

Compare Respondents' Perceptions of the Effectiveness of Internal Control in Construction Firms

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Abstract

The following were the objectives of this study: (i) analysis and measurement of the effectiveness of internal control in construction firms in Thai Binh province, Vietnam; (ii) comparison of assessments of the effectiveness of internal control in construction firms in Thai Binh province, Vietnam, between respondents. The data used in this study are primary, including survey data obtained from the respondents. We designed a questionnaire related to the effectiveness of internal control in construction firms. We determined the observed variables (scales) of the effectiveness of internal control in construction firms based on previous studies and expert interview results. We use both qualitative and quantitative research methods, including the independent T test and ANOVA analysis. Besides, the study analyzed data for construction firms during the period 2020–2023. According to the findings of this study, three attributes of the effectiveness of internal control in construction firms in Thai Binh province were evaluated as average. All the attributes of the variables are statistically significant. There is no statistically significant difference in the effectiveness of internal control in construction firms in Thai Binh province between these different genders, ages, marriages, and job positions. This article is an academic contribution that enables understanding of the research developed and focuses on the effectiveness of internal control in construction firms in Thai Binh province, considering data from several reference research databases and survey results.

Keywords: Internal Control, The Effectiveness of Internal Control, Business Administration, Construction Firms, Compare, Thai Binh Province.

Introduction

The urban appearance of Thai Binh province is increasingly developing, showing the important position and growth of the construction industry in the effort over the past half century to affirm the position of a spearhead economy in the cause of industrialization and modernization of the country. More and more construction works are being formed, contributing significantly to the change of appearance, aesthetics and infrastructure of Thai Binh province. Thai Binh province has truly become the cultural, economic and political center of the Northern Delta provinces. To achieve these achievements, we cannot fail to mention the important and outstanding contributions of the construction industry. Through that, we can see more clearly the leading role of the construction industry in the economy of Thai Binh province.

Enterprises in Vietnam generally have a high proportion of receivables from customers; especially this amount of money for enterprises in the construction industry is quite large, due to the characteristics of construction products with long production time and collection according to construction progress. Moreover, the value of the product is large, so customers often pay late. That leads to a high risk when granting trade credit to these enterprises.

According to the study by Van and Dang (2021), the failure or inability to control the operations of many businesses leads to low business efficiency, mainly due to the lack of proper investment in establishing effective internal control procedures. The effectiveness of internal control in organizations is an important issue in modern corporate governance and is of interest to many researchers, specifically Mawanda (2008), who also concluded that there is a positive relationship between the internal control system and financial performance at universities in Uganda. The study by Afiah & Azwari (2015) also confirmed that internal

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control has a better impact on the quality of financial reporting, and the quality of financial reporting has a positive impact on unit management.

Internal control is an important tool built and operated in organizations to protect the organization to achieve the set goals of business efficiency, management performance, information reliability and compliance with legal regulations. This process is especially important in the context of an integrated market economy, where business risks and operational risks are always latent and threaten the mission of enterprises.

When studying the current situation of internal control in construction firms in Thai Binh province, we found some limitations, such as loose control of physical assets, reliability of reports, weaknesses in the supervision process of business administrators, and policies and mechanisms related to arrangement, equitization, management, and corporate governance.

Loss and waste of assets in construction, poor quality of work, unsatisfactory construction status, testing and accepting incorrect items, unit prices, and producing waste of investment capital are social issues that society has recently given a lot of attention to and voiced. Apart from the solutions for control, supervision, risk assessment, etc., construction enterprises should perfect the efficacy of internal control so that such errors do not harm the company's image and reputation.

Previous studies have shown that internal control is very important not only for firms in general but also for construction firms in particular. In addition, it can be seen that there are very few systematic and comprehensive studies on the effectiveness of construction firms in particular. In order to contribute to the treasure trove of research documents on internal control in the construction sector, this article conducts research on the effectiveness of internal control in construction firms in Thai Binh province, thereby perfecting internal control.

