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Influencing factors of competitiveness on business results of enterprises: A case study of E-commerce enterprises in Ho Chi Minh City

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Abstract

Competitiveness affecting business results of enterprises is a research topic of great interest, especially among enterprises operating in the field of e-commerce in Ho Chi Minh City (Nha and Lien, 2015). The competitiveness of enterprises is the determining factor in the business results of the organization (Tran Thi Anh Thu, 2012). This paper aims to systematize the theoretical basis as well as identify the factors of the research model of competitiveness in e-commerce enterprises in Ho Chi Minh City. The article mainly uses quantitative research methods with tools such as exploratory factor analysis (EFA), confirmatory factor analysis (CFA) as well as linear structural model SEM. The results of the paper are an important part of the author's research during his PhD studentship at Saigon International University.

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Keywords: Competitiveness, Business Results, SEM Structural equation model, E-commerce Enterprise, HCMC

1. Introduction

Previous studies on the influence of the group of competitive factors related to the sub-factors are technological capacity, organizational capacity and business environment; The impact on business results of enterprises has not been considered holistically and is incomplete in terms of science and theory (Thuy, 2015) ^[11]. That is the reason why the author carried out this study to better analyze the relationship between the group of competitive factors and business results. Research on the topic of competitiveness affecting business results of e-commerce enterprises satisfying the following requirements: (1) Consider at the same time the relationship of three factors related to competitiveness, namely technological capacity, organizational capacity and business environment. The research is aimed at e-commerce businesses in Ho Chi Minh City, responding to the increasing importance of e-commerce activities in this area. (2) Groups of factors of competitiveness and business results of enterprises are thoroughly and systematically considered. And (3) The method of data processing is both qualitative and quantitative, providing high reliability and accuracy.

2. Theoretical Basis

The theoretical basis of the article is related to the following topics: Competitiveness and business results. In which, competitiveness includes technological capacity, organizational capacity and business environment. Technological competence is related to technological innovation activities and the sense of technology learning of enterprises (Guan, 2006) ^[4]. Technology is a very important factor, greatly affecting the competitiveness of enterprises. To be competitive, enterprises must be equipped with modern technology, use less human resources, increase productivity, lower costs, and improve business efficiency (Nguyen Huu Thang, 2008) ^[9]. Organizational capacity is related to the level of organization, enterprise management and enterprise resources (Munizu, 2021) ^[8]. The level of organization and management of enterprises is reflected in the arrangement and arrangement of the management organizational structure and clearly define the functions and duties of the departments, business strategy planning, planning, operation management. The organizational formation of the enterprise management apparatus in the direction of leanness, lightness and high efficiency is important not only to ensure high management efficiency but also to reduce the administrative costs of the enterprise (Zhang, 2009) ^[17].

The business environment is related to the competitive environment that comes from competitors in the industry and the political institutional environment is related to the policies and management and administration of the state (Porter, 2008) ^[12].

3. Hypothesis and Research Model

The literature review shows that the majority of domestic and international studies focus on determining the individual impact of technological capabilities, organizational capacity, business environment, and competitiveness on business results (Zhu, 2004; Awa, 2015; Kumar, 2016; Sila, 2013) ^[18, 1, 6, 14]. However, the author has not found any studies that determine the concurrent, direct or indirect impact between organizational capacity, business environment, competitiveness and business results. This is considered a gap and is focused on solving in the author's research. In addition, no studies on competitiveness and business results of e-commerce enterprises were found.

Previous studies on competitiveness and business results used simple data processing methods, the sample size was usually small and especially the subjects applied were not enterprises in the e-commerce industry (Nguyen Van Dat, 2016) ^[10], which was a growing economic sector of Ho Chi Minh City.

4. Research hypothesis

The study builds research hypotheses according to each impact group, including:

- Assess the impact of technological capability on competitiveness
- Assess the impact of organizational capacity on competitiveness
- Assess the impact of business environment on competitiveness.
- Assess the impact of competitiveness on business results.
- Evaluate the interaction between Technological Capabilities and Organizational Capabilities.
- Evaluate the interplay between organizational capacity and business environment.
- Assessing the interaction between Technological Capability and Business Environment.

