

## Research on the competitiveness of small and medium enterprises in Dong Thap province, Vietnam

By

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### Abstract

Research Objectives to consider and evaluate the impact of factors affecting the competitiveness of small and suitable enterprises in Dong Thap province. The author has conducted the research through 2 phases: qualitative and quantitative research. In addition, the data analysis method was selected by the authors (1) to assess the reliability of Cronbach's Alpha scale; (2) to explore factor analysis EFA; (3) to CFA confirmatory numerical analysis; (4) to check the regression model. The research results show that: financial capacity is the factor that has the strongest impact on the competitiveness of small and medium-sized enterprises, followed by organizational and management capacity; capacity to access and innovate technology; the ability to form relationships; marketing capacity, and service organization capacity. In addition, the author proposes some key solutions help managers and policymakers improve the competitiveness of small and medium enterprises in Dong Thap province.

**Keywords:** Competitiveness, small and medium enterprises, influencing factors, Dong Thap province

### Introduction

From a theoretical perspective, the competitiveness of enterprises is always a top concern not only for enterprises but also a great concern of researchers both at home and abroad. There are quite a few studies on the competitiveness of enterprises have been carried out, however, the concept of enterprise competitiveness has not yet been unified among researchers. In addition, the factors affecting the competitiveness of enterprises are also approached in many different research directions, especially since there are very few studies on the competitiveness of small and medium enterprises in Vietnam. both domestic and foreign approaches based on the theory of enterprise capacity.

According to Sanchez & Hence (1996, 2004), the competitiveness of enterprises is based on the ability of enterprises to combine resources to create competitive advantages. "Competitiveness of a company is the ability to maintain, deploy, and coordinate resources and capabilities in a way that helps the company achieve its goals" (Sanchez & Heene, 1996, 2004). Thus, the resource-based approach is based on the resource advantage of the enterprise compared to competitors, while the capacity-based approach is based on the ability to combine resources to create capacity - which requires businesses Enterprises must be dynamic, systematic, aware and comprehensive in strategic management (Sanchez, 2008).

From a practical perspective, in Vietnam as well as in other countries around the world, small and medium-sized enterprises play a particularly important role in promoting the socioeconomic development of each country. Along with contribute to society with a large number of goods and creating many jobs for workers, small and medium-sized enterprises also

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create a stable source of income for a part of the population, and exploit natural resources and local potential. On the other hand, small and medium enterprises play a supporting and complementary role to large enterprises, forming a link to cooperate, compete and develop together.

In Dong Thap province, according to the provincial Bureau of Statistics, by the end of 2021, small and medium-sized enterprises account for more than 97%, employ more than 50% of employees, generate 47% of GRDP and contribute about 40% of revenue provincial budget. Besides the advantages of easy start-up, flexibility, promotion of traditional professions, as an incubator of business talent, small and medium-sized enterprises in Dong Thap province have a small scale, high labor, low management, outdated technology, and limited access to loans. The process of economic integration has brought both Vietnam's small and medium-sized enterprises in general and small and medium-sized enterprises in Dong Thap province in particular benefits, but also creates great challenges increasingly harsh, the rapid and unpredictable changes in the business environment, as well as increasingly fierce competitive pressure in both domestic and foreign markets, have created many challenges for small businesses. and the medium of Dong Thap province. Facing these challenges, to survive and develop sustainably and compete on a par with domestic and international enterprises, small and medium enterprises in Dong Thap province must constantly improve their competitiveness, and create their own competitive advantages.

## Literature Review

Around the world, many studies have been done regarding competitiveness. However, competitiveness and the systematic study of competitiveness started quite late and only from the 1980s until now. According to the combined results of research on competitiveness by British economists Buckley, Pass, and Prescott, by 1988 there were very few accepted definitions of competitiveness. As M. E. Porter - a leading expert on competitiveness in the world, pointed out that until 1990, competitiveness was still not fully understood and there was no universally accepted definition. best. In 1996, Waheeduzzan et al stated that "competitiveness is still one of the poorly understood concepts" (misunderstood concept) Until 2004, Henricsson et al pointed out that the concept of competitiveness was still controversial among policymakers, economists, journalists, and academics. Review of research literature on competitiveness, some authors such as Thorne (2002, 2004), Mommy (2002, 2005), and Flanagan et al (2007) have shown that, starting from the 1990s to the 1990s. Nowadays, the theory of competitiveness in the world has entered a "boom" period with a large number of published research works. Research directions on competitiveness through the author's research are divided into 5 main directions: (1) competitiveness approach from the perspective of traditional competition theory; (2) competitiveness approach along the value chain; (3) market-oriented approach competitiveness; (4) competitiveness approach according to enterprise resource theory; (5) competitiveness approach according to capacity theory. Traditional competitive theory with well-known schools of study such as Chamberlin Economics, and Institutional Economics (IO).

The theory of competition based on IO economics (Porter, 1980), and monopolistic competition (Chamberlin, 1933) is often based on the premise that firms in the same industry have homogeneous resources and business strategies. They use (Baney, 1991). Porter's General Value Chain (1985, 1998) is one of the most widely used methods for representing a company's operations and business processes. Porter (1985, 1998) assumes that in the value chain the resources of a firm are dependent on its performance. Market Orientation (MO) theory is

developed on the basis that a business will achieve competitiveness by focusing on how to satisfy needs customers, create better customer value than competitors and achieve business results, This theory includes 8 research approaches decision perspective (Shapiro, 1988), intelligence perspective market intelligence (Kohli & Jaworski, 1990), cultural behavior perspective (Day, 1994; Deshpande et al., 1993; Slater & Narver, 1990), strategic focus view (Ruekert, 1992), determinative perspective customer-oriented (Deshpandé et al., 1993.), systems-based view (Becker & Homburg, 1999; Hunt & Morgan, 1995), market-based learning organization (Sinkula, 1994) and customer system (Baker & Sinkula, 1999). Wernerfelt's Resource Based View of the Firm (RBV) theory, born in 1984, is considered a new approach in the study of business competition. Different from Porter's point of view, Wernerfelt (1984) believes that the resources of the enterprise are the decisive factor in the competitiveness and business performance of the enterprise. The theory of enterprise resources focuses on analyzing competitiveness based on internal factors, which are the resources of the enterprise. The Competitive-based View (CBV) of an enterprise focuses on the ability to use and combine assets, resources, and capabilities to achieve growth and overall organizational effectiveness. It was mainly developed by the studies of Barney (1991), Wernerfelt (1984), Peteraf (1993), and Sanchez & Heene (1996, 2004, 2008, 2010).

