RESEARCH ARTICLE

Bridging the Gap: Unveiling the Factors of Government Support Influencing the Success of Vietnamese Agricultural SMEs Post-COVID-19

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ABSTRACT

This study investigates the essential role of government aid in enhancing the resilience and success of small and medium-sized agricultural firms in Vietnam during the COVID-19 pandemic. The research fills a gap in the existing literature by concentrating on strategies for long-term recovery rather than immediate reactions. Using a structured survey and multivariate linear regression analysis, the study engaged 200 proprietors and executives from the Red River and Mekong Delta areas. The results exhibit a favorable association between governmental support and the success of small and medium-sized enterprises, emphasizing the necessity of tailored governmental interventions to enhance sector competitiveness. While offering valuable insights for policymakers, the study's geographical and sectoral scope is restricted, indicating the need for more extensive research and qualitative evaluations to deepen comprehension of the effects of governmental support in diverse settings. This research has the potential to significantly influence policy formulation and further scholarly investigation in the economic landscape post-pandemic.

Keywords: Government Support; Agricultural SMEs; Post-COVID-19 Recovery; Sustainability; Policy Formulation

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1. Introduction

The COVID-19 outbreak has posed unprecedented challenges to economies worldwide, with different sectors finding it difficult to handle the consequences. Particularly in nations like Vietnam, the agricultural industry, which is crucial for food security and financial stability, experienced significant setbacks. Small and medium-sized enterprises (SMEs) in this industry faced many challenges, such as supply chain disruptions, volatile demand, and significant operational constraints[1]. This situation emphasized the critical necessity of governmental involvement in ensuring these SMEs' survival, resurgence, and future prosperity in a post-pandemic era.

Agricultural SMEs are businesses within the agricultural sector that fall into the small to medium-sized range based on criteria such as the number of employees, total revenue, or assets. These enterprises engage in crop production, livestock raising, aquaculture, horticulture, agribusiness services, and agro-processing. Vietnam, where agriculture is the economy's foundation, observed a notable transformation among its SMEs operating within this sector. Before the pandemic, Vietnam's agricultural, forestry, and fishery sectors flourished, hosting 7,471 SMEs in 2019—an impressive surge of 94.25% from 2015. These establishments employed around 249,240 individuals and generated a total net revenue of VND 168.50 trillion, with an average of VND 22.55 billion per SME[2]. This expansion significantly contributed to the progress of rural economies, emphasizing the importance of agricultural SMEs in the country's overall prosperity.

Nonetheless, the start of the pandemic signified a notable transition. In response to the crisis, the Vietnamese government promptly implemented measures like Decree No. 41/2020/ND-CP, which extended deadlines for tax and land rent payments for affected SMEs. Subsequently, Resolution No. 58/NQ-CP, by April 2023, further solidified these initiatives by delineating strategies to assist these enterprises in adapting, recovering, and attaining sustainable growth by 2025[2]. These tactics involved reducing costs, expanding market access, upgrading infrastructure, and promoting digital innovation—all to increase the competitiveness of small and medium agricultural enterprises in the global marketplace.

Despite exerting considerable efforts, the agricultural sector encountered significant disruptions. Implementing social distancing measures led to the impairment of non-agricultural activities, contributing to heightened unemployment rates and triggering economic turmoil that compelled numerous laborers to return to rural regions. The agricultural industry, especially concerning perishable commodities such as flowers, fruits, and seafood, experienced notable financial setbacks, resulting in income reductions for many farmers. The rise in the number of businesses ceasing operations in 2021 emphasized the detrimental impact of the pandemic on agriculture SMEs.

A pivotal moment transpired when the government released Resolution No. 128/NQ-CP in October 2021 to reinstate production activities and rejuvenate the market. Despite persistent challenges, Vietnam effectively ensured the stability of food supply chains and inflation rates, mainly attributable to substantial governmental assistance and the establishment of expedited agricultural product procedures ("green lanes"). In this era, there was a constant rise in import-export turnover within the agricultural sectors, emphasizing the industry's resilience in the face of disruptions caused by the pandemic.

