

# Enhancing Business Performance through Competitive Capability: The Role of Strategic Resources in Vietnamese Cashew Firms

Vo Thi Thuy Duong <sup>1</sup>, Dao Le Kieu Oanh <sup>2</sup> and Hoang Thi Thanh Hang <sup>3\*</sup>

<sup>1</sup> Ho Chi Minh City University of Economics and Finance (UEF), Ho Chi Minh City 84, Vietnam;

<sup>2</sup> Ho Chi Minh University of Banking (HUB), Ho Chi Minh City 84, Vietnam;

<sup>3</sup> The Training Management Department, Ho Chi Minh University of Banking (HUB), Ho Chi Minh City 84, Vietnam.

\* **Corresponding author:** hanghtt@hub.edu.vn.

**ABSTRACT:** This study investigates the influence of strategic enterprise resources on business performance through the mediating role of competitive capability in Vietnamese cashew firms. Drawing upon Resource-Based View (RBV) theory and Dynamic Capability Theory, the study examines how technological capability, supply chain orientation, business strategy, and market orientation contribute to organizational competitiveness and performance. Data were collected from 560 managers and executives working in Vietnamese cashew enterprises. The measurement model was validated using Cronbach's Alpha and Exploratory Factor Analysis (EFA), while Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS was employed to test the hypothesized relationships. PLS-SEM was selected due to the predictive orientation of the study, the complexity of the structural model, and the inclusion of multiple mediating relationships. The findings reveal that strategic resources significantly influence business performance both directly and indirectly through competitive capability. Technological capability and market orientation emerged as key drivers of competitiveness, while supply chain orientation and business strategy demonstrated substantial effects on organizational performance. The results emphasize the critical role of internal resource deployment and dynamic capability development in achieving sustainable competitive advantage within the Vietnamese cashew industry. The study contributes to the literature by extending RBV and Dynamic Capability Theory in the context of agri-business competitiveness and offers practical implications for managers and policymakers seeking to strengthen firm resilience and long-term growth.

**Keywords:** Strategic resources, Competitive capability, Business performance, Dynamic capability theory, Vietnamese cashew industry.

## I. INTRODUCTION

Vietnam has been a long-known country of cashew processing and export in the world. Cashew products together with rice and coffee are a large portion of agricultural exports made by the country and they are a significant source of national export earnings. Statistics published by the Vietnam Cashew Association [1] show that the value of cashew kernels sold to other countries amounted to US\$3.2 billion in 2020 and to US 3.7 billion in 2021, and then slightly dropped to US 3.0 billion in 2022. This figure has since regained its position to US\$3.5 billion in 2023 and it is expected to grow to around US\$4.6 billion in 2024. In spite of these positive results Vietnamese cashew enterprises are still experiencing significant issues. These are high reliance on imported raw cashew products, variation in input prices, price competition, and growing

toughness in the demands by the leading markets like the United States and the European Union on the quality of their products, food safety, and the traceability of their foods. In these circumstances, it is necessary to enhance the efficient use of enterprise resources as a key to maintaining business performance.

According to the resource-based view (RBV), variations in the performance of the firms can be mostly attributed to the way in which the organizations obtain, integrate and utilize the tangible and intangible resources [2]. Perhaps in a volatile business world though, it may not be enough to have the resources to create better results. Researchers have contended that companies should come up with capabilities that will allow them to convert available resources into competitive advantages in the market [3]. In that respect, the empirical research is increasingly pointing to the fact that the correlation between the firm resources and the business performance is frequently indirect and competitiveness serves as a critical mediator between the two [4]. Competitiveness is the capability of firms to use resources efficiently in trying to generate better value to customers and gain a better position compared to the firms thus enhancing business performance [5].

Studies in emerging economies show that competitiveness is a core factor determining business performance, especially in export-dependent contexts. In the ASEAN region, empirical evidence based on enterprise data such as the World Bank Enterprise Surveys also confirms that components of competitiveness such as productivity, innovation, and cost efficiency have a positive impact on the operational efficiency and international market participation of enterprises [6]. However, these studies mainly approach the issue at a general or interdisciplinary level, while lacking in-depth analyses of specific industries such as the cashew industry in Vietnam.

The current research explores the impact of enterprise resources on the performance of the business using competitiveness as a mediator in Vietnamese cashew firms. Having presented empirical data on a significant agricultural export industry in a developing economy, the study will be useful in the implementation of the RBV framework, as well as having practical implications on the managers and policymakers who want to improve the competitiveness and operational performance of the cashew industry in Vietnam. With the goal of exploring and forecasting the relationships between competitiveness and business performance in the context of the Vietnamese cashew industry, this study adopts a cross-sectional research design combined with the PLS-SEM method. This allows for data collection from multiple businesses simultaneously, suitable for evaluating the relationship between variables in a practical context. Furthermore, PLS-SEM is used due to its advantages in analyzing complex models, forecasting, and its less stringent requirements regarding data distribution, thus ensuring a good fit between the research question and the approach. Part 2 consists of the review of the previous studies, Part 3 consists of the explanation of the methodology, the construction of the research model, and the data collection, Part 4 contains the results of the research, and Part 5 includes the conclusions, managerial implications, limitations, and future research directions.

