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Factors Affecting The Effectiveness Of Internal Control In Enterprises: Evidence From Vietnam

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Abstract

This article focuses on the factors affecting the effectiveness of internal control in enterprises. The results of the analysis of 187 survey samples from senior and middle managers in 110 enterprises in Vietnam by quantitative research and regression analysis show that 5 key factors have a significant influence on the effectiveness of internal control in enterprises arranged in descending order, as follows: Control environment; Control activities; Risk assessment; Monitoring; and Information and communication. The findings from the empirical research are the basis for the author to make recommendations and proposals to enterprises to improve the effectiveness of internal control in enterprises in Vietnam in the future.

Keywords: Internal control, effectiveness, Vietnam.

1. Introduction

Internal control is a process dominated by the board of directors, managers and employees of the unit. It is set to provide a reasonable assurance to achieve the objectives of operation, reliability of reporting and compliance (Spira, 2003; COSO, 2013). At the same time, internal control is considered one of the essential solutions for controlling the business operations of enterprises in the current economic conditions, in order to provide the conditions for the achievement of competitive advantages compared to other enterprises (Lakis & Giriunas, 2012).

The world has seen a lot of fraud in its published financial statements, such as Enron Energy, the bankruptcy of Worldcom Telecom, the second largest retail group in the United States Kmark... These frauds have led to huge financial losses for investors, and especially it has led to the bankruptcy of businesses, the dismissal of tens of thousands of employees every year. The increase in business failures and the large number of highly publicized frauds have led businesses to place more emphasis on their internal controls. In particular, management is responsible for designing and maintaining the effectiveness of internal control. Due to increased requirements, management has additional responsibility to evaluate, inspect and report annually on the internal control of the business. Accordingly, the external auditors are also responsible for auditing management confirmations of the effectiveness of internal controls and they must draw their own independent conclusions (Ramos, 2004). In addition, business partners such as auditors, suppliers and customers, government and society are also interested in internal control as this issue can affect the credibility of reporting, responsibility and organizational form of the business (Rittenberg & Schwieger, 2001). Therefore, the effectiveness of internal control has increasingly become a topic of debate of interest for academics and practitioners.

Many studies on the effectiveness of internal control, both in the world and in Vietnam in the past years have been carried out to identify the factors determining the effectiveness of internal control so that there are specific solutions to increase the effectiveness of internal control in enterprises. Previous studies have often focused on specific control factors, such as the control environment (Jill, 1998; Karagiorgos et al., 2011), information and communication (Karagiorgos et al., 2011; Sultana & Haque, 2011) or risk assessment (Mills, 1997; Amudo &

Inanga, 2009), or Noorvee's (2006) study on the theoretical system that measures the effectiveness of internal control.

In Vietnam, recently, research on the effectiveness of internal control has also received the attention of researchers in the field of accounting and auditing, including: Nguyen Thi Thuy & Nguyen Tuan (2017), Tran Van Tung et al., (2018), Tu Thanh Hoai & Nguyen Phong Nguyen (2019)... The research was carried out mainly associated with a sector or a specific economic group. However, through the review and evaluation of previous research works, the author found that the basis for building a scale to measure the effectiveness of internal control in studies in Vietnam still had many differences. At the same time, the components of internal control in view of COSO 2013 have not been considered as factors affecting the effectiveness of internal control in the enterprise. Moreover, the research in Vietnam, mainly examines the factors affecting the effectiveness of internal control on the basis of the results of the factors identified abroad. Meanwhile, overseas studies on factors affecting the effectiveness of internal control in enterprises are carried out in the specific socio-economic conditions of each country with different levels of development of accounting, auditing and management activities. This has led to a limitation in the consistency and relevance of research results in Vietnam's practical conditions.

Therefore, this study was carried out to identify and measure the influence of factors on the effectiveness of internal control in enterprises in Vietnam, on the basis of compliance with the constituent components of internal control of COSO 2013, from the perspective of managers. The research results are the basis for the author to make recommendations and suggestions to stakeholders to increase the effectiveness of internal control in enterprises in Vietnam in the future.

2. Theoretical background and literature review

2.1. Theoretical basis

2.1.1. Internal controls

With the process of awareness and research on internal control, there have been many different views on internal control. In 1992, COSO agreed on the concept of internal control for the needs of different audiences in support of the US National Council Committee on Combating Fraud on Financial Statements under the US National Council. COSO provides a complete concept of internal control and uses the word internal control instead of internal audit of accounting. COSO's report identified: Internal control is understood as a process, influenced by the Board of Directors, managers and other members of the organization, designed to provide reasonable assurance regarding the achievement of the following types of objectives: Effectiveness and effectiveness of operations; Reliability of financial reporting; Compliance with relevant laws and regulations (COSO, 1992). This report has established a common template to help the unit achieve its most important goal of improving the effectiveness and efficiency of its operations. Internal control consists of 5 closely interrelated components, namely: Control environment; Risk assessment; Control activities; Information and communication; and Monitoring.

