

Factors Affecting the Efficiency of the Internal Control System, Impact on the Competitiveness of Vietnam Businesses. Case Study in Binh Duong Province

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Abstract: The article presents research on the factors affecting the effectiveness of the internal control system, thereby finding out the relationship between the effectiveness of the internal control system and the competitiveness of enterprises. The data was surveyed at 150 enterprises in Binh Duong province and processed through SPSS 20.0 software. The results show that there are 6 factors affecting the effectiveness of the internal control system. The control environment is a factor that strongly influences the effectiveness of internal control. The effectiveness of the internal control system affects the competitiveness of the enterprise. From the research results, the article has proposed some managerial implications for the relevant units.

Keywords: factors, effectiveness, internal control system, competitiveness, Vietnam.

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1 Introduction

International economic integration is an opportunity to help Vietnam's economy make great progress, but businesses in Vietnam also face great challenges in terms of competitiveness. To cope with competitive pressure, Vietnamese enterprises must always be proactive in all production and business activities, on the one hand, ensure compliance with the law, and on the other hand, effectively use existing resources to achieve business goals. The core issue is that the enterprise must have an effective internal control system. Internal control is an effective tool in corporate governance. Internal control and the effectiveness

of the internal control system have been implemented by many researchers around the world. However, in Vietnam, research is still limited on factors affecting the effectiveness and competitiveness of internal control systems. There is some independent research about the effectiveness of the internal control system or manufactory competitiveness. There are few studies that combine them. Therefore, it is necessary to have specific studies on the factors affecting the effectiveness of the internal control system and competitiveness. It is not only to help enterprises have appropriate policies but also to give empirical case studies for teaching and

research. Binh Duong is one of the provinces with many suitable enterprises for research on this issue.

2 Literature Review

Derived from the agency theory initiated by Jensen and Meckling [12] in the work "Theory of the firm: Manager behavior, agency costs and, ownership structure" introduced present their views on agent theory. Agency theory explains the conflict of interest relationship between the principal and the agent and suggests measures to limit these conflicts. Agency theory can be used to explain the reason why it is necessary to design a good internal control system, a good internal control system, to reduce proxy costs and improve operational efficiency at enterprises. Karma.

Research by Oksana A. & Nadezhda A. [16] on the main elements of the internal control system in managing the competitiveness of domestic enterprises. Based on the systems approach, the study considers internal control as an actual system with basic properties. The study focuses on analyzing the main elements of the internal control system. The proposed approach includes the following groups of factors: control objectives, control objects, control environment, control information, risk management, and, control monitoring. Research by Bader M, M, A. & Zaher A, F, A. [5] determines the influence of internal control on a bank's competitive advantage with three aspects: administrative control, financial control, and, operating control. Research by Buthayna M., Rand H, A., Bader Y, O. & Ali T. [6] on examining the influence of the organization's internal control system on organizational performance. This study aims to investigate the impact of the internal control system, including Control Environment, Communication, Risk Management, Operational Control, and, Monitoring on organizational performance in Jordan.

In Vietnam, most of the authors only focus on research on the factors affecting the effectiveness of the internal control system, not on the effectiveness of the internal control system competitive force systems.

3 Conceptual Framework and Research Hypotheses

The control environment is important because any mistake can lead to fraud [5]. A good control environment will lead to a reduction in errors and anomalies [9]. Every company needs to keep

updating its internal control system due to the changing environment.

Hypothesis 1: The control environment has a positive influence on the effectiveness of internal control

Risk assessment is important; Risks need to be identified, analyzed, estimated, and, periodically reviewed [16]. Risk assessment can be classified into high, medium, and low. This will determine the severity or treatment of each potential risk and which areas need to be monitored and proactively acted on [6].

Hypothesis 2: Risk assessment has a positive influence on the effectiveness of internal control

Control processes are developed based on the identified risk to reduce the odds of the risk occurring. These control measures are put in place to achieve the objectives of the enterprise [7]. The identified risks can be prevented from occurring through the organization of a sound system of internal control [9]. Before control is established, a cost-benefit analysis is required, so that the costs of control do not exceed the benefits to be obtained [16].

