Research on the Influence of Internal Control Systems on the Financial Performance of Small and Medium-Sized Enterprises in Hanoi

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Abstract
This paper employs a desk research method to synthesize, analyze, evaluate, and compare empirical evidence on the influence of internal control systems on the financial performance of small and medium-sized enterprises (SMEs) in Hanoi, drawing on agency theory combined with institutional theory. A synthesis of studies from Vietnam, Nigeria, and Ghana shows that the control environment is the only component with a relatively consistent positive effect on financial performance. The other four components - risk assessment, control activities, information and communication, and monitoring activities - show a clear effect only in Ghana, where corporate governance plays a moderating role. The current state of internal control implementation in Hanoi indicates that control activities is presently the weakest component. On this basis, the paper recommends that SMEs prioritize strengthening the control environment, and that the training content under Hanoi's 2026-2030 SME support policy should focus on control activities and monitoring. The paper also identifies the limitations of the desk research method and proposes directions for future quantitative testing, with corporate governance as a moderating variable.

Keywords: *internal control system; financial performance; small and medium-sized enterprises*

1. Introduction

In recent years, small and medium-sized enterprises (SMEs) have affirmed their role as the main driver of economic growth in the capital city of Hanoi. According to data published by the Hanoi Department of Finance and the Hanoi Small and Medium Enterprises Association, by the end of the third quarter of 2025 the city had 422,212 registered enterprises, of which 223,580 were operating, accounting for about 23 percent of all operating enterprises nationwide. SMEs accounted for 98.2 percent of all registered enterprises in the city, generated employment for 55.1 percent of the labor force, and contributed more than 40 percent of the city's gross regional domestic product, abbreviated as GRDP (Nhân Dân, 2025). This scale and share demonstrate that the stability and sustainable development of the SME sector are of decisive importance to the entire economy of the capital. However, alongside these positive contributions, the SME sector in Hanoi continues to face a number of internal limitations. The city's management authorities, through the Scheme to Support Small and Medium-Sized Enterprises in Hanoi for the 2026-2030 period, have identified four core weaknesses of this group of enterprises: a lack of management experience, limited adoption of new technology, limited access to capital, and isolation within production linkage chains (Nhân Dân, 2025). These weaknesses largely stem from weak internal governance capacity, in which establishing and operating an effective internal control system - based on the framework issued in 2013 by

the Committee of Sponsoring Organizations of the Treadway Commission, abbreviated as COSO - is regarded as a foundational condition for enterprises to manage risk, ensure the reliability of financial information, and thereby improve financial performance (Committee of Sponsoring Organizations of the Treadway Commission, 2013). Theoretically, the relationship between internal control systems and corporate financial performance is commonly explained through agency theory, under which internal control functions as a monitoring mechanism that limits conflicts of interest and agency costs arising between owners and managers (Jensen & Meckling, 1976). Building on this theoretical foundation, a number of empirical studies published since 2015 have confirmed a positive effect of internal control systems on the financial performance of SMEs. Using panel data for the period 2011-2015 from private Vietnamese manufacturing SMEs, Vu and Nga (2022) found that the implementation of internal controls increases firm profitability, through a mechanism of reduced bribery and greater formalization of business operations. In an international context, Musah et al. (2022) surveyed SMEs that are members of the Association of Ghana Industries and found that all five components of the internal control system under the COSO framework have a positive effect on financial performance, an effect that is further amplified when firms maintain good corporate governance practices. Not all research findings, however, point in the same direction. Within Hanoi itself, a study by To Tam and Tuan (2021) on a sample of SMEs found that only the control environment component had a statistically significant positive effect on financial performance, while the remaining four components of the COSO framework - risk assessment, control activities, information and communication, and monitoring activities - showed no clear effect. This divergence in findings, even among studies conducted in the same city, indicates that the relationship between individual internal control components and SME financial performance remains insufficiently understood, particularly regarding the reasons behind the differences observed between the Hanoi context and the international context. This gap has become even more pressing in light of Hanoi's recent approval of the Scheme to Support Small and Medium-Sized Enterprises for the 2026-2030 period, which sets a target of training 5,000 chief executive officers to equip them with modern management thinking (Nhân Dân, 2025). A systematic synthesis of the effects of each internal control component on financial performance can provide a direct scientific basis for designing the content of this training and the associated support policies. Motivated by this need, the paper applies a desk research method to synthesize, analyze, evaluate, and compare domestic and international research findings on the influence of internal control systems on the financial performance of SMEs, in order to identify which control components have the most consistent evidence of impact, to explain the reasons for the divergence between the Hanoi context and the international context, and to propose management implications suited to SMEs in Hanoi. Through this approach, the study is expected to contribute an updated synthetic framework for applying agency theory to the SME context in an emerging economy, while also providing timely practical evidence for the formulation and implementation of Hanoi's SME support policy in the coming period.