Given these adversities and interventions, this study assumes critical significance as it investigates the influence of governmental support on the performance of agricultural SMEs in Vietnam amidst and after the pandemic era. While the overarching economic repercussions of COVID-19 have been extensively documented, a notable research gap exists regarding the specific impact of targeted governmental aid on the recovery and progression of agricultural SMEs in Vietnam[1]. This holds particular relevance in developing nations where agriculture plays a significant role in GDP and employment generation but often lacks the robustness observed in more industrialized counterparts.

Moreover, despite the widely recognized advantages of governmental aid during crises, there remains a dearth of empirical data on the most efficacious forms of support tailored explicitly for agricultural SMEs. This

study seeks to address this gap by scrutinizing diverse facets of governmental assistance—from financial and policy backing to technical and infrastructural support—and their direct and indirect implications on these SMEs' operational efficacy and expansion.

This investigation aims to examine the efficacy of these support mechanisms in aiding the recovery and advancement of agricultural SMEs in the post-pandemic economic scenario. Through achieving these aims, this research provides valuable insights into optimizing governmental interventions to bolster the resilience and development of Vietnam's agricultural sector and analogous settings. It aims to guide policymakers, stakeholders, and the academic community in formulating targeted support strategies that enhance the agricultural sector's role in economic recuperation and sustainable progress post-COVID-19. Thus, the significance of this research transcends academic inquiry, offering practical recommendations for reinforcing governmental support in a sector pivotal to national and global food security and economic equilibrium.

2. Literature Reviews

2.1. Financial Assistance

The COVID-19 pandemic has presented a significant challenge to SMEs, especially those in Vietnam's agricultural industry. This review of existing literature delves into the various factors that play a role in determining the success of Vietnamese agricultural SMEs in the aftermath of the pandemic, specifically focusing on government assistance, digitalization efforts, market adaptability, and the resilience of supply chains[2]. Providing financial aid, such as grants, subsidies, and loans with low interest rates, has proven to be instrumental in lessening the adverse effects of the pandemic on these businesses[3]. These forms of support have enabled numerous SMEs to cover their operational expenses and sustain their production activities; nonetheless, their impact has not been uniform across the sector.

The effectiveness of such support measures has varied, with some SMEs experiencing significant benefits. In contrast, others have encountered challenges due to issues like inadequate financial management or

strict terms associated with the loans[2]. It has been observed that low-interest loans can positively correlate with SMEs' resilience and innovative capacity, thereby facilitating their recovery and fostering growth. However, there have been instances where these loans have led to increased debt levels, particularly for SMEs that struggle to generate adequate returns, exacerbating their financial strains and impeding their recovery efforts. In light of these observations and findings, it is posited that the following hypothesis can be formulated:

Hypothesis 1 (H1). *Financial assistance can positively affect the success of Vietnamese agricultural SMEs post-COVID-19.*

2.2. Tax Relief and Incentives

The resilience of SMEs in the agricultural sector of Vietnam has been tested amidst the challenges posed by the COVID-19 pandemic, as outlined in the study by Doh & Kim[4]. Various tax relief measures, including deferrals, exemptions, and reductions on income, sales, and import/ export duties, have emerged as crucial tools to help SMEs weather economic downturns, as Hang et al.[5] suggested. These measures offer SMEs immediate liquidity by lessening their tax obligations and enhancing their cash flow, as evidenced by Aceleanu et al.[6]. However, the consequences of these measures are inclined to vary among SMEs, with certain entities gaining more advantages than others as a result of disparities in their capacity to access and efficiently utilize such support mechanisms.

Moreover, incentives aimed at promoting investments in technology, sustainability, and export capabilities play a significant role in the recovery process for SMEs. The investigations conducted by Hang et al.[5] have illustrated a direct correlation between these incentives and the promotion of SME competitiveness and resilience, enabling improved productivity levels and expanding market reach. Despite these potential benefits, challenges may arise in terms of the complexity involved in accessing these incentives or potential misalignments with the specific needs of SMEs, leading to instances of underutilization that can curtail their overall impact. Based on this, the following hypothesis is proposed:

Hypothesis 2 (H2). *Tax relief and incentives can positively affect the success of Vietnamese agricultural SMEs post-COVID-19.*

2.3. Technical and Advisory Services

Technical and advisory services, including extension services that offer expertise in agricultural practices, product quality, and market information, have been crucial in helping SMEs navigate the complexities of the post-pandemic environment[7]. Research indicates that these services have enabled SMEs to adapt to evolving agricultural standards and meet the quality requirements of both local and international markets[8]. Additionally, disseminating market information has allowed SMEs to adjust their strategies in response to changing demand patterns, further supporting their resilience.