Literature Review

Walton and Dawson (2001) argue that effectiveness is a judgmental concept about the ability of an organization to achieve its goals. Effectiveness is a concept defined towards assessing the level of achievement of predetermined goals and objectives for an activity or a program that has been implemented.

According to COSO (2013), effective internal control provides reasonable assurance regarding the achievement of an organization's objectives. Since internal control is relevant for both the entity and its subsidiaries, effective internal control may relate to a specific component of the organizational structure. Effective internal control reduces the risk of failure to achieve objectives related to one, two, or all three categories to an acceptable level. In determining whether internal control is effective, management exercises judgment in assessing whether each component and related principles are present and operating and whether the components are working together.

Previous internal control studies have used financial reporting material weaknesses (MWs) to assess the effectiveness of internal controls (Ge & McVay, 2005; Doyle et al., 2007a; Beneish et al., 2008; Klamm & Watson, 2009). Although MWs are used as a measure of internal control effectiveness, there are problems with this approach. SOX is not mandatory in all countries, meaning that MWs are not necessarily reported. In addition, using MWs assumes that all firms without detected MWs demonstrate effective internal controls, despite the fact that management or auditors may have failed to identify the problem or the problem is classified as a control deficiency or significant deficiencies and therefore is not reported as MWs (Krishnan, 2005).

Amudo and Inanga (2009) argue that the key point in evaluating effectiveness is to consider the expected results in the plan with the actual results through activities.

According to Ho Tuan Vu (2016), internal control is a process; the effectiveness of internal control is a state of that process at a certain point in time. The assessment of the effectiveness of internal control is

judgmental. In addition, to assess the effectiveness of internal control (in general), in addition to the above 3 criteria, it is also necessary to assess the effectiveness of the five components of internal control. However, it should be noted that, when assuming that the above 5 criteria must be satisfied when assessing the effectiveness of internal control, this does not mean that each component of internal control must operate exactly the same or at the same level in different parts. The author concludes that the criteria for measuring the effectiveness of internal control in Vietnamese commercial banks include (i) Activities are effective and efficient, (ii) Financial statements in banks are prepared reliably, (iii) Laws and related regulations are complied with.

Methodology

The data utilized in this study are primary data, gathered from the surveys conducted with respondents.

Because it can provide more light on the issues faced by company administrators, research on the efficacy of internal control in Thai Binh province's construction companies is highly intriguing. Assessing the efficacy of internal control in respondents' construction companies is one area that could be the subject of a study.

Using a few statistical techniques, quantification, and estimation, this study relies on the descriptive method on the theoretical side and, consequently, the statistical and standard approach on the practical side.

The survey subjects were employees working for construction firms in Thai Binh province, Vietnam.

Both qualitative and quantitative research methodologies are employed by us. Construction firms in the province of Thai Binh were chosen as interview subjects, as were managers and chief accountants with at least five years of experience and a strong grasp of internal control.

The research was carried out in 2023 and 2024. Primary sources were examined both in-person and online using Google Docs. Employees of construction companies in Thai Binh province were the target of the survey (see table 1). Using a stratified random sample, primary data on 275 workers is gathered from construction companies in the Thai Binh province.

Table 1. Respondents By Genders, Ages, Marriage and Job Position

	Frequency	Percent	Cumulative Percent
Genders			
Female	139	50.5	50.5
Male	136	49.5	100.0
Marital statuses			
Married	161	58.5	58.5
Single	114	41.5	100.0
Ages			
Less than 30 years old	105	38.2	38.2
From 30 to 40 years old	112	40.7	78.9
40 years old or older	58	21.1	100.0
Job position			
Head of Department	68	24.7	24.7
Deputy Head of Department	83	30.2	54.9
Accountant	124	45.1	100
Total	275	100.0	

Source: Prepared by the authors (2024) and SPSS software.