2. Theoretical Framework and Research Methodology

2.1 The Concept of Internal Control Systems and the COSO Framework

Under the Internal Control – Integrated Framework issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission, an internal control system is composed of five closely interrelated components: the control environment, risk assessment, control activities, information and communication, and monitoring activities (Committee of Sponsoring Organizations of the Treadway Commission, 2013). The control environment reflects the governance culture, integrity, and competence of an organization's leadership; risk assessment is the process of identifying and analyzing risks that could impede the achievement of enterprise objectives; control activities are the policies and procedures that ensure

management directives are carried out; information and communication ensures that relevant information flows in a timely manner both within and outside the enterprise; and monitoring activities are the ongoing or separate evaluations used to confirm the quality of the internal control system's operation over time. These five components form a unified analytical framework that has been widely applied in the empirical studies discussed in the introduction, including studies of SMEs in both Vietnam and Ghana.

2.2 The Concept and Measurement of Corporate Financial Performance

In the empirical studies cited in this paper, corporate financial performance is typically measured through indicators that reflect profitability relative to the resources an enterprise employs, most commonly return on assets, abbreviated as ROA, and return on equity, abbreviated as ROE. In their study of SMEs in Hanoi, To Tam and Tuan (2021) used ROA as the primary measure of financial performance. Using a similar approach, Vu and Nga (2022) measured financial performance through the profitability of manufacturing SMEs using multi-year panel data. The consistent use of indicators based on financial statements helps ensure comparability across the studies synthesized in this paper, and is also well suited to the characteristics of SMEs, which typically lack stock market data from which to calculate market-value-based performance indicators.

2.3 Theoretical Foundations

The paper draws on two theoretical foundations to explain the relationship between internal control systems and financial performance. First, agency theory views internal control as a monitoring mechanism that limits the conflicts of interest and agency costs arising between owners and managers, thereby protecting resources and improving the efficiency of capital use (Jensen & Meckling, 1976). Second, institutional theory suggests that an enterprise's adoption of internal control practices stems not only from internal efficiency motives but also from institutional isomorphic pressures, including coercive pressure from state regulation, mimetic pressure to follow leading firms in the industry, and normative pressure from the accounting and auditing profession (DiMaggio & Powell, 1983). Combining these two theories makes it possible to explain simultaneously the internal and external motives driving SMEs to invest in internal control systems, particularly in the context of Hanoi's support policy, which is itself creating an institutional pressure that encourages the standardization of governance practices.

2.4 Proposed Conceptual Framework

Building on the COSO framework and the two theoretical foundations outlined above, the paper proposes a conceptual framework in which the five components of the internal control system serve as independent variables affecting the financial performance of SMEs, the dependent variable, within the specific research context of SMEs located in Hanoi. This conceptual framework is illustrated in Figure 1, in which each internal control component is hypothesized to have a distinct relationship with financial performance, labeled H1 through H5, providing the basis on which the results of analysis and synthesis in Section 3 compare the degree of consistency of the empirical evidence for each relationship.

