validity was studied using exploratory and confirmatory factor analysis (EFA and CFA) in structural equation modeling (SEM). SEM analysis scale reliability and validity must be checked (Hair et al., 2018).

Step 5: The authors used structural equation modeling to test the study model and assumptions. This showed how closely the theoretical model matched the data. The model testing results were used to draw conclusions and suggest governance changes to improve cooperative performance.

Study Results

According to studies, Vietnamese cooperatives can improve performance, market resilience, and sustainability by maximizing these aspects. Table 1 shows how each component influences the cooperative's ability to achieve its goals, adjust to market changes, and promote social and economic growth.

Table 1: *The results of testing Cronbach's alpha and average value for critical factors*

Items	Cronbach's alpha	Mean	Standard Deviation

Cooperative management capacity (CMC: CMC1, CMC2, CMC3, CMC4)	0.928	3.068	0.961
Socioeconomic environment (SE: SE1, SE2, SE3, SE4)	0.819	2.414	0.675
Support policies for cooperatives (SPC: SPC1, SPC2, SPC3, SPC4)	0.839	3.478	0.887
Development characteristics of cooperatives (DCC: DCC1, DCC2, DCC3, DCC4)	0.918	3.070	0.986
Production capacity of cooperatives (PCC: PCC1, PCC2, PCC3, PCC4)	0.936	3.016	0.983
The performance of cooperatives (PC: PC1, PC2, PC3)	0.780	3.272	1.006

Source: calculations by the authors

Table 1 shows the essential parameters impacting cooperative performance's Cronbach's alpha reliability, average value (Mean), and standard deviations. Cooperative management capacity (CMC), socioeconomic environment (SE), support policies for cooperatives (SPC), development characteristics (DCC), production capacity (PCC), and performance are studied. All critical elements have strong Cronbach's Alpha values, indicating good internal consistency for the item. CMC has the highest dependability at 0.928, while PC has intermediate reliability at 0.780. The crucial factor mean values range from 2.414 for SE to 3.478 for SPC, indicating variation in cooperative performance ratings. The Standard Deviation figures show respondents' answer variation. SE is the least variable with 0.675, while PC is the most variable with 1.006. This study reveals that respondents score cooperative support policies (SPC) and cooperative management capability (CMC) higher than the socioeconomic environment (SE).
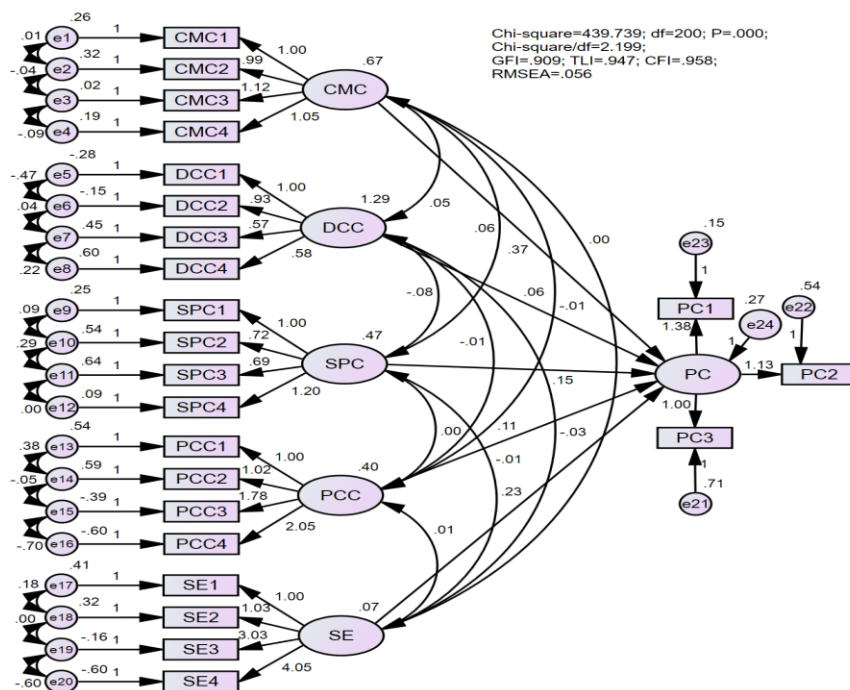
Source: The results from SPSS 20.0 and Amos
Figure 2: *Testing key factors impacting on the performance of cooperatives*
Figure 2 demonstrates that all five hypotheses from H1 to H5 are accepted with a significance level of 0.05, indicating that cooperative management capacity, development characteristics of cooperatives, support policies for cooperatives, production capacity of cooperatives, and the socioeconomic environment positively influence the performance of cooperatives.