There are many studies concluding about the positive influence of technological capabilities on the competitiveness of enterprises. Typically, the study of Zhu (2004) ^[18], Awa (2015) ^[1], Kumar (2016) ^[6], Sila (2013) ^[14], Li and Xie (2012) ^[7], Tran Thi Anh Thu (2012), Nguyen Van Dat (2016) ^[10], Guan *et al* (2006) ^[4]. Technological capability is one of the important factors that determine or promote the adoption or intention to innovate and use new technologies, which creates extremely important competitiveness in the 4.0 technology era. It refers to the technical capabilities of enterprises including IT infrastructure capabilities and IT human resource capabilities (Zhu *et al.*, 2004) ^[18]. The hypothesis to evaluate the positive impact of technological capabilities on the competitiveness of enterprises is described as follows:

Hypothesis H1: Technology capacity has a positive impact on the competitiveness of e-commerce enterprises in HCMC. The studies conclude on the positive influence of organizational capacity on the competitiveness of enterprises. A typical example is the study of Nguyen Van Thuy (2015) ^[11], Nguyen Huu Thang (2008) ^[9], Nha and Lien (2015),

Munizu *et al* (2021) ^[8]. Human resource capacity in general plays a very important role in the development of enterprises. In the modern digital economy, especially in the trend of shifting to a knowledge economy, the quality of human resources is the most concerned factor when businesses choose to invest. In addition, the influence of senior leaders, the support of leaders or the attitude of senior management provide a source of motivation for businesses to boldly develop. Finally, as extremely important, the management strategy, management or organizational model of the business helps e-commerce businesses orient the market, making a difference. The hypothesis to evaluate the positive impact of organizational capacity on the competitiveness of enterprises is described as follows:

Hypothesis H2: Organizational capacity has a positive impact on the competitiveness of e-commerce enterprises in HCMC.

The authors Awa *et al.* (2015) ^[1], Kumar *et al* (2016) ^[6], Sila (2013) ^[14], Tung (2003), Nguyen Huu Thang (2008) ^[9] have emphasized their views that e-commerce will change the rules of competition, restructure the manufacturing industry and shed light on innovation requirements to outperform competitors and stand out from trading and manufacturing partners. In addition, the socio-cultural environment, the political institutional environment related to the policies and the management and administration of the state will greatly influence the strategies of enterprises. From there, the author hypothesized to evaluate the positive impact of the business environment on the competitiveness of enterprises as follows:

Hypothesis H3: The business environment has a positive impact on the competitiveness of e-commerce enterprises in HCMC.

Technological capacity, organizational capacity and factors constituting the business environment have a great impact on business results because each ability has its own characteristics such as rare, valuable, irreplaceable and inimitable, and can lead to superior performance and the business environment governs many activities of an enterprise from its operational strategy to the constraints that the business must adhere to in relation to policy. This has been confirmed in the research of many authors, such as: Guan *et al* (2006) ^[4], Sanchez and Heence (2004), Heeks (2006). From there, the author proposes the following hypothesis related to the business environment:

Hypothesis H4: Competitiveness has a positive impact on business results of e-commerce enterprises in HCMC.

In the study of the relationship between Technological Capabilities and Organizational Capabilities, The authors Zhu (2004) ^[18], Sila (2013) ^[14], Tung (2003) ^[16], Nguyen Van Dat (2016) ^[10] have affirmed that the implementation of scientific and technological innovation is extremely necessary, but it is bound by factors such as the capital of the business, the qualifications of the staff - who are directly responsible for operating the new technology, and development strategy planned by the management team. From there, the author proposes a hypothesis related to the relationship between technological capacity and organizational capacity as follows:

Hypothesis H5a: Technology capacity has a positive impact on organizational capacity of e-commerce enterprises in

HCMC.

Hypothesis H_{5b}: Organizational capacity has a positive impact on the technological capacity of e-commerce enterprises in HCMC.