Hypothesis 3: Control activities have a positive effect on internal control effectiveness

Information and communication systems enable employees in an enterprise to capture and exchange information necessary to perform, manage, and control their activities and therefore identify, capture and communicate that information. Inform the appropriate staff on a timely basis

Hypothesis 4: Information and communication have a positive influence on the effectiveness of internal control

Monitoring is very important in the Internal Control process [21]. Monitoring is an ongoing activity that includes performing routine procedures and reviewing documentation to confirm that all procedures have been performed as required. Monitoring can be used to know about the effectiveness of internal control processes [25].

Hypothesis 5: Monitoring has a positive effect on the effectiveness of internal control

Society is an aggregate of different interest groups, the number of which is regulated and limited. Group interest is one of the important findings for consulting to come up with a reasonable solution thereby improving the effectiveness of the internal control system in the competitive activities of the enterprise in the coming time [25].

Hypothesis 6: Group interests hurt the effectiveness of internal control

The competition requires companies to have a competitive advantage to win the competition and win markets and opportunities. It is anticipated that the company will need to develop a competitive strategy that focuses on core competencies in terms of price, quality, flexibility, and delivery. Improve performance, can be achieved by adopting one of the competitive strategies by firms, as demonstrated by Porter (2004), who argues that if a firm can achieve and maintain a competitive advantage through improving competitiveness [3]

Hypothesis 7: Internal control system effectiveness has a positive effect on competitiveness.

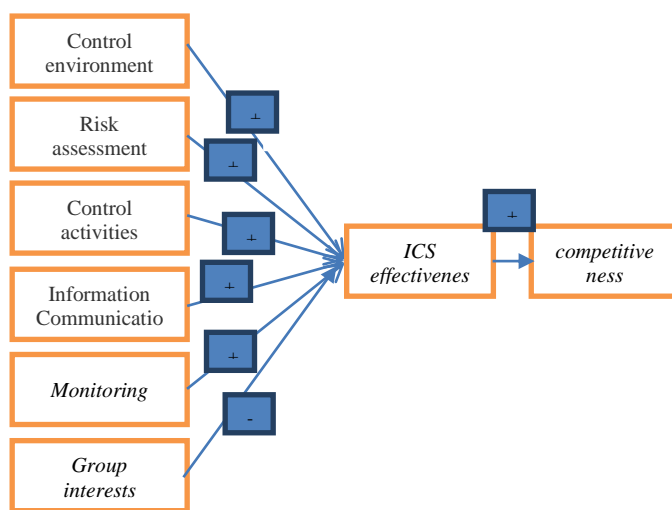


Fig. 1: Research Model

4 Research Methodology

Based on the research scale of Olufemi, AA [17] combined with Vu.HT [25] and Afriapollo S. [3], the author builds a survey scale suitable for the research model at the contest. The testing of the proposed scales, models, and hypotheses is carried out in the following steps: preliminary testing by Cronbach's Alpha reliability coefficient, exploratory factor analysis EFA and multivariate regression. Data for quantitative research was collected from the sample through 150 valid questionnaires used as data for the study. Data was entered, coded, and analyzed through SPSS 20.0 software.

5 Research Findings

5.1 Cronbach's Alpha Reliability Test

As mentioned above, before being put into exploratory factor analysis, the research will test the scale using Cronbach's Alpha tool of SPSS software to test the reliability of the component scales in the research model. After using the SPSS processing scale and Cronbach's Alpha test, the processing results are as follows:

After analyzing the reliability of the scales with Cronbach's Alpha coefficient, the author found that the scales used to measure the concepts in the research model are all good scales (reliability of all scales). all scales are greater than 0.6) and the observed variables are eligible to be used for the step of exploratory factor analysis (EFA) After testing the scales, the satisfactory scales will be performed with exploratory factor analysis with The principal components extraction method and Varimax rotation.

5.2 Exploratory factor analysis EFA

The table below shows the results of the Barlett test with sig = 0.000 and KMO = 0.772 > 0.5, indicating that factor analysis is appropriate.

