

Thoan, Le Thi; Thuy, Vo Thi Ngoc; Long, Tran Thanh

## Article

# Does market competition make a difference in business strategy for listed companies?

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*Suggested Citation:* Thoan, Le Thi; Thuy, Vo Thi Ngoc; Long, Tran Thanh (2024) : Does market competition make a difference in business strategy for listed companies?, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 11, Iss. 1, pp. 1-13, <https://doi.org/10.1080/23311975.2024.2312591>

This Version is available at:

<https://hdl.handle.net/10419/326036>

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To cite this article: Le Thi Thoan, Vo Thi Ngoc Thuy & Tran Thanh Long (2024) Does market competition make a difference in business strategy for listed companies?, Cogent Business & Management, 11:1, 2312591, DOI: [10.1080/23311975.2024.2312591](https://doi.org/10.1080/23311975.2024.2312591)

To link to this article: <https://doi.org/10.1080/23311975.2024.2312591>



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# Does market competition make a difference in business strategy for listed companies?

Le Thi Thoan<sup>a</sup>, Vo Thi Ngoc Thuy<sup>b</sup> and Tran Thanh Long<sup>c,d</sup>

<sup>a</sup>HUTECH University, Ho Chi Minh City, Vietnam; <sup>b</sup>Hoa Sen University, Ho Chi Minh City, Vietnam; <sup>c</sup>University of Economics and Law, Ho Chi Minh City, Vietnam; <sup>d</sup>Vietnam National University, Ho Chi Minh City, Vietnam

## ABSTRACT

This study investigates the relationship between market competition (MC) and business strategy by analyzing data from 562 non-financial companies listed on the Vietnamese stock market between 2010 and 2019. Utilizing the Generalized Method of Moments (GMM), we assess the impact of MC on specific business strategies, namely cost-leadership and differentiation strategies. The research reveals that MC negatively affects the cost-leadership strategy while positively influencing the differentiation strategy. Grounded in the Theory of Contingency and the Theory of Asymmetric Information, these findings deepen our understanding of MC's implications on business strategy. Additionally, the study provides empirical evidence for future research and proposes implications for both enterprises and government regulatory agencies.

## IMPACT STATEMENT

This study explores the impact of market competition on business strategy within the Vietnamese context. Our findings reveal a significant correlation between market competition and the adoption of differentiation and cost leadership strategies. The results underscore the pivotal role of strategic choices in navigating highly competitive environments.

## ARTICLE HISTORY

Received 25 January 2023  
Revised 25 January 2024  
Accepted 26 January 2024

## KEYWORDS

Business strategy; market competition; emerging market

## REVIEWING EDITOR

Hung-Che Wu, Nanfang College Guangzhou, China

## SUBJECT

Research Methods in Development Studies; Business, Management and Accounting; Industry & Industrial Studies

## JEL CLASSIFICATION

M10; M20

## 1. Introduction

Market competition and business strategy share a pivotal relationship, guiding managers in making informed decisions. The dynamic nature of market competition compels businesses to take calculated risks, enabling them to formulate effective strategies for success in challenging environments. Globally recognized for its substantial impact on both theoretical frameworks and practical applications, research on the intricate connection between market competition and business strategy has garnered widespread attention from scholars (Galbreath et al., 2022; Liu et al., 2022; Muhmad et al., 2021; Sanusi et al., 2023; Xuan Ha & Thi Tran, 2022; Yang et al., 2021; Yeh & Liao, 2020).

Distinct from prior studies, our evaluation of market competition's impact on business strategy, employing Balsam et al. (2011) measurement, focuses on cost-leadership and differentiation strategies for listed enterprises, excluding non-financial companies. Despite numerous studies on business strategy and market competition, research specifically on the impact of market competition on business strategy is limited, with notable exceptions like Van Witteloostuijn (1993), Ghemawat (2002), and Ghofar and Islam (2015). While Van Witteloostuijn (1993) explores Porter's five competitive forces, Ghemawat (2002) highlights how competition alters strategy, and Ghofar and Islam (2015) use Miles and Snow's (1978, 2003) business strategy to examine the business environment-strategy link, the latter study acknowledges limited evidence of this connection.