In Vietnam, the research situation related to the topic of enterprise competitiveness mainly focuses on two main directions, which are: (1) research on competitiveness and solutions to improve competitiveness competition of enterprises in an industry; (2) research on internal factors affecting the competitiveness of enterprises. Research by Nguyen Thanh Long (2016): on "Research on factors affecting the competitiveness of tourism enterprises in Ben Tre". The purpose of the study is to assess the level of satisfaction/satisfaction of tourists. The study identifies 8 factors affecting the competitiveness of tourism enterprises in Ben Tre associated with specific socio-economic conditions and conditions. These factors include (1) Marketing capacity; (2) Brand; (3) Organization and management capacity; (4) Social responsibility; (5) Quality of products and services; (6) Human resources; (7) Price competition; (8) Destination environmental conditions (policy mechanisms, local people, natural environment).

Hung (2016): on "Improving the competitiveness of Vietnamese securities companies ". This study applies the internal factors evaluation model of Thompson and Strickland (2001) to determine the system of 07 internal factors affecting the energy competitiveness of Vietnamese securities companies, including the factor of financial potential; intellectual capital; product quality; technology level; service quality; brand, reputation and promotion activities; active network. Research by Hang (2013) on "Improving competitiveness in providing mobile information services of Vietnamese telecommunications companies". The author has applied the general criteria to assess the competitiveness of enterprises to determine the criteria for assessing competitiveness of enterprises in providing mobile communication services, including service quality; service charges; service differentiation; service distribution channel system; information and trade promotion; brand and service reputation.

Tri, et al, (2022) in the study "Developing High-Quality Human Resources to Fulfill the Aspirations of Building a Prosperous and Happy Country: Problems and Solutions" affirmed that developing high-quality human resources contributes to business development in Vietnam, "Developing high-quality human resources is of great significance, contributing to awakening the potential and strengths of people to fulfill their solid and happy national aspirations, which is attracting considerable attention due to the trend of the current trend of digital transformation is affecting every field in the world. Many researchers have suggested

that developing high-quality human resources in the country has contributed to renewing the economic growth model towards a modern and sustainable direction” (Tri & Thanh, 2022); "strengthen research activities and international publication of research results, towards internationalization of scientific assessment standards and professional activities at higher education institutions. In the immediate future, the State and higher education institutions need to have mechanisms and policies to encourage and encourage scientists to research and actively publish research results internationally. In the long term, it is necessary to set a roadmap toward the internationalization of standards for assessing scientific and professional activities in all higher education institutions. Vietnamese higher education is more deeply integrated into the international environment. Continue to accelerate the process of "digital transformation" in higher education. Implement effective construction of industry databases, enhance skills and improve the quality of online teaching and online public services" (Tri&Hoa, 2022).

The process of reviewing several related previous studies in the world shows that the view of competitiveness of enterprises from internal resources has determined that the success of enterprises derives from the assets, resources, and capacity to create added value, thereby enhancing the competitiveness of enterprises, however, these studies were conducted based on foreign enterprises, compared with Vietnamese enterprises with differences in research characteristics and conditions. An overview of domestic studies has not yet assessed, built a scale, and quantified the influence of each factor on competitiveness. Although the studies all have the same purpose of measuring the factors affecting competitiveness, there is still no consensus on the measurement scales as well as the theoretical research model, moreover, the view The researchers' opinions are also different, there is no consensus on research concepts, etc., which once again shows that there are many debates between research viewpoints, each study has limitations certain and that is the gap in the research, the task of the next researchers is to analyze and point out the gaps in the previous studies and consider each research context in which they will Select research gaps to clarify.

## **Material and Method**

### **\* *The concept***

*Organizational and management capacity.* Organizational and management capacity is considered a decisive factor for the existence and development of enterprises in general as well as the competitiveness of enterprises in particular. The level of business organization and management is shown in the following aspects:

- Qualifications of the management staff: demonstrated by the necessary knowledge to manage and operate, and carry out internal and external affairs of the enterprise. The qualifications of this team are not only academic qualifications but also show a wide and complex knowledge of many fields related to business activities of enterprises, from domestic and international law economy, market, industry... to knowledge about society and humanity. In many countries, the qualifications and capabilities of business directors in particular and corporate managers in general are not only measured by degrees from reputable management schools but also expressed in professionalism in a long-term vision, can observe, analyze, seize business opportunities, handle situations, and solve practical problems. The qualifications and capacity of managers have a direct and comprehensive impact on the competitiveness of enterprises, reflected in the planning and implementation of strategies, selection of management methods, and motivation in the enterprise.

- The level of organization and management of the enterprise: reflected in the

arrangement and arrangement of the organizational structure of the management apparatus and delineating the functions and duties of the departments. The formation of the organization of the enterprise management apparatus in the direction of lean, compact, lightweight, and high efficiency is important not only to ensure high management efficiency, and quick and accurate decision-making but also to reduce relative administrative costs of the enterprise. As a result, it enhances the competitiveness of enterprises. The level and management capacity of the enterprise are also reflected in the business strategy planning, planning, and operating operations.

