

# Factors Affecting Dynamic Competitiveness of Veterinary Drug Manufacturing Enterprises in Vietnam

Pham Dac Thang

Toan Thang Veterinary Drug Joint Stock Company

Email: [thangpd1811\[at\]gmail.com](mailto:thangpd1811[at]gmail.com)

**Abstract:** *Vietnamese veterinary medicine manufacturers have made great efforts to improve their competitiveness over time. However, in the context of intensified competitiveness and volatile market, veterinary drug manufacturers began to adjust their competitiveness under the continuous operating conditions to match the environmental changes. This study focuses on analyzing the competitiveness of enterprises producing veterinary drugs in Vietnam, on the basis of which problems that enterprises in this field must face to set up and maintain competitive capability in recent times*

**Keywords:** Competitiveness, dynamic competitiveness, veterinary medicine manufacturing enterprises in Vietnam

## 1. Rationale of the Study

Competitiveness presentations have been studied in depth for a long time with many different points such as: (i) competitiveness based on resources; (ii) factors affecting the competitiveness of the business; (iii) factors measuring the competitiveness of the business; (iv) improving competitiveness of enterprises ... However, the previous access points often put competitiveness in a stable and balanced environment without many studies related to this issue in the volatile environment with many changes. Therefore, later there has been a number of studies on competitiveness in the continuous movement of environment, also known as dynamic competitive capability. Accordingly, the competency can be generally understood as the ability to integrate, build and reformat an enterprise's ability to respond to changes in the business environment. Thus, dynamic capacity can be understood as outstanding capabilities within an enterprise that are able to adapt well to environmental changes, helping businesses maintain their competitive advantage. In the context of fierce competition and unpredictable fluctuations of the business environment, the creation and maintenance of dynamic capacity are considered key factors to help businesses succeed and stand firmly in the market.

With the advantage of being a country with a high proportion of agricultural production in the economy, the demand for veterinary medicine is increasing. In recent years, Vietnamese veterinary drug manufacturers have gradually penetrated the stages of creating higher value in this market, gradually meeting domestic demand and exporting to some other countries. However, it can be said that the development of this field is not sustainable. Vietnam still depends heavily on imported raw materials for the production of veterinary drugs. The trend of countries in the region is moving to the stage of creating more value and more competition to have more and more fierce market segments for veterinary medicine products. In this situation, it is required that our veterinary drug manufacturers must rely on a shift from relying on static comparative advantage

to dynamic comparative advantage towards creating development resources. This is a dynamic competitive process in the economy. As a result, the fact that "Factors affecting the dynamic competitiveness of Vietnamese veterinary drug manufacturers" has high practical significance.

## 2. Research Overview

In reality, dynamic competitiveness is a topic chosen by many authors to study in recent years, in which most of the previous studies emphasize its importance for businesses in general. Research by Li & Liu (2014) shows that dynamic capacity is regarded as being an important stable source of competitive advantage and at the same time reinforces the conclusion that dynamism has positive relationship with competitive advantage of business. Actually, dynamic capacity is an important factor to help businesses create and maintain a sustainable competitive advantage. The contribution of research is to illustrate a direct and positive relationship of dynamism to firms' sustainable competitive advantage (Williamson, 2016). Research by Zeng, Simpson & Dang (2017) on dynamic capability in Chinese manufacturing firms has shown that the role of dynamism is not simply to renew a specific set of competencies but is seen as superpowers to help businesses renew and integrate all of their capabilities continuously.

Meanwhile, Vijaya, Ganesh & Marathe (2019) point out the role of enterprises' dynamic competitiveness in the short and long term. Accordingly, in the short term, creating dynamic competitiveness will build up short-term competitive advantages, efficiency and profitability for businesses, and create value for customers. In the long term, it will set up a long-term competitive advantage, market share and maintain value in the business. Thus, it can be seen that, in the context of the continuous change of the environment, the creation and maintenance of dynamic competitiveness play a very important role for enterprises (Dinh Tho and Nguyen Thi Mai Trang, 2009).