**CONTACT** Le Thi Thoan  [lt.thoan@hutech.edu.vn](mailto:lt.thoan@hutech.edu.vn)  HUTECH University, Ho Chi Minh City, Vietnam.

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Distinct from previous studies, our examination of the impact of market competition on business strategy focuses on cost-leadership and differentiation strategies for listed enterprises, excluding non-financial companies. Using Balsam et al. (2011) measurement, this approach offers a unique perspective. While there are numerous studies on business strategy and market competition, research specifically delving into the impact of market competition on business strategy is scarce. Notable exceptions include studies by Van Witteloostuijn (1993), Ghemawat (2002), and Ghofar and Islam (2015). Van Witteloostuijn (1993) explores Porter's five competitive forces, Ghemawat (2002) emphasizes how competition alters strategy, and Ghofar and Islam (2015) use Miles and Snow's (1978, 2003) business strategy to examine the link between the business environment and strategy. However, it is important to note that the latter study acknowledges limited evidence of this connection.

The current research landscape in Vietnam is marred by significant challenges, primarily stemming from the enduring impact of the COVID-19 pandemic over the past two years. The Vietnam Business White Book (2022) reports a stark reality, indicating that by 31 December 2021, 54,960 enterprises had temporarily ceased operations. This represents an 18.0% increase from 2020 and a staggering 90.8% surge from the 2016–2020 average. The 2022 Provincial Competitiveness Index survey further highlights persistent challenges, showcasing consistently low company size, growth rates, and business efficiency since the onset of the pandemic. In response to these adversities, Vietnam enacted Decree 71/2017/ND-CP and revised the Enterprise Law (No. 59/2020/QH14) to fortify the corporate governance framework. Recognizing the pivotal role of this framework, Vietnam has dedicated substantial efforts, particularly in the post-COVID era characterized by intense market competition. Against this backdrop, understanding the impact of market competition on business strategy becomes imperative.

This study, through a comprehensive literature review and an examination of Vietnam's research context, seeks to investigate this impact. The findings aim to contribute valuable insights to the existing body of research on this topic, serving as a crucial reference for businesses striving to enhance their efficiency, integration, and overall development.

The paper's organization is as follows: [Section 2](#) encompasses the literature review and hypothesis development; [Section 3](#) details data methods and research models; [Section 4](#) presents results; and [Section 5](#) concludes the findings and outlines policy implications.

## 2. Literature review and hypothesis development

### 2.1. Literature review

#### 2.1.1. Asymmetric information theory

In this study, we employ Akerlof (1970)'s Asymmetric Information Theory, introduced in the 1970s. Asymmetrical information occurs when one party possesses a more comprehensive set of information than the other. This information imbalance is a prevalent characteristic in almost all economic interactions, particularly evident in situations involving adverse selection or moral hazard (Eisenhardt, 1989). The presence of information asymmetry significantly shapes the informational landscape within business strategy and managerial control (Bentley-Goode et al., 2017). Asymmetric information plays a crucial role in influencing the firm's business strategy, with the differentiation strategy exhibiting a lower degree of information asymmetry compared to the cost-leadership strategy (Bentley-Goode et al., 2017). Businesses may choose a motivated differentiation strategy to alleviate information asymmetry by striving to disclose more information. One potential approach to achieving this is by enhancing the marketability of their products, thereby gaining access to external information sources (Bushee et al., 2010). In this study, we apply the Asymmetric Information Theory to examine the impact of information asymmetry within the business environment.

#### 2.1.2. Contingency theory

The contingency theory approach originated in organizational science in the 1960s and became influential in business administration. According to the contingency approach, organizational systems need to be in alignment with the specific context of an organization to function effectively. The core idea behind the theory of contingency is that uncertainties arise unpredictably, thus impacting a firm's performance

either through correlation or inherent modifications (Donaldson, 2001). Contingent situations encompass various aspects, including both the external and internal characteristics of the business environment, as well as competitive strategy (Geiger et al., 2006; Hambrick, 1983; Langfield-Smith, 1997). The contingency theory employed in this study is rooted in exploring the connection between random elements within the business environment and competitive strategy.