After a series of fraud cases that led to the bankruptcy of large businesses around the world. In 2002, the U.S. enacted the Sarbanes-Oxley (SOX) Act, Section 404 of which emphasizes the importance of corporate internal control. The Act requires businesses not only to establish and maintain internal controls but also requires managers and independent auditors to evaluate and report on the effectiveness of internal controls. The US Securities and Exchange Commission emphasizes the important role of internal control and specifies the COSO framework that can be used for the purpose of management's annual internal control review. The COSO report (1992), although not really complete, has created a basic theoretical basis for internal control. With many concepts of organizations and research authors based on the concept of COSO.

In 2003, IFAC issued International Auditing Standard 315 (ISA 315). Accordingly, Internal Control is understood as a process designed and governed by managers and

employees in an organization in order to provide reasonable assurance on the achievement of objectives related to the reliability of financial reporting, operational efficiency and management and compliance with regulations and laws. According to ISA 315, the concept of internal control has much in common with the COSO report (1992), such as: internal control is a process, emphasizing the participation of members of the organization, emphasizing the roles and responsibilities of managers and internal control in order to ensure reasonableness in achieving the objectives of internal control.

In addition to the concepts of internal control of professional organizations and associations, some researchers also introduced the concept of internal control, such as: Moeller (2008) has inherited and developed the concept of COSO applied for internal audit purposes. Moeller (2008) argues that internal control is a process and internal control not only has three objectives but also adds another objective of protecting assets, fulfilling the mission, objectives and results of the activities or programs of the unit, ensuring integrity and ethical values. Accordingly, Internal Control is a process designed by managers and applied in the unit to provide reasonable assurance on: The reliability of financial and operational information; Compliance with policies, procedures, rules, regulations and laws; Asset protection; Ensuring the performance of the mission, objectives and results of the activities or programs of the unit; Ensuring integrity and ethical values. Moeller's concept has many similarities with COSO such as: Internal control is a process; Designed by managers and employees; Ensure implementation of set goals. The most striking point of this concept is that the author adds the objective of ensuring integrity and ethical values.

King (2011) argues that Internal control is a process by which the enterprise achieves its objectives, results as well as plans to exercise power, arrangement, supervision in the entire enterprise or segregation of duties. Barnabas (2011) argues that internal control is a combination of factors of the business (including resources, systems, processes, culture, structure and tasks) that help employees achieve the goals of the business. Shim (2011) argues that internal control is part of the corporate governance system. It is a plan, means and ways to protect assets, check the correctness of implementation, ensure operational efficiency.

In 2013 COSO inherited the concept and components of COSO's internal control (1992) and further developed and expanded, such as: providing 17 principles to explain the concepts related to the 5 components of internal control (control environment, risk assessment, control activities, communication and monitoring) and providing guidelines on risk management and measures to mitigate fraud, thereby helping to improve operational efficiency as well as strengthen the supervision of the unit.

In this study, the author argues that Internal Control is a system or process established by corporate managers together with the staff of the unit to implement mechanisms, policies, processes and procedures to ensure the reasonable implementation of the objectives: ensure the reliability of financial reporting; ensure the compliance with regulations and laws; ensure the effective implementation of activities.

2.1.2. The effectiveness of internal control

Walton & Dawson (2001) argue that effectiveness is a judgmental concept about the ability of an organization to achieve its goals. Effectiveness is a defined concept that aims to assess the level of implementation of the objectives, goals that have been predetermined for an activity or a program that has been implemented (achieving satisfactory results from the use of resources and activities of the organization). Etzioni (1985) argues that, determining effectiveness is the degree of success of the organization in its efforts to achieve goals. At the same time, Arens & Loebecke (2000) argue that effectiveness is the level of achievement of organizational goals. They provide a definition of effectiveness as the relationship between output and purpose, or perhaps a measure of the level of output of the organization's policies and procedures. Therefore, the important point in the effectiveness assessment is to consider between the expected results in the plan and the actual

results through the activity. For each research scholar, corresponding to different evaluation systems, there will be separate views on effectiveness, but the common point in their view is the fulfillment of objectives or activities to meet objectives.