Besides, authors Zhu (2004) [18], Awa (2015) [1], Li and Xie (2012) [7], Tung (2003) [16], Tran Thi Anh Thu (2012), Nguyen Huu Thang (2008) [9] research on organizational capacity considering factors related to the business environment commented that the relationship between these two factors is an interaction relationship. The business environment includes the impact of competitors; micro and macro economic factors; State policies will affect the model as well as the strategy of enterprises. On the contrary, characteristics related to organizational capacity will affect the market in which that enterprise competes. From there, the author proposes hypotheses related to the relationship between business environment and organizational capacity as follows:

Hypothesis H_{6a}: Organizational capacity has a positive impact on the business environment of e-commerce enterprises in Ho Chi Minh City.

Finally, the relationship between Technological Capability and Business Environment is also of interest to many authors,

such as: Guan *et al* (2006) [4], Kumar (2016) [6], Sila (2013) [14]. The authors all expressed the view that the market share factor related to the business environment will influence the price of products and services of enterprises from that business leaders must have appropriate innovation and technology learning strategies. This statement is also true if considered in the opposite direction when considering the impact of technological capabilities on the business environment. From there, the author proposes a hypothesis related to the relationship between Technological Capability and Business Environment as follows:

Hypothesis H_{7a}: Technology capacity has a positive impact on the business environment the technology capacity of e-commerce enterprises in HCMC.

Hypothesis H_{7b}: The business environment has a positive impact on the technology capacity of e-commerce enterprises in HCMC.

Research model with 5 groups of factors showing the impact of technology capacity, organizational capacity, business environment, competitiveness on business results of e-commerce enterprises in Ho Chi Minh City are summarized and presented in Figure 1 as follows.

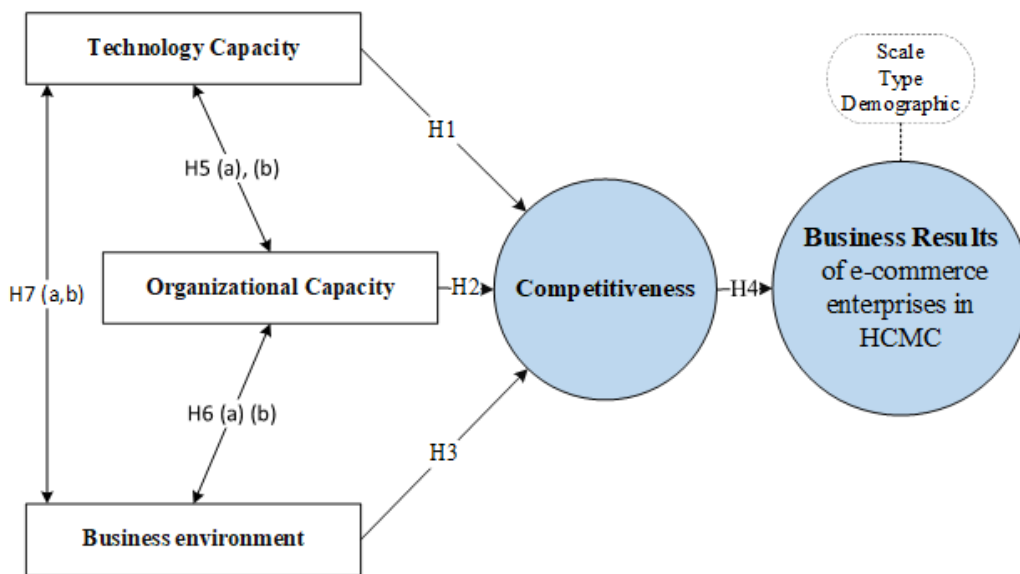


Fig 1: Proposed research model (Source: Author's synthesis and recommendations, 2023)

4. Research Methods

Research, survey and evaluate the current state of competitiveness and business results in Ho Chi Minh City. From there, evaluate current policies and based on policies

and experiences in the world to propose appropriate governance implications. The detailed research process is presented in Figure 2 as follows (Hung Anh, 2023).