## II. LITERATURE REVIEW

Economic importance of enterprise resources according to the resource and capability-based approach [2] is only as the resources are organized and realized using particular strategic processes, with strategic structure and governance orientation playing a prominent role in the process of turning the resources into competitive advantage. Expanding on this perspective, [3] argues that in a dynamic competitive environment, resources such as technology, supply chain orientation, business strategy, and market orientation should be considered components of dynamic capabilities, enabling businesses to perceive market opportunities, seize and restructure resources to maintain a competitive advantage. Therefore, these orientations not only reflect the level of resource ownership but also demonstrate the ability of businesses to integrate and coordinate value-creating activities in the supply chain and in the market.

Based on this, numerous empirical studies have confirmed that the impact of resources on business performance primarily occurs through competitiveness. Specifically, [5] indicated that technological and strategic resources help businesses improve operational efficiency through enhanced competitiveness and innovation, rather than directly impacting financial results. Similarly, [4] in the context of export businesses

shows that market orientation and supply chain orientation help businesses improve business performance by strengthening competitive advantages in cost, quality, and customer responsiveness. These results further suggest that competitiveness functions as an important mediating mechanism through which firm resources and strategic orientations are transformed into improved business performance.

Recent studies show that technological capabilities, supply chain management capabilities, business strategies, and market orientation are crucial resources that help businesses enhance their competitiveness, thereby improving business performance. In the context of increasingly complex global value chains, [7] points out that dynamic supply chain capabilities help businesses enhance their adaptability and create a competitive advantage, thereby improving operational efficiency. Similarly, [8] shows that marketing and market orientation capabilities do not directly produce superior results unless they are transformed into a competitive advantage in the market.

Although resource-based value (RBV) theory and dynamic capability theory are widely used, previous studies have been inconsistent in conceptualizing competitiveness, viewing it both as an output and as a form of firm capability [9]. Simultaneously, the mechanism of transformation from resources and capabilities to business outcomes remains unclear [10]. Therefore, this study aims to clarify the mediating role of competitiveness in this relationship.

### III. METHODOLOGY

#### 1. RESEARCH MODEL

Based on the perspective of resources and dynamic capabilities, many studies suggest that technology does not directly impact business results, but rather transforms into the competitive advantage of the enterprise. Specifically, investment and application of technology only truly create value when integrated into processes, skills, and management systems, thereby forming inimitable capabilities such as operational efficiency, innovation, and market adaptability, thus improving business performance [3]. Based on this, the study proposes the hypothesis that technology positively impacts business performance through its mediating role in competitiveness.

- H1: Technology positively impacts business results through the mediation of competitive advantages.

Supply chain practices such as supplier integration, information coordination, and responsiveness do not directly generate business results, but are first transformed into competitive advantages for the business, including cost advantages, delivery reliability, and market responsiveness. These competitive capabilities enable businesses to create superior value compared to competitors and serve as an intermediary mechanism through which supply chain efficiency is reflected in business performance. In other words, if the supply chain is not internalized into a competitive capability, its impact on business performance will be limited [11]. Hypothesis H2 is proposed:

- H2: Supply chain orientation positively affects business performance through the mediating role of competitive advantage.

During the implementation of strategic orientations such as cost leadership or differentiation, firms translate these strategic directions into concrete competitive capabilities. Such capabilities can involve cost management, capacity to add extra value to the customers and capability to adapt to the changing market conditions. These capabilities are in turn an intermediate process whereby strategic orientation is transformed into competitive advantage which eventually leads to better business performance. That is, the connection between business strategy and business performance might not be well seen without its manifestation in sustainable competitive advantages [9] Hypothesis H3 is suggested:

- H3: Business strategy positively influences business performance through the mediating role of competitive advantage.

Market orientation urges the firm to be systematic in the collection and analysis of information pertaining to customers, competitors, and the competitive environment at large. Nonetheless, such efforts only help in business performance when the acquired knowledge is well applied to create unique competitive advantages. Market orientation can assist businesses to build capabilities like the ability to create higher

customer value, an ability to respond to the market more quickly, and the competitive advantage because of strategic adjustments, reorganization of processes, and an increase in internal coordination. These capabilities play a key mediating role, thereby enabling market orientation to positively impact business performance [4]. Hypothesis H4 is established as follows:

- H4: Market orientation positively impacts business results through the mediation of competitive advantages.

After being formed and strengthened through key resources such as technology, supply chains, business strategies, and market orientation, competitiveness becomes a direct determinant of a company's business performance. Effectively integrating these resources helps businesses develop inimitable competitive capabilities, demonstrated by the ability to control costs, create superior value for customers, and adapt flexibly to environmental changes. These capabilities enable businesses to maintain a competitive advantage, improve market exploitation efficiency, and thereby positively impact business results [3, 4, 9, 11]. Hypothesis H5 is formulated:

- H5: Competitiveness has a positive impact on business performance.

Although human resources play an active role in transforming resources to increase business performance, do the resources themselves have a direct impact on business performance? To what extent? This direct impact needs to be measured for a more comprehensive assessment. Synthesizing the above hypotheses, and building upon the studies of [3, 4, 9, 11], with the common goal of all studies aiming at the ultimate goal of business performance, hypotheses H6, H7, H8, and H9 are formed as follows:

- H6: Technology directly impacts business performance.
- H7: The supply chain directly impacts business performance.
- H8: Business strategy directly impacts business performance.
- H9: Market orientation directly impacts business performance.