The effectiveness of internal control is described with content that reflects the extent to which the organization's objectives are achieved and the relationship between the expected impact and the actual impact, and the goal must be cost-effective (INTOSAI GOV 9100, 2004). However, the effectiveness of internal controls and the effectiveness of internal controls must be separated. The effectiveness of internal controls is the quality of the controls that gives an optimum measure of the input resources to the outputs. The effectiveness of internal controls focuses on the quality of controls for the achievement of specific management objectives (Applegate & Willis, 1999). The effectiveness of internal control is measured on the basis of subjective judgments of managers. Managers are asked to rate their reasonable level of assurance about the three objectives of internal control, meaning how well the business has met the three objectives of internal control?). COSO (2013) argues that internal control is a process, while effectiveness is a state or condition of the process in effect at a time. Therefore, it is important for managers to evaluate the effectiveness of internal controls on a regular basis. Determining whether an internal control is effective or not is a subjective judgment derived from the assessment of effectiveness in addition to three objectives that also assess the effectiveness of 5 components of internal control. It should be noted that, considering that the above five criteria need to be satisfied when assessing the effectiveness of internal control, this does not mean that each component of internal control must operate in exactly the same way or at the same level in different departments. The reason, according to COSO (2013) is as follows: there is a natural offset between the departments of internal control. Internal controls serve a variety of objectives, so effective controls in one department can serve control objectives in the other. At the same time, to deal with a particular risk, managers can devise various levels of control in different departments. Amudo & Inanga (2009) argue that the internal control framework if too focused on the detailed explanation of the different components of the system and the method of designing them that overlooks the details of how each component is measured to assess their effectiveness is an internal control deficiency. Therefore, the important point in the effectiveness assessment is to consider between the expected results in the plan and the actual results through the activity. Each different scholar, corresponding to each different internal control, will have their own view of effectiveness, but the common point in their view is the accomplishment of the goal or the activities to meet the goal. Internal controls of different organizations are operated with varying degrees of effectiveness. At the same time, an organization-specific internal control will also operate with varying degrees of effectiveness at different times.

From understanding the term “efficacy” associated with this study. The author believes that the internal control of the unit is effective in providing reasonable assurance for the achievement of the objectives. In other words, effective Internal Control must minimize the risk of not achieving one or all 3 target groups to the lowest acceptable level.

2.2. Factors affecting the effectiveness of internal control

There are different views on the constituent elements of internal control, the author uses the internal control template according to COSO 2013 to set out the factors affecting the effectiveness of internal control, including 5 components: Control environment; Risk assessment; Control activities; Information and communication; and Monitoring.

The components of internal control are developed into 17 control principles in the 2013 COSO report that explain the basic concepts related to each of those constituent elements. The basic content of the departments is synthesized into 17 principles to make it easier for managers to set up internal control systems.

2.2.1. Control environment

A control environment is a set of standards, processes, and structures that serve as the basis for the implementation of internal control in an organization where the Board of Directors and senior management establish the nuances from the top regarding the importance of internal control and the ethical standards expected. The control environment includes the control unit's managers' perceptions, attitudes and actions, and the importance of control. The control environment has an important influence on the implementation process and the results of control procedures (Ramos, 2004; COSO, 2013). Five principles related to the control environment are introduced in the COSO 2013 template, including: (i) The unit must demonstrate commitment to integrity and ethical values; (ii) The Board must demonstrate independence from the manager and assume responsibility for overseeing the design and operation of internal controls; (iii) The manager is under the supervision of The Board of Directors should establish the organizational structure, responsibility for reporting, assigning powers and responsibilities to achieve the objectives of the unit; (iv) Enterprises should demonstrate commitment in attracting, developing capacity and maintaining the use of employees to ensure capacity in accordance with each objective of the unit; and (v) Enterprises should require individuals to be responsible for reporting on their responsibilities in the meet the objectives of the organization.

2.2.2. Risk assessment

Every business, regardless of its size, structure, industry is exposed to many risks from internal and external sources, at all levels. There is no way to eradicate the risks, so the manager must decide prudently on the acceptable level of risk and try to maintain the risk at the permitted level. Risk is defined as an event that is likely to occur and will adversely affect the achievement of objectives. Risk assessment is the identification, analysis and management of risks that may threaten the achievement of organizational objectives, such as production, sales, marketing, financial and other activities, from which the risk can be managed (Dinapoli, 2007).

Risk assessment involves a continuous and iterative process of identifying and assessing risks to the achievement of objectives. The risk to the achievement of the objectives considered on an overall organization is considered in proportion to its ability to cope with the established risk. Four principles related to risk assessment are introduced in the COSO 2103 template, including: (i) The enterprise must establish clear and sufficient objectives to help employees be able to identify and assess the risks arising in achieving the entity's objectives; (ii) The enterprise must identify the risks in achieving its objectives and conduct a risk analysis as a basis for risk response; (iii) The enterprise should consider potential frauds when assessing the risks to the achievement of its objectives; (iv) The enterprise should identify and assess changes in the environment that affect the internal control of the entity.