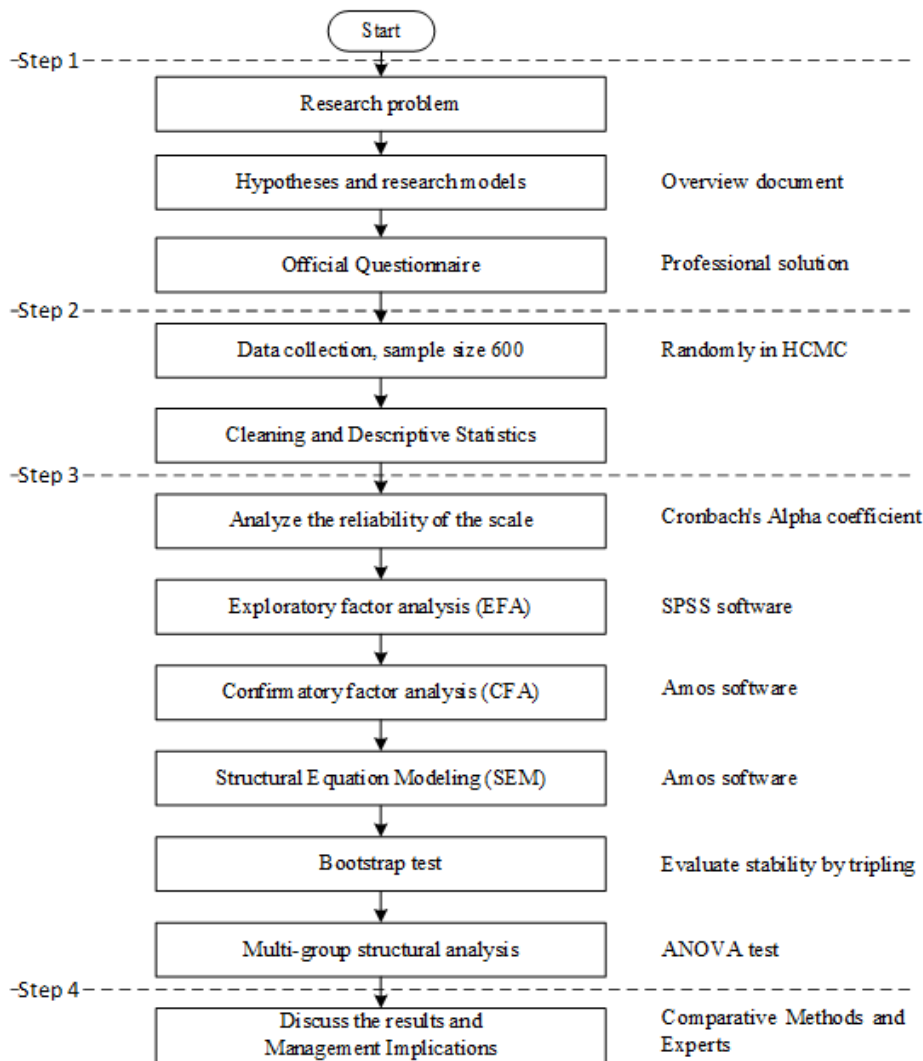


Fig 2: Research Process (Hung Anh, 2023)

Step 1. Qualitative research, including steps Identify research problem. Review definitions and interrelationships between factors to identify research hypotheses and models. The objective of this phase is to form a formal (by legacy) questionnaire to conduct data collection.

Step 2. Use the official questionnaire to collect research data, take random samples online and in person. The obtained data will be cleaned as well as descriptive statistics to prepare for the data analysis in the next phase.

Step 3. Process and analyze survey data using the included quantitative analysis tools. Cronbach's Alpha coefficient is used to evaluate the reliability of the scale while exploratory factor analysis EFA is used to group the data. Next, confirmatory factor analysis CFA is used to confirm (correlation) between groups of factors. Finally, the SEM tool group is used to confirm the causal relationship between the factors of the research model.

Step 4. Based on the results of quantitative analysis (Step 3) to discuss the results as well as propose management implications.

5. Conclusion

The research in this paper has added a model describing the impact of competitiveness on business results of e-commerce enterprises in Ho Chi Minh City through quantitative analysis

techniques such as scale reliability analysis, EFA factor analysis, CFA factor analysis, confirmed the suitability of the research model. Besides, this article also determines the extent of the influence of factors on the business results of e-commerce enterprises in Ho Chi Minh City.

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