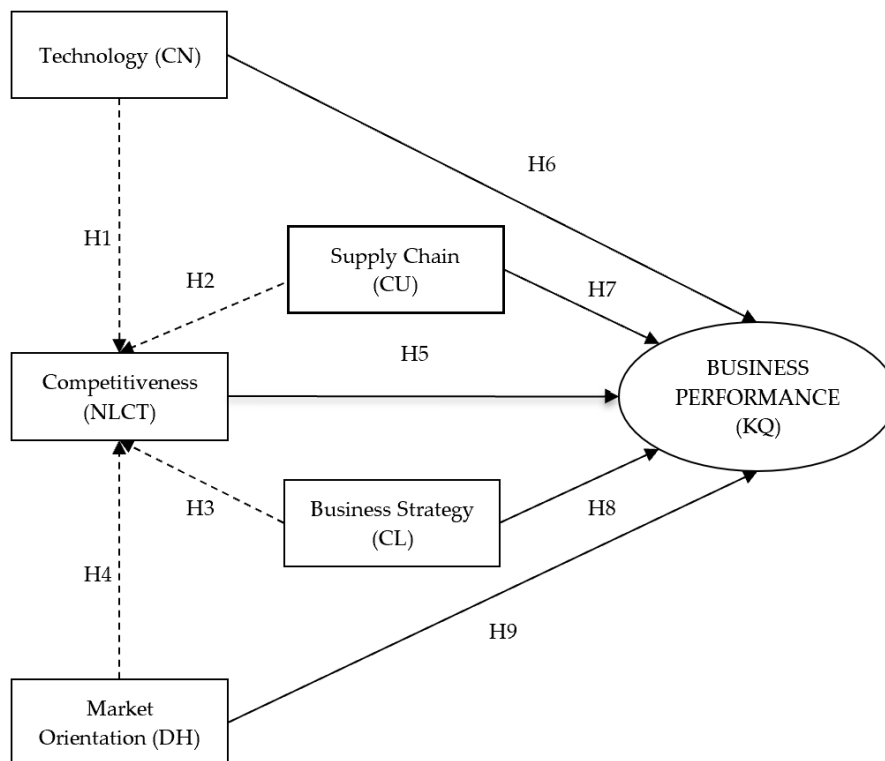


FIGURE 1. Proposed research model.

Based on the above theoretical foundations, the research model for evaluating and measuring the direct and indirect impact of enterprise resources, including technology, supply chain, business strategy, and market orientation, on business performance through competitive advantage is constructed as illustrated in Figure 1. Based on theoretical foundations and previous studies, this research anticipates that mediating variables play a partial mediation role in the relationship between firm resources and business performance, as direct impacts exist alongside indirect ones. However, in some specific cases, the possibility of full mediation is also considered.

## 2. RESEARCH METHOD

### 2.1. Data collection methods

Survey questionnaires were sent to 300 businesses, with each business receiving two questionnaires, for a total of 600 questionnaires designed on Google Forms and sent to businesses via email or social media. The survey subjects were directors, deputy directors, and department heads at Vietnamese businesses. After two months of research, 584 responses were collected. After cleaning and removing unqualified questionnaires, 560 responses remained (93.33% of the total number distributed).

The sample size is determined based on the number of observed variables used in the research model [12]. Accordingly, 5 observations are needed for each measured variable, with a recommended 10 observations per variable. This study includes 6 concepts measured by 28 observed variables, so the minimum sample size according to [12] is:  $N = 28 * 10 = 280$ . If the author sends two survey samples to each company, then 140 companies need to be surveyed. To avoid insufficient results or invalid responses that need to be discarded, the author sent survey samples to 300 companies, equivalent to 600 responses. Using a non-probability sampling method, after filtering out invalid responses, 560 valid responses were obtained for the main research data analysis.

### 2.2. Research methods

The collected data was aggregated and processed through the following steps: (1) reliability assessment using Cronbach's Alpha; (2) exploratory factor analysis (EFA) using SPSS software; (3) confirmatory factor analysis (CFA); (4) running a linear structural model (SEM) using PLS-SEM software. The entire analysis was performed using SPSS 25 and PLS-SEM according to a strict procedure, ensuring reliability and generalization of results; the selection of PLS-SEM was appropriate for the complex model and allowed simultaneous testing of causal relationships when measuring the impact of resources on business performance mediated by competitiveness in Vietnamese cashew enterprises.

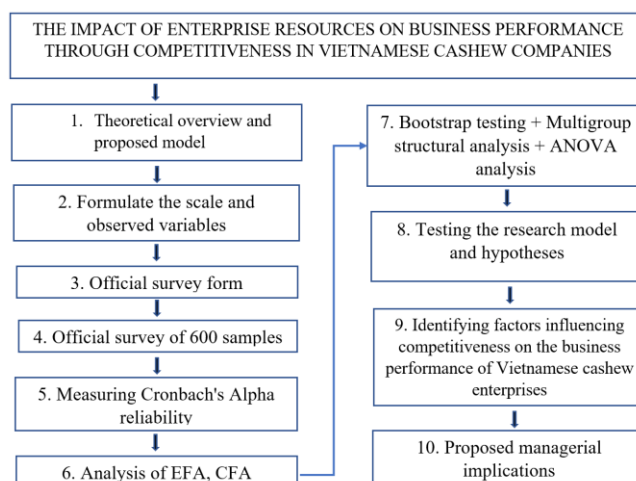


FIGURE 2. Research process flowchart.

