

Impact of Dynamic Capacity Factors on Competitiveness of Vietnamese Confectionery Enterprises

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Abstract: This study explores the relationship between dynamic capabilities and competitiveness of confectionery companies and the moderating role of firm size and age in these relationships. Data was collected through questionnaire surveys of leaders from 200 Vietnamese confectionery companies and data analysis was performed using Smart PLS 4. The results show that entrepreneurial orientation, network capabilities, market orientation, and manufacturing capabilities all have positive relationships with firm competitiveness, with market orientation having the largest impact, followed by network capabilities, manufacturing capabilities, and entrepreneurial orientation having the smallest influence. Regarding moderating relationships, firm size moderates the relationship between manufacturing capabilities and competitive capabilities, age moderates the relationship between market orientation and competitive capabilities; while other moderating relationships are not significant. The findings of the study have important implications for confectionery business leaders to develop appropriate strategies to enhance their firm's competitive capabilities in the current context.

Keywords: *Dynamic capabilities, competitiveness, confectionery companies, strategy, Vietnam*

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1. Introduction

Vietnam is one of the developing countries in the world, fiercely competing in the global market, particularly in the food and beverage sector, and specifically in the confectionery industry; consequently, numerous businesses have emerged, especially those affiliated with major organizations. Currently, in the Vietnamese market, there are approximately over 300 confectionery manufacturing enterprises, including 30 purely Vietnamese companies operating on large and medium scales, and nearly 300 small and micro enterprises (Vietinbank SJC). This article examines the competitiveness of Vietnamese confectionery enterprises, aiming to identify their limitations and propose necessary solutions to enhance their competitive capabilities. The study is particularly relevant as these businesses strive to establish themselves in both domestic and international markets, facing increasing competition from established global brands while working to maintain their traditional Vietnamese identity and market position.

In the context of purely Vietnamese confectionery enterprises, researchers employ dynamic capability theory

to explain and predict the competitive abilities of businesses in a volatile environment. Therefore, the key question lies in identifying which capabilities are essential to address the complex issues and challenges of today's world. The business environment continues to evolve and transform rapidly. Research emphasizes several sources of change: Industry 4.0, internationalization, digital servitization, and economic and social issues [1]. However, the concept of measuring dynamic capabilities of purely Vietnamese confectionery enterprises, their impact, and potential to deliver superior performance remains insufficiently explored.

In Vietnam, studies on the competitiveness of confectionery enterprises have primarily been conducted for individual businesses and lack comprehensive research depth. Most of these studies have been limited to describing developmental status, emphasizing contributions, challenges, barriers, and solutions to enhance business competitiveness based on perceptions (research through secondary data). There has been no systematic research aimed at evaluating the dynamic competitive capabilities of Vietnamese confectionery enterprises as a whole to propose solutions based on quantitative research findings.

Consequently, questions arise regarding which issues should be prioritized by businesses, government, organizations, and associations to enhance the competitiveness of Vietnamese confectionery enterprises. To achieve this, it is first necessary to clarify which capability factors constitute a business's competitive advantage. Therefore, this research focuses on identifying the dynamic competitive capability factors that influence the competitiveness of Vietnamese confectionery enterprises. This approach allows for a more structured and evidence-based understanding of the industry's competitive landscape, enabling stakeholders to develop targeted strategies for improvement. The study aims to bridge the gap between theoretical frameworks and practical applications in the Vietnamese confectionery sector, providing valuable insights for both academic research and industry development.

2. Literature Review

2.1. Enterprise Competitiveness

The concept of competitiveness was first introduced in the US in the early 1990s. According to Report [2], a competitive enterprise can produce superior quality products and services at lower prices than domestic and international competitors while ensuring long-term benefits and income for workers and owners. According to Buckley et al. [3], enterprise competitiveness should align with three factors: core values, main purpose, and functional objectives. Based on previous research, this article defines enterprise competitiveness as: "Enterprise competitiveness is the ability to maintain and enhance competitive advantages over rivals in best satisfying customer needs, expanding markets, effectively attracting and utilizing production factors to achieve high and sustainable profits".

2.2. Relationship of Factors to Competitiveness

2.2.1. Relationship Between Network Capacity and Competitiveness

The ability to collaborate with external partners is particularly valuable for confectionery businesses, as most are small enterprises, helping them access resources. However, collaboration is inherently complex and faces challenges such as organizational culture differences, decision-making processes, trust issues, inability to manage multiple relationships, environmental shocks, and increased transaction costs [4]. Consequently, nearly half of all collaborations ultimately fail [5]. So why do some companies benefit more from collaboration while others struggle? [6]. Network capability is proposed as a distinguishing factor for successful collaboration. According to Walter et al. [7], "network capability includes a company's ability to develop and leverage inter-organizational relationships to access resources held by other actors."