2.2.3. Control activities

Control activities are activities established through procedures and policies to ensure that managers' directives are implemented to mitigate risks to achieve the entity's objectives. Control activities are carried out at all levels of the entity, at different stages in the business process, and in the information technology environment (Ramos, 2004). In essence, they can be containment controls or detection controls and can include a variety of manual and automated activities such as delegation and approval, verification, reconciliation and evaluation of business performance. Delegation of responsibilities is a peculiarity in the selection and setting of control activities. Three principles related to control activities are introduced in the COSO 2103 template, including: (i) Enterprises must select and set up control activities to minimize risks in achieving objectives to an acceptable level; (ii) Enterprises must select and set up general control activities on information technology to support the achievement of objectives; (iii) Enterprises must implement control activities based on setting policies and implementing procedures.

2.2.4. Information and communication

Information and communication is an indispensable condition for establishing, maintaining and improving the control capacity in the entity through the formation of reports to provide operational, financial and compliance information, including inside and outside the enterprise. Information is essential to every level of an organization because it helps to achieve various control objectives. Therefore, managers must collect or generate and use appropriate, quality information available from sources both internal and external to support the performance of the functions of other components of internal control.

Communication is the process of providing, sharing and collecting necessary information, which is ongoing and iterative. It allows businesses to share relevant and quality information both inside and outside the unit. At the same time, it also provides the necessary information for the design, implementation and operation of the internal control system (Dinapoli, 2007; COSO, 2013). Three principles related to information and communication are introduced in the COSO 2103 template, including: (i) The enterprise must collect (or create) and use appropriate and quality information to support other constituent parts of internal control; (ii) The enterprise must communicate internally the necessary information to support the performance of the control function; (iii) The enterprise must communicate to external subjects information related to matters affecting the performance of the internal control function.

2.2.5. Monitoring

Monitoring is the process of assessing the quality of internal controls over time. The entire operating procedure must be monitored and adjusted as necessary. The system must be able to react dynamically, changing according to the requirements of the internal and external environment. Supervision has an important role to play, it helps internal control always work effectively.

The monitoring process is carried out by responsible persons in order to evaluate the establishment and implementation of control procedures (Spinger, 2004; COSO, 2013). Regular reviews, periodic reviews, or a combination of both are used to determine whether the components of internal control, including the implementation of the principles in each component, are present and fully implemented. Regular assessments are performed even in routine activities and are repeated, so they are more effective than routine monitoring. Periodic reviews are conducted periodically, and will vary in scope and frequency depending on risk assessment, effectiveness of ongoing review, and management considerations. Findings are assessed against the standards of the manager, and deficiencies are communicated to the management and board of directors. Two principles related to monitoring activities are introduced in the COSO 2103 template, including: (i) Enterprises must select, establish and carry out regular or periodic reviews to ensure that the constituent parts of internal control are in place and performing their functions properly; (ii) Enterprises must evaluate and promptly disclose the weaknesses of internal control to responsible persons, including senior managers, boards of directors and other appropriate persons.

3. Research Method

3.1. Research models and hypotheses

Based on the theoretical basis and research overview, the proposed theoretical model is based on the COSO 2013 theoretical framework as follows:

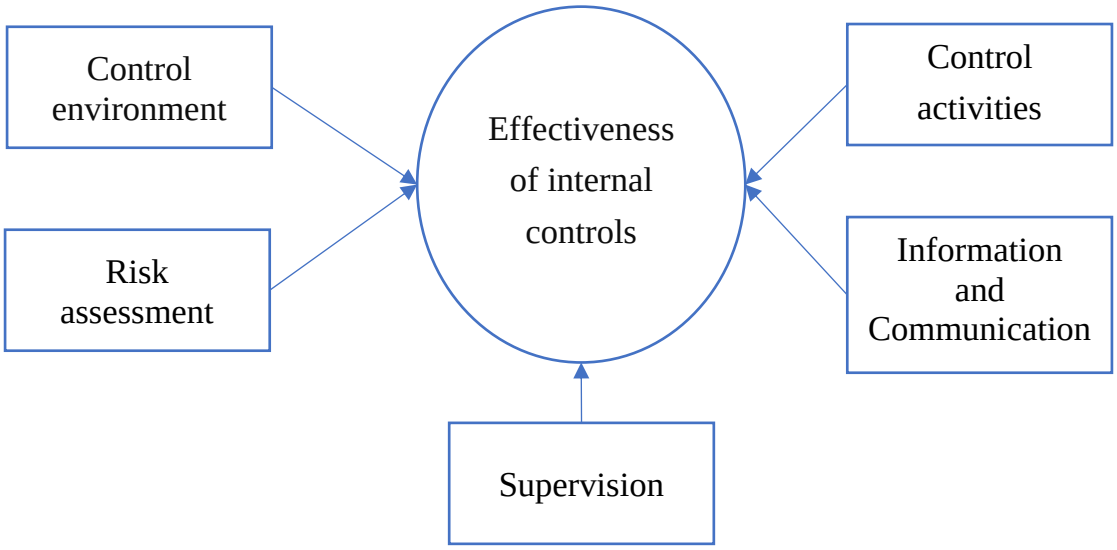

Figure 1. The proposed research model

(Source: Author's suggestions)