Table 2: *Testing five key factors influencing the performance of cooperatives*

Relationships			Standardized estimate	S.E	C.R	P value	Bias	Result
PC	<---	CMC	0.489	0.048	7.858	***	0.002	Accepted H1
PC	<---	DCC	0.117	0.024	2.726	0.006	0.002	Accepted H4
PC	<---	SPC	0.161	0.048	3.035	0.002	0.002	Accepted H3
PC	<---	PCC	0.109	0.043	2.496	0.013	0.001	Accepted H5
PC	<---	SE	0.094	0.066	3.454	***	0.001	Accepted H2

*The data was analyzed using SPSS 20.0, Amos, and the significance level is ***, equal to 0.01.*

Table 2 shows the five key factors affecting cooperative performance, statistically significant at 0.05. All five variables impact cooperative performance, but cooperative management capacity has the most critical impact (standardized estimate = 0.489, $P < 0.001$), supporting H1. H4 is accepted because cooperative development features positively affect performance with a standardized estimate of 0.117 and a P value of 0.006. Cooperative support policies improve performance, with a standardized estimate of 0.161 and a P value of 0.002, accepting H3. Cooperative production capacity moderately improves performance, with a normalized estimate of 0.109 and a P value of 0.013, confirming that H5 and H2 are supported. Finally, the results of a Bootstrap test using 20.000 samples for factors influencing cooperatives' performance with the estimates' modest bias and steady standard errors across all factors demonstrate their correctness.

Table 3: *Key factors influencing the performance of cooperatives in Vietnam*

Code	CR	AVE	MSV	Results
SE	0.963	0.987	0.004	Very good
CMC	0.938	0.791	0.239	Very good
DCC	0.949	0.830	0.011	Very good
SPC	0.810	0.533	0.027	Very good
PCC	0.994	0.979	0.007	Very good
PC	0.779	0.558	0.239	Very good

The data was analyzed using SPSS 20.0, Amos

Table 3 shows the composite reliability, average variance extracted, and maximum shared variance for essential factors affecting Vietnamese cooperative performance. Composite reliability reflects factor internal consistency, with values greater than 0.7 deemed satisfactory. All aspects have CR values above 0.7, suggesting high dependability. The average variance extracted compares a factor's variance to measurement error. AVE values above 0.5 indicate that the component explains a lot of variance.

Discussion of Findings
This study's findings highlight the most important variables impacting Vietnamese cooperatives' efficiency and effectiveness. The study of five important factors affecting cooperative performance differently. These factors are cooperative management capacity, support policies for cooperatives, cooperatives' development characteristics, production capacity, and the socioeconomic environment. Important implications for policymakers and cooperative managers are offered by the contributions of each element, as shown by

normalized estimates and statistical significance.

(1) The study shows that CMC has the most impact on cooperative performance, with the highest standardized estimate (0.489) and a statistically significant P value (***, P < 0.001). The cooperative managerial capability is discussed. This discovery highlights the critical importance of strong management in propelling the success of cooperatives. The entire performance of cooperatives can be improved by strong leadership, strategic planning, and efficient use of resources.

(2) The cooperative support policies (SPC): A positive and statistically significant correlation between SPC and cooperative performance (standardized estimate 0.161, P value = 0.002) shows how important it is to have outside help while building a cooperative. To ensure the success of cooperatives, the government should establish rules, offer financial incentives, and provide technical support. According to the reasonably high mean score for SPC (3.478), the current policies are generally well-received by cooperatives, but improvement is needed. If policymakers are serious about helping cooperatives thrive and compete, they should tailor these support mechanisms to meet their unique requirements.

(3) Cooperative development features (DCC): The results also indicate that DCC has a favorable effect on performance, although a smaller one than CMC and SPC (standardized estimate 0.117, P value = 0.006). Assuring cooperatives can adapt to changing market conditions and stay viable requires development features, such as organizational structure, growth plans, and innovative capabilities.

(4) Cooperative production capacity: Its use has a moderate but substantial effect on performance (standardized estimate 0.109, P value = 0.013). This finding emphasizes the significance of production capacity in attaining operational efficiency, which includes things like the availability of resources, production procedures, and technology adoption.

(5) The socioeconomic environment (SE) has the most negligible impact on cooperative performance, although it is still significant (standardized estimate 0.094, P value < 0.001). Cooperatives may face a problematic socioeconomic environment, as indicated by the comparatively low mean score of 2.414, which could hinder their growth. Cooperative success can be helped or hindered by external variables like market conditions, economic stability, and regulatory frameworks.

The study's findings shed light on the complexities of the elements influencing cooperative performance, focusing on Vietnam. Collaborative management and literature on socioeconomic development could benefit from delving further into each component's theoretical contributions. In addition, from a practical standpoint, the results provide helpful information for community organizations, politicians, and cooperative managers working on collaborative development.