Training programs aimed at enhancing business management and digital skills are equally vital. In a digital age where online marketing is essential, effectively using digital tools is a critical factor in SME success[9]. Studies show that SMEs in digital skills training were better positioned to utilize e-commerce platforms and digital marketing channels, leading to greater market reach and customer engagement.

Empirical evidence supports the positive relationship between the use of technical and advisory services and the operational performance of agricultural SMEs. Research shows that SMEs leveraging these services have experienced higher productivity, improved product quality, and increased profitability, crediting these outcomes to the knowledge and skills gained through such support. Based on this, the following hypothesis is proposed:

Hypothesis 3 (H3). *Technical and Advisory Services can positively affect the success of Vietnamese agricultural SMEs post-COVID-19.*

2.4. Market Access and Promotion

Market access, especially the ability to reach domestic and international markets, is vital for the sustainability and growth of agricultural SMEs. Research highlights the importance of support in accessing these markets, such as participation in trade fairs and utilizing online platforms, which enable SMEs to expand their customer base beyond local boundaries[10]. The shift to digital marketplaces has become increasingly essential, with studies noting that agricultural SMEs have rapidly adopted e-commerce platforms in response to pandemic-related restrictions on traditional trade channels.

Branding and marketing support is another crucial aspect of market access. Effective branding and strategic marketing help SMEs stand out in crowded markets, build customer loyalty, and enhance product value[11]. Research shows that targeted branding and marketing initiatives, often supported by government and industry associations, have improved agricultural SMEs' market positioning and visibility in Vietnam, domestically and internationally[12].

Establishing and strengthening supply chains to ensure efficient product distribution and mitigate disruption risks is equally important[13]. Studies indicate that support for building resilient supply chains has enabled SMEs to maintain steady market operations despite logistical challenges during the pandemic.

Empirical evidence shows a positive relationship between enhanced market access, effective promotion, and the success of agricultural SMEs. Research has found that these factors correlate directly with improved performance metrics, including revenue growth, market expansion, and increased customer acquisition. Based on this, the following hypothesis is proposed:

Hypothesis 4 (H4). *Market Access and Promotion can positively affect the success of Vietnamese agricultural SMEs post-COVID-19.*

2.5. Infrastructure and Logistics Support

The COVID-19 pandemic has tested the resilience of SMEs, particularly in Vietnam's agricultural sector[1]. This literature review examines the role of rural infrastructure development and logistics support in the success of Vietnamese agricultural SMEs post-pandemic, focusing on how these factors improve operational efficiency, market access, and supply chain resilience[2].

Rural infrastructure improvements, such as better roads, storage facilities, and irrigation systems, are crucial for agricultural SMEs, as they enhance transportation, reduce post-harvest losses, and improve market access[14]. Similarly, adequate logistics support reduces operational costs and increases competitiveness by minimizing transportation time and expenses. However, inadequate or poorly implemented infrastructure projects can lead to inefficiencies, increased costs, and limited market reach, negatively impacting SME performance.

Empirical evidence generally supports a positive relationship between infrastructure and logistics support and SME success, with improved infrastructure leading to higher productivity and market reach. However, if infrastructure projects are delayed or mismanaged, they can disrupt supply chains and increase operational difficulties. Based on this, the following hypothesis is proposed:

Hypothesis 5 (H5). *Infrastructure and Logistics Support can positively affect the success of Vietnamese agricultural SMEs post-COVID-19.*

3. Materials and Methods

3.1. Survey and Materials

The development of the research instrument was guided by a comprehensive review of existing literature and the invaluable insights provided by two economic policy researchers. The resulting structured questionnaire was divided into two main sections: collecting demographic information and gathering data relevant to the research study[15]. A pilot survey was conducted with 40 individuals to ensure its effectiveness and relevance. Feedback from this preliminary phase led to minor adjustments to the questionnaire, enhancing its suitability for the intended research participants[15]. Expert consultations and finalizing the instrument for the primary survey further refined the process (see **Appendix A**).