(Source: Compiled from author).

## IV. RESEARCH RESULTS

### 1. TESTING THE RELIABILITY AND VALIDITY OF THE SCALE

The reliability and validity of the scales in the model are assessed through indicators such as: Cronbach's Alpha coefficient; Composite reliability (CR), convergent validity (AVE), discrimination according to Fornell - Larcker index and heterotrait-monotrait index (HTMT), in addition, the index measuring the quality of observed variables (Outer loading) is also used. The conditions for the scale to ensure reliability and validity are: CR and Cronbach's coefficient  $> 0.7$ , AVE  $> 0.5$ , Fornell-Larcker  $< \sqrt{AVE}$ , HTMT  $< 0.85$  and Outer loading  $< 0.708$  [12].

**Table 1.** Reliability and convergence of measuring scales.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
CN	0.867	0.867	0.909	0.715
CU	0.857	0.858	0.903	0.700
CL	0.900	0.901	0.926	0.713
DH	0.898	0.899	0.929	0.766
NLCT	0.884	0.888	0.928	0.811
KQ	0.936	0.939	0.947	0.693

Source: author's analysis.

All variables in the model were measured using scales inherited from several well-tested and highly reliable studies, with Cronbach's Alpha coefficients exceeding 0.7, which, according to the study by [12] is very good, highly reliable, and suitable for use in further analyses. The measured values such as Cronbach's alpha coefficient, composite reliability CR, convergence AVE, and discrimination all meet the measurement conditions according to the above standard as studied by [12]. In addition, the Outer loading quality index of the observed variable is  $> 0.708$  ( $\sqrt{0.5}$ ), therefore all scales ensure reliability and validity. The results show that the scales all achieve a high degree of internal consistency, with Cronbach's Alpha coefficients exceeding the minimum threshold, confirming the homogeneity of the observed variables with respect to the corresponding theoretical concept, confirming that the scales have high stability and consistency.

The EFA results show that the observed variables of the scale have a KMO index of  $0.903 > 0.5$ , indicating a sufficiently strong correlation between the variables to proceed with factor analysis. Bartlett's Test of Sphericity has a  $df = 190$ ,  $Sig. = 0.000 < 0.05$ , which is statistically significant, demonstrating that the observed variables have a linear correlation with each other overall [12]. The variables converge into a single factor with an Eigenvalue of 1.25, explaining 74.50% of the variance, and the factor loading coefficients are all above 0.5, indicating that the scale is unidimensional and has high convergent validity.

### 2. THEORETICAL MODEL TESTING ANALYSIS

After completing the assessment of the reliability and validity of the scale, the SEM linear structural model was used to measure the impact of MOC on BP at Vietnamese cashew enterprises. The SEM model was used because it is a multivariate analysis method, a powerful statistical tool to investigate complex relationships, providing a unified framework that includes many statistical procedures, can contain one or more dependent variables (endogenous), which helps to measure indirect relationships that multiple regression models cannot perform [12].

The study uses a combined measurement model, in which business resource variables and business performance are modeled as reflections, while competitiveness is approached as a structural construct, as it is composed of many distinct and non-substitutable components.

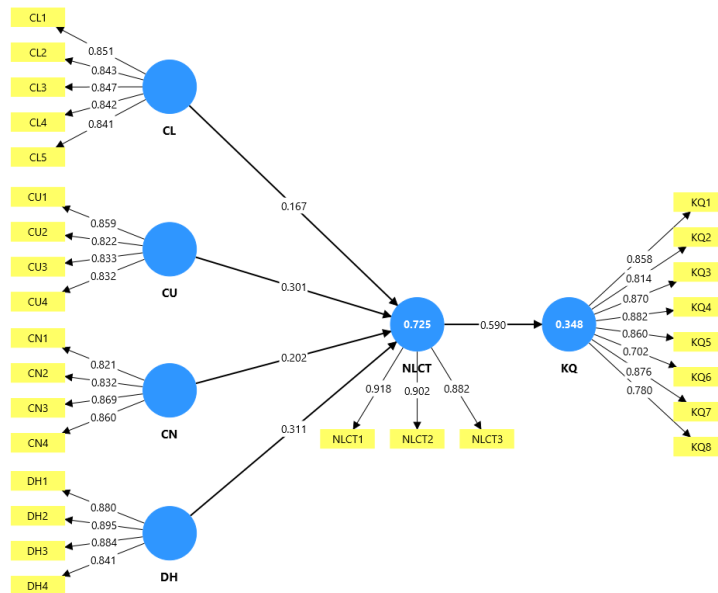


FIGURE 3. SEM model hypothesis testing results.

(Source: author's analysis).