Referring to factors affecting the assessment of enterprise's dynamic competitiveness, Li & Liu (2012) uses quantitative research methods to test research hypotheses. The two independent variables in the research hypothesis model are the variable "Dynamic capacity" and the variable "The dynamic mechanism of the market"; The dependent variable is the variable "Competitive advantage". The variable "Dynamic capacity" includes three factors: The capacity to perceive the strategy; capacity to make timely decisions and the ability to make change. The variable "The dynamic of the market" includes four factors: The impact of the industry environment, the behavior of competitors, technological achievements and customer needs. Williamson (2016) and Teece, Pisano & Shuen (1997) also point out three components of the motivation to research: capacity to perceive opportunities, capacity to seize opportunities and capacity to transform. Based on a synthesis of competitive theories, Nguyen Thi Thuy Hoa (2011) hypothesizes 5 independent variables that constitute dynamic competitiveness of businesses, including: Marketing capacity; Business orientation; creative capacity; service organization capacity; and the reputation of the enterprises.

Nevertheless, G.Gurkan Inan & Umit S. Bititci (2015) argued that previous research on dynamic capacity usually focused on large-scale enterprises or a few case studies on small and medium enterprises, but none of these studies has focused on small businesses. Meanwhile, small enterprises have many different characteristics in capacity from small and medium enterprises and large enterprises. Therefore, being derived from 12 capacities summarized from previous studies, this study has given 8 components of the dynamic capacity of small-scale enterprises including: connection capacity; capacity to identify business environment, creative capacity and product development; the capacity to copy and imitate; marketing and sales capabilities; learning ability; reformatting and decision-making capacity.

Some studies have mentioned the capacity development process model for businesses. According to Zeng, Simpson & Dang (2017), they proposed three phases: (i) The phase to establish new focus of attention includes: giving up the habit of learning from previous experiences and lessons; investing in new resource bases; building a learning culture in the entire business. (ii) The phase of paying attention to resource transition includes: conducting trials; allocating existing resources; building extended networks to connect with stakeholders. (iii) Co-creation with ecosystems includes: institutionalizing flexible habits; further enriching the resources of the business; coordinating extended networks to connect with stakeholders. The new contribution of the research is that in addition to building a model of the capacity development process of businesses, it also focuses on dynamic capacity in emerging and developing countries. Following the previous studies, Nguyen Hoang Viet (2012) has built up a set of criteria and scales to assess the business capacity in general of the enterprise and the dynamic business capacity in particular. In which, 5 groups of constituent factors and assessment weight of the enterprise's dynamic business capacity have been classified, including: (i) capacity to build and develop business shareholders (weight  $P_i = 0.15$ ); (ii) the capacity to rebuild core business processes ( $P_i = 0.2$ ); (iii) the capacity

to regenerate and develop core and differentiated business competencies ( $P_i = 0.25$ ); (iv) organizational capacity and corporate organizational culture ( $P_i = 0.2$ ); (v) Business leadership capabilities based on the knowledge and values of CEOs ( $P_i = 0.2$ ).

*Thus, in recent years, studies on dynamic competitiveness in the world tend to focus on researches in a specific market context or in a specific group of businesses. The studies, in addition to examining the components of dynamic capability that were given by the previous authors, also propose other constituent factors of dynamic capacity. Simultaneously, it also examines the relationship of dynamic competitiveness with groups of factors such as business performance, business results or competitive advantage of enterprises.*

### 3. Evaluate the dynamic competitiveness of Vietnamese veterinary drug manufacturers

#### 3.1 Survey data

With the advantage of being a country with a high proportion of agricultural production in the economy, the demand for veterinary medicine is increasing. In recent years, Vietnamese veterinary drug manufacturers have gradually penetrated the stages of creating higher value in this market, gradually meeting domestic demand and exporting to some other countries. However, it can be said that the development of this field is not sustainable. Vietnam still depends heavily on imported raw materials for the production of veterinary drugs. The trend of countries in the region is moving to the stage of creating more value and more competition to have more and more fierce market segments for veterinary medicine products. In this situation, it is required that our veterinary drug manufacturers must rely on a shift from relying on static comparative advantage to dynamic comparative advantage in order to create sustainable development resources. This is so called a dynamic competitive process in the economy