Table 1. Result of Bartlett test and KMO index of variables KMO and Bartlett's Test

Kaiser-Meyer-Olkin Adequacy.	Measure of Sampling	.772
	Approx. Chi-Square	5135.541
Bartlett's Test of Sphericity	DF	780
	Sig.	.000

At the levels of eigenvalues > 1, factor analysis has extracted 9 factors from 40 observed variables with a total variance extracted of 73.672% (>50%) satisfactory. After using Varimax rotation, the results of the factor rotation matrix for the scales of the variables show that the factor loading coefficients of these variables are all greater than 0.5, which is satisfactory. Based on the results of the factor rotation matrix table, the command to group average variables is used to group the satisfactory variables with factor loading > 0.5 into 8 factors.

5.3 Correlation Coefficient Matrix between Variables in the Model

Pearson correlation coefficient matrix analysis to examine the correlation between variables. The results show that the correlation coefficient between the factor Internal control effectiveness (EI) and 6 independent variables CE, RA, TT, CA, MO, and GI is relatively high and the Sig value is

small (< 0.05 .) in the variables CE, RA, TT, CA. Considering the factors that have been tested for reliability and the factor of discovery, the author decided to keep 4 variables CE, RA, TT, and CA for further consideration in the multiple regression section. Preliminary we can conclude that 4 independent variables CE, RA, TT, and CA can be included in the model to explain the variable EI (Type 2 variables MO, GI because sig is much larger than 0.05, 0.574, and 0.574 respectively). 0.440 should not be statistically significant).

The results of the Pearson correlation coefficient matrix show that the dependent variable EI has a significant correlation with the 4 independent variables CE, RA, TT, and CA in the research model. The correlation coefficient between the dependent variable and the 4 independent variables CE, RA, TT, and CA is greater than 0 and less than 0.7 (condition index that the research concepts have achieved discriminant value). Therefore, we can conclude that 4 independent variables CE, RA, TT, and CA have a positive correlation with the dependent variable and are eligible to conduct multiple regression analysis. In contrast, none of the independent variables were negatively correlated with the dependent variable.

In addition, the study shows that Internal Control Effectiveness (EI) and Competitiveness (CC) have sig = 0.000. This shows that there is a positive correlation between Internal Control Efficiency and Competitiveness, the specific correlation coefficient is 0.097.

5.4 Confirmatory Factor Analysis CFA

Confirmatory factor analysis aims to confirm that the measured model is consistent with the actual data, to conclude CFA, the confirmatory measures are used as follows:

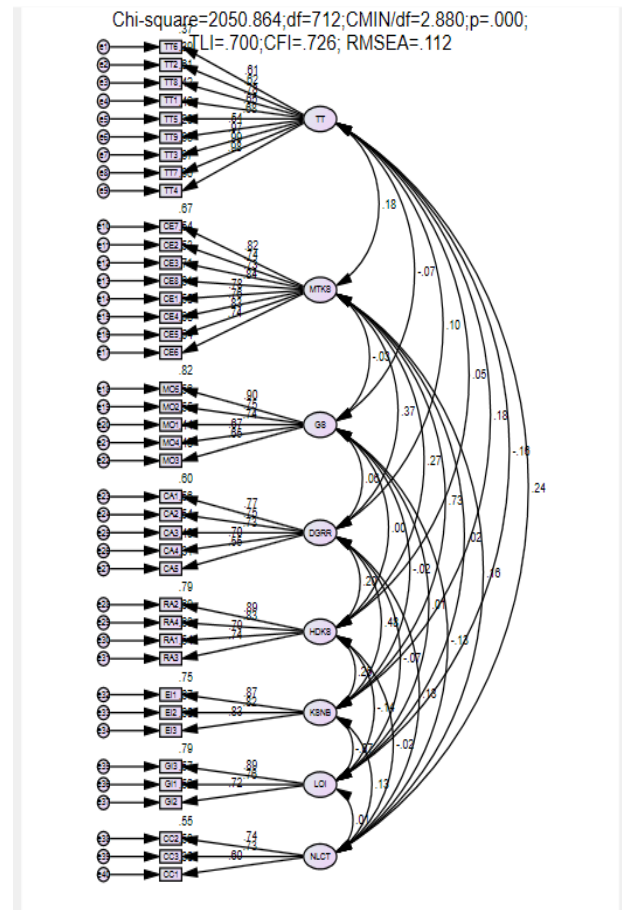


Fig. 2: CFA Result

Table 2. The results of the CFA test of the actual fit of the measurement model

	THOUGHT THOUGHTS _	Model value	CONCLUSION
first	Chi-squared significance level (Cmin) P-value > 0.05	0.0 00	The measurement model fits the actual data. Values of CFI, TLI do not reach > 0.90, and academically, if other measures are met because of the small sample size (150), the smaller the RMSEA index the better, and the model needs to be extended to investigate.
2	Chi-squared adjusted for degrees of freedom (Cmin/df), 2/df 5	2,280	
3	Comparative Fit Index (CFI) CFI > 0.90; 0 < CFI < 1, the closer to 1, the more appropriate	0.726	
4	Tucker-Lewis Index (TLI) TLI > 0.90	0.700	

5	RMSEA (Root Mean Square Error Approximation) index. RMSEA < 0.05: Model fits well; RMSEA < 0.08, accept; Smaller : Good stat.	0, 112	reduce the error in the model
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5.5 Analysis of Results Multivariate Regression

Based on the results of correlation analysis and multivariable regression analysis, the author concludes that there are 2 factors affecting the effectiveness of internal control, which are: Control environment and risk assessment. In which, the degree of influence of factors on the dependent variable Internal control efficiency is in the following order:

- Control environment factor with normalization coefficient $\beta=0.567$. The standardized beta coefficient of the Control Environment factor has a positive sign, so it reflects the positive relationship between the Control Environment factor and Internal control effectiveness.

- At the same time, the risk assessment factor with the normalization coefficient $\beta= 0.214$. The standardized beta coefficient of the risk assessment factor also has a positive sign, so it reflects the positive relationship between the risk assessment factor and the effectiveness of internal control.

In addition, the study shows that the effectiveness of internal control and competitiveness has $\text{sig} = 0.000$. This shows that there is an extremely close relationship between Internal Control Efficiency and Competitiveness. Internal control effectiveness and Competitiveness have a positive correlation. The correlation coefficient is 0.097.

Through the regression results, we have the following hypothesis testing results:

Table 3. Summary table of hypothesis testing results

	Hypothesis	Inspection results
H1	<i>The control environment has a positive influence on the effectiveness of internal control.</i>	Accept
H2	<i>Risk assessment has a</i>	Accept

	<i>positive influence on the effectiveness of internal control.</i>	
H3	<i>Control activities have a positive influence on the effectiveness of internal control.</i>	Does not accept
H4	<i>Information and communication have a positive influence on the effectiveness of internal control.</i>	Does not accept
H5	<i>Effective internal control has a positive influence on competitiveness.</i>	Accept

Based on the results of the regression analysis on the impact of the factors on the effectiveness of internal control, the author will propose managerial implications to further improve the effectiveness of internal control to enhance the competitiveness of manufacturing enterprises.

6 Conclusions

The results when analyzing the factors of control activities and assessing risks strongly affect the effectiveness of the internal control system. Some specific conclusions are as follows:

Firstly, the control environment is a factor that strongly influences the effectiveness of internal control.

Secondly, businesses are operating in an extremely complex socio-economic environment, with risks of epidemics, economic-political crises, and supply chains disrupting production and business activities, precisely because Therefore, the risk assessment must be placed on top and carried out throughout and continuously at enterprises.

Third, the effectiveness of internal control is to show the impact (correlation) on competitiveness from the perspective of leaders and members of the enterprise. The improvement of the effectiveness of the internal control system does not directly affect the domination of the market but creates positive changes in the perception of competitiveness of the enterprise itself and its members.

Limitations of the study and directions for further research

The study was conducted in a short time in 2021, along with limited economic potential, so the restriction on sampling leads to a small sample size compared to the size of the market in Binh Duong province.

Regarding the research method, the small

sample size led to the confirmatory factor analysis and the linear structure not reaching the appropriateness of the research model with reality (CFA results), leading to the failure to assess the level of research. The impact of the effectiveness of the internal control system on the competitiveness of enterprises is also the director of the author's next research with the expansion of the survey and application of a stronger research model. To assess the impact of operational efficiency on the competitiveness of enterprises.

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