Information on the data collected is shown in Table 1. It shows that among them, 139 are female, accounting for 57.5%, and the rest are male, accounting for 49.5%. 58.5% of the participants were married, and 41.5% were single. Respondents less than 30 years old accounted for 38.2%, from 30 to 40 years old accounted for 40.7%, and 40 years old or older accounted for 21.1%. Also among respondents, the Head of Department is 68, accounting for 24.7%; the Deputy Head of Department is 83, accounting for 30.2%; and accountants are 124, accounting for 45.1%.

Results

Independent T-test: Genders

A comparison of the results of the evaluation of the differences in the effectiveness of internal control in construction firms with participants of different genders (female and male) can be seen in Table 2. According to the results shown in Table 2, sig Levene's test is 0.285, which is more than 0.05. The variance between a female and male is not different. Moreover, the sig value t-test is 0.465, which is more than 0.05, which means that there is not a statistically significant difference in the effectiveness of internal control in construction firms between these different genders (Hoang & Chu, 2008; Hair et al., 2009; Hair et al., 2014).

Table 2. Differences in the Effectiveness of Internal Control in Construction Firms with Participants of Different Genders - Independent Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
EIC	Equal variances assumed	1.147	.285	.731	273	.465	.05849	.07998	-.09896	.21594
	Equal variances not assumed			.730	267.800	.466	.05849	.08008	-.09918	.21615

Source: Prepared by the authors (2024) and SPSS software.

Independent T-test: marital statuses

A comparison of the results of the evaluation of the differences in the effectiveness of internal control in construction firms with participants of different marital statuses (married and single) can be seen in Table 3. According to the results shown in Table 3, sig Levene's test is 0.034, which is less than 0.05. The variance between a married and single person is different. Moreover, the sig value t-test is 0.318, which is more than 0.05, which means that there is not a statistically significant difference in the effectiveness of internal control in construction firms between these different marital statuses (Hoang & Chu, 2008; Hair et al., 2009; Hair et al., 2014).

Table 3. Differences in the Effectiveness of Internal Control in Construction Firms with Participants of Different Marital Statuses - Independent Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
EIC	Equal variances assumed	4.537	.034	-.967	273	.335	-.07840	.08111	-.23808	.08127
	Equal variances not assumed			-.1001	267.874	.318	-.07840	.07830	-.23256	.07575

Source: Prepared by the authors (2024) and SPSS software

ANOVA - ages

An ANOVA test was needed to make a comparison of the results of the evaluation of the differences in the effectiveness of internal control in construction firms between the three subjects, including participants who are less than 30 years old, participants who are from 30 to 40 years old, and participants who are 40 years old or older. Table 4 shows that the sig Levene statistic of 0.166 is larger than 0.05, which means that the hypothesis of homogeneity of variance among the variable value groups (different ages) has not been violated. Table 5 shows that sig. is 0.894, which is more than 0.05, which indicates that there is not a statistically significant difference in the effectiveness of internal control in construction firms between the mentioned three groups of ages (Hoang & Chu, 2008; Hair et al., 2009; Hair et al., 2014).

Table 4. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.809	2	272	.166

Source: Prepared by the authors (2023) and SPSS software.

Table 5. ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.099	2	.050	.112	.894
Within Groups	120.170	272	.442		
Total	120.269	274			

Source: Prepared by the authors (2023) and SPSS software.

The relationship between the effectiveness of internal control in construction firms – ages

Next, the line graph shows the relationship between the effectiveness of internal control in construction firms and each respondent's age (Figure 1). Figure 1 shows that this line tends to go down when the

respondents are 30 years old or older.