Conclusions and Recommendations

Based on data obtained from 385 processed replies (out of 400 disseminated), the authors conducted an exploratory factor analysis (EFA) and Cronbach's alpha to evaluate the reliability and validity of the preliminary scale and testing structural equation modeling (SEM) with a significance level of 0.05. The findings highlight the importance of internal and external factors in shaping the performance of cooperatives. Among these, cooperative management capacity and support policies for cooperatives stand out as the most significant drivers of success. To continue expansion, cooperatives need strong leadership and well-designed external support networks. Production capacity and development features also affect competitiveness, but less so, suggesting cooperatives can improve managerial skills and advocate for better support policies. Finally, despite external difficulties, the poorer socioeconomic environment demonstrates that cooperatives can grow with the correct internal competencies and support mechanisms. This requires a holistic strategy for cooperative

development that tackles internal management practices and external policy frameworks to foster growth. Cooperatives can gain market share by strengthening management, support, and production capability. Policymakers could also consider these findings when creating cooperative development interventions to prioritize resources to the most effective locations:

(1) Significant statistical results (P < 0.001) and the highest standardized estimate (0.489) indicate that cooperative management skill significantly impacts performance. Thus, cooperative leadership should be emphasized in cooperative management executive education programs. Financial management, risk assessment, strategy planning, and human resource management are some advanced topics that should be included in these programs. Certification programs in cooperative management could benefit from partnerships with universities or business schools. Mentorship and peer-learning programs should be instituted to help cooperative managers learn from successful local and international cooperative leaders. Managers of newer cooperatives can learn from those with more experience through exchange programs that allow them to shadow those with more established operations.

(2) The integral significance of outside assistance in encouraging the growth of cooperatives is demonstrated by the positive and statistically significant correlation between cooperative support policies and cooperative performance (standardized estimate 0.161, P value 0.002). Consequently, the government should evaluate its policies regularly to ensure its measures to help cooperatives remain relevant as they grow and change, particularly in funding, taxes, and market access. The policies put in place for cooperatives should be flexible enough to adjust to their size, industry, and location. Increase cooperative capital by implementing cooperative-specific financial tools such as tax incentives, microfinancing schemes, and low-interest loans. To further mitigate lending risks, it may be prudent to establish a government-backed loan guarantee program specifically for cooperatives.

(3) The results also indicate that cooperative development features benefit performance (standardized estimate 0.117, P value = 0.06). Administrators of cooperatives would do well to foster organizational agility by pushing for cooperatives to embrace business models that are both adaptable and responsive to shifting market conditions. Some ways to achieve this goal include utilizing cooperative networks to share resources and reduce risk, diversifying products or services, and implementing multi-stakeholder governance frameworks. Give grants and tax breaks to cooperatives that spend money on research and development (R&D) so that cooperatives can lead R&D. Possible areas of concentration for such studies include discovering untapped market niches, creating innovative goods, or enhancing operational efficiencies. Internal performance monitoring mechanisms must be set up to monitor the advancement of cooperative development.

(4) The standardized estimate is 0.109, and the P value is 0.013, indicating that the production capacity of cooperatives has a minor yet significant effect on performance. Consequently, cooperative managers ensure agricultural cooperatives access cutting-edge production technology, including digital tools, intelligent farming equipment, and automation systems. Such technology can be purchased with the help of subsidies or reduced prices offered by cooperative federations and governments. Cooperative consortiums can fortify supply chains by combining forces to buy commodities in bulk, gain access to distribution channels, and enhance logistics. Both negotiating power and operating expenses will rise as a result of this. Get the managers and members of the cooperative some training on optimizing production, focusing on lean manufacturing, resource management, and quality control.

(5) With a normalized estimate of 0.094 and a P value less than 0.001, the socioeconomic environment demonstrates the least substantial but still significant impact on cooperative performance. Cooperatives should be able to diversify their revenue streams beyond their main activity, which is why the government should support such plans. To hedge against swings in the price of their main crops, agricultural cooperatives may expand into agri-

tourism or value-added processing. Cooperatives can benefit from safety nets from strategic alliances with public and private sector groups. Cooperatives could benefit from these relationships in economic hardship by accessing emergency funds, crisis technical help, and priority enrollment in government relief programs. Reduce reliance on local economic conditions by tapping into new markets through digital platforms. To increase their customer base and stabilize revenue, cooperatives should look into e-commerce, digital marketing, and remote service delivery.

Limitations and future research: The results may not apply to other nations or areas because the study only looked at cooperatives in Vietnam. Cooperatives in different contexts may not have the same results as those in Vietnam due to the country's distinct cultural, economic, and legal landscape. The study's data is cross-sectional, meaning it only shows the performance of the cooperative at one moment in time. The linkages between essential factors and performance can be better understood with longitudinal data that follows cooperative performance over a more extended period. Studies that follow the success or failure of cooperatives over an extended time should be considered for future research. That way, we can see the dynamic relationship between performance and elements like cooperative management capacity and support policies as they change over time. Longitudinal data would also shed light on how cooperatives adjust to new circumstances.

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