Based on the results in Figure 3, the coefficient of determination R<sup>2</sup> of the result is 0.348, which means that the variables included in the model explain 34.80% of the variation in the business results variable, with  $p < 0.05$ , which is statistically significant. In addition, the results measuring the impact of each factor in the model are described in detail in the table below, specifically:

Table 2. Estimation and hypothesis testing results.

Hypothesis	Relationships	Impact index $\beta$	t critical	P	Result
H1	CN -> NLCT	0.202	5.065	0.000	accepted
H2	CU -> NLCT	0.301	6.611	0.000	accepted
H3	CL -> NLCT	0.167	4.741	0.000	accepted
H4	DH -> NLCT	0.311	8.678	0.000	accepted
H5	NLCT -> KQ	0.590	13.880	0.000	accepted
H6	CN -> KQ	0.119	4.629	0.000	accepted
H7	CU -> KQ	0.177	6.184	0.000	accepted
H8	CL -> KQ	0.098	4.548	0.000	accepted
H9	DH -> KQ	0.183	6.828	0.000	accepted

(Source: author's analysis).

Table 3. Estimation and hypothesis testing results via mediator Competitiveness.

Relationships	Impact index $\beta$	t critical	P	Result
CN -> NLCT -> KQ	0.119	4.629	0.000	accepted
CU -> NLCT -> KQ	0.177	6.184	0.000	accepted
CL -> NLCT -> KQ	0.098	4.548	0.000	accepted
DH -> NLCT -> KQ	0.183	6.828	0.000	accepted

(Source: author's analysis)

The results from Table 2 show that all 9 hypotheses have p-values < 0.05 with a VIF value for the collinearity test < 3, confirming that all 9 hypotheses are acceptable [13, 14]. The positive impact index demonstrates the influence of CN, CU, CL, DH on NLCT and from NLCT to business results. The test results also show a direct positive impact from CN, CU, CL, DH on results. However, the results from Table 3 testing the impact of CN, CU, CL, DH on results mediated by NLCT also show similar results to the direct impact of CN, CU, CL, DH on results. Specifically, the  $\beta$  CN  $\rightarrow$  KQ index =  $\beta$  CN  $\rightarrow$  NLCT  $\rightarrow$  KQ index = 0.119; the  $\beta$  CU  $\rightarrow$  KQ index =  $\beta$  CU  $\rightarrow$  NLCT  $\rightarrow$  KQ index = 0.177; the  $\beta$  CL  $\rightarrow$  KQ index =  $\beta$  CL  $\rightarrow$  NLCT  $\rightarrow$  KQ index = 0.098; the  $\beta$  DH  $\rightarrow$  KQ index =  $\beta$  DH  $\rightarrow$  NLCT  $\rightarrow$  KQ index = 0.183. This shows that CN, CU, CL, and DH can continue to play a direct influence on business performance; however, the scope of this influence is comparable to indirect influence via NLCT, the postulation of a dominant mediating role suggests that technology, cost, quality, and efficiency do not necessarily produce business performance, but must be converted into particular competitive advantages, like increased operational efficiency, responsiveness on the market, or coordination capabilities of a supply chain, Competitive advantages, therefore, serve as a major transformation mechanism by which resources are combined and put into use to enhance business performance of the enterprises.

The model explains 34.80% of the variation in business performance; the remaining variance of over 50% may stem from various factors not observed in the model. Firstly, macroeconomic factors such as export subsidy policies, tariff changes, technical barriers, and trade agreements can significantly impact business results. Secondly, fluctuations in input material prices and grain prices on the world market, as well as exchange rate fluctuations and international logistics costs, can distort the relationship between internal capacity and performance.

Although the research model explains 34.8% of the variance in business outcomes, this level is still considered acceptable in studies of business behavior in a volatile market environment. However, this also suggests the possibility of other factors not included in the model. Therefore, the study added control variables such as firm size and respondent position to control for differences between firms and improve the reliability of the estimation results.

### 3. TESTING THE MODEL'S FIT TO GENERAL DATA

Comparing the regression results from the study sample and the average estimated results of 5,000 samples (Table 4) shows that the bias is relatively small, and the p value < 0.05, the research has statistic meaning, therefore there is no difference between the measurement results built on the sample and the average results of 5,000 samples. The measurement model constructed by the study is robust and fits the population [12].

**Table 4.** Model robustness testing.

Impact	$\beta$ research sample	$\beta$ 5000 samples	Bias	P value
CN $\rightarrow$ NLCT	0.202	0.203	0.001	0.000
CU $\rightarrow$ NLCT	0.301	0.301	0.000	0.000
CL $\rightarrow$ NLCT	0.167	0.167	0.001	0.000
DH $\rightarrow$ NLCT	0.311	0.309	-0.002	0.000
NLCT $\rightarrow$ KQ	0.590	0.589	-0.000	0.000
CN $\rightarrow$ KQ	0.119	0.120	0.000	0.000
CU $\rightarrow$ KQ	0.177	0.177	-0.000	0.000
CL $\rightarrow$ KQ	0.098	0.099	0.000	0.000
DH $\rightarrow$ KQ	0.183	0.183	-0.001	0.000

(Source: author's analysis).