*Marketing capabilities.* The marketing capacity of enterprises is demonstrated: firstly, through continuous monitoring and responding to changes in the market, including customers, competitors and the macro environment (Homburg, Grozdanovic & Klarmann, 2007). Second, businesses must always strive to build good relationships with business partners such as suppliers, customers, distributors and authorities. According to Gronroos C (1994), the marketing industry moves from the mixed 4P model (Product-Price-Place-Promotion) to the relationship marketing model (relationship marketing), marketing is the process of establishing, maintaining and strengthening relationships with customers and related partners to satisfy the goals of the members of this relationship. Therefore, the quality of the relationship between members of the business process such as enterprises and suppliers, enterprises and distribution channels, enterprises and customers, enterprises and relevant authorities, etc. It plays an important role in assessing the marketing capacity of the business. Marketing capacity influences the competitiveness of enterprises studied by the authors Berkenveld et al (2005); Kotler et al (2006); Chang et al (2007); Homburg et al (2007); Lee and King (2009).

*Financial capacity.* The financial capacity of an enterprise is the ability to ensure financial resources for the operation of the enterprise to achieve the objectives set by the enterprise. Thus, the financial capacity of the enterprise is reflected in the ability to ensure the capital that the enterprise can mobilize to meet the capital needs for the activities of the enterprise; expressed in capital scale, ability to mobilize and use capital effectively, financial management capacity in the enterprise. First of all, financial capacity associated with capital - is a basic production factor and an input of enterprises. Therefore, the effective use of capital, and quick capital turnover has great significance in reducing capital costs and product costs. At the same time, capital is also a prerequisite for other factors of production. The timely mobilization of capital to meet supplies and raw materials, hire workers, purchase equipment, and technology, organize the retail system. Thus, the financial capacity reflects the economic strength of the company business is the first requirement, must have if you want to succeed in business and improve competitiveness.

*Capacity to access and innovate technology.* Equipment and production technology are very important factors that greatly affect the competitiveness of enterprises. The right technology allows for shortening production time, reducing energy consumption, increasing productivity, lowering product costs, improving product quality, and creating important advantages for enterprises' products. Technology also affects the production organization of enterprises, improving the level of mechanization and automation of enterprises. To have appropriate technology, enterprises need to have information on technology, transfer technology, increase research and improve technology, rationalize production, increase the application of information technology, and invest in innovation technology. At the same time, businesses need the training to improve their skills to effectively use modern technology. Hudson's studies (2001); Quinn, Li (2003); Chowdhury, Islam Alam (2013); Tho & Trang, 2008 shows that the following characteristics of technology affect the competitiveness of enterprises, that is Slow technological innovation; appropriate technology; ability to apply and access new technologies; human resources of the

department of research and application of new technologies in the enterprise.

### ***Service organization capacity***

According to A. Parasuraman, Valarie A. Zeithaml, Leonard L. Berry (1985), one of the factors that businesses create a foothold in the market are responsiveness, and service capacity (Competence). with customers and create credibility with customers (Credibility). Research results of scientists such as A. Parasuraman, Valarie A. Zeithaml, and Leonard L. Berry (1985) show that businesses with good service organization ability will create competitive advantages to bring products to business. to customers faster and more efficiently (value and rarity). Each member equipped with product knowledge will be able to satisfy customers' expectations (expectation) in each *transaction* and thereby form the corporate culture in the industry in which the business is operating. inimitable and irreplaceable). According to Tahir & Bakar (2007), service capacity is expressed through the desire and willingness of employees to provide timely services to customers to bring satisfaction to customers. It is reflected in the attitude and skills of the staff in the service process. If employees have a positive attitude and professional skills, they will serve customers more professionally and satisfy customers, thereby creating customer loyalty.

*Ability to build relationships.* In production and business activities, in addition to making good use of resource factors to improve competitiveness, enterprises also have to establish relationships with different objects. These relationships include relationships with customers, relationships with suppliers, relationships with credit institutions, relationships with businesses in the same industry, and relationships with authorities. In the context of the current deeply integrated economy, with the characteristics of looking at the impact of factors affecting the competitiveness of *Vietnamese* businesses, these relationships play an important role. Especially important, it helps businesses make the most of their resources to be able to compete equally not only with domestic enterprises but also with foreign enterprises, which are increasingly tending to occupy dominate the domestic market. Besides, in the current business environment of Vietnam, the relationship between enterprises and the government is also an "invisible" factor affecting the competitiveness of enterprises. The larger the enterprise, the wider its relationship with the government. Enterprises dealing in many lines of business have more complicated relationships with many industries and levels.

### **\*Research models**

In this study, the proposed research model is mainly inherited from M. Porter's diamond model, Lall's competitive *triangle* model (2001, quoted in Flanagan et al., 2005), and some other research models on the factors affecting the competitiveness of enterprises, the author proposes the research model as presented in (Figure 1).

The *general* function of the model has the form:  $Y = f(X1, X2, X3, X4, X5, X6)$

In there:

X1: Organizational capacity for business management (QL)

X2: Marketing capacity (MA)

X3: Financial Capacity (TC)

X4: The ability to access and innovate technology (CN)

X5: Service organization capacity (DV)

X6: The ability to build relationships (QH)

Y: Competitiveness of small and medium enterprises

The model's assumptions:

H1: There is a positive impact of corporate governance capacity on the competitiveness of enterprises