This study examined and surveyed 262 people from veterinary drug manufacturers who were knowledgeable about the competitiveness issues of veterinary manufacturing enterprises (directors, deputy directors, heads of sales departments, head of R&D, etc). After validly removing invalid votes, the number of votes collected for analyzing and appraising in this thesis is 254 votes. Moreover, reference data will be analyzed by parsing the process information through SPSS 22.0 software processing data. The results of the quantitative work will be the basis to help determine the relationship and influence of competitive factors on the capacity of Vietnamese veterinary drug manufacturers

#### 3.2 Assess the dynamic competitiveness of the veterinary manufacturing enterprises in Vietnam by using econometric models

The testing and evaluation of the scale was carried out by the PhD student through 2 steps: Step 1, perform Cronbach's Alpha analysis to eliminate observed variables that do not contribute to the description of the concept to be measured;

Step two performs exploratory factor analysis (EFA) to check the validity of the scale of research concepts.

**3.2.1 Cronbach's Alpha analysis**

\* Scale: "Capacity to innovate"

The scale "Innovation and creativity capacity" with Cronbach's Alpha coefficient is 0.867 satisfactory. The total variable correlation coefficients of the variables measuring this factor all meet the standard (> 0.3). Therefore, this scale is satisfactory and the observed variables of this scale are included in the discovery factor analysis.

**Table 1:** Test results of Cronbach's Alpha's scale "The capacity to innovate and create"

Cronbach's Alpha	Number of variables
0.867	5

Observed variable	Average scale when removing variables	Variance when removing variables	Correlation of total variable	Cronbach's Alpha when removing variables
NLDM01	15.62	11.161	.767	.825
NLDM 02	15.68	10.665	.794	.815
NLDM 03	15.65	10.939	.804	.817
NLDM 04	15.65	10.897	.775	.821
NLDM 05	16.66	9.827	.505	.923

Source: The author calculates on SPSS software based on primary data

\* Scale: "Learning Orientation"

The scale of "Learning Orientation" with Cronbach's Alpha coefficient is 0.941, which is satisfied. The total variable correlation coefficients of the variables measuring this factor all meet the standard (> 0.3). Therefore, this scale is satisfactory and the observed variables of this scale are included in the discovery factor analysis.

**Table 2:** Test results of Cronbach's Alpha's scale "Learning orientation"

Cronbach's Alpha	Number of variables
0.941	4

Observed variable	Average scale when removing variables	Variance when removing variables	Correlation of total variable	Cronbach's Alpha when removing variables
NLDHHH01	9.44	15.539	.856	.923
NLDHHH02	9.48	15.063	.875	.918
NLDHHH03	9.69	15.097	.884	.914
NLDHHH04	9.34	16.655	.824	.934

Source: The author calculates on SPSS software based on primary data

\* Scale: "Marketing capacity"

The scale of "Marketing capacity" with Cronbach's Alpha coefficient of 0.947 meets the requirements. The total variable correlation coefficients of the variables measuring this factor all meet the standard (> 0.3). Therefore, this scale is satisfactory and the observed variables of this scale are included in the discovery factor analysis.

**Table 3:** Test results of Cronbach's Alpha's scale "Marketing capacity"

Cronbach's Alpha	Number of variables
0.947	6

Observed variable	Average scale when removing variables	Variance when removing variables	Correlation of total variable	Cronbach's Alpha when removing variables
NLMAR01	18.15	26.091	.814	.940
NLMAR02	17.81	27.411	.801	.942
NLMAR03	17.79	26.605	.848	.936
NLMAR04	17.92	26.364	.867	.934
NLMAR05	18.17	24.729	.864	.935
NLMAR06	18.02	25.378	.850	.936

Source: The author calculates on SPSS software based on primary data

\* Scale: "Business-oriented capacity"

The scale of "Business-oriented capacity" with Cronbach's Alpha coefficient of 0.890 meets the requirements. The total variable correlation coefficients of the variables measuring this factor all meet the standard (> 0.3). Therefore, this scale is satisfactory and the observed variables of this scale are included in the discovery factor analysis.