Although network capability may be crucial for confectionery businesses' competitiveness, limited

research has explored the impacts of this outward-facing capability [6]. This study aims to address this research gap and investigate its impact on Vietnamese confectionery enterprises' competitiveness.

Network capability is a key factor distinguishing successful from unsuccessful collaborative companies. According to research, this capability comprises five components: (1) coordination, (2) relational skills, (3) partner knowledge, (4) internal communication, and (5) ability to build new relationships [7]. Coordination synchronizes operations and optimizes collaboration. Relational skills manage personal interactions effectively [8]. Partner knowledge optimizes transaction costs [7]. Internal communication ensures transparency and learning [5]. The ability to build new relationships creates opportunities for accessing new partners and knowledge.

These components not only enhance collaboration but also provide competitive advantages. For example, effective internal communication eliminates redundant processes, while relational skills and partner knowledge enable more proactive business actions [9]. Network capability allows strategic positioning, information gathering, and learning from partners. When collaboration benefits exceed costs, this capability becomes a VRIN attribute, improving competitiveness and performance.

Based on these observations, the author proposes:

H1: Network capability positively influences business competitiveness.

2.2.2. The Relationship Between Entrepreneurial Orientation (EO) and Competitiveness

Entrepreneurial orientation represents the processes and practices that provide the foundation for entrepreneurial decisions and actions in an organization. It is described as a critical component for organizational success and business performance [10]. Entrepreneurial orientation can be viewed as either a unidimensional or multidimensional construct. Early scholars viewed EO as a single factor, however, recent theories suggest EO aspects can occur in different combinations, each representing a distinct aspect of the multidimensional EO concept.

Entrepreneurial Orientation (EO) can be characterized by aspects of innovation, risk-taking and proactiveness (unidimensional). Anderson et al. [11] reconceptualized EO as a second-order firm-level construct comprising two lower-level aspects: entrepreneurial behavior (innovation and proactiveness) and managerial attitude toward risk. The multidimensional view conceptualizes innovation, risk-taking, and autonomy as independent aspects. Not all aspects need to be present for EO to be viable. This research will examine EO from a multidimensional perspective.

The confectionery industry has a specific context, with companies vertically and horizontally integrated into the value chain, with innovation mainly through vertical integration, combined products, better packaging, mergers and acquisitions.

H2: Entrepreneurial orientation is directly linked to a company's competitive capability.

2.2.3. The Relationship Between Market Orientation and Competitiveness

Market orientation is the process of gathering, disseminating, and utilizing information about customers and competitors to meet market demands [12]. It is considered a corporate culture that creates superior value for customers through three key elements: customer orientation, competitor orientation, and inter-functional coordination [13]. Customer orientation requires a deep understanding of customer needs to deliver products or services of higher value [14]. This includes measuring satisfaction and prioritizing customer benefits to build trust and improve business performance. Competitor orientation focuses on collecting strategic information and product details of competitors, helping businesses position themselves and prepare appropriate strategies for survival and growth [15]. Inter-functional coordination demands close collaboration between departments within the organization to ensure operational efficiency and market responsiveness [16].

The effectiveness of market orientation has been demonstrated in various contexts. Smirnova et al. [17] indicate that market-oriented businesses in Russia achieve higher industrial efficiency through delivering superior value and differentiation strategies. Boso et al. [18] note the positive impact of market orientation on revenue and profits in startup enterprises across developing countries.

Finally, a profound understanding of both customers and competitors not only helps businesses adapt quickly in a changing environment but also creates sustainable competitive advantages, improves sales effectiveness, and enhances overall performance [19]. Therefore, the study proposes the following hypothesis:

H3. Market orientation has a positive impact on business competitiveness

2.2.4. The Relationship Between Manufacturing Capacity and Enterprise Competitiveness

Manufacturing capability refers to a company's proficiency in quality, delivery, flexibility and cost to achieve production-related objectives. It has been argued by Schoenherr & Swink [20] that aspects of quality, delivery, flexibility and cost are core elements of manufacturing capability. Resendis-Antonio et al. [21] only found distribution and flexibility to have positive relationships with organizational performance while Fiegenbaum & Karnani [22], Prajogo, D., Oke, A., & Olhager [23] and Swink et al. [24] found no support for the relationship between process flexibility and financial performance. Lu et al. [25] discovered a non-linear relationship between manufacturing capability and operational performance.