The hypotheses are stated as follows:

H1: The control environment has a favorable influence on the effectiveness of internal control.

H2: Risk assessment has a reversible effect on the effectiveness of internal control.

H3: Control activities have a reversible effect on the effectiveness of internal control.

H4: Information and communication has a favorable influence on the effectiveness of internal control.

H5: Monitoring has a reversible effect on the effectiveness of internal control.

With multiple regression model as follows:

HH = β0 + β1*MTKS + β2*DGRR + β3*HDKS + β4*TTTT + β5*GS + ε

In which:

β1, β2… is the regression coefficient, β0 is the blocking coefficient, ε is the residual

Dependent variable

HH: The effectiveness of internal control in the enterprise

Independent variables, including:

MTKS: Control environment

DGRR: Risk assessment

HDKS: Control activities

TTTT: Information and Communications

GS: Supervision

3.2. ata collection and processing

The author collects data through the questionnaire to collect the evaluation of directors, finance directors, department heads in enterprises on the influence of factors on the effectiveness of internal control in enterprises in Vietnam.

To evaluate the effectiveness of internal control (dependent variable), the author uses the Likert scale of 5 levels of agreement, from: (1) Strongly disagree to (5) Strongly agree. Evaluating independent variables, the author uses the Likert scale of 5 levels of influence, from: (1). Very low to (5). Very high.

The number of scales that measure variables inherited from the principles in the 2013 COSO template and predecessor and coded studies is shown in Table 1 below.

Table 1: Coding and number of attributes of factors affecting the effectiveness of internal control

No.	Factor	Encryption	Quantity	Expectations	Source
1	Control environment	MTKS1-MTKS8	8	+	COSO 2013
2	Risk assessment	DGRR1-DGRR5	5	+	
3	Control activities	HDKS1-HDKS4	4	+	

4	Information and Communications	TTTT1-TTTT4	4	+	
5	Supervision	GS1-GS4	4	+	
6	Effectiveness of internal controls	HH1-HH4	4		

(Source: Results of data analysis on SPSS 22)

To ensure the study sample size, from Tabachnick & Fidell (1996) for multivariate regression analysis: the minimum sample size should be calculated according to the formula of 50 + 8*i (where i is the number of independent variables in the study model), corresponding to this study, the maximum sample size is 50 + 8*5 = 90 observations. Meanwhile, in Bollen's (1989) view, the sample size is calculated according to the formula n = 5*i (i is the number of variables observed in the model), with this study, the minimum sample size required is 5*29 = 145. To ensure objectivity, the author selects a sample size larger than 145 samples.

The author uses a convenient sampling method through sending and receiving questionnaires via Google Doc and Email to the survey subjects, from April 2022 to September 2022. The results obtained 187 valid votes out of 550 votes were sent to 110 enterprises. Based on the collected data, the author uses quantitative techniques with the aid of SPSS software.22 to summarize and present the basic results of the study.

4. Results and discussion

Of the 187 valid replies, 68 were from manufacturing enterprises, accounting for 36.36%; 64 were from service trade enterprises, accounting for 34.22%; 12 were from construction enterprises, accounting for 6.41%; The remaining 43 valid replies were from enterprises in other sectors, accounting for 23.01%.

Regarding the level of education: 156 respondents with university level or higher, accounting for 83.42%; 31 respondents with college and intermediate level, accounting for 16.58%.

Regarding the work unit: 73 replies were received from managers (members of the board of directors), accounting for 39.04%; 114 replies were received from middle managers (heads of departments in the enterprise), accounting for 60.96%.

Regarding the size of enterprises: 35 replies came from large-scale manufacturing enterprises, accounting for 18.71%; 61 replies came from medium-sized enterprises, accounting for 32.62%; 91 replies came from small-scale manufacturing enterprises, accounting for 48.67%.

The sample surveyed belongs to many different subjects in terms of education level, job position, size of enterprises and especially the production and business sectors with many impacts on internal control. Thus, it is possible to ensure that the answers are reliable and of quality.

Statistical results describing the scale show that most of the observed variables have an average value around the expected average value (3.0) and there is no significant difference between the observed variables in the same group. This shows that the surveyed subjects have similar opinions and all agree with the scale of variables.