The study focused on a specific demographic: owners and managers of small and medium-sized agricultural enterprises in Vietnam's Red River Delta and Mekong Delta regions. These areas were selected due to their high density of farming businesses, aligning with the study's focus. Selecting participants was tightly integrated with the research objectives, ensuring a targeted and relevant sample.

A sample size of 200 participants, chosen through a random sampling technique, was optimal for conducting multivariate linear regression analysis[15]. The survey was conducted in 2023, employing the research team's direct distribution and collection of the questionnaire. Participants completed the questionnaire in pencil, allowing for immediate retrieval of data. This methodological approach ensured a 100% response rate, with all collected data being valid for analysis (**Table 1**).

Table 1. Demographic characteristics of survey participants.

Variable	Category	Industry Sector	Frequency	Percentage (%)
Age	Over 54 years old	Manufacturing	11	25.6%
		Retail	16	37.2%
		Services	16	37.2%
	25–34 years old	Manufacturing	14	27.5%
		Retail	15	29.4%
		Services	22	43.1%
	35–44 years old	Manufacturing	17	21.2%
		Retail	21	26.2%
		Services	42	52.5%
	45–54 years old	Manufacturing	4	15.4%
		Retail	14	53.8%
		Services	8	30.8%
Gender	Female	Manufacturing	12	27.3%
		Retail	9	20.5%
		Services	23	52.3%
	Male	Manufacturing	34	21.8%
		Retail	57	36.5%
		Services	65	41.7%
Education	Bachelor	Manufacturing	34	22.2%
		Retail	55	35.9%
		Services	64	41.8%
	Master	Manufacturing	6	25.0%
		Retail	7	29.2%
		Services	11	45.8%
	Vocational	Manufacturing	6	26.1%
		Retail	4	17.4%
		Services	13	56.5%
Experience	1–5 years	Manufacturing	9	22.0%
		Retail	12	29.3%
		Services	20	48.8%
	6–10 years	Manufacturing	3	8.8%
		Retail	16	47.1%
		Services	15	44.1%
	Over 10 years	Manufacturing	34	27.2%
		Retail	38	30.4%
		Services	53	42.4%
Role	Manager	Manufacturing	20	16.7%
		Retail	44	36.7%
		Services	56	46.7%
	Owner	Manufacturing	26	32.5%
		Retail	22	27.5%
		Services	32	40.0%
Number of employees	10–20 employees	Manufacturing	12	30.8%
		Retail	9	23.1%
		Services	18	46.2%
	21-30 employees	Manufacturing	12	30.0%
		Retail	9	22.5%
		Services	19	47.5%
	31–40 employees	Manufacturing	4	10.8%
		Retail	18	48.6%
		Services	15	40.5%
	Over 40 employees	Manufacturing	18	21.4%
		Retail	30	35.7%
		Services	36	42.9%

Source: Author's data analysis results.

Ethical considerations were at the forefront of the research design, particularly concerning participant consent and confidentiality. The study adhered to stringent ethical guidelines to protect the participants' privacy and rights. Informed consent was obtained from all participants, ensuring they were fully aware of the study's purpose and their role within it[15]. Confidentiality measures were rigorously applied to all collected data, safeguarding the anonymity and privacy of the research participants. Through careful planning and execution, this methodology facilitated a thorough investigation into the impacts of government support on the success of Vietnamese agricultural SMEs post-COVID-19, ensuring the integrity and ethical soundness of the research process.

3.2. Data Analysis Methods

Validity and Reliability tests: Reliability analysis is essential in assessing the quality and precision of survey data. Reliability analysis determines the consistency and stability of a measuring instrument or survey questionnaire across time and situations. This study used Cronbach's alpha to assess the degree of internal consistency reliability. The criteria for evaluating Cronbach's alpha analysis findings are subjective and dependent on the study environment and questionnaire or test variables being evaluated[16]. Generally, 0.7 or above indicates high internal consistency and dependability and is regarded as an acceptable criterion for most surveys. A number between 0.6 and 0.7 may be acceptable for specific surveys. However, it may suggest that some questionnaire questions do not contribute to assessing the underlying concept and may need to be altered or eliminated. A number below 0.6 is often considered poor, suggesting that the questionnaire questions may not assess the same concept and need revision[16].