To examine the relationship between manufacturing capability and performance in Vietnam's Confectionery

Manufacturing sector, it is crucial to identify the relevant aspects and their corresponding correlations. This can provide insights into the type of environment, industry structure and potential opportunities that exist within Vietnam's confectionery manufacturing sector.

H4: Manufacturing capability has a positive impact on business competitiveness

2.2.5. Moderating Variables in the Model

Business size and age

According to the resource-based theory [26], each company strives to create and develop resources that provide them with long-term advantages over competitors. This advantage stems from either the characteristics of the resources or the company's ability to acquire these resources by making it difficult for competitors to acquire them (resource position barriers). From this perspective, one can deduce that the source of sustainable performance lies within the company itself [26].

When examining organizational resources, which can be represented by company size and age, there are inimitable management capabilities to combine and transform available resources (technological, reputational, financial, and physical resources) into competencies. From this viewpoint, a company's size and age influence its competitive capabilities [27].

However, in the current research, the author does not study the direct effects of business age and size on competitive capability, but rather investigates the moderating role of business size and age in the relationships between network capability, entrepreneurial orientation, market orientation, and production capability on the competitive capability of Vietnamese confectionery businesses.

The following hypotheses are proposed:

H5 a,b,c,d: Business size moderates the relationships between network capability, entrepreneurial orientation, market orientation, and production capability on the competitive capability of Vietnamese confectionery businesses.

H6 a,b,c,d: Business age moderates the relationships between network capability, entrepreneurial orientation, market orientation, and production capability on the competitive capability of Vietnamese confectionery businesses.

2.3. Proposed Research Model

Based on the theoretical foundations analyzed above, combined with previous research findings, and considering the current situation of local businesses, the author proposes the following research model and develops the research hypotheses accordingly:

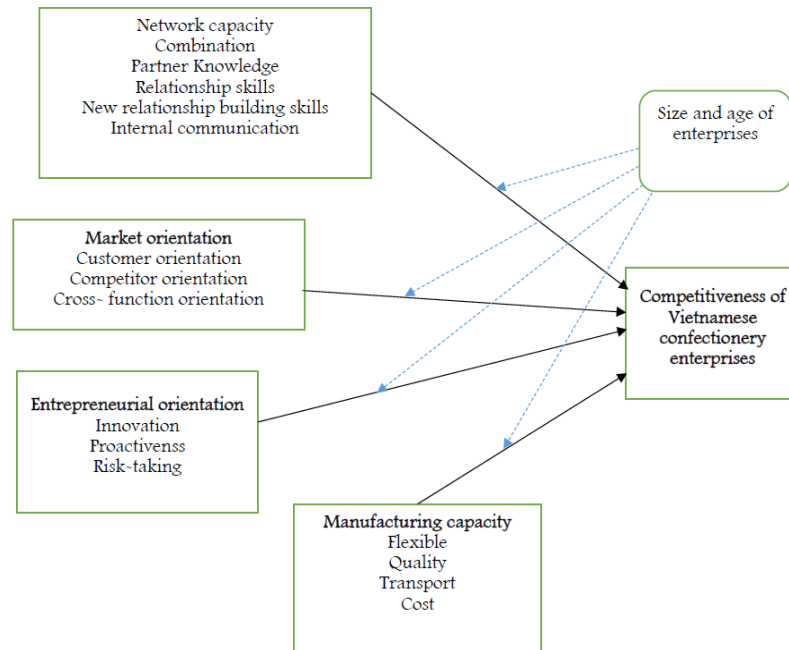


Figure 1. Proposed research model

3. Materials and Methods

The objective of this research is to examine the impact of dynamic capabilities on the competitiveness of confectionery businesses, while also investigating the moderating role of firm size and age in these relationships, as shown in Figure 1. This study employs a comprehensive sampling method targeting leaders of confectionery businesses in Vietnam. The interview subjects are confectionery business leaders who have a clear understanding of their competitive capabilities and the factors influencing their business competitiveness. We collected data through pre-designed survey questionnaires using a 5-point Likert scale; a total of 269 survey forms were distributed to business leaders and 200 completed surveys were returned meeting the criteria for analysis. Table 1 describes the operational definitions of the measurement scales. The data obtained from the survey questionnaires was cleaned and analyzed using Smart PLS4 software.