**Table 4:** Test results of Cronbach's Alpha's scale "Business-oriented capacity"

Cronbach's Alpha	Số biến
0.890	3

Observed variable	Average scale when removing variables	Variance when removing variables	Correlation of total variable	Cronbach's Alpha when removing variables
NLDHKD01	6.96	4.138	.780	.852
NLDHKD02	6.54	4.408	.818	.817
NLDHKD03	6.75	4.577	.763	.863

Source: The author calculates on SPSS software based on primary data

\* Scale: "Cooperation capacity"

The scale of "Cooperation capacity" with Cronbach's alpha coefficient is 0.890 that meets the requirements. The total variable correlation coefficients of the variables measuring this factor all meet the standard (> 0.3). Therefore, this scale is satisfactory and the observed variables of this scale are included in the discovery factor analysis.

**Table 5:** Test results of Cronbach's Alpha's scale "Cooperation capacity"

Cronbach's Alpha	Number of variables
0.915	4

Observed variable	Average scale when removing variables	Variance when removing variables	Correlation of total variable	Cronbach's Alpha when removing variables
NLLKHT01	10.04	11.146	.818	.889
NLLKHT02	9.89	11.395	.842	.877
NLLKHT03	9.79	12.663	.804	.892
NLLKHT04	9.75	13.290	.782	.901

Source: The author calculates on SPSS software based on primary data

\* Scale: "Competitive capability of enterprises producing veterinary drugs"

The scale of "Competitiveness of enterprises producing veterinary drugs" with Cronbach's Alpha coefficient of .849 meets the requirements. The total variable correlation coefficients of the variables measuring this factor all meet the standard (> 0.3). Hence, this scale is satisfactory and the observed variables of this scale are included in the discovery factor analysis.

**Table 6:** Test results of Cronbach's Alpha scale "Competitive capability of companies producing veterinary drugs"

Cronbach's Alpha	Total number of variables
.849	4

Observed variable	Average scale when removing variables	Variance when removing variables	Correlation of total variable	Cronbach's Alpha when removing variables
NLCT01	9.96	8.282	.767	.775
NLCT02	10.32	7.215	.847	.733
NLCT03	10.51	7.677	.748	.783
NLCT04	9.18	11.295	.427	.899

Source: The author calculates on SPSS software based on primary data

**3.2.2 Exploratory factor analysis EFA**

After evaluating the reliability of the scales, the author conducted an analysis of the discovery factor EFA to evaluate the convergence and differentiation values of the scales.

**Results of factor analysis to explore EFA for independent variables**

**Table 7:** Results of factor analysis to explore EFA for independent variables

**Exploratory factor analysis for the dependent variable**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.956
Bartlett's Test of Sphericity	Approx. Chi-Square	6060.693
	Df	231
	Sig.	0

Rotated Component Matrix <sup>a</sup>					
	Component				
	1	2	3	4	5
NLDM01	0.855				
NLDM02	0.836				
NLDM03	0.84				
NLDM04	0.832				
NLDM05	0.773				
NLDHHH01		0.783			
NLDHHH02		0.796			
NLDHHH03		0.843			
NLDHHH04		0.803			
NLMAR01			0.701		
NLMAR03			0.727		
NLMAR04			0.813		
NLMAR05			0.712		
NLMAR06			0.683		
NLMAR01			0.681		

NLDHKD01				0.711	
NLDHKD02				0.514	
NLDHKD03				0.672	
NLLKHT01					0.728
NLLKHT02					0.716
NLLKHT03					0.667
NLLKHT04					0.704
Eigenvalues	7.69	5.258	4.002	4.57	3.175
Phuong sai trich	82.964	80.219	77.044	72.474	63.31