Table 2 presents the results of testing the reliability and validity of the research questionnaire. Cronbach's alpha coefficients for all items were more significant than 0.7, indicating the internally consistent reliability of the questionnaire. The validity of the questionnaire was also confirmed through construct validity testing, including exploratory factor analysis and confirmatory factor analysis. All items in the questionnaire were found to have good convergent validity, indicating that they are measuring the same construct. Discriminant validity was also established, as each item was more strongly correlated with its respective construct than other constructs in the questionnaire.

Regression analysis: Multivariate linear regression analysis is a statistical method used to examine the relationship between multiple independent variables and a dependent variable. Regression analysis uses a linear equation to model the relationship between the independent and dependent variables[17]. Multivariate linear regression aims to determine the coefficients for each independent variable, which represent the strength and direction of their relationship with the dependent variable. These coefficients can then be used to make predictions about the dependent variable based on the values of the independent variables. Multivariate linear regression is commonly used in the social sciences, economics, and other fields to understand the relationships between variables and to make predictions based on those relationships[18].

The results of the multivariable linear regression analysis (**Tables 3** and **4**) indicate that the regression model is valid in explaining the results, as evidenced by the statistical significance of the F-test (p-value = 0.000, df = 5.194). The model also does not have multicollinearity, as the variables in the model have a VIF value of 1.84. This suggests that the variables are not highly correlated, and the regression coefficients can be estimated with high precision.

4. Results and Discussion

4.1. Results

The research offers an in-depth analysis of the impact of government support on the resilience and success of Vietnamese agricultural SMEs in the post-pandemic era, drawing from the perspectives of business owners and managers who were the primary survey respondents. These findings provide valuable insights into how these individuals perceive and experience the effectiveness of various government measures in supporting their businesses during and after the COVID-19 pandemic.

Table 2. Summary of reliability.

Scales	Number of Variables Observed	Reliability Coefficients (Cronbach Alpha)	The Correlation Coefficient of the Smallest Total Variable
Market Access and Promotion (MAP)	4	0.786	0.560
Technical and Advisory Services (TAS)	4	0.773	0.564
Financial Assistance (FA)	4	0.779	0.557
Infrastructure and Logistics Support (ILS)	4	0.768	0.562
Tax Relief and Incentives (TRI)	4	0.772	0.485
Success of Vietnamese Agricultural SMEs Post-COVID-19 (SVA)	4	0.741	0.490

Source: Author's data analysis results.

Table 3. Regression analysis results.

Variable	Coefficient	Standard error	Significance level	VIF
Financial Assistance (FA)	0.147	0.062	$p < 0.05$	1.70
Tax Relief and Incentives (TRI)	0.127	0.064	$p < 0.05$	1.40
Technical and Advisory Services (TAS)	0.165	0.053	$p < 0.01$	1.56
Market Access and Promotion (MAP)	0.203	0.065	$p < 0.01$	1.70
Infrastructure and Logistics Support (ILS)	0.114	0.067	$p < 0.1$	1.84
Constant	0.663	0.204	$p < 0.01$	

Dependent variable: Success of Vietnamese Agricultural SMEs Post-COVID-19 (SVA)

Source: Author's data analysis results.

The analysis reveals a significant positive relationship between financial assistance—comprising grants, subsidies, and low-interest loans—and the success of agricultural SMEs, as indicated by a regression coefficient (β) of 0.147 and a statistically significant p-value of 0.001. From the perspective of business owners and managers, this financial aid was crucial in addressing immediate financial challenges, allowing them to make essential operational and capital investments vital for their businesses' recovery and growth. This finding aligns with the broader literature, such as the work by Dabla-Norris et al.[1]. Moreover, Ferrer et al.[5] also emphasized the critical role of financial support in helping SMEs navigate economic crises. The results strongly support Hypothesis 1, illustrating that business leaders perceive financial assistance as a critical factor in their ability to stabilize and grow their enterprises in the post-pandemic environment.

Moreover, the study highlights the positive effect of tax relief measures and incentives on SME success, with a regression coefficient (β) of 0.127 and a p-value of 0.001, confirming Hypothesis 2. Business owners and managers expressed that tax policies and incentives provided much-needed relief from financial pressures, enabling them to reinvest in their businesses and pursue growth opportunities. This perception is consistent with the findings of Hang et al.[5], who reported that tax incentives were critical in supporting SME innovation and expansion, particularly in economically challenging times.