4.1. Results of testing the quality of the scale

Cronbach's Alpha test results for the first time for internal control effectiveness scales (6 scales with 29 variables observed) give the Cronbach's Alpha overall coefficient results of variables greater than 0.6. However, the variable correlation coefficient - sum of MTKS6 observation variables is 0.22 or less than 0.3, so the type of MTKS6 observation variables and the second re-test, the results obtained are shown in Table 2 below.

Table 2: Results of testing the reliability of the scale of the factors in the model

No.	Factor	Cronbach's Alpha

1	Control environment	0.875
2	Risk assessment	0.851
3	Control activities	0.817
4	Information and Communications	0.811
5	Supervision	0.888
6	Effectiveness of internal controls	0.835

(Source: Processing Results on SPSS 22)

Thus, the model keeps 6 factors to ensure good quality, with 28 characteristic variables (Cronbach's Alpha coefficient) of the whole greater than 0.6; The coefficient of correlation of variables - the sum of the observed variables is greater than 0.3.

4.2. Explore factor analysis EFA

The EFA exploratory factor analysis was performed separately for 02 groups of independent variables and dependent variables by the full-angle rotation method (Varimax). The results obtained after the first rotation, the values obtained are all satisfactory, especially the observation variable MTKS8 has a factor load factor equal to 0.37 less than 0.4, thus eliminating the observation variable MTKS8. Thus, 27 observation variables were included in the second EFA analysis. The results obtained are shown in Table 3, as follows:

Table 3. KMO and Bartlett test results table for independent variable

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.842	
Bartlett's Test of Sphericity	Approx. Chi-Square	2050.189
	df	259
	Sig.	0.000

(Source: Results of data analysis on SPSS 22)

EFA analysis results for the independent variable:

Looking at the results of EFA analysis for independent variables, it can be seen that the results were divided into 5 groups. The criteria are evaluated as follows:

- KMO = 0.842 so the EFA analysis is consistent with the study data.

Sig. (Bartlett's Test) = 0.000 < 0.05 shows that the observed variables in the whole are correlated with each other and the data used in the EFA analysis are appropriate.

- There are 5 factors quoted at Eigenvalues = 1.278 > 1 representing the variation explained by each factor.

- Total variance explained by factor analysis is 63.457% > 50% meet the requirements. This means that these 5 factors explain 63.457% of the change of the data.

The post-rotation factor matrix table will be reviewed to see what these 5 factor groups include, and whether the order of the observed variables is disturbed compared to the scale constructed at the beginning. The analysis results show that the observed variables have been assembled into 05 groups of variables with the order of the observed variables kept the same compared to the original independent variables.

Table 4: Rotation matrix of factors Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
MTKS1	.804				

MTKS3	.736				
MTKS7	.712				
MTKS4	.710				
MTKS2	.703				
MTKS5	.659				
DGRR3		.811			
DGRR4		.802			
DGRR1		.773			
DGRR2		.752			
DGRR5		.726			
HDKS1			.819		
HDKS3			.753		
HDKS4			.696		
HDKS2			.652		
TTTT4				.843	
TTTT2				.837	
TTTT1				.744	
TTTT3				.729	
GS1					.870
GS2					.826
GS4					.812
GS3					.779

(Source: Results of data analysis on SPSS 22)

EFA analysis results for dependent variables:
The indicators show the following coefficients:
- KMO coefficient = 0.812 satisfies the condition of 0.5 < KMO < 1, so the analysis of discovery factors is suitable for actual data.
- Sig. = 0.000 satisfies Sig condition. ≤ 0.05 so this test is statistically significant and the variables observed are correlated with each other in the overall analysis, demonstrating that the data used in the analysis are appropriate.
- The analysis of the total variance extracted for the dependent variable shows that the percentage of variance of the entire Percentage of variance = 62.289% > 50%, the value of Eigenvalue = 2.018 > 1, so the model qualifies for exploratory factor analysis and the load factor of the observation variables is greater than 0.5 so the observation variables have practical significance. So the dependent variable is kept between the original independent variable and the observed variable.

4.3. Results of regression analysis Pearson Correlation Analysis

Correlation analysis was performed prior to regression analysis to check the correlation between the independent variable and the dependent variable, when independent variables not correlated with the dependent variable would be excluded from the model (if Sig. > 0.05).