Table 1. Measurement scale

Factors	Constructs	Items	Sources
Entrepreneurial Orientation	Innovation	3	Covin & Slevin [28]
	Proactive	3	
	Risk-taking	3	
Network capacity	Coordination	3	Najmi & Abror [29]
	Relationship Skills	3	
	Partner knowledge	3	
	Internal communication	3	
	New relationship building skills	3	
Market orientation	Customer Orientation	3	Bamfo & Jerry Jay Kraa [13]
	Competitor Orientation	3	
	Cross-functional orientation	3	
Manufacturing capacity	Quality	3	Li [30]
	Transport	3	
	Flexible	3	
	Cost	3	
Competitiveness		4	Bamfo & Jerry Jay Kraa [13]

4. Results

4.1. Evaluation of the Measurement Model

4.1.1. Evaluation of the Validity of the Measurement Model

To ensure the structural validity of the measurement model, the convergent and discriminant validity of the constructs were tested.

4.1.1.1. Convergent validity

Convergent validity refers to the degree to which multiple items measuring the same concept agree with each other. Bhattacharjee [31] defines it as "the extent to which a measure relates to (or converges with) the construct that it is purported to measure." Additionally, Cheung [32] define convergent validity as the degree of correlation between distinct items within the same construct.

In this study, convergent validity was assessed by examining the factor loadings of individual items and the average variance extracted (AVE) of each construct. As a general rule, factor loadings of 0.5 or higher and AVE indicate that the factor extracts sufficient variance from that variable. As shown in Table 2, the factor loadings for all items were above the minimum threshold value of 0.5 with p-value < 0.001 [33], except for one item (CL1) from "Quality" which had a loading less than 0.5 and was therefore deleted from the scale. Similarly, the AVE of all constructs was higher than the minimum cutoff value of 0.5 [34]. These results provide additional evidence of strong convergent validity of the measurement model.

4.1.1.2. Discriminant Validity Discriminant

Discriminant validity is defined as the degree to which a construct is empirically distinct from other constructs [35]. To verify the discriminant validity of the constructs

in this dissertation, three methods were employed. These approaches are the Fornell-Larcker criterion [34], the cross-loading examination of items using loadings and cross-loadings [35], and the heterotrait-monotrait ratio (HTMT) [36].

First, the Fornell-Larcker criterion is the traditional criterion for verifying discriminant validity. It suggests that the square root of the AVE value for each construct should be greater than the correlations between any pair of constructs in its corresponding row and column [34]. The quantitative analysis results of the dissertation show that the measurement model of the current research meets this criterion, ensuring an adequate level of discriminant validity [34]. However, some researchers argue that the Fornell-Larcker criterion is not valid for measuring discriminant validity in certain cases. To address this issue, two other criteria (i.e., cross-loading criterion and HTMT criterion) were used to ensure the discriminant validity of the constructs in this study.

Second, cross-loading criterion is an excellent criterion for verifying discriminant validity [34]. According to Distefano et al. [37], the loading of each item must be greater than the loading of the subsequent construct. In other words, the loading of a question in its designated structure must be higher than their loadings on all other structures [38]. In this dissertation, the loadings and cross-loadings of all question items demonstrate that the factor loadings are more significant than other potential factors.

Third, a new criterion proposed by Henseler et al [36] called the "HTMT ratio" was used in this study to provide additional evidence of discriminant validity. The HTMT ratio estimates the correlation between two constructs, equivalent to the correlation of degraded structural scores [38]. In this criterion, the value of the HTMT ratio must be less than the proposed threshold of 0.9 [36]. The research results of this dissertation show that all HTMT values are less than 0.9 thus all constructs meet this discriminant validity criterion.

4.1.2. Evaluating the Reliability of the Measurement Model

Reliability (more precisely internal consistency reliability) is "the degree to which measurements of a

construct are consistent or dependable" [31]. One can argue that reliability answers the following question: if a researcher uses a particular item to measure the same construct multiple times, would they get nearly identical results each time, since the underlying phenomenon remains unchanged? Therefore, reliability measures the extent to which researchers would obtain similar results when repeating the study with the same questionnaire and conditions [39]. To verify the reliability of the constructs in this study, two methods were employed, namely Cronbach's alpha coefficient and composite reliability (CR) [40]. Both Cronbach's alpha and CR reflect the degree to which different items complement each other when measuring various aspects of the same concept.

Cronbach's α coefficient is a traditional criterion used to measure the internal consistency reliability of each construct [38]. It provides an estimate of internal consistency reliability based on the correlations between observed question items [38]. While a minimum threshold value of 0.7 is recommended by most researchers (e.g., [40];[34]; [41], Cronbach's α values above 0.6 are also considered acceptable. George & Mallery [41] suggest that Cronbach's α values above 0.5 are sufficient. As shown in Table 2, the Cronbach's α values for all constructs exceed the recommended threshold of 0.7, providing evidence of construct reliability. However, Cronbach's α has limitations as it assumes equal outer loadings and can underestimate internal consistency reliability [38].