The results show that both direct and indirect impacts are significant and of comparable magnitude, reflecting a partial mediating mechanism. Theoretically, this can be explained by the simultaneous existence

of two value creation pathways: (i) direct impact from resources and capabilities on business outcomes through intrinsic efficiency, and (ii) indirect impact through competitiveness as a mechanism for transforming into market advantage [9]. This result shows that competitiveness does not replace but complements the direct impact, thereby clarifying the mediating structure in the research model.

**Table 5.** Path coefficients – Mean, STDEV, T values, p values.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
CL -> NLCT	0.167	0.167	0.035	4.741	0.000
CN -> NLCT	0.202	0.203	0.040	5.065	0.000
CU -> NLCT	0.301	0.301	0.045	6.611	0.000
DH -> NLCT	0.311	0.309	0.036	8.678	0.000
NLCT -> KQ	0.590	0.589	0.042	13.880	0.000

(Source: author's analysis)

**Table 6.** Path coefficients – Confidence intervals bias corrected.

	Original sample (O)	Sample mean (M)	Bias	2.5%	97.5%
CL -> NLCT	0.167	0.167	0.001	0.098	0.234
CN -> NLCT	0.202	0.203	0.001	0.123	0.280
CU -> NLCT	0.301	0.301	0.000	0.211	0.386
DH -> NLCT	0.311	0.309	-0.002	0.244	0.384
NLCT -> KQ	0.590	0.589	-0.000	0.499	0.667

(Source: author's analysis)

Table 5 and 6 giving Bootstrapping results with 5,000 samples showed that the path coefficients ( $\beta$ ) in the model were all statistically significant when the t-values were greater than 1.96, corresponding to a p-value less than 0.05. Simultaneously, the confidence intervals did not contain zeros, confirming that the relationships between the variables were significant and stable. According to the guidelines of [15] in PLS-SEM analysis, conditions such as t-value > 1.96 (at a 5% significance level, two-sided test), p-value < 0.05, and confidence intervals not including zeros are strong evidence to conclude that the research hypotheses are acceptable. Therefore, it can be affirmed that the relationships in the research model are statistically significant and reliable

**Table 7.** Model fit test.

	Saturated model	Estimated model
SRMR	0.055	0.067
NFI	0.757	0.751

(Source: author's analysis)

The model's SRMR index is less than 0.08, indicating a good fit between the model and the data. At the same time, the NFI index is greater than 0.7, reflecting an acceptable fit within the PLS-SEM context. Therefore, it can be concluded that the model achieves an overall good fit and is eligible for further structural analysis [15].

4. TESTING THE IMPACT AND PREDICTIVE ABILITY OF THE MODEL

**Table 8.** Assessing the impact of the model.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
CL -> NLCT	0.050	0.053	0.022	2.305	0.021
CN -> NLCT	0.062	0.066	0.026	2.427	0.015
CU -> NLCT	0.111	0.115	0.035	3.126	0.002
DH -> NLCT	0.161	0.164	0.042	3.857	0.000
NLCT -> KQ	0.533	0.546	0.121	4.420	0.000

(Source: author's analysis).

The  $f^2$  analysis results from Table 8 show that the original sample (O) values range from small to medium ( $f^2 \geq 0.02$ ). Simultaneously, the bootstrapping results show t-values  $> 1.96$  and p-values  $< 0.05$ , indicating that the effect sizes are statistically significant. According to [15], the  $f^2$  thresholds of 0.02, 0.15, and 0.35 correspond to small, medium, and large effects, respectively. Therefore, it can be concluded that the variables in the model have significant effects and reach appropriate effect levels.

**Table 9.** Results of the model's predictive ability assessment.

	Q <sup>2</sup> predict	RMSE	MAE
KQ	0.316	0.834	0.605
NLCT	0.721	0.531	0.400

(Source: author's analysis).

The predictive capability assessment results in Table 9 show that all Q<sup>2</sup> values are greater than 0, demonstrating that the model has adequate predictive capability for endogenous variables. According to [15], a Q<sup>2</sup> value  $> 0$  is a condition for confirming that the model has predictive value. Therefore, it can be concluded that the model meets the predictive capability requirements and has practical significance.

**V. CONCLUSION**

1. DISCUSSION AND CONCLUSION

The research results show that the factors of technology, cost, quality, and efficiency all positively impact business performance through competitive advantages, with indirect impacts equivalent to direct impacts. This indicates that competitive advantages not only play a crucial role as a transmission channel but also reflect a balanced mechanism of influence between the two pathways. Stated differently, technology, cost, quality and efficiency both directly generate economic value and increase business performance as they become more competitive advantages of the business. The fact that the direct and indirect coefficient of the effect are similar indicates that competitive capabilities are a significant mediator mechanism. Stated differently, the management and utilization of internal resources can never be realized fully unless such resources are used in developing competitive capabilities. This observation shows that no investment in technology, tools, equipment, or management systems is adequate to produce high performance. Rather, companies should make sure that these resources are successfully translated into capabilities that enhance the competitive advantage position in the market and hence sustainable gains in business performance.

In this study, competitiveness is approached as a multidimensional concept, encompassing technological factors, supply chains, business strategies, and market orientation. These aspects are used to comprehensively measure and reflect the competitiveness of businesses.