Source: The author calculates on SPSS software based on primary data

The results of exploratory factor analysis (EFA) with observed variables belonging to the dynamic competitive competence of veterinary drug manufacturers indicated quite good results. That is shown in the coefficient KMO = 0.956 corresponding to the significance level Sig = 0.000 <5%. This result shows that the results of exploratory factor analysis (EFA) are highly reliable. Besides, the total variance extracted of factor 5 and the convergence coefficient eigenvalues of this factor are 63,310% > 50% and 3,175 > 1, respectively. This result also identifies that there is a convergence in the 5 first observed variables and these factors explain 63,310% of the variation of survey data. Besides, the rotating matrix towards factors reveals that the load coefficients of the observed variables are greater than 0.5. Thus, the factors after performing the discovery factor EFA ensure the ability to represent the initial survey data and are eligible to perform multivariate regression. The results of exploratory factor analysis (EFA) show that there are five factors extracted after the EFA analysis, including: (1) Innovation capacity, (2) Learning-oriented capacity (3) Marketing capacity, (3) Business-oriented capacity, (4) Cooperation capacity.

**Table 8:** Exploratory factor analysis for the dependent variable

Observed variables	Load factor
NLCT01	.883
NLCT02	.929
NLCT03	.873
NLCT04	.897
Eigenvalues	2.762
Average variance	69.047
KMO	.768
Sig	0.000

Source: Author calculated based on SPSS 22.0 software

Based on the above results, it shows that 04 observed variables have converged on one factor with the coefficient KMO = .768 with the significance level sig = 0.000 <5%, the variance obtained 69.047%. This fact confirms the convergence and good representation of the dependent variables

**3.2.3. Models and hypotheses test**

Correlation analysis: Based on the results of correlation analysis between the variables, it shows that all the independent variables are correlated with the dependent variable (Table 4.19). The dependent variable of competitiveness of veterinary drug manufacturers (Y) has the strongest correlation with the independent variable of innovation; and innovation capacity (X1) with Pearson's correlation coefficient = 0.824; and the weakest correlation

with independent variable capacity of association and cooperation with Pearson correlation coefficient = 0.653. This tight correlation is highly expected because these tight, linear relationships between the variables explain the influence on the model results. Therefore, these independent variables can be included in regression analysis to explain the effect of the research model.

**Table 9:** Correlation coefficients

		X1	X2	X3	X4	X5	Y
X1	Pearson Correlation	1	.685**	.735**	.658**	.700**	.824**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	252	252	252	252	252	252
X2	Pearson Correlation	.685**	1	.784**	.827**	.817**	.808**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	252	252	252	252	252	252
X3	Pearson Correlation	.735**	.784**	1	.807**	.789**	.806**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	252	252	252	252	252	252
X4	Pearson Correlation	.658**	.827**	.807**	1	.791**	.791**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	252	252	252	252	252	252
X5	Pearson Correlation	.700**	.817**	.789**	.791**	1	.653**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	252	252	252	252	252	252
Y	Pearson Correlation	.824**	.808	.806**	.791**	.653**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	252	252	252	252	252	252

Source: PhD student calculated from the survey data

In which: Y: Business results of the veterinary drug manufacturing enterprise; X1: Innovation capacity; X2: Capacity to orient learning; X3: Marketing capacity; X4: Business-oriented capacity; X5: Capacity of cooperation

**Multivariate regression analysis**

Multivariate regression analysis was performed with 5 independent variables and the selection method was Enter. The results of multivariate regression analysis are as follows:

**Table 10:** Summary of regression model

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.875 <sup>a</sup>	0.766	0.762	0.4662
a. Predictors: (Constant), X5, X1, X4, X3, X2				

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	175.366	5	35.073	161.371	.000 <sup>b</sup>
	Residual	53.467	246	0.217		
	Total	228.832	251			
a. Dependent variable: Y						
b. Independent variable: (Constant), X5, X4, X3, X2, X1						

Coefficients <sup>a</sup>								
Model		Non-standardized coefficients		Standardized Coefficient	T	Sig.	Multicollinearity	
		B	Std. Error	Beta			Độ chấp nhận (Tolerance)	Hệ số phóng đại phương sai (VIF)
1	(Constant)	0.151	0.159		3.471	0.001		
	X <sub>1</sub>	0.268	0.057	0.237	6.142	0	0.414	1.715
	X <sub>2</sub>	.243	0.047	0.215	3.362	0	0.232	1.605
	X <sub>3</sub>	0.157	0.058	0.142	4.179	0	0.247	1.142
	X <sub>4</sub>	0.261	0.059	0.269	4.759	0	0.24	1.164
	X <sub>5</sub>	0.15	0.051	0.142	2.941	0.002	0.255	1.125

a. Dependent variable: Y

The results of the regression model show that adjusted R2 is 0.762, which means that 76.2% of the variation in the dependent variable Y (competitiveness of veterinary drug manufacturers) is generally explained by independent variables in the model. Besides, the results also showed that the F-test also gave the small Sig value. It proves that the research model of the thesis is suitable for the data set under investigation.