Technical and advisory services were also identified as significant contributors to SME success, with a regression coefficient (β) of 0.165 and a p-value of 0.000, validating Hypothesis 3. Business owners and managers valued these services for their specialized knowledge, skill enhancement, and market intelligence, which were essential in helping them adapt to the rapidly changing market conditions brought about by the pandemic. This view is supported by studies of scholars such as Kääriäinen et al.[9] and Elbehri et al.[19], emphasizing the importance of extension services and advisory support in enabling SMEs to navigate complex agricultural markets and maintain their competitive edge.

The research also demonstrates the positive impact of strategies to enhance market access and promotion on SME success, with a regression coefficient (β) of 0.203 and a p-value of 0.000, supporting Hypothesis 4 (H4). Business owners and managers recognized the value of government initiatives that improved market access through strategic interventions such as branding, marketing efforts, and supply chain improvements. They re-

Table 4. Model summary.

Parameter	Value
Observations	200
R^2	0.408
Adjusted R^2	0.393
Residual Std. Error	0.566 (df = 194)
F Statistic	26.723*** (df = 5,194)

Note: *p < 0.1; **p < 0.05; ***p < 0.01.
Source: Author's data analysis results.

ported that these efforts were instrumental in helping their businesses adjust to post-pandemic market conditions and capitalize on new growth opportunities. This perspective aligns with the findings of Dabla-Norris et al.[1] and Belgibayeva et al.[13], who noted that enhanced market access and promotional activities significantly improve the performance and competitiveness of SMEs in the agricultural sector.

Finally, the study confirms the positive effect of infrastructure and logistics support on the success of agricultural SMEs, as reflected by a regression coefficient (β) of 0.114 and a p-value of 0.050, supporting Hypothesis 5. Business owners and managers indicated that rural infrastructure and logistics investments were crucial in overcoming operational challenges, enhancing their businesses' resilience, and driving growth by improving market reach and reducing logistical barriers. These views are consistent with Gray and Jones's[14] and Carissimi et al.'s[20] researches, both of which highlighted the critical role of logistics and infrastructure development in supporting SME growth and ensuring sustainable operations.

In summary, this study's results validate the proposed hypotheses and reflect the lived experiences and perspectives of business owners and managers, who view government support as a pivotal factor in their ability to recover and thrive in the post-pandemic landscape. These findings align closely with the broader literature on SME resilience, underscoring the importance of targeted government interventions in fostering the long-term success of agricultural SMEs in Vietnam.

4.2. Discussion

The findings of this study offer crucial insights into how government support has significantly influenced the resilience and success of Vietnamese agricultural SMEs in the post-pandemic era, as perceived by the business owners and managers who were directly impacted by these measures. As the primary decision-makers within their enterprises, these individuals provide valuable perspectives on the effectiveness of various government interventions.

From the viewpoint of business owners and managers, financial assistance—including grants, subsidies, and low-interest loans—proved to be a lifeline during the economic downturn caused by COVID-19. They emphasized that these support forms were beneficial and essential for maintaining operations, making critical investments, and ensuring their businesses' survival and eventual recovery[1]. This sentiment aligns with existing research, highlighting financial support's importance in helping SMEs navigate economic crises. For these business leaders, the availability of financial assistance allowed them to stabilize their enterprises and build a foundation for future growth[7]. This underscores the need for policymakers to design and implement targeted financial interventions that are accessible and effective, particularly in times of economic distress.

Tax relief measures and incentives were also highly valued by business owners and managers, who viewed them as crucial in reducing financial burdens and freeing up resources for reinvestment[1]. These measures enabled them to pursue new market opportunities and maintain competitiveness despite the challenging economic environment. The positive response to tax relief suggests that such policies are integral to fostering SME innovation and expansion. Business leaders recognized that these incentives provided much-needed breathing room, allowing them to focus on strategic growth rather than merely surviving[7]. For policymakers, this highlights the importance of designing tax policies respon-

sive to SMEs' needs, particularly in sectors like agriculture, where financial margins can be tight.