**Table 10.** Definitions and indicators for measuring competitiveness.

Aspect	Definitions	Measurement Index	Reference
Technology	The ability to apply and innovate technology in production and management to improve productivity and product quality.	The level of equipment modernization; the degree of automation; investment in R&D; the ability to improve processes; and the adoption of new technologies.	[9]
Supply Chain	The ability to effectively manage raw materials, logistics, and supplier relationships to ensure continuity and optimize costs	Supply stability; logistics costs; delivery time; level of supplier linkage; ability to control input quality.	[16]
Business Strategy	The ability to develop and implement strategies to create a competitive advantage, including cost and differentiation strategies	Competitive pricing strategy; ability to control costs; product diversification; strategic flexibility; ability to respond to market changes	[17]
Market Orientation	The extent to which businesses understand and respond to customer needs, as well as monitor and react to competitors	Level of market information gathering; ability to meet customer needs; level of customer satisfaction; competitor analysis capabilities; market adaptability	[18]

(Source: Compiled from author)

## 2. MANAGEMENT IMPLICATIONS

**Table 11.** Mean and std. deviation of variables.

Variables	Source	Developing observed variables	Mean	Std. Deviation
<b>Technology</b>				
CN1	[3, 19]	Our company reduces costs by adopting advanced manufacturing technology	3.41	1.060
CN2		Our company applies advanced manufacturing technology to improve the production process	3.38	1.105
CN3		Our company can deliver goods to customers faster than before	3.33	1.064
CN4		Our company minimizes the number of defective products	3.48	1.094
<b>Supply chain</b>				
CU1	[11, 20]	Our company views supply chain management as a crucial strategic tool	3.45	0.991
CU2		Our supply chain operations aim to continuously improve product quality	3.00	1.067
CU3		Our supply chain process prioritizes a high level of customer satisfaction	3.20	1.046
CU4		Our supply chain practices contribute significantly to our competitive advantage	3.20	1.040
<b>Business strategy</b>				

Variables	Source	Developing observed variables	Mean	Std. Deviation
CL1		Our company pursues a low-cost strategy to lead the market	3.41	1.138
CL2		We always provide the best customer service	3.14	1.100
CL3	[9, 21]	We always provide the best quality products to our customers	3.24	1.138
CL4		We are constantly evaluating and adjusting our strategies to maintain a competitive advantage	3.21	1.147
CL5		Our company pursues a low-cost strategy to lead the market	3.31	1.164
Market orientation				
DH1		The company continuously gathers information about customer needs and desires	3.29	0.948
DH2	[4, 22]	The company continuously monitors the strengths and weaknesses of its competitors	3.44	0.982
DH3		The departments within the company work closely together to serve customers	3.28	0.991
DH4		The company invests in long-term relationships with customers and partners	3.48	1.052
Competitiveness				
NLCT1		Our company achieves higher operational efficiency than our main competitors by effectively utilizing our existing resources and capabilities.	3.55	0.828
NLCT2	[9]	Compared to our competitors, our company is able to create superior value for customers and the market.	3.53	0.911
NLCT3		Our company achieves its operational and competitive goals better than competitors in the same industry.	3.46	0.952
Business Performance				
KQ1		Our company has achieved positive profits over the past three years	3.37	0.878
KQ2		Our company has experienced steady sales growth over the past three years	3.14	0.892
KQ3		Our customers are very satisfied with our products/services	3.30	0.932
KQ4	[23]	Our company has been successful in attracting new customers	3.18	0.908
KQ5		Our company has been successful in increasing productivity	3.28	0.896
KQ6		Our company consistently provides high-quality products and services	3.27	1.190
KQ7		Our company invests heavily in employee training and development	3.36	0.860
KQ8		Our employees are satisfied with the company's policies	3.56	0.984

(Source: author's analysis).

According to the empirical findings, the average scores of all the observed variables are larger than 3 and the standard deviations are larger than 0.8 which shows that the respondents have a tendency to accept the significance of the factors under analysis. The findings imply that companies ought to use an integrated strategy in the management of technological resources, supply chain operations, business strategies, and market orientation. A decision made regarding investment in the areas must not only focus on immediate changes in the performance of the business but it must as well focus on enhancing competitiveness, which serves as a significant mediating variable between the resources and the sustainable consequences.

The close scale of the direct and indirect effects implies that companies might not fully enjoy the returns of their investments in case resources are not transformed into competitive advantages. Thus, managers ought to work towards transforming technology, infrastructure, knowledge and managerial expertise into tangible benefits like operational efficiency, responsiveness on the market, and product differentiation. It can be useful to have systems that match resource investment in the creation of competitive capabilities so that the firms can develop stronger and more sustainable performance.

In the case of technological development, companies ought to consider the inclusion of technological solutions in production and operations instead of concentrating on equipment or automation. Transparency, coordination, and cost control at supply chain level in supply chain management can be enhanced through stronger collaboration with suppliers, customers and the logistics partners. Strategically, the findings indicate that strategic orientations can only provide excellent results when they are enforced across an organization. On the same note, market orientation should be well communicated to ensure that the technological, financial, and strategic decisions made are in line with long-term goals.