On the other hand, the independent variables X1, X2, X3, X4, and X5 are statistically significant with the significance level Sig. <0.05.

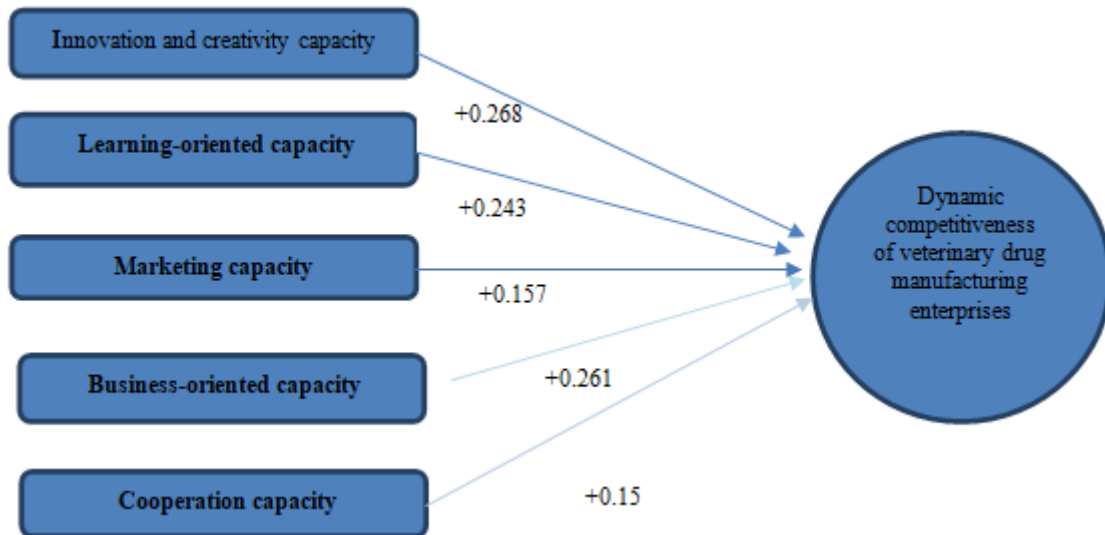
The results of the regression model also show that the tolerance coefficient (Tolerance) is quite high (from 0.232 to 0.414), and the magnification coefficient of VIF is low (from 1.125 to 1.715), which is less than 2. On that basis, we can conclude that the relationship between these

independent variables is insignificant and does not occur multicollinearity.

From the results of the regression model we can draw multiple regression equations representing the relationship between the independent variables and the dependent variable as follows:

$$Y = 0.151 + 0.268X_1 + 0.243X_2 + 0.157X_3 + 0.261X_4 + 0.15X_5$$

In which: Y is the dependent variable showing the competitiveness of the veterinary drug manufacturing enterprises. X1, X2, X3, X4, X5 are independent variables in the order of: (1) Innovation and creativity capacity, (2) Learning-oriented capacity, (3) Marketing capacity, (4) Business-oriented capacity, (5) Cooperation capacity.