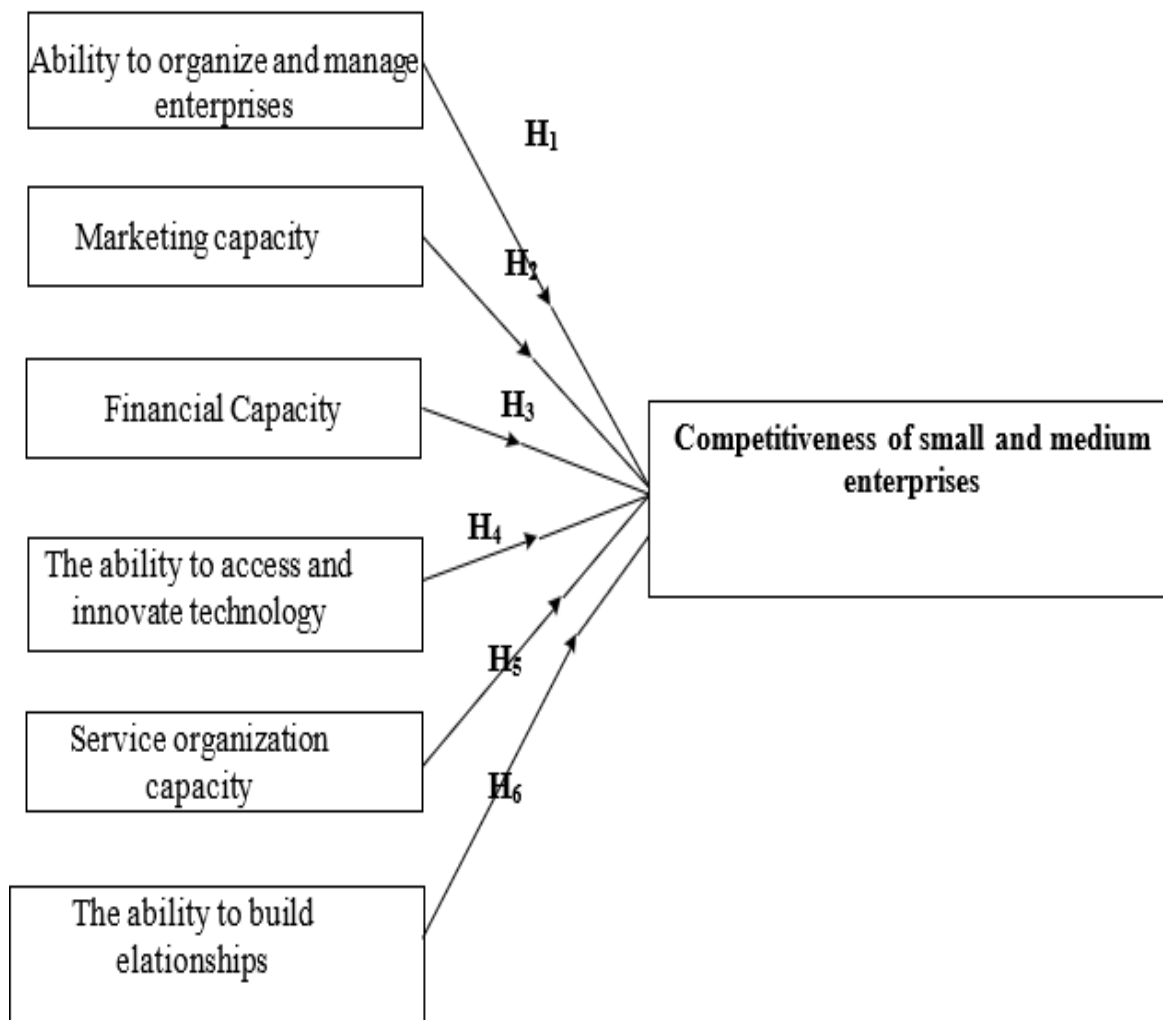
H2: There is a positive impact of Marketing Competency on the competitiveness of enterprises

H3: There is a positive impact of financial capacity on the competitiveness of enterprises

H4: There is a positive impact of the ability to access and innovate technology on the competitiveness of enterprises

H5: There is a positive impact of service organization capacity on the competitiveness of enterprises

H6: There is a positive impact of the ability to create relationships on the competitiveness of enterprises.



**Figure 1.** *Proposed research model*

## **\*Research Methods**

### **Scale development**

In this study, the scale for concepts in the research model is based on inheritance and correction from previous studies. Specifically, the organizational capacity factor of enterprise *management* has 4 observed variables (Porter, 1980; Ho, 2005); the marketing capacity factor has 5 observed variables (Kotler et al., 2006; Homburg et al., 2007; Nguyen Dinh Tho and Nguyen Thi Mai Trang, 2011); financial capacity factor has 4 observed variables (Pham Quang Trung, 2012; Ngo Kim Thanh, Le Van Tam, 2010; Expert discussion); the factor of capacity to access and innovate technology has 4 observed variables (Hudson 2001; Quian, Li 2003; Expert discussion); service organization capacity factor has 3 observed variables (Tahir &

Bakar 2007; Expert discussion); capacity factor to create relationships with 5 observed variables (Expert discussion). All observed variables measuring research concepts are assessed using a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