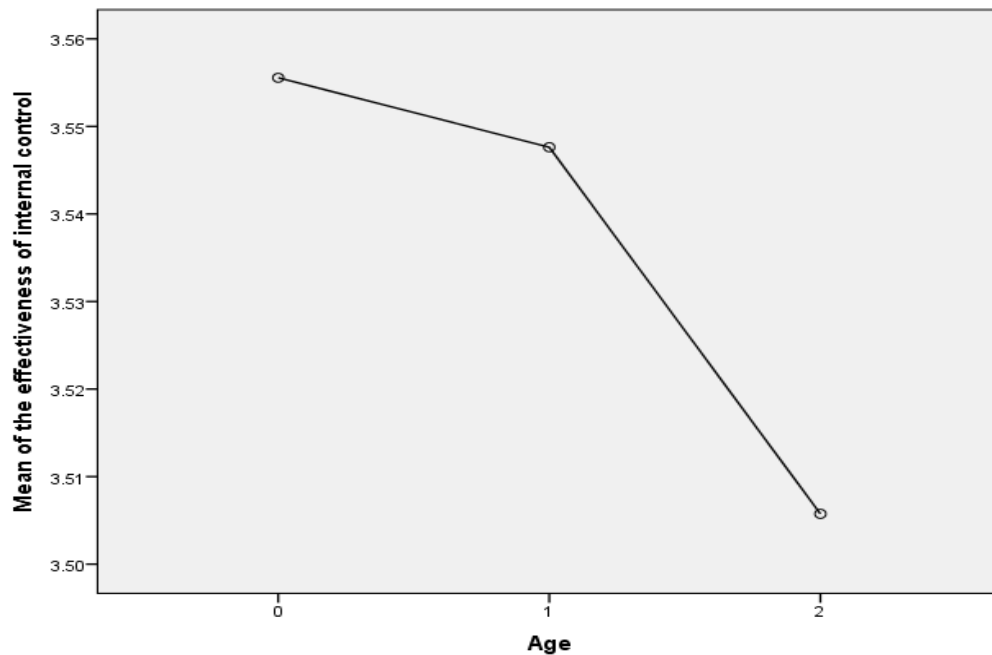


Figure 1. The Line Graph Shows the Relationship Between the Effectiveness of Internal Control in Construction Firms and Each Respondent's Age.

Source: Prepared by the authors (2023) and SPSS software

ANOVA - Job Position

An ANOVA test was needed to make a comparison of the results of the evaluation of the differences in the effectiveness of internal control in construction firms between the three subjects, including participants who are heads of departments, participants who are deputy heads of departments, and participants who are accountants. Table 6 shows that the sig Levene statistic of 0.598 is larger than 0.05, which means that the hypothesis of homogeneity of variance among the variable value groups (different job positions) has not been violated. Table 7 shows that sig. is 0.455, which is more than 0.05, which indicates that there is not a statistically significant difference in the effectiveness of internal control in construction firms between the mentioned three groups of job position (Hoang & Chu, 2008; Hair et al., 2009; Hair et al., 2014).

Table 6. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
.516	2	272	.598

Source: Prepared by the authors (2023) and SPSS software.

Table 7. ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.694	2	.347	.789	.455
Within Groups	119.575	272	.440		
Total	120.269	274			

Source: Prepared by the authors (2023) and SPSS software.

The relationship between the effectiveness of internal control in construction firms – job position

Next, the line graph shows the relationship between the effectiveness of internal control in construction firms and each respondent's job position (Figure 2). Figure 2 shows that this line tends to go down when the respondents are Deputy Head of Department and Accountant.