**Figure 1:** Research model results

Source: Research results from survey data

### Results of multivariate regression model

Based on the results of multivariate regression analysis, there are 5 factors that affect the competitiveness of veterinary drug manufacturers, including (1) Innovation and innovation capacity, (2) Capacity learning orientation, (3) Marketing competencies, (4) Business-oriented competencies, (5) Cooperation capacity. In which, the factor "Innovation and creativity" has the greatest impact on the competitiveness of the veterinary drug manufacturers with a regression coefficient of 0.268, followed by the factor "Orientation towards doing business capacity" having a regression coefficient of 0.261. The factor "learning oriented capacity" has a lower impact with the regression coefficient of 0.243, followed by the factor "Marketing capacity" with the regression coefficient of 0.157, and the factor "Capacity to link and cooperate" has the lowest impact with the lowest regression coefficient of 0.15. The results of regression analysis show that factors affecting competitiveness of veterinary drug manufacturers are as follows:

- Factor "Innovation capacity": The results of regression analysis show that there is a positive correlation between the factor "Innovation capacity" and competitiveness of Vietnamese veterinary drug manufacturers. Male. The regression coefficient is 0.268, which means that in the condition of other factors unchanged, when the factor "Innovation capacity" increases by 1 unit, the competitiveness of the veterinary drug manufacturers will increase to 0.268 units.
- Factor "Learning-oriented capacity": The regression analysis shows that there is a positive correlation between the factor "Learning-oriented capacity" and the competitiveness of the veterinary drug manufacturers. The regression coefficient is 0.243. This means that in the condition of other factors unchanged, when the factor "Learning-oriented capacity" increases by 1 unit, the competitiveness of the veterinary drug manufacturers will increase to 0.243 units.
- Factor "Marketing capacity": The results of regression analysis show that there is a positive correlation between the factor "Marketing capacity" and the competitiveness of the veterinary drug manufacturers. The regression coefficient is 0.157, which means that under the same

conditions as other factors, when the factor "Marketing capacity" increases by 1 unit, the competitiveness of the vet drug manufacturer will increase to 0.157 units.

- Factor "Business-oriented capacity": The regression analysis shows that there is a positive correlation between the factor "Business-oriented capacity" and competitiveness of veterinary drug manufacturers. The regression coefficient is 0.261, which means that in the condition of other factors unchanged, when the factor "Business oriented capacity" increases by 1 unit, the competitiveness of the veterinary drug manufacturers will increase to 0.261 units.
- Factor "Cooperation capacity": Regression analysis results show that there is a positive correlation between the factor "Capacity to cooperate" and competitiveness of veterinary drug manufacturers. The regression coefficient is 0.15, which means that in the condition of other factors unchanged, when the factor "Cooperative link capacity" increases by 1 unit, the competitiveness of the veterinary drug manufacturers will increase to 0.15 units.

### 3.3 Assess the current status of competitiveness of Vietnamese veterinary drug manufacturers

#### 3.3.1 Survey result

According to the survey data based on the criteria (the scale) of the dynamic competitiveness of the veterinary drug manufacturers in Vietnam, the results are as follows:

Firstly, the surveyed businesses are also interested in their competitiveness, and have oriented to apply competitive criteria in business activities and business development. However, the level of application is still limited, this is reflected in the survey results of dynamic competition criteria for veterinary drug manufacturers.

Secondly, many businesses surveyed responded that the criterias of creative capacity play an important role in the development strategy of businesses. Nonetheless, this rate is still quite modest. This is shown through the survey results that the specific indicators in the creative capacity criterion are only at average level.

Thirdly, the ability to learn is also included in enterprises' business and development strategies. However, the performance of this criterion is still quite modest. Many surveyed enterprises revealed that they themselves had a number of policies to encourage their employees to learn from each other and self-study. The enterprises that manufacture vet drugs in Vietnam are mainly small and medium-sized, and the learning support policies of enterprises are also facing many difficulties due to the limited capital support. In addition, our country's business environment still has many constraints on unclear administrative procedures, and monopoly issues in production still exist. To improve learning efficiency in businesses in general and veterinary drug manufacturing companies in particular, it is necessary to have an effective change in the business environment.

Fourthly, the marketing capabilities of businesses have been paid more attention recently. This is reflected in the fact that up to 28.3% of enterprises regularly doing market research to find out their needs and information of customers appraise at the highest score (level 5). On the contrary, compared with enterprises with foreign direct investment, the marketing capacity of veterinary drug manufacturers in our country is much less.

Fifthly, the business capacity of enterprises is also at a rather limited level. Many companies producing veterinary drugs are having difficulty in applying the criteria to achieve effective business orientation.