Due to the limitations of Cronbach's α coefficient, composite reliability (CR) is used in this study to measure the internal consistency reliability of each construct [38]. CR is calculated by dividing the sum of squared coefficients by the sum of squared coefficients plus the sum of extracted errors. Unlike Cronbach's α , CR considers different external effects of questionnaire items [38]. CR values between 0.6-0.7 are acceptable (Hair et al., 2017), while values from 0.7-0.9 are more desirable [40], [34]. However, CR values above 0.9 are undesirable as they indicate all items measure the same phenomenon. As shown in Table 2.5, all CR values exceed the recommended threshold of 0.7 for all constructs, providing additional evidence of construct reliability.

Table 2. Measurement model factor loadings, α , C.R, AVE and VIF for multicollinearity

Constructs and variables	Factor loading	Cronbach α	C.R	AVE	VIF
Innovation (DM)		0.787	0.875	0.701	
DM1	0.841				1.738
DM2	0.838				1.663
DM3	0.832				1.612
Proactiveness (CD)		0.863	0.898	0.747	
CD1	0.772				2.230
CD2	0.960				2.044
CD3	0.850				2.590
Risk-taking (CNRR)		0.847	0.907	0.765	
CNRR1	0.897				2.284
CNRR2	0.879				2.065
CNRR3	0.848				1.948
Competitor Orientation (DHDCT)		0.825	0.895	0.740	
DHDCT1	0.873				2.103
DHDCT2	0.869				2.069
DHDCT3	0.839				1.650
Customer Orientation (DCHKH)		0.755	0.859	0.670	

Table 3. Heterotrait – monotrait (HTMT) ratio criterion

[illegible]

	7			5	7	9										
DM	0.07 3	0.140	0.201	0.13 4	0.33 7	0.27 1	0.347									
GTNB	0.12 2	0.135	0.065	0.05 3	0.09 5	0.13 7	0.164	0.08 6								
KNQH	0.09 9	0.133	0.089	0.10 6	0.13 9	0.31 9	0.202	0.12 0	0.13 4							
KTDT	0.11 1	0.188	0.253	0.14 7	0.10 3	0.14 9	0.305	0.25 4	0.41 6	0.15 9						
LH	0.11 7	0.069	0.160	0.08 7	0.11 7	0.31 1	0.156	0.20 9	0.21 1	0.34 0	0.28 7					
NLCT	0.09 1	0.280	0.270	0.12 9	0.49 1	0.81 4	0.443	0.52 0	0.31 3	0.41 5	0.25 1	0.40 6				
PH	0.07 1	0.046	0.162	0.05 5	0.30 4	0.46 4	0.371	0.36 4	0.06 4	0.33 4	0.16 9	0.24 5	0.60 1			
VC	0.21 7	0.085	0.096	0.06 7	0.15 7	0.15 0	0.062	0.05 6	0.10 6	0.40 6	0.08 4	0.14 9	0.12 1	0.03 2		
XDQH M	0.05 1	0.368	0.119	0.06 4	0.10 5	0.29 0	0.030	0.12 7	0.22 5	0.28 8	0.15 8	0.10 8	0.31 1	0.09 3	0.15 1	

4.2. Structural Model Assessment

The structural model (also known as the inner model) is a component of the path model that represents relationships between constructs [38]. Validation of reliability and validity enables evaluation of the structural path model. To examine the proposed direct and moderating relationships in this research, a bootstrapping procedure was performed using SmartPLS 4 software. To ensure stability of results, the number of subsamples must be large. Following Hayes [42] recommendation, a complete bootstrapping with a total of 5,000 bootstrap samples and significance level of 0.05 was selected to conduct this study.