**Table 1.** *The scale of independent variables used in the model*

Enco de	Contents of factors	Reference source and correction
	Organizational capacity for business management (QL)	
QL01	The enterprise has an efficient and flexible organizational structure	
QL02	Enterprises have good business development strategies and plans	Inheritance of <i>Porter, 1980; Ho, 2005; Summary of expert opinions</i>
QL03	The arrangement and replacement of personnel always ensures good for the business activities of enterprises	
QL04	The enterprise has an efficient and flexible organizational structure	
	Marketing capacity (MA)	
MA0 1	The ability to meet the needs and tastes of customers is always guaranteed	
MA0 2	Businesses always respond well to competitors	
MA0 3	Enterprises have the ability to adapt well to changes in the environment	Inheritance of <i>Kotler et al., 2006; Homburg et al., 2007; Nguyen Dinh Tho and Nguyen Thi Mai Trang, 2011</i>
MA0 4	The strategy of developing the marketing activities of the business is always effective	
MA5	The quality of the business relationship with customers is always guaranteed	
	Financial capacity (TC)	
TC01	Size of the capital of the enterprise	
TC02	Ability to raise capital	Inheritance of <i>Pham Quang Trung, 2012; Ngô Kim Thanh, Lê Văn Tam, 2010, Expert discussion</i>
TC03	Solvency	
TC04	Profitability of working capital	
	The ability to access and innovate technology (CN)	
CN01	Level of updating and application of new technology in production and business activities	
CN02	Level of investment in technology research and development (R&D)	Inheritance of <i>Hudson 2001; Quinn, Li 2003; Expert discussion</i>
CN03	Funding for technological innovation	
CN04	Ability to apply new technology in production and business activities	
	Service organization capacity (DV)	
DV01	Staff attitude and service	
DV02	Service capacity of staff	Inheritance of <i>Tahir &amp; Bakar 2007; Expert discussion</i>
DV03	Build customer trust	
	The ability to create relationships (QH)	
QH01	Possibility of supplier relations	
QH02	Ability to communicate with distributors mix	Expert discussion
QH03	Possibility of relations with credit institutions	
QH04	The ability to make alliances with the enterprises in the same industry	



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QH05 Ability to relate to major levels local rights

QH06 Possibility of supplier relations

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**\* Research stages**

*Qualitative research.* At the stage of qualitative research to determine the factors affecting the competitiveness of small and medium enterprises in Dong Thap province; Building a scale of competitiveness of small and medium enterprises; complete the research model. The author uses the target group discussion technique. Specifically: the author used a convenient sampling method and selected 15 experts to participate in the discussion, including 5 people from universities, 3 experts from Dong Thap province Business Association, and 3 people from the Business Association Dong Thap province 3 people; experts from Vietnam Chamber of Commerce and Industry Can Tho branch 4 people. These are experts who have the knowledge, understand the theory of competitiveness, and have a lot of practical experience. This research phase aims to adjust and add observed variables to the scale for the concepts in the research model and verify that the theoretical bases in the model are consistent with the thoughts of the managers small and medium enterprises in Dong Thap province or not.

*Quantitative research.* In the quantitative research stage, the author uses a convenient sampling method. The subjects of the survey were in the following positions: (1) Board of Directors; (2) Chief *accountant*; (3) Leaders of the Departments. These are the subjects who are knowledgeable about the production and business activities of the enterprise and are responsible for the results of the production and business activities of the enterprise. Data was collected by distributing questionnaires to the direct survey for the period from August 1, 2022, to September 1, 2022, with an expected sample size of 500. The quantitative research process was carried out through Two steps: (1) Preliminary quantitative research and (2) Formal quantitative research.

**Data processing method**

- (1) *Testing* the scale: Using Cronbach's Alpha coefficient to evaluate the quality of the construction scale. The scale is evaluated as good quality when: (1) Cronbach's Alpha *coefficient* of the population is greater than 0.6; and (2) The correlation coefficient - the sum of the observed variables is greater than 0.3 (Corrected Item - Total Correlation) (Nunnally & Bernstein, 1994).
- (2) *Exploratory* factor analysis (EFA): helps to extract factors for further analysis. Factor loading coefficients are the criterion to ensure the practical significance of EFA. A coefficient greater than 0.3 is considered the minimum level, greater than 0.4 is considered important, and greater than 0.5 is considered to be of practical significance (Hair et al., 1998). In this study, to improve the practicality and reliability of the research results, the author only selects the factors with a transfer coefficient greater than 0.5, the Kaiser-Mayer-Olkin (KMO) has a high value a large value (between 0.5 and 1), and the total variance extracted is greater than 0.5 to *ensure* the explanatory content of the factors obtained from the results of EFA analysis. The principal Component Analysis method and Varimax rotation will be used in this study to extract key factors.
- (3) *Confirmatory* Factor Analysis (CFA): performed to test the suitability of the scale in terms of *aggregate* reliability, extracted variance, unidirectionality, convergence, and analytical value. separate. CFA is the next step of EFA because CFA is appropriate to

use only when the researcher already has some knowledge of the underlying structure, in which the relationship or hypothesis (obtained from theory or experiment) between the observed variable and the baseline is assumed by the researcher in statistical techniques.

- (4) analysis of *multiple* regression model.

## Results

### *Research sample information*

After conducting the interviews and evaluating the quality of the survey questionnaires, the results showed that 380 votes were entered into SPSS software, using SPSS tools such as checking the reasonableness of the data and checking the data. blank data for data cleaning. After data cleaning, 12 invalid answer sheets were excluded. Thus, the data from 368 business answer sheets will be used in the next analysis. Specifically, information about the research sample (n = 380) is presented in Table 2.

**Table 2.** *Sample information (n = 380)*

	Characteristics	Frequency	Percent
Scale	Small Business	193	51%
	Medium Enterprise	187	49%
Field	Industry and construction	130	34%
	Service	250	66%
Subject	Business leaders (Director, Deputy Director)	23	6%
	Chief Accountant	25	7%
	Leaders of Departments and Departments	332	87%

Source: *Preliminary survey data processing results*

*Check the scale through Cronbach's Alpha coefficient.* The results of the reliability analysis show that Cronbach's Alpha coefficient of the scales is above 0.80. The lowest is the service organization capacity scale ( $\alpha=0.8$ ), and the highest is the relationship-building capacity scale ( $\alpha=0.87$ ). Looking at the correlation coefficient of the total variable, it shows that the observed variables have quite close correlation coefficient between the observed variables (the lowest is the observed variable DV03 with the total variable correlation of 0.50 and the highest is QH03) has a total variable correlation of 0.85). The results are presented in Table 3