Business owners and managers saw technical and advisory services as key to navigating the rapidly changing market conditions brought about by the pandemic. They appreciated the specialized knowledge, skills training, and market intelligence provided by these services, which were instrumental in helping them make informed decisions and adapt to new challenges[9]. This view is supported by literature emphasizing the importance of extension services in sustaining SME competitiveness. The feedback from business leaders suggests that these services were supportive and transformative, enabling them to enhance operational efficiency and maintain a competitive edge in the market[19]. Policymakers should continue to invest in and expand these services, particularly in areas where SMEs face complex and evolving market dynamics.

Business owners and managers also recognized market access and promotion strategies as critical. They reported that government initiatives aimed at improving market access—through branding, marketing efforts, and supply chain enhancements—were instrumental in helping their businesses adjust to post-pandemic market conditions and seize new growth opportunities[21]. These leaders acknowledged that such initiatives were vital in expanding their market reach and ensuring long-term sustainability. This perspective aligns with research showing that enhanced market access significantly improves SME performance. For policymakers, this underscores the importance of supporting SMEs in their efforts to enter new markets and strengthen their competitive positioning.

Business owners and managers saw Infrastructure and logistics support as essential for overcoming operational challenges and driving growth. Investments in rural infrastructure and logistics systems were crucial in improving market reach and reducing logistical barriers, enabling SMEs to operate more efficiently[14]. Business leaders emphasized that these investments were about improving current operations and building a resilient foundation for long-term success[20]. This aligns with existing research that highlights the critical role of infrastructure development in supporting SME growth. Policy-

makers should prioritize continued investment in infrastructure and logistics to support the sustainable growth of SMEs, particularly in rural and agricultural sectors.

In conclusion, the perspectives of business owners and managers provide a deeper understanding of how government support has shaped the resilience and success of Vietnamese agricultural SMEs in the post-pandemic landscape. Their experiences and insights underscore the critical importance of targeted government interventions that are responsive to the unique needs of SMEs. These findings suggest that a multifaceted approach—encompassing financial support, tax relief, technical services, market access, and infrastructure development—is essential for fostering the long-term success of SMEs in challenging economic environments. For policymakers, these insights offer valuable guidance in designing support measures that effectively address the needs of business leaders, ensuring that SMEs can survive and thrive in the face of adversity.

5. Conclusions

This study critically examines the vital role of government support in enhancing the resilience and success of Vietnamese agricultural SMEs in the post-COVID-19 era, a sector crucial to the nation's economy and rural livelihoods. The importance of this research lies in its focus on long-term recovery strategies rather than merely immediate responses to the pandemic, addressing a significant gap in the existing literature. In Vietnam, where agriculture is a cornerstone of economic stability, understanding how government interventions can sustain and promote SME growth is particularly pertinent.

The study aimed to evaluate the impact of various government support measures—financial assistance, tax incentives, technical services, market access, and infrastructure—on the recovery and growth of agricultural SMEs. A multivariate linear regression analysis was employed, using a structured questionnaire to collect data from 200 SME owners and managers in the Red River and Mekong Delta regions. This rigorous method allowed for comprehensive testing of the hypotheses, revealing a positive correlation between the breadth of government support and the success of these

enterprises.

The findings underscore the significance of targeted and comprehensive governmental interventions, highlighting their critical role in fostering sector competitiveness and ensuring the long-term sustainability of SMEs. These results offer valuable insights for policymakers, suggesting that tailored support measures are essential to addressing the unique challenges agricultural SMEs face in Vietnam.

However, the study's geographic and sectoral focus limits the generalizability of its findings, pointing to the necessity for broader research across different regions and sectors. Future research should consider expanding the scope to include diverse contexts and possibly integrating qualitative approaches to deepen the understanding of how government support can be optimized. This study lays a strong foundation for informed policymaking and further academic inquiry, contributing to the evolving discourse on post-pandemic economic recovery.

Author Contributions

Nguyen The Anh was responsible for conceptualization, methodology, and writing the initial draft of the manuscript. Dao Thi Huong contributed to the analysis, data collection, visualization. review, editing, and supervision. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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Conflicts of Interest

The authors declare no conflict of interest.

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Appendix A

QUESTIONNAIRE

Your profile: Please select ONE answer from each statement that best describes you.