4.2.1. Direct Impact Results

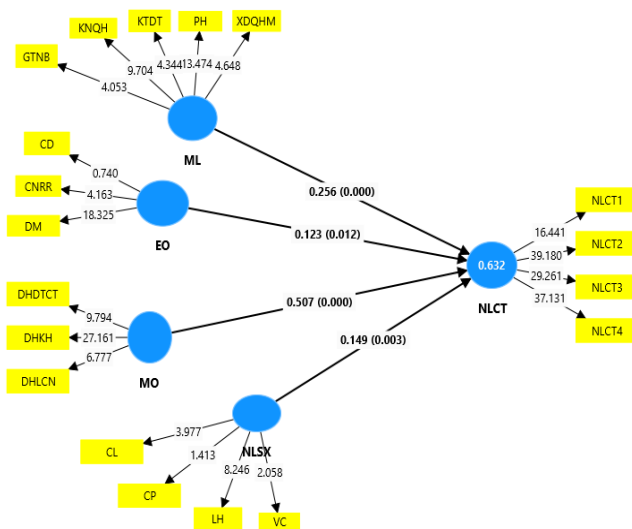


Figure 2. Measuring the structural model of direct variables

To test hypotheses H1, H2, H3, H4 related to the direct impact of dynamic capability aspects on the competitiveness of pure Vietnamese confectionery companies, the moderating variables were removed from the model as shown in Figure 2. The results demonstrated that all components of dynamic capabilities have significant and positive effects on the competitiveness of Vietnamese confectionery enterprises, specifically: The overall impact of Network Capability on competitive

capability ($\beta = 0.256, p < 0.05$). The overall impact of Entrepreneurial Orientation on enterprise's competitiveness ($\beta = 0.123, p < 0.05$). The overall impact of Market Orientation Capability on competitiveness ($\beta = 0.507, p < 0.05$). The overall impact of Manufacturing Capability on competitiveness ($\beta = 0.149, p < 0.05$). Therefore, hypotheses H1, H2, H3, and H4 are all accepted. Based on the above results, it can be argued that dynamic capabilities play a crucial role in enhancing the competitiveness of Vietnamese confectionery enterprises.

Table 4. Hypothesis testing results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
EO -> NLCT	0.123	0.127	0.049	2.526	0.012
ML -> NLCT	0.256	0.260	0.055	4.639	0.000
MO -> NLCT	0.507	0.503	0.055	9.244	0.000
NLSX -> NLCT	0.149	0.152	0.050	2.992	0.003

4.2.2. Results of Moderation Effect

Examining the moderating effects of firm characteristics variables regarding size and age of enterprises. Research results show that among eight moderating relationships, there are 2 moderating relationships between firm age with the direct relationship of production capability on competitive advantage, and firm age moderates the relationship between market orientation and competitive advantage, while the remaining relationships are not supported.

Specifically, the multiplicative effects of moderating factors, such as Size x Manufacturing Capability ($\beta = -0.130, p = 0.036 < 0.05$), Age x Market Orientation ($\beta = -0.204, p = 0.007 < 0.05$) demonstrate significant impact on competitive advantage, indicating moderation by factors of Size and firm age with Production Capability - Competitive Advantage, Market Orientation - Competitive Advantage relationships. Meanwhile, the multiplicative effects of other moderating factors like Age x Entrepreneurial Orientation ($\beta = -0.015, p = 0.845$), Size x Learning ($\beta = -0.067, p = 0.299$) and Size x Entrepreneurial Orientation ($\beta = -0.009, p = 0.897$), Size x Market Orientation ($\beta = 0.024, p = 0.709$), Age x Learning

($\beta = -0.072$, $p = 0.299$), Age x Production Capability ($\beta = 0.101$, $p = 0.165$) show weaker or insignificant effects on Competitive Advantage, indicating no significant moderation by these firm characteristic variables on the Dynamic Capabilities - Competitive Advantage relationship. This situation provides sufficient basis to conclude that although Learning, Market Orientation, Entrepreneurial Orientation, and Production Capability independently affect Competitive Advantage, the firm characteristic variables (Size and firm age) do not appear to significantly moderate these relationships.

Therefore, hypotheses H5d, H6c are supported, while hypotheses H5a,b,c, H6a,b,d are not supported.

Table 5. Testing Results of Moderation Relationship

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Size x NLSX -> NLCT	-0.130	-0.123	0.062	2.102	0.036
Age x MO -> NLCT	-0.204	-0.195	0.075	2.714	0.007
Age x EO -> NLCT	-0.015	-0.009	0.076	0.196	0.845
Size x ML -> NLCT	-0.067	-0.064	0.064	1.040	0.299
Size x EO -> NLCT	-0.009	-0.019	0.066	0.129	0.897
Age x NLSX -> NLCT	0.101	0.085	0.073	1.388	0.165
Age x ML -> NLCT	-0.072	-0.066	0.069	1.038	0.299
Size x MO -> NLCT	0.024	0.013	0.066	0.373	0.709