### **2.1.3. Market competition**

Market competition constitutes a crucial dimension of the business environment (Allen & Gale, 2000; Chou et al., 2011). Economists contend that competition plays a vital role in contributing to the economy, emphasizing that the absence of competition negatively affects the overall welfare of market participants (Vickers, 1995). Additionally, competition serves to mitigate inertia and sluggishness within organizations, leading to enhanced operational efficiency (Hart, 1983; Hermalin, 1992). Highly competitive markets typically exhibit increased dynamism, while less competitive markets tend to be more stable (Gani & Jermias, 2009). The influence of market competition on business performance operates through various intermediary factors, including the corporate governance index (Xuan Ha & Thi Tran, 2022), the cost of debt (Valta, 2012), and organizational structure (Bloom et al., 2010). Existing research highlights the substantial impact of contextual factors such as market competition and organizational structure on business performance (Donaldson, 2001; Fauzi & Idris, 2009).

### **2.1.4. Business strategy**

Business strategy, as conceptualized by Ansoff (1965), serves as a comprehensive framework guiding a company in selecting optimal opportunities. Hambrick (1983) underscores the pivotal role of a company's competitive strategy, asserting its influence on goals across dimensions like marketing, production, finance, and human resources, thereby shaping the overall enterprise operation. This study adopts Porter's business strategy model for its universal applicability, clarity, simplicity, and generality (Ormanidhi & Stringa, 2008). Porter (1980, 1998) delineates two primary and effective business strategies: cost leadership and differentiation. Companies employing a cost-leadership strategy prioritize optimizing production processes, supply chains, and operational costs while extracting added value from resources. In contrast, those adopting differentiation strategies concentrate on unique product development, robust branding, high quality, meeting specific needs, and fostering close customer relationships.

## **2.2. Hypothesis development**

### **2.2.1. Market competition impact on cost-leadership strategy**

Existing studies emphasize the context-dependent nature of factors such as market competition, business strategy, and organizational structure (Donaldson, 2001; Fauzi & Idris, 2009). The level of market competition and an enterprise's adaptability significantly influence its survival and long-term growth. However, in the current era of globalization and dynamic customer demands, adapting to the business environment presents considerable challenges for enterprises (Thompson et al., 2010). Enterprise flexibility is manifested through the adoption of appropriate business strategies and the efficient utilization of existing resources. This adaptability enables companies to achieve their desired market share and foster sustainable growth, even amidst the unpredictability of today's business landscape.

In highly competitive markets, companies employing a cost-leadership strategy must prioritize controlling operational processes to minimize manufacturing costs. However, Geiger et al. (2006) demonstrated that as market rivalry intensifies, companies are more likely to adopt differentiation strategies. Valta (2012) also argued that in fiercely competitive markets, firms may face higher interest rates when borrowing money from banks. This suggests that banks perceive companies operating in intensely competitive markets as riskier propositions, leading to higher risk premiums. Consequently, when market competition is substantial, companies are more inclined to choose a differentiation strategy over a cost-leadership strategy. Building on this rationale, the authors formulate the following hypothesis:

*H1: Market competition negatively impacts the adoption of cost-leadership strategy.*

### **2.2.2. Market competition impact on differentiation strategy**

The argument from hypothesis H1 suggests that market competition and adaptability critically impact performance and competitive advantages. Firms aligning strategy with market dynamics gain an edge for sustainable development. Enterprises adopting a differentiation strategy can better adapt to increasing competition. Competitive strategy effectiveness hinges on industry competition levels (Hambrick, 1983). Geiger et al. (2006) illustrate that as managerial control intensifies, firms are more inclined toward a differentiation strategy. Research by Handoyo et al. (2023) indicates companies embracing a prospector strategy, akin to differentiation, achieve superior performance compared to those pursuing a defensive one. Previous studies (Mansfield, 1968; Scherer, 1967) identify a positive correlation between market competition and research and development expenditures. Firms pursuing differentiation invest in R&D to create distinct products. As market competition rises, more businesses tend to adopt differentiation. From this, we propose:

*H2: Market competition positively influences differentiation strategy adoption.*

## **3. Data and methodology**

### **3.1. Data collection**

For data acquisition, we gathered the requisite information from annual reports, financial statements, listed company websites, and Refinitiv Eikon's provided data. The sample includes data from 562 non-financial companies listed on the Ho Chi Minh City (HoSE) and Hanoi (HNX) stock exchanges, spanning a 10-year period from 2010 to 2019. Companies in the finance, banking, and insurance sectors were excluded due to their distinctive business and accounting systems. As a result, the final sample comprises a total of 4938 observations.