**Table 3.** *Preliminary assessment results of the reliability of the scales*

Scale	Encode	Cronbach's's Alpha
1. Ability to organize and manage enterprises	QL	0,81
2. Marketing capacity	MA	0,84
3. Financial capacity	TC	0,82
4. Capability to access and innovate technology	CN	0,85
5. Service organization capacity	DV	0,80
6. Ability to create relationships	QH	0,87

Source: *Preliminary survey data processing results*

### *EFA examination factor analysis*

EFA analysis for 6 groups of factors affecting competitiveness, including 22 observed variables, after removing MA02, did not meet Cronbach's Alpha reliability. The first-factor analysis results showed that the variables were extracted into 6 groups, with the total variance

extracted at 61.14% > 50%, and the scale was accepted. KMO coefficient = 0.80 is in the range of  $0.5 \leq KMO \leq 1$ , and factor analysis is appropriate. Bartlett test with Sig. = 0.000, represents a high level of significance. All Factor loading values of each group are greater than 0.5; except that the observed variable QL03 = 0.40 is less than 0.5 and appears in two factors (factors 1 and 5), so this variable will be excluded.

For better factor analysis results, the author conducts the second-factor analysis after removing the variable QL02. The results of the second-factor analysis showed that the variables were extracted into 6 groups, with the total variance extracted = 63.04% > 50%, and the scale was accepted. KMO coefficient = 0.84 is in the range of  $0.5 \leq KMO \leq 1$ , and factor analysis is appropriate. *Bartlett* test with Sig.=0.00, shows a high level of significance. All the Factor loading values of the observed variables are greater than 0.5; weight difference  $\lambda_iA - \lambda_iB$  are all greater than 0.3, so they are accepted (Nguyen Dinh Tho, 2011). Therefore, the results of this factor analysis are accepted for inclusion in the official survey.

***The results of the CFA confirmation factor analysis  
Organizational capacity for business management***

The scale of enterprise management capacity has 3 observed variables (QL01-QL03) included in the analysis. The CFA results of this scale show that the model has a good fit with the data. All standardized regression weights of the observed variables in the enterprise management capacity scale are significant ( $p = 0.000$  should be statistically significant) and has a large value, ranging from 0.79 to 0.85, all > 0.5. This result shows that the components of this scale are unidirectional and have convergent values. The correlation between the components in this scale through Table 4 shows that all the estimated correlation coefficients associated with the standard error (SE) for p-values are less than 0.05, so the correlation coefficient of each component is less than 0.05. The fraction on this scale differs from 1 at the 95% confidence level. Therefore, the components in the enterprise management capacity scale achieve discriminatory value. Composite reliability  $P_c = 0.92$  is greater than 0.6; extracted variance  $P_{vc} = 0.66$  greater than 0.5 scales to reach reliability. Thus, the CFA results of the enterprise management capacity scale with 3 observed variables achieved unidirectionality, ensuring convergent validity, reliability, and discriminant validity.

**Table 4.** Results of testing discriminant validity between variables in the enterprise management capacity scale

			Estimate (r)	SE	CR	P- value
QL01	<---	QL	0.795	0.0319	6.367	0.000
QL02	<---	QL	0.852	0.0275	5.321	0.000
QL03	<---	QL	0.807	0.0311	6.156	0.000

Source: Results from the author's survey data processing

***Marketing capacity***

The marketing capacity scale has 4 observed variables (MA01 - MA04) included in the analysis. The CFA results of this scale show that the model has a good fit with the data. All standardized regression weights of observed variables in the scale of marketing capacity are significant ( $p = 0.000$ , so it is statistically significant) and have large values, ranging from 0.78 to 0.80 all > 0.5. This result shows that the components of this scale are unidirectional and have convergent values. The correlation between the components in this scale through Table 5 shows that all the estimated correlation coefficients associated with the standard error (SE) for p-values are less than 0.05, so the correlation coefficient of each component is less than 0.05.

part of the marketing competency scale differs from 1 at the 95% confidence level. Therefore, the components in this concept gain discriminant value. Composite reliability  $P_c = 0.87$  is greater than 0.6; extracted variance  $P_{vc} = 0.67$  is larger, so a 0.5 scale is reliable. Thus, the CFA results of the marketing competency scale with 4 observed variables are unidirectional, ensuring convergent validity, reliability, and discriminant validity.

### Scale

**Table 5.** Results of testing discriminant validity between variables in the Marketing capacity

			Estimate (r)	SE	CR	P-value
MA01	<---	MA	0.797	0.0318	6.332	0.000
MA02	<---	MA	0.792	0.0321	6.419	0.000
MA03	<---	MA	0.768	0.0337	6.827	0.000
MA04	<---	MA	0.772	0.0335	6.760	0.000

Source: Results from the author's survey data processing

*Financial capacity.* The financial capacity scale has 3 observed variables (TC01 - TC03) included in the analysis. The CFA results of this scale show that the model has a good fit with the data. All standardized regression weights of observed variables in the financial capacity scale are *significant* ( $p = 0.000$ , so it is statistically significant) and have large values, varying from 0.76 to 0.82, both  $> 0.5$ . This result shows that the variables of this component are unidirectional and have convergent values. The correlation between the variables in this component through Table 6 shows that all the estimated correlation coefficients associated with standard error (SE) for p-values are less than 0.05, so the correlation coefficients of each variable in the *component* of the financial capacity scale are different from 1 at the 95% confidence level. Therefore, the variables in this component acquire discriminant value. Composite reliability  $P_c = 0.83$  is greater than 0.6; extracted variance  $P_{vc} = 0.63$  is greater than 0.5, so the scale is reliable.