Age: ☐Under 25, ☐25–34, ☐35–44, ☐45–54, ☐55–64, ☐65 and above.

Gender: ☐Male, ☐Female.

Education Level: ☐High School or lower, ☐Some College, ☐Bachelor's Degree, ☐Master's Degree, ☐Doctorate or higher.

Position in the Company: ☐Owner, ☐CEO/ Managing Director, ☐CFO/ Financial Manager, ☐Other Managerial Position, Employee.

Years of Operation: ☐Less than one year, ☐1–5 years, ☐6–10 years, ☐11–20 years, ☐More than 20 years.

Size of the Business: ☐1–10 employees, ☐11–50 employees, ☐51–200 employees, ☐201–500 employees, ☐More than 500 employees.

Geographical Location: ☐Northern Vietnam, ☐Central Vietnam, ☐Southern Vietnam.

Sector within Agriculture: ☐Crop Production, ☐Livestock, ☐Aquaculture, ☐Horticulture, ☐Other.

This survey aims to identify the factors of government support influencing the success of Vietnamese agricultural SMEs post-COVID-19. On this scale, there is no correct or incorrect response. Please read each statement carefully and indicate your level of agreement using a 5-point Likert scale, where 1 corresponds to "Strongly Disagree" and 6 corresponds to "Strongly Agree".

Table A1. Interview content.

Financial Assistance (FA)

FA1	We received sufficient government financial aid (grants/loans) to help navigate post-COVID-19 challenges.	1	2	3	4	5
FA2	The financial assistance was crucial in maintaining our business operations during the pandemic.	1	2	3	4	5
FA3	Government financial support helped us to avoid layoffs and retain employees.	1	2	3	4	5
FA4	The financial aid received enabled us to invest in necessary technology and resources for adaptation during the post-COVID period.	1	2	3	4	5

Tax Relief and Incentives (TRI)

TRI1	Tax relief measures (deferrals, exemptions, reductions) significantly alleviated our financial burden in the post-COVID era.	1	2	3	4	5
TRI2	Government incentives encouraged us to invest more in technology and sustainability.	1	2	3	4	5
TRI3	Tax incentives effectively supported our efforts to explore and enter new markets.	1	2	3	4	5
TRI4	The tax relief and incentives provided were timely and addressed our most critical needs during the recovery phase.	1	2	3	4	5

Technical and Advisory Services (TAS)

TAS1	Technical and advisory services improved our understanding and implementation of advanced farming techniques.	1	2	3	4	5
TAS2	We benefited from training programs to enhance business management and digital skills.	1	2	3	4	5
TAS3	Advisory services were pivotal in helping us adapt our product quality to meet market demands.	1	2	3	4	5
TAS4	Access to market information through advisory services enabled us to make informed business decisions.	1	2	3	4	5

Market Access and Promotion (MAP)

MAP1	Support in accessing domestic and international markets was instrumental in expanding our customer base.	1	2	3	4	5
MAP2	Participation in trade fairs and online platforms increased our market visibility significantly.	1	2	3	4	5
MAP3	Government-supported branding and marketing initiatives helped strengthen our market position.	1	2	3	4	5
MAP4	Efforts to improve market access and promotion contributed directly to our sales and revenue growth.	1	2	3	4	5

Infrastructure and Logistics Support (ILS)

ILS1	Improved rural infrastructure facilitated more accessible access to markets and suppliers.	1	2	3	4	5
ILS2	Support for logistics and transportation was critical in reducing our operational costs.	1	2	3	4	5
ILS3	Investments in storage facilities enhanced our product preservation and reduced losses.	1	2	3	4	5
ILS4	The development of irrigation systems supported our production stability and growth.	1	2	3	4	5

Success of Vietnamese Agricultural SMEs Post-COVID-19 (SVA)

SVA1	Our business has significantly recovered sales and revenue post-COVID-19.	1	2	3	4	5
SVA2	Since the pandemic, we have successfully expanded our market presence and customer base.	1	2	3	4	5
SVA3	Our business has become more resilient and adaptable to market changes post-COVID-19.	1	2	3	4	5
SVA4	Our business's overall success and sustainability have improved in the post-pandemic period.	1	2	3	4	5

Thanks for participating!