Table 5: Pearson correlation analysis results

Correlations							
		HH	MTKS	DGRR	HDKS	TTTT	GS
HH	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	187					
MTKS	Pearson Correlation	.701	1				
	Sig. (2-tailed)	.000					

	N	187	187				
DGRR	Pearson Correlation	.445	.357	1			
	Sig. (2-tailed)	.000	.000				
	N	187	187	187			
HDKS	Pearson Correlation	.638	.590	.322	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	187	187	187	167		
TTTT	Pearson Correlation	.212	.144	.076	.122	1	
	Sig. (2-tailed)	.004	.057	.312	.109		
	N	187	187	187	187	187	
GS	Pearson Correlation	.444	.473	.175	.395	-.092	1
	Sig. (2-tailed)	.000	.000	.020	.000	.224	
	N	187	187	187	187	187	187

**. Correlation is significant at the 0,01 level (2-tailed)

*. Correlation is significant at the 0,05 level (2-tailed)

(Source: Results of data analysis on SPSS 22)

The results of Pearson correlation analysis show that there is a close correlation between the dependent variable and the independent variable in the model. The independent variables in the matrix have average correlation coefficients and have values Sig. < 0.05.

Regression analysis

Based on the results of EFA analysis, we have an unchanged multiple regression model, the independent and dependent variables remain the same as at the beginning. The following tables show the regression results, in particular:

Table 6: Model summary table[b]

Model	R	R Square	Adjusted R Square	Durbin-Watson
1	.786[a]	.620	.609	1.776

a. Predictors: (Constant), MTKS, DGRR, HDKS, TTTT, GS.

b. Dependent Variable: HH

(Source: Processing Results on SPSS 22)

Table 7: Model ANOVA[a] analysis table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.876	5	16.975	60.694	.000[b]
	Residual	52.906	172	.307		
	Total	137.782	177			

a. Dependent Variable: HH

b. Predictors: (Constant), MTKS, DGRR, HDKS, TTTT, GS.

(Source: Processing Results on SPSS 22)

Table 8: Linear regression results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	Constant	-.715	.268		-2.655	.007		
	MTKS	.435	.072	**.388**	5.927	.000	.541	1.841

	DGRR	.177	.050	**.180**	3.462	.001	.850	1.172
	HDKS	.281	.058	**.286**	4.649	.000	.612	1.626
	TTTT	.112	.046	**.117**	2.366	.017	.936	1.065
	GS	.120	.053	**.123**	2.194	.028	.722	1.380

a. Dependent Variable: HH

(Source: Processing Results on SPSS 22)

Test the relevance of the model

Multicollinearity test: The error magnification factor (VIF) of all independent variables is less than 10, so the multicollinearity in the model is assessed as not serious.

The Durbin - Watson coefficient used to test the correlation of the residuals shows that the model does not violate when using multiple regression, since the Durbin - Watson value obtained is 1.776 (range 1 to 3). In other words, the model has no correlation of the residuals.

The assessment of model suitability is based on the Analysis of Variance (ANOVA) table. ANOVA test results with a significance level of Sig. = 0.000 shows that the multiple linear regression model has been constructed in accordance with the data set and used, or in other words that this model is significant to derive broadly for the whole.

Evaluate the level of interpretation by the independent variables in the model

The coefficient of R^2 correction = 0.609 > 0.5 means that the independent variable explains 60.9% of the change of the dependent variable "The effectiveness of internal control in the enterprise", while 39.1% is due to random error or other factors outside the model.

Independent variables MTKS, DGRR, HDKS, TTTT and GS all had statistically significant impacts (due to Sig.< 0.05) to "The effectiveness of internal control in the enterprise".

The independent variables MTKS, DGRR, HDKS, TTTT and GS all have a coefficient $\beta>0$ proving to have a reversible influence on the dependent variable "The effectiveness of internal control in enterprises". Therefore, accepting the initial hypothesis (H1, H2, H3, H4 and H5), are independent variables that are linearly related to the dependent variable and perfectly fit the model. From there, we have the regression equation with normalized beta coefficient as follows:

HH = 0.388*MTKS + 0.180*DGRR + 0.286*HDKS + 0.117*TTTT + 0.123*GS

From the results of testing the research model, there are 5 factors that have a favorable influence on the effectiveness of internal control in enterprises in Vietnam. This result is similar to the results verified by predecessor studies, such as: Karagiorgos et al., (2011); Sultana & Haque (2011); Mills (1997); Amudo & Inanga (2009); Noorvee (2006); and Thach Ha Xuan et al., (2018).

5. Conclusion and Recommendation

The analysis of 187 survey samples from senior and middle managers in enterprises in Vietnam. Regression results show that factors have a positive influence on "the effectiveness of internal control in the enterprise" in descending order, as follows: control environment; control activities; risk assessment; monitoring; and information and communication.