**Table 6.** Results of testing discriminant validity between variables in the financial capacity scale

			Estimate (r)	SE	CRc	P-value
TC03	<---	TC	0.800	0.0316	6.280	0.000
TC02	<---	TC	0.755	0.0345	7.042	0.000
TC01	<---	TC	0.811	0.0308	6.085	0.000

Source: Results from the author's survey data processing

### The ability to access and innovate technology

The scale of *technological* accessibility and innovation has 3 observed variables (CN01 - CN03) included in the analysis. The CFA results of this scale show that the model has a good fit with the data. All standardized regression weights of observed variables in the scale of technological accessibility and innovation reach significance ( $p = 0.000$ , so it is statistically significant) and have large values, varying from 0.71 to 0.83, both  $> 0.5$ . This result shows that the variables of this scale are unidirectional and have convergent values.

**Table 7.** Results of testing discriminant validity between variables in the scale of capacity to access and innovate technology

			Estimate (r)	SE	CR	P-value
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CN03	<---	CN	0.704	0.0317	5.360	0.000
CN02	<---	CN	0.825	0.0324	6.488	0.000
CN01	<---	CN	0.814	0.0288	5.399	0.000

Source: Results from the author's survey data processing

### *Service organization capacity*

The service organization capacity scale has 3 observed variables (DV01 - DV03) included in the analysis. The CFA results of this scale show that the model has a good fit with the data. All standardized *regression* weights of observed variables in this scale are significant ( $p = 0.000$ , so it is statistically significant) and have large values, ranging from 0.79 to 0.85 all  $> 0.5$ . This result shows that the variables of this component are unidirectional and have convergent values. The correlation between the variables in this component through Table 8 shows that all the estimated correlation coefficients associated with standard error (SE) for p-values are less than 0.05, so the correlation coefficient of each variable in components differs from 1 at the 95% confidence level. Therefore, the variables in this component acquire discriminant value. The composite reliability  $P_c = 0.84$  is greater than 0.6, the extracted variance  $P_{vc} = 0.68$  is greater than 0.5, and the scale is reliable.

**Table 8.** Results of the discriminant test between variables in service organization capacity scale

			Estimate (r)	SE	CR	P-value
DV01	<---	DV	0.850	0.0277	5.360	0.000
DV02	<---	DV	0.788	0.0324	6.488	0.000
DV03	<---	DV	0.848	0.0279	5.399	0.000

Source: Results from the author's survey data processing

*Ability to build relationships* The scale of ability to create relationships has 5 observed variables (QH01-QH05) included in the analysis. The CFA results of this scale show that the model has a good fit with the data. All standardized regression weights of observed variables in this scale are significant ( $p = 0.000$ , so it is statistically significant) and have large values, ranging from 0.73 to 0.83 all  $> 0.5$ . This result shows that the components of this scale are unidirectional and have convergent values. The correlation between the components in this scale through Table 9 shows that all the estimated correlation coefficients associated with the standard error (SE) for p-values are less than 0.05, so the correlation coefficient of each component is less than 0.05. The part in the scale of product and service quality differs from 1 at the 95% confidence level. Therefore, the components in this concept gain discriminant value. Composite reliability  $P_c = 0.85$  is greater than 0.6; quoted variance  $P_{vc} = 0.64$  is greater than 0.5, and the scale is reliable.

**Table 9.** Results of testing discriminant validity between variables in the scale of ability to create relationships

			Estimate (r)	SE	CR	P-value
QH01	<---	QH	0.73	0.0360	7.416	0.000
QH02	<---	QH	0.75	0.0319	6.333	0.000
QH03	<---	QH	0.77	0.0320	6.351	0.000
QH04	<---	QH	0.83	0.0263	5.023	0.000
QH05	<---	QH	0.74	0.0337	6.794	0.000

Source: Results from the author's survey data processing

*Results of regression model testing of factors affecting the competitiveness of small and*

*medium enterprises*. The regression results in Table 10 show that the R-value = 0.755, which means that the relationship between the variables in the model is quite close. The value R<sup>2</sup> = 0.571 shows the fit of the model, the adjusted R<sup>2</sup> coefficient is 0.559 (explains 6 factors that affect 55.9% of the competitive capacity of small and medium-sized enterprises), and the F-test with the value. The F value is 70,615 at the Sig level of significance very small is 000. The results of the evaluation of the above R<sup>2</sup> value show that the built linear regression model is appropriate. *However*, to be able to infer this model into a model of the population, we need to conduct an F-test through analysis of variance.

**Table 10.** Summary of regression coefficients

Model	R	R <sup>2</sup>	R <sup>2</sup> righting	The standard deviation	Statistics change					Durbin-Watson
					R <sup>2</sup> change	F change	df1	df2	Significance level F change	
1	.755	.571	.559	.66319992	.571	47.576	6	367	.000	2.145

Source: Results from the author's survey data processing

According to the results in Table 11 analysis of variance (ANOVA) shows that Sig. = 0.000 < 0.01. Thus, the model of factors affecting the competitiveness of small and medium enterprises is consistent with actual research data. In other words, the independent variables are linearly related to the dependent variables with a 99% confidence level.

**Table 11.** Analysis of Variance (ANOVA)

Model	Sum of squares	df	Mean squared	F	Sig.
1 Regression	146.480	6	20.925	47.576	.000a
Residual	109.518	248	.440		
Total	368.000	367			

Source: Results from the author's survey data processing

The results of the regression analysis of factors affecting the competitiveness of small and medium enterprises are presented in the following table 12.