### **3.2. Variable measurement**

#### **3.2.1. Market competition measurement**

Babar and Habib (2021) delineate four methods for measuring market competition: (1) Barriers to entry (Clarkson et al., 1994); (2) Lerner index (Lerner, 1934); (3) Herfindahl-Hirschman index (HHI) (Giroud & Mueller, 2010; Jaroenjitrkam et al., 2020); (4) Text-based competitive measures (Li et al., 2013). Following the approaches of Giroud and Mueller (2010) and Babar and Habib (2021), we opt for the HHI index as our market competition measurement.

#### **3.2.2. Business strategy measurement**

Balsam et al. (2011) note that various studies have attempted to formulate strategic frameworks based on cognitive measurements, such as Dess and Davis (1984), or by focusing on a restricted number of data points (Kotha & Nair, 1995; Nair & Filer, 2003). Balsam et al.'s (2011) analysis, grounded in financial statements and the framework proposed by Tripathy (2006), asserts that a company implementing a differentiation strategy charges a premium price due to perceived uniqueness (Berman et al., 1999). Hence, a differentiation strategy allocates costs primarily to research, product development, and marketing. Hambrick (1983) contends that the core aspect of cost-leadership is efficiency, achieved through cost efficiency and resource parsimony (Hambrick & Macmillan, 1984). A cost-leadership approach emphasizes asset utilization, staff productivity, and discretionary expenses.

#### **3.2.3. Control variable measurement**

**3.2.3.1. Firm size (SIZE).** A pivotal determinant of a company's value is its size (Surajit & Saxena, 2009), gauged by total investment capital, total assets, total employees, and net revenues. Larger companies possess greater organizational resources (Capon et al., 1990), often dealing with intricate expenditures (Linck et al., 2008). The measurement method adopted in this study, derived from previous research (Khuong et al., 2020; Mubeen et al., 2021; Yameen et al., 2019), is expressed as follows:

$SIZE = \ln(\text{The book value of total assets at the end of the fiscal year}).$

**3.2.3.2. Tangible assets (TANG).** Fixed assets are company-owned assets designated for use in production and commercial operations, representing a crucial variable in assessing a firm's value. Our measurement methodology in this study aligns with previous research (Khuong et al., 2020; Nguyen et al., 2021). The fixed asset ratio is computed as follows:

$$TANG = \text{Fixed Asset} / \text{Total Assets}$$

**3.2.3.3. Firm age (AGE).** Firm age is a key indicator of growth potential and complexity (Adams & Mehran, 2012; Germain et al., 2014). Longer-established firms leverage their expertise to manage operations effectively, enhance production, and improve financial performance. However, these firms may be less dynamic and adaptable to the changing corporate environment (Boone et al., 2007; Loderer et al., 2011). The study adopts the following scale from previous research (Boone et al., 2007; Yameen et al., 2019; Yeh & Liao, 2020), as follows:

$AGE = \text{The logarithm of the number of years a listed company } i \text{ has been in operation at time } t.$

**3.2.3.4. Financial leverage (DEBT).** Financial leverage, the amalgamation of liabilities and equity, aids corporations in comprehending their business risk. It significantly shapes risk and investment policies (Vengesai & Kwenda, 2018). Moreover, an escalation in debt levels can heighten the risk of fraud, necessitating robust internal controls. Consequently, companies burdened with substantial debt incur higher costs for supervision (Jensen & Meckling, 1976). The formula for calculating leverage in this study is derived from established methodologies in prior research (Khuong et al., 2020; Nguyen et al., 2021; Tran, 2020; Yeh & Liao, 2020):

$$DEBT = \text{Total Debt} / \text{Total Assets}.$$

**3.2.3.5. State ownership (SOE).** State ownership is a distinctive institutional feature observed in publicly listed companies. Shareholders under government management leverage extensive government networks, allowing them to access equity and debt-related incentives (Cull & Xu, 2005). Additionally, these enterprises may enjoy tax or fee reductions, fostering operational expansion (Lu, 2011). These advantages contribute to long-term efficiency gains for the companies (You & Du, 2012). The measurement scale for state ownership in this study is adopted from earlier research, utilizing the ratio of state-owned shares to total business shares (Al Amosh & Khatib, 2021; Cull & Xu, 2005; Liu et al., 2018; Tran, 2020). The calculation formula is as follows:

$SOE = \text{The percentage of a company owned by the government}.$

The variable descriptions are presented in Table 1.

### 3.3. Research models

Building upon insights from prior research on the relationship between market competition and business strategy (Ghemawat, 2002; Ghofar & Islam, 2015; Van Witteloostuijn, 1993), we present the following research model (Figure 1).

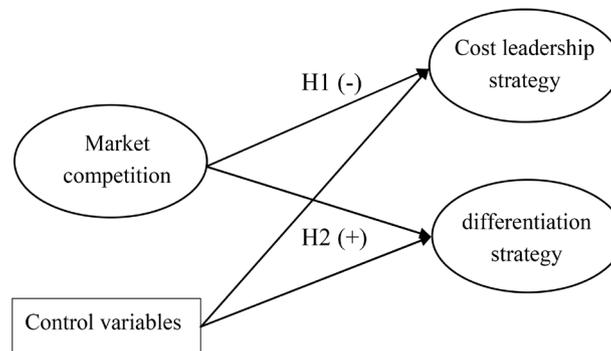
*Market competition impacts on cost-leadership strategy:*

$$COST_{it} = \alpha + \beta_1 * HHI_{it} + \beta_2 * SIZE_{it} + \beta_3 * TANG_{it} + \beta_4 * AGE_{it} + \beta_5 * DEBT_{it} + \beta_6 * SOE_{it} + \varepsilon_{it}$$

**Table 1.** The measurements of all variables used in this study.

Items	Scale	Description	Source
Differentiation strategy (DIFF)	SG&A/ Sales	Selling, General &Administrative Expense/Net sales	Balsam et al. (2011), Fernando et al. (2016), Abernethy et al. (2019), Cho and Tsang (2020).
	Sales /COGS	Net sales/Cost of goods sold	Balsam et al. (2011), Fernando et al. (2016), Abernethy et al. (2019), Cho and Tsang, (2020).
Cost-leadership strategy (COST)	Sales/CAPEX	Net sales/Capital costs of fixed assets	Balsam et al. (2011), Fernando et al. (2016), Abernethy et al. (2019), Cho and Tsang (2020).
	Sales/PPE	Net sales/Book value of fixed assets	Balsam et al. (2011), Fernando et al. (2016).
	EMPL/Assets	Number of employees/ Total assets	Balsam et al. (2011), Abernethy et al. (2019), Cho and Tsang (2020).
Market competition (HHI)	$HHI = \sum_{j=1}^j S_{ij}^2$	Total squared market share in an industry	Giroud and Mueller (2010), Ghofar and Islam (2015), Zhang (2018), Yeh and Liao (2020).
Control variables	Firm size (SIZE)	Logarithm of total assets	Yameen et al. (2019), Nguyen et al. (2021).
	Fixed assets (TANG)	Fixed assets/Total assets	Linck et al. (2008), Khuong et al. (2020), Nguyen et al. (2021).
	Firm years (AGE)	Logarithm of firm year	Boone et al. (2007), Yameen et al. (2019), Yeh and Liao (2020).
	Leverage (DEBT)	Total debt/Total assets	Khuong et al. (2020), Yeh and Liao (2020), Nguyen et al. (2021).
	State ownership (SOE)	State ownership percentage	Cull and Xu (2005), Tran (2020), Al Amosh and Khatib (2021).

Source: Compiled by authors.

**Figure 1.** Research model.

*Market competition impacts on differentiation strategy:*

$$DIFF_{it} = \alpha + \beta_1 * HHI_{it} + \beta_2 * SIZE_{it} + \beta_3 * TANG_{it} + \beta_4 * AGE_{it} + \beta_5 * DEBT_{it} + \beta_6 * SOE_{it} + \varepsilon_{it}$$

where  $i=1,2,\dots,562$  (562 listed companies);  $t=1,2,3,\dots,10$  (10 years, from 2010 to 2019).