At the government level, the adoption of technologies, digitalization, and enhanced data connectivity in supply chains must be supported by governmental measures. The collaboration of industry actors may also be supported by the involvement of the public authorities in the context of investing in the logistics infrastructure and traceability systems to enhance the competitiveness of the industry. Long term and stable policy orientations will assist firms to increase short term performance and sustainable competitiveness.

### 3. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Despite the fact that this research is based on valuable empirical evidence, one should consider certain limitations. To begin with, the research is narrowed down to enterprises that are in the Vietnamese cashew industry. Although this industry is a valuable agricultural export business, specialization in one industry can limit the application of the results. Further research may be conducted to include other agricultural processing or manufacturing industries to get a wider perspective of the impact of enterprise resources on competitiveness and business performance in various environments.

Second, the existing research model primarily looks at how enterprise resources and competitiveness correlate, and the other possible affecting variables have been omitted. The influences of internal factors include organizational culture, financial potential, and managerial prowess that might influence the mobilization and utilization of resources by the firms. Concurrently, the external elements such as policy changes, rivalry by other firms in the same industry, and interactions with other partners such as suppliers and logistics firms can also affect the performance of the business. These internal and external factors could thus be incorporated in future research as moderating factors or other mediating processes. Such an extension of the analytical model would serve to give a more reliable and complete picture of what determines the competitiveness of enterprises and business performance.

This study uses a cross-sectional design, which limits its ability to infer causal relationships between competitiveness and business performance because the data was collected only at a single point in time. However, this design is still appropriate because it allows for the collection of data from multiple businesses at a reasonable cost and time, while also reflecting the current state of the industry in a volatile context. Furthermore, the study is based on theoretical foundations and prior empirical evidence, thus ensuring the academic and practical value of the results.

## Funding Statement

This research did not receive funding from any source

## Author Contributions

Conceptualization: V. T. T. D; Methodology: V. T. T. D, D. L. K. O; Software: D. L. K. O; Validation: V. T. T. D, D. L. K. O, H. T. T. H; Formal analysis: V. T. T. D; Investigation: D. L. K. O, H. T. T. H; Resources: D. L. K. O, H. T. T. H; Data curation: H. T. T. H, D. L. K. O; Writing—original draft: V. T. T. D; Writing—review & editing: D. L. K. O, H. T. T. H; Visualization: D. L. K. O, H. T. T. H; Supervision: V. T. T. D; Project administration: V. T. T. D, D. L. K. O; Funding acquisition: V. T. T. D, D. L. K. O, H. T. T. H.

## Conflicts of Interest

The authors declare no conflicts of interest.

## Data Availability Statement

No new data were created or analyzed in this study.

## REFERENCE

- Toai, D. B. (2025). Vietnam's Agricultural Export Competitiveness in the Global Market: A Panel Data Analysis. *Economics and Management Innovation*, 2(4), 110-117.
- Jha, S., & Fali, I. M. (2023). Retail performance and competitive positioning of Nike and Adidas in Australia in the period (2016–2017): A comparative statistical and strategic analysis. *Qubahan EcoLead Journal*, 1(4).
- Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40–49.
- Correia, R. J., Dias, J. G., & Teixeira, M. S. (2021). Dynamic capabilities and competitive advantages as mediator variables between market orientation and business performance. *Journal of Strategy and Management*, 14(2), 187–206.
- Haseeb, M., Hussain, H. I., Kot, S., Androniceanu, A., & Jermsittiparsert, K. (2019). Role of social and technological challenges in achieving a sustainable competitive advantage and sustainable business performance. *Sustainability*, 11(14), 3811.
- Jitsutthiphakorn, U. (2021). Innovation, firm productivity, and export survival: Firm-level evidence from ASEAN developing countries. *Journal of Economic Structures*, 10(1), 22.
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T., & Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107–124.
- Morgan, N. A., Vorhies, D. W., & Mason, C. H. (2009). Market orientation, marketing capabilities, and firm performance. *Strategic Management Journal*, 30(8), 909–920.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*.
- Eisenhardt, K. M., & Martin, J. A. (2017). Dynamic capabilities: What are they? In *The SMS Blackwell Handbook of Organizational Capabilities* (pp. 341–363).
- Pal, S. (2025). Riding on perceptions: Decoding customer choice dynamics across the two-wheeler industry landscape. *Qubahan EcoLead Journal*, 4(4).
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1–2), 1–12.
- Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge.
- Daoud, J. I. (2017). Multicollinearity and regression analysis. *Journal of Physics: Conference Series*, 949(1), 012009.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In *Handbook of Market Research* (pp. 587–632). Springer.
- Christopher, M. (2022). *Logistics and supply chain management*. Pearson UK.
- Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, 12(S2), 95–117.
- Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54(2), 1–18.
- Porter, M. E. (1985). Technology and competitive advantage. *Journal of Business Strategy*, 5(3), 60–78.
- Tan, K. C. (2002). Supply chain management: Practices, concerns, and performance issues. *Journal of Supply Chain Management*, 38(4), 42–53.
- Porter, M. E. (1980). Industry structure and competitive strategy: Keys to profitability. *Financial Analysts Journal*, 36(4), 30–41.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20–35.
- Kaplan, R. S., & Norton, D. P. (1996). *The balanced scorecard*. Harvard Business School Press.