**Table 12.** Table of regression coefficients

Model	Regression weight	Standard Deviation	Normalized Beta coefficient	Value t	Significance level Sig	Acceptance factor	Variance magnification factor VIF
Constant	1,51E-13	.041					
X1	.382	.040	.382	9.236	.000	.713	1.400
X2	.144	.040	.144	3.500	.001	.749	1.333
X3	.387	.040	.387	9.365	.000	.607	1.644
X4	.278	.040	.278	6.724	.000	.479	2.082
X5	.138	.040	.138	3.355	.001	.613	1.627
X6	.233	.040	.233	5.642	.000	.819	1.218

Source: Results from the author's survey data processing

The results of *testing* the assumptions of the regression model drawn from the Enter method also show that the assumptions are not violated and there is no multicollinearity because the VIF is less than 3. The results from Table 12 show that 6 The independent variables of the model are all statistically significant because they have Sig values < 0.01 (at 99% confidence level), moreover these regression coefficients are all > 0, meaning, they all has a positive impact on the competitiveness of small and medium enterprises to different degrees

**The regression has the following form**

$$Y = 0.382X1 + 0.144X2 + 0.387X3 + 0.278X4 + 0.138X5 + 0.233X6$$

With the *results* of regression analysis from Table 12, it is possible to arrange the factors according to *the* degree of impact on the competitiveness of small and medium enterprises from high to low as follows:

**Table 13.** *The level of impact of factors on the competitiveness of small and medium enterprises*

Variable	Name	Rate of Impact (Beta Factor)
X3	Financial capacity (TC)	.387
X1	Organizational and management capacity (QL)	.382
X4	Technology access and innovation capacity (CN)	.278
X6	The ability to build relationships (QH)	.233
X2	Marketing Competency (MA)	.144
X5	Service organization capacity (DV)	.138

The *regression* model to assess the impact of factors on the competitiveness of small and medium-sized enterprises is rewritten as follows: Competitive capacity = 0.387TC + 0.382QL + 0.278CN + 0.233QH + 0.144MA + 0.138DV

## Conclusions and Management Implications

### *For small and medium enterprises in Dong Thap province*

Improve organizational and management capacity: Regularly update new knowledge and necessary skills (competitive management skills, business leadership skills, change management *skills*, presentation, negotiation and communication skills, forecasting skills and development strategy orientation, etc.) to be competitive enough in the market and access the knowledge economy. Improve education level, understanding of socio-economic, cultural, legal ... in which focus on building corporate culture. To improve the ability to work and conduct international transactions, it is necessary to focus on developing key knowledge and skills, such as foreign language ability; basic knowledge of culture, society, and history in international *business*; international communication and dealing with cultural differences in business; international practices and laws in the field/industry.

- Marketing force: Develop a suitable product strategy: identify products associated with each type of market (according to market segments) and ensure sufficient quantity and quality. Having an appropriate pricing strategy: commodity prices are based on the market supply-demand relationship and are governed by demand, tastes, and seasons. However, businesses need to have a general price strategy and the price of each product for each specific period. The main business motto is low prices on large consumption volumes and flexible and highly competitive prices. To do so, businesses need to ensure good resources, exploit well the potential and save maximum costs and reduce relative costs. Building a flexible market

strategy: The market is a business environment and a factor that directs business activities. Strengthening trade promotion activities: businesses need to focus on trade promotion activities. Set up a suitable distribution channel system: to improve market penetration capacity. Invest in building and promoting the business's brand: Corporate brand is an intangible asset of the business, a tool to protect the interests of the business.

- Improve financial capacity: Restructure production and business activities by the existing financial situation and the capacity and forte of the enterprise. Renovate the internal management system, and strengthen analysis, strategic planning, strengthen financial management. Be proactive in building projects and investment methods with the capacity of capital, technology, and people. Transparency in financial matters to use resources more efficiently, minimizing costs and risks for both businesses and banks. Understand cash flow status and working capital deficit, free up cash from export invoices, improve collection efficiency, *reduce* payment processing costs, and utilize excess capital while still ensuring access to cash, reduce risks, and maintain profits... Supply chain management, secure payment to suppliers, taking advantage of buyer's reputation to access bank capital.

Improving technological innovation capacity: It is necessary to review and accurately classify the technological status of enterprises, considering the technological innovation needs of the industry and the field of goods production with competitive advantages. countries such as agriculture, supporting industry production. Selecting technology suitable to production conditions, product characteristics, and skill level of employees in the enterprise to optimize the combination of resources to achieve high efficiency. It is necessary to strengthen linkages and *cooperation* with scientific and technical research units and organizations and invest in research to design and manufacture. Enterprises also need to actively enter into joint ventures, associations, or cooperation with foreign enterprises to absorb their modern technology.

Improve service organization capacity: Improve customer service quality: nowadays, the competition between enterprises is increasingly fierce. Customers have more and more opportunities to choose services and therefore the level of consumer loyalty to businesses also changes in a decreasing direction. It is the quality, professional and dedicated service style of the business that will make the difference in products and services between businesses. Because the quality of business services is due to the perception of customers.

Improving the capacity to create relationships: From the results of the regression model, it shows that the establishment, development, and maintenance of relationships have important meanings, positively affecting the competitiveness of enterprises. Businesses can build good relationships with customers and business partners through meetings, fairs, conferences, and participating *in* clubs and industry associations. At that time, businesses will have many opportunities to meet to capture information, as well as learn and exchange experiences. In addition, businesses need to prioritize building good relationships with agencies and sectors. This relationship helps businesses quickly grasp changes in legal regulations, as well as have many opportunities to access information about supportive policies of the government.

### ***Recommendations for government agencies***

It is necessary to develop legislation to support small and medium enterprises: the implementation, policies, and programs to support the development of small and medium enterprises have achieved some results. However, the implementation and supporting impact of these policies are still limited. In addition, the support needs of small and medium-sized enterprises and the resource conditions of the country propose to propose the following 9 basic support groups: (1) Support small and medium-sized enterprises to innovate and be innovative



create in business; (2) Financial and tax support for small and medium enterprises; (3) Supporting the consumption of products and goods produced by small and medium-sized enterprises; (4) Supporting market development for small and medium enterprises; (5) Supporting information provision for small and medium enterprises; (6) Business consulting support for small and medium enterprises; (7) Labor and human resource support for small and medium enterprises; (8) Support linkage between small and medium enterprises and between small and medium enterprises and large enterprises; (9) Start-up support.

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