$\alpha$  is the intercept, and  $\beta_1$  through  $\beta_6$  are regression coefficients applied to measure the per-unit change in the dependent variable associated with a one-unit change in the respective independent variable, holding other independent variables constant.  $\varepsilon_{it}$  is the random error term.

### 3.4. Data analysis

We utilize STATA 14.2 and the Generalized Method of Moments (GMM) to evaluate the impact of market competition on business strategy. Traditional estimation methods, such as pooled ordinary least squares (OLS), fixed effects models (FEM), and random effects models (REM), are difficult to control for endogeneity problems (Wooldridge, 2015). The Hansen test is used to evaluate for over-identification of

limitations and to test the instrument's reliability. Due to its consistency in the presence of autocorrelation and heteroscedasticity, the Hansen test is preferred to the Sargan test for overdetermined constraints (Ullah et al., 2021).

## 4. Empirical results

### 4.1. Descriptive statistics

The data presented in Table 2 provides an insight into the evolution of listed companies within eight competitive industries over the specified period 2010–2019.

In 2010, the total count amounted to 417 listed companies, distributed among various sectors. Notably, technology and mining comprised 75 companies, retail and automobile repair had 74, accommodation and food service had 45, mining and energy had 35, medical activities had 15, transportation, warehousing, and construction had 140, and electronic technology had another 140.

From 2010 to 2019, there was a consistent overall increase in the number of businesses across all industries. Particularly noteworthy was the substantial growth in the transportation, warehousing, and construction sector, followed by technology and mining. In contrast, the sectors of technology and electronics exhibited the least pronounced growth during this timeframe.

Table 3 provides the descriptive statistics for the variables in this study. The mean value for HHI is 0.091, with a minimum of 0.023 and a maximum of 0.293. For DIFF, the mean is  $-0.00000003$ , the minimum is  $-33.216$ , and the maximum is 29.886. The COST variable has a mean of  $-0.00000001$ , with a minimum of  $-0.161$  and a maximum of 39.806.

Notably, both DIFF and COST exhibit substantial variations between their maximum and minimum values, indicating significant differences within the samples. Moreover, the control variables, including fixed assets (TANG), years of operation (AGE), company size (SIZE), and state ownership (SOE), display wide distributions, showcasing diverse and representative market characteristics. The results suggest variations in competition levels among enterprises, and the range of years of operation spans from 0.693 to 4.779, implying that a majority of selected enterprises have relatively limited listing durations on the stock exchange.

**Table 2.** Statistical overview of eight competitive industries.

Year	Basic Materials	Consumer Cyclicals	Consumer Non-Cyclicals	Energy	Health care	Industrials	Technology	Utilities
2010	75	74	45	35	15	140	14	19
2011	78	73	44	35	16	144	14	19
2012	86	74	45	37	15	149	14	21
2013	87	75	44	37	16	157	15	23
2014	99	78	45	34	16	166	15	22
2015	113	80	50	37	17	177	15	26
2016	124	84	52	40	19	184	13	28
2017	122	87	57	41	19	183	15	28
2018	127	89	55	42	19	185	15	29
2019	128	87	51	43	19	183	16	29

Source: Author's calculation.

**Table 3.** Descriptive statistics of the variables.

Variables	Obs	Mean	Std. Dev	Min	Max
HHI	4938	0.091	0.061	0.023	0.293
DIFF	4887	$-0.00000003$	1.000	$-33.216$	29.886
COST	4517	$-0.00000001$	1.000	$-0.161$	39.806
TANG	4851	0.266	0.218	0.0004	0.966
DEBT	4129	0.270	0.178	$-0.00001$	0.800
AGE	4932	2.604	0.559	0.693	4.779
SIZE	4889	27.055	1.511	23.362	32.236
SOE	4851	22.346	25.918	0.000	98.110

Source: Retrieved from STATA 14.2.