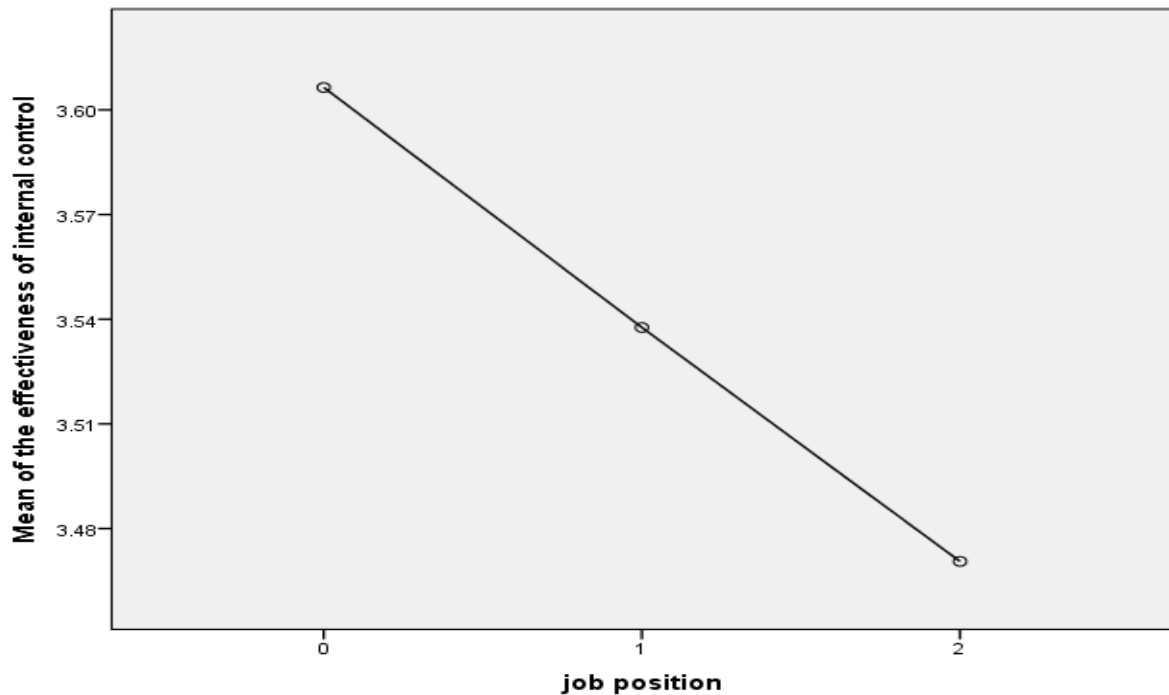


Figure 2. The Line Graph Shows the Relationship Between the Effectiveness of Internal Control in Construction Firms and Each Respondent's Job Position.

Source: Prepared by the authors (2023) and SPSS software.

Discussion and Implications

Construction firms should do a good job of supervising the implementation of regulations on capital contribution and capital transfer.

Construction firms should increase sanctions against violations of regulations on capital ownership in construction firms, such as implementing a rotation system and regularly transferring staff to sensitive positions.

In the current socio-economic context, construction firms have many opportunities but also face challenges and difficulties, such as the problem of debt—lack of capital; the problem of lack of work sources; the problem of competition between enterprises; and the problem of costs. Therefore, construction firms have been and are in the process of rebuilding and adjusting strategies to get out of difficulties with solutions such as improving risk management capacity, especially financial management; ensuring jobs, salaries and benefits for employees; developing corporate culture; enhancing training and improving human resource quality; restructuring enterprises and streamlining human resources; focusing on building brand image and marketing; cutting costs; and diversifying business activities.

In the process of implementing state policies in construction firms, management agencies need to synthesize the difficulties of firms, thereby answering or promptly issuing appropriate instructions and

circulars, especially the approval of plans for arrangement and use of houses and land for enterprises, which directly affects the progress of equitization and divestment of construction enterprises; policies to strictly manage credit capital of commercial banks; policies to remove capital difficulties for enterprises.

In-group collectivism: Managers who wish to boost employee standards and dedication might concentrate on employee work groups, motivating staff to contribute to the team and concentrate their efforts while fostering a friendly environment. Additionally, managers can boost employees' emotional attachment by lowering prejudice between group members and non-group members, motivating employees to prioritize relationships with all company members, and fostering a vibrant work environment. In addition, the administrator must also pay attention to having a separate policy for each group of employees in the company to match the characteristics of each group: Single people tend to stick to the organization less than those who have already established themselves family; younger people tend to be less committed to the company than older people.

Avoiding uncertainty requires administrators to maintain a clean workplace, meticulously document and preserve data, establish official protocols to direct staff, carefully assess risks while implementing initiatives, and maintain a stable working environment.

Future orientation: This refers to how the company decides what the goals of its operations and personnel will be in the future. For instance, companies target new clients with their new items. Future-focused has a broad scope. Businesses should establish clear objectives and develop certain orientations. The business should then put forth effort and create a comprehensive plan to overcome it and have a better future.

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