Table 6. Hypothesis Testing Results

	Hypothesis	Beta (β)	T-Value	P Values	Result
H1	EO -> NLCT	0.123	2.526	0.012	Accepted
H2	ML -> NLCT	0.256	4.639	0.000	Accepted
H3	MO -> NLCT	0.507	9.244	0.000	Accepted
H4	NLSX -> NLCT	0.149	2.992	0.003	Accepted
H5a	Size x ML -> NLCT	-0.067	1.040	0.299	No Accepted
H5b	Size x EO -> NLCT	-0.009	0.129	0.897	No Accepted
H5c	Size x MO -> NLCT	0.024	0.373	0.709	No Accepted
H5d	Size x NLSX -> NLCT	-0.130	2.102	0.036	Accepted
H6a	Age x ML -> NLCT	-0.072	1.038	0.299	No Accepted
H6b	Age x EO -> NLCT	-0.015	0.196	0.845	No Accepted
H6c	Age x MO -> NLCT	-0.204	2.714	0.007	Accepted
H6d	Age x NLSX -> NLCT	0.101	1.388	0.165	No Accepted

The research findings reveal that all first-order variables (components of dynamic capabilities) positively impact the competitiveness of pure Vietnamese confectionery companies. Market orientation has the strongest influence, followed by networking, entrepreneurial orientation, and manufacturing capabilities. Regarding demographic moderating effects, only two relationships are statistically significant ($p < 0.05$): the interaction between size and manufacturing capabilities on competitiveness, and the interaction between age and market orientation on competitiveness.

5. Discussion

First, the research results show that networking has a significant positive impact on the competitiveness of Vietnamese confectionery companies ($\beta = 0.256$; $P = 0.000 < 0.05$) (See Table 6). This finding aligns with previous studies by Lechner & Dowling [43] and Watson [44], confirming that networks are crucial organizational capabilities that help businesses develop and enhance their competitive advantage. In Vietnam, connections between companies, customers, and suppliers prove to be effective methods for improving competitiveness.

Next, the study demonstrates that entrepreneurial orientation directly and positively affects the competitiveness of Vietnamese confectionery enterprises. This result corresponds with findings from Khan et al. [45,46]. Initially, businesses with strong entrepreneurial orientation prioritize resources for development and expansion through innovation, risk acceptance, and active competition. Research shows that positive entrepreneurial orientation helps confectionery companies implement exploration strategies more effectively, leading to competitive advantages [47]. Companies with high entrepreneurial orientation often lead competitors in launching new products, seizing early opportunities, and making necessary changes to enhance competitiveness. Additionally, companies with high dynamic capabilities can balance exploration and exploitation, optimizing operational efficiency and increasing competitive advantage.

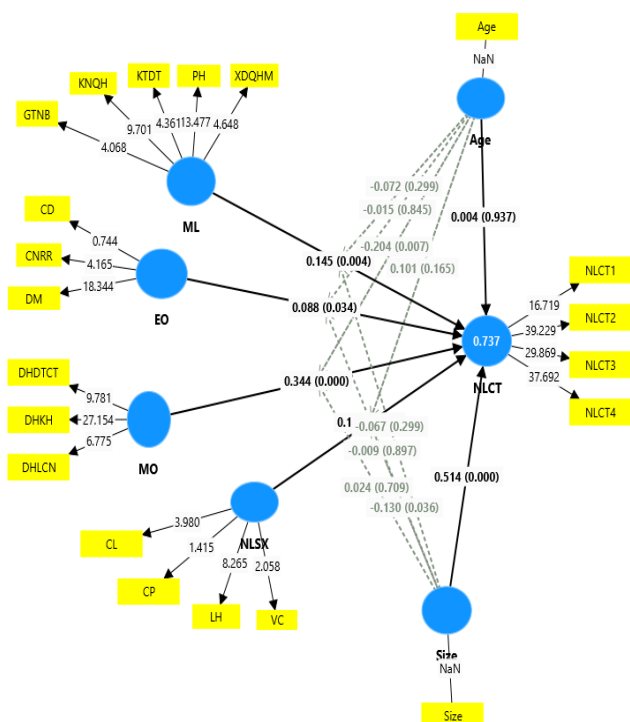


Figure 3. Measuring Structural Models

Research confirms that market orientation has a significant positive impact on the performance and competitiveness of Vietnamese confectionery companies, with an influence level of 50.7%. Customer orientation, competitor orientation, and cross-functional coordination help businesses understand market needs, predict competitor actions, and develop appropriate strategies to improve business performance. This aligns with previous studies showing market-oriented firms can deliver superior value and respond promptly to customer needs, thereby enhancing competitive advantage.