**Table 4.** Correlation matrix for the market competition model with cost-leadership strategy.

	COST	HHI	TANG	DEBT	AGE	SIZE	SOE
COST	1.000						
HHI	0.036	1.000					
TANG	-0.134	0.235	1.000				
DEBT	0.036	-0.005	0.236	1.000			
AGE	-0.018	0.012	-0.072	0.030	1.000		
SIZE	0.018	0.142	0.142	0.305	0.091	1.000	
SOE	-0.048	0.118	0.208	-0.020	-0.062	0.078	1.000

Source: Retrieved from STATA 14.2.

**Table 5.** Correlation matrix for the market competition model with differentiation strategy.

	DIFF	HHI	TANG	DEBT	AGE	SIZE	SOE
DIFF	1.000						
HHI	0.074	1.000					
TANG	0.122	0.238	1.000				
DEBT	-0.063	0.006	0.248	1.000			
AGE	-0.076	0.017	-0.073	0.033	1.000		
SIZE	0.002	0.145	0.152	0.316	0.088	1.000	
SOE	-0.005	0.115	0.210	-0.012	-0.055	0.088	1.000

Source: Retrieved from STATA 14.2.

## 4.2. Correlation matrix

Following the guidance provided by Gujarati (2022), if the pair correlation coefficient surpasses 0.8, it could result in multicollinearity problems in regression equations. The correlation matrices presented in Tables 4 and 5 showcase the relationships between variables in our research. The Pearson correlation coefficients between the independent variables are all below 0.5, indicating the absence of multicollinearity among the variables. Therefore, the correlation matrix demonstrates that the correlation coefficients within the study fall within acceptable limits.

## 4.3. Regression results

### 4.3.1 Panel – data unit root and cointegration tests

For the panel-unit root test, Fisher-type tests (xtunitroot Fisher) were employed in this study, as detailed in Table 6. The results reveal that the modified t-statistic for all variables is significantly different from zero at the 99% confidence level. This leads us to reject the null hypothesis, indicating that the series is stationary. In essence, the evidence strongly suggests the absence of a unit root, and we can infer that all variables in the study are stationary.

Moving on to the cointegration tests presented in Table 7, the results demonstrate that all test statistics reject the null hypothesis of no cointegration. Instead, they support the alternative hypothesis that there exists a cointegrating relation among all variables in the panel. In simpler terms, the variables are cointegrated across all panels.

### 4.3.2. Regression results

The following is a table of regression results on the impact of market competition on cost leadership and differentiation strategies:

The regression results in Table 8 support hypothesis H1, indicating a positive relationship between the market competition index and the adoption of the cost-leadership strategy. Notably, the market competition index consistently moves inversely to the market competition level, signifying that a higher index corresponds to a lower level of market competition. This implies that elevated market competition negatively impacts firms' likelihood of choosing a cost-leadership strategy. In situations of intense competition, companies are more inclined to opt for a differentiation strategy, aligning with the findings of Geiger et al. (2006). Thus, the results endorse hypothesis H1, suggesting that firms are more likely to adopt the cost-leadership strategy when faced with lower market competition.

**Table 6.** Panel-data unit-root tests.

Variables	Fisher test
HHI	20.5846***
TANG	29.1543***
DEBT	30.9710***
AGE	807.3066***
SIZE	40.1524***
SOE	7.0810***
COST	63.6693***
DIFF	30.5199***

\*\*\*  $p < 0.01$ .

Source: Retrieved from STATA 14.2.

**Table 7.** Results of the Kao Cointegration Test.

Tests	DIFF		COST	
	<i>t</i> -statistic	<i>p</i> -value	<i>t</i> -statistic	<i>p</i> -value
Modified Dickey–Fuller	8.037	0.000	8.378	0.0000
Dickey–Fuller	3.615	0.000	3.516	0.0001
Augmented Dickey–Fuller	–23.411	0.000	–24.311	0.0000
Unadjusted modified Dickey–Fuller	–8.768	0.000	–8.783	0.0000
Unadjusted Dickey–Fuller	–10.884	0.000	–18.841	0.0000

**Table 8.** Regression results of the market competition model's impact on cost-leadership and differentiation strategies.