The findings from the empirical research are the basis for the author to make a number of recommendations and in this study, the author focuses on recommendations to enterprises in Vietnam, specifically as follows:

For the element of the control environment: The control environment is the most powerful element affecting the effectiveness of the internal control system, and is also the fundamental element constituting the internal control, so a good control environment will create the premise for effective internal control. This is the element that creates a common nuance for the whole unit that governs the consciousness of the participating members. Therefore, in order to have a good control environment, enterprises need to: (i) Ensure the quality of human resources, such as: The recruitment plan and process should be clear and

transparent. To publicize the standards of knowledge, skills and culture of the enterprise to avoid creating a hazy and dissatisfied mentality for candidates; To focus on recruiting employees with adequate capacity and qualifications in accordance with job requirements and vacancies; To develop reasonable human resources policies, and to establish and improve clear staff reward regulations to ensure the compensation of employees, and encourage employees to perform better, increase competitiveness to create high job performance and long-term engagement with the business; (ii) Clearly assign responsibilities and powers to each department, such as: It is necessary to assign clear powers and responsibilities to each department, specified in the job descriptions for each position, each department; and (iii) Ensure the integrity and ethical values of the business, such as: It is necessary to issue a general code of conduct related to employee ethics to prevent employees from behaving unethically or violating the law; propagandize about the company's attitude and culture towards integrity and fairness and emphasize the handling of fraud, ethical violations; Regulations on labor rules, employee discipline should be disseminated regularly so that all employees know and comply.

For control activities: Control activities have a second strong influence on the effectiveness of internal control in enterprises in Vietnam, the establishment and implementation of control activities will help managers minimize risks in the process of management and business operations. On the basis of theory and practice, the author proposes a number of solutions to help enterprises improve the effectiveness of control activities as follows: (i) Technology control, such as focusing on backup backup, can take advantage of cloud data storage, internet storage, and storage at hard devices used to store data such as removable hard drives, to ensure that the data of the enterprise is not lost when there are incidents such as software errors, damaged computer devices or compromised by unauthorized objects; improve the sense and knowledge of security to preserve and ensure that the stored information is secure, the storage device is not stolen or damaged; (ii) Ensure that individuals and departments operate properly powers and responsibilities, such as: thoroughly implement the principle of non-contentiousness; The work needs to be properly approved and have sufficient documents.

For risk assessment factors: Risk assessment is an important stage in the process of building and perfecting the internal control system of the enterprise. The resources of each surveyed enterprise are limited, so the identification and proper assessment of risks to be able to put in place appropriate control activities, at the same time allocate resources reasonably to maintain the operation and growth rate of the enterprise, to achieve this, the enterprise needs to: (i) Regularly carry out risk analysis and assessment, thereby offering solutions to mitigate risks, such as: It is necessary to review and evaluate the concurrent recording work between the accounting department and other departments, ensuring transparency and control, in order to ensure no collusion; Periodically carry out meetings to analyze and assess the risks arising in the business, and report the risks that may occur in the course of business activities, from which to discuss and make relevant judgments; (ii) Limit risks and frauds, such as: Regular reconciliation of books and assets to ensure the conformity between recording receive and real assets to be able to promptly detect the risks and frauds that exist, from which there are improvement measures; raise awareness of management levels in enterprises through special short-term training courses for them, organize seminars. From there, they realize the importance of risk and fraud analysis and assessment in their department.

For the supervisory factor: An internal control system however well designed, without good inspection and supervision, over time its effectiveness will be gradually lost. The objective of monitoring is to monitor and evaluate the quality of internal control to ensure that it remains in good working order and continuously adjusts and improves to suit each stage of development of enterprises. Through monitoring activities, managers see the shortcomings in the design and operation of the system and have more attention. In order to achieve this, the enterprise needs to

implement the following solutions: (i) Perform regular inspection and supervision, such as: Design a schedule of inspection and review of the whole specific unit at the beginning of the year in order to detect the inconsistencies of operational processes, inconsistencies between documents and records, and record and report defects on each department to have timely handling; Thoroughly apply policies to encourage employees, departments to cross-monitor each other in the work; (ii) Organize periodic evaluation and analysis, such as: Periodically compare with the established standards from the beginning with the current conditions. Managers need to take seriously the periodic assessment to implement and carry out all activities of the enterprise both in depth and width, not merely the results achieved in the floating tank. It is this that will help maintain and improve the operation of better internal controls over time.

For information and communication factors: This is the factor that most impacts the effectiveness of internal control in the enterprise. However, this is an indispensable factor in helping managers control the business and is the basis for managers to make sound and timely decisions in business activities to achieve their goals. The business catches information first, the chances of success will be higher. Therefore, enterprises need to implement a few of the following solutions: (i) Use specialized accounting software and suit the actual conditions in the enterprise; (ii) Exterminate to take advantage of social network platform applications for corporate communication.

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