Finally, the hypothesis suggests that manufacturing capabilities have a positive relationship with the competitiveness of Vietnamese confectionery companies. The study shows that in the confectionery sector, quality is essential for market entry, while distribution and flexibility drive company performance. However, the impact of manufacturing capabilities on competitiveness is relatively low ($\beta = 0.149$; $p = 0.003 < 0.05$). This suggests that quality, coordination, delivery, and flexibility of Vietnamese confectionery companies are not yet at optimal levels, thus not contributing significantly to their competitive advantage.

Additionally, regarding the moderating variable, test results show that company size negatively moderates the relationship between production capability and competitiveness: as size increases, production capability's impact on competitiveness decreases. Small businesses, unable to compete on price, focus on quality improvement, differentiation, customer relationships, and production optimization. Their simple structure enables strategic flexibility and cost control, targeting niche markets to build customer loyalty and strengthen competitiveness. Large enterprises may struggle to utilize these factors effectively. Size doesn't affect the relationship between entrepreneurial orientation, networks, and market orientation with competitiveness. Regardless of size, strategic flexibility and market understanding are crucial, with small businesses being more adaptable to market opportunities than larger ones.

Company age negatively moderates the relationship between market orientation and competitiveness, with older firms showing weaker connections. New businesses, facing intense competition, are driven to quickly learn and adapt to market demands, enhancing their competitive advantage. Young companies can rapidly modify strategies and products to meet customer needs, fostering innovation in product development and strategic planning. Despite limited experience, they effectively build strong links between market orientation and competitiveness. However, company age doesn't moderate relationships between entrepreneurial orientation, networks, and manufacturing capabilities with competitiveness. In the fast-changing confectionery industry, strategic adaptability matters more than age. While young firms readily adopt new technologies and business models, established companies may resist change. Thus, competitiveness depends on management capability, strategy, and investment rather than company age.

6. Conclusion

This research employed a combination of qualitative and quantitative research methods. The qualitative research was conducted through in-depth interviews with experts to explore, develop, and validate the measurement scales. The quantitative research was carried out by analyzing primary data collected from 200 Vietnamese confectionery companies. The collected data was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the impact of dynamic capabilities on the competitiveness of confectionery businesses, while also investigating the moderating roles of firm size and age.

The research findings demonstrate that all dynamic capability factors - including network capability, entrepreneurial orientation, market orientation, and production capability - significantly influence the competitiveness of Vietnamese confectionery companies. Additionally, firm size was found to moderate the relationship between production capability and competitiveness, while firm age moderates the relationship between market orientation and competitiveness.

The study makes several notable theoretical and practical contributions. It is among the few studies that comprehensively examine the combined effects of network capability, entrepreneurial orientation, market orientation, and production capability within a single research framework to assess business competitiveness in Vietnam, particularly in the confectionery sector. The findings provide valuable insights for Vietnamese confectionery companies to develop evidence-based solutions for enhancing their competitive capabilities.

The research methodology was carefully designed to ensure robust results. The qualitative phase involved extensive interviews with industry experts, academics, and business leaders to gain deep insights into the key factors affecting competitiveness in the confectionery sector. These interviews helped refine the research framework and develop appropriate measurement scales for the Vietnamese context.

The quantitative phase utilized a comprehensive survey instrument distributed to a representative sample of confectionery companies across different regions of Vietnam. The use of PLS-SEM analysis allowed for sophisticated testing of both direct relationships and moderating effects, providing a nuanced understanding of how different factors interact to influence competitiveness.

The findings reveal important insights about the dynamics of competition in the Vietnamese confectionery industry. Network capability emerged as a crucial factor, highlighting the importance of building and maintaining strong relationships with suppliers, distributors, and other stakeholders. Entrepreneurial orientation was found to significantly impact competitiveness, emphasizing the role of strategic decision-making and entrepreneurial mindset. Market orientation proved essential, indicating the importance of understanding and responding to customer

needs and market trends. Production capability was also identified as a key determinant of competitiveness, underlining the significance of efficient manufacturing processes and quality control.

The moderating effects of firm size and age provide additional insights into how these organizational characteristics influence the relationship between dynamic capabilities and competitiveness. This understanding is particularly valuable for companies at different stages of development and with varying resource bases.

These findings have important implications for business practitioners, policymakers, and researchers. For business managers, the results provide a framework for assessing and developing their companies' competitive capabilities. For policymakers, the findings can inform industry development policies and support programs. For researchers, this study contributes to the growing body of literature on dynamic capabilities and competitiveness in emerging markets.

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