Variables	COST	<i>p</i> -value	DIFF	<i>p</i> -value
HHI	0.645*** (26.52)	0.000	–0.993*** (–4.40)	0.000
TANG	0.256*** (17.15)	0.000	0.256*** (3.44)	0.001
DEBT	–0.155*** (–13.33)	0.000	–0.099* (–1.73)	0.084
AGE	0.042*** (12.74)	0.000	0.047 (1.59)	0.111
SIZE	0.113*** (24.70)	0.000	0.067*** (3.24)	0.001
SOE	0.002*** (18.48)	0.000	0.001* (1.70)	0.090
Obs	3,057		2,388	
AR2	0.135		0.629	
Hansen's test	0.843		0.963	
Hausman test	0.1524		0.0307	
Breusch and Pagan Lagrangian test	0.0000			
Modified Wald test			0.0000	
Wooldridge test	0.0000		0.0000	

*t* statistics in brackets: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Source: Retrieved from STATA 14.2.

Hypothesis H2 indicates a negative impact of the market competition index on the differentiation strategy, aligning with the consistent inverse correlation observed in hypothesis H1 between the market competition index and the level of competition. This alignment suggests a positive influence of heightened market competition on the adoption of the differentiation strategy. These findings resonate with previous research by Scherer (1967) and Mansfield (1968). Furthermore, Echegoyen et al. (2020) have substantiated that companies can enhance profitability by adopting a differentiation strategy, emphasizing unique products and services. In conclusion, the evidence suggests that an increased level of market competition positively contributes to the adoption of the differentiation strategy.

## 5. Conclusions and implications

This study investigates the influence of market competition on business strategy within the Vietnamese context, considering the country's status as a developing nation with an evolving legal framework for investor protection. Analyzing a sample of 562 non-financial companies listed on the Vietnamese stock

exchange from 2010 to 2019, the study reveals that market competition negatively impacts the cost-leadership strategy while positively affecting the differentiation strategy.

The rationale lies in the necessity for companies to innovate and carve out unique market niches to thrive in highly competitive environments, making a differentiation strategy more suitable. These findings align with prior research, indicating a correlation between market competition and R&D expenses (Mansfield, 1968; Scherer, 1967), and affirming that a differentiation strategy yields more positive company relationships than a low-cost strategy (Echegoyen et al., 2020).

For policymakers, the study highlights the inadequacy of disclosed information in financial statements, particularly regarding marketing expenses and R&D spending. This points to the need for more effective and transparent oversight, urging state management agencies to enhance supervision processes comprehensively.

Governance implications for listed firms underscore the superiority of differentiation strategies in highly competitive environments. However, caution is advised in monitoring and avoiding resource waste, especially when making high-risk investment decisions.

Limitations include the exclusion of finance-related sectors and the absence of data from the COVID-19 pandemic years. Future research should broaden the scope to include financial institutions and assess post-pandemic scenarios, with a particular focus on the 3–5 years following the COVID-19 epidemic. Comparative studies within the ASEAN region would also contribute valuable insights.

## Disclosure statement

No potential conflict of interest was reported by the author.

## About the authors

**Le Thi Thoan**, a Ph.D. student at the University of Economics and Law, Vietnam National University Ho Chi Minh, and a lecturer in the Faculty of Business Administration at Hutech University. She is a co-author of several articles and particularly interested in corporate governance, business strategy, and market competition. She looks forward to contributing to the overall development of the academic and business communities through research and teaching.

**Vo Thi Ngoc Thuy** is an Associate Professor. She has done PhD at Aix-Marseille University, Aix-Marseille Business School, IAE Aix, France. She is currently a President at Hoa Sen University, 08 Nguyen Van Trang, Ben Thanh Ward, District 1, Ho Chi Minh City, Vietnam. Her research interests are in service marketing, brand management, and tourism development. She has published her research in the International Journal of Hospitality Management, Tourism and Hospitality, International Review on Public and Nonprofit Marketing, International Journal of Business and Society. She is also a reviewer for Environmental Science and Pollution Research for the AMA conference.

**Tran Thanh Long**, with a research focus on international business, he is dedicated to contributing to the overall development of the academic community and businesses through research, teaching, and management.

## Funding

This research is funded by HUTECH University, Ho Chi Minh City, Vietnam.

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