In the context of international economic integration, most of the veterinary drug manufacturers appreciate the role of cooperative capacity. Many businesses try to consolidate relationships with partners with the survey results at a good level (grade 4.02), enhancing the search for market expansion opportunities and product consumption market shares. However, due to the limited size, in general, these businesses still have many weaknesses and limitations in cooperation, especially reaching the international market.

Sixthly, the competitiveness of Vietnam's veterinary medicine companies is assessed at a fairly average level. Most of the companies assessed that product quality is improved to meet the needs and standards of the industry. Nonetheless, most of the revenues and profits have not been achieved as expected.

### 3.3.2 Measurement results

There are 5 factors, of which three are unidirectional: learning orientation and linking capacity. The multidirectional factors are marketing capacity, business orientation and innovation capacity. The results of preliminary assessment through Cronbach alpha and factor analysis to explore EFA and test the multivariate regression model show that the scales achieve the demand for value according to the criteria of unidirection, convergent value, differentiation and reliability.

The results are as follow:

- 1) The research results show that the scales have been built and tested in the international market through adjustment

and supplementation, which can be used for the veterinary medicine industry in Vietnam.

- 2) The creative capacity scale is converted into a multidirectional scale. This is also a different result compared to previous studies. This shows the potential and diversification in developing the creative capacities of veterinary drug manufacturers in order to nurture dynamic competitive factors, especially in the context of fierce competition in the market of this area.
- 3) In previous studies, the learning-oriented capacity scale was built as a multidirectional scale consisting of three components: learning-oriented capacity, sharing vision and research trends or unidirectional scale). This study follows the unidirectional scale of this concept and has confirmed the preciseness and makes the measurement easier to implement.
- 4) Marketing capacity is seen as an important factor in meeting customer needs, responding to competition, adapting the environment and quality of relationships with business partners. The results of this scale evaluation serve as a premise to stimulate the next studies to continue to confirm the value of this scale. These results are consistent with claims in previous studies.
- 5) The study refers to the scale of business direction. When considering the observed variables, the concept of business orientation in this study has changes compared to the previous studies. Initially concluding: If the business-oriented capacity increases by 1 unit, the competitive capacity of the veterinary drug manufacturing enterprises will increase to 0.261 units.
- 6) The collaborative linkage capacity scale built into the study with the expectation that its value and reliability achieved in the study will contribute to developing this type of scale in the following studies.
- 7) The multivariate regression results show that 5 factors affect the competitiveness of veterinary drug manufacturers in Vietnam.

### References

- [1] G.Gurkan Inan & Umit S.Bititci (2015), standing Organizational Capabilities and Dynamic Capabilities in the Context of Micro Enterprises: A Research Agenda.
- [2] Huynh Thi Thuy Hoa. (2011). Research on dynamic competitiveness model of Siemens Vietnam Co., Ltd. Ho Chi Minh City University of Economics.
- [3] Li & Liu (2014), Dynamic capabilities, environmental dynamism, and competitive advantage: evidence from China. *Journal of Business Research*, 67(1), 2793–2799
- [4] Nguyen Dinh Tho & Nguyen Thi Mai Trang. (2009). A number of factors forming business dynamics and solutions to nurture, print Dynamic competitiveness of the business. Ho Chi Minh City, pp. 1–21.
- [5] Nguyen Hoang Viet. (2012). Research on business capabilities of Vietnamese enterprises - evaluation criteria and methods. *Journal of Commercial Science*.
- [6] Procedia - Social and Behavioral Sciences 210:310-319. DOI: 10.1016/j.sbspro.2015.11.371

- [7] Teece, Pisano & Shuen (1997), Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533.
- [8] Vijaya, Ganesh & Marathe (2019), "Dynamic Capabilities: A morphological analysis framework and agenda for future research", *European Business Review*, 31 (1), 25-63
- [9] Williamson (2016), Building and leveraging dynamic capabilities: Insights from accelerated innovation in China. *Global Strategy Journal*, 6(3), 197-210
- [10] Zeng, Simpson & Dang (2017), A Process Model of Dynamic Capability Development: Evidence from the Chinese Manufacturing Sector, *Management and Organizational Review*, v.13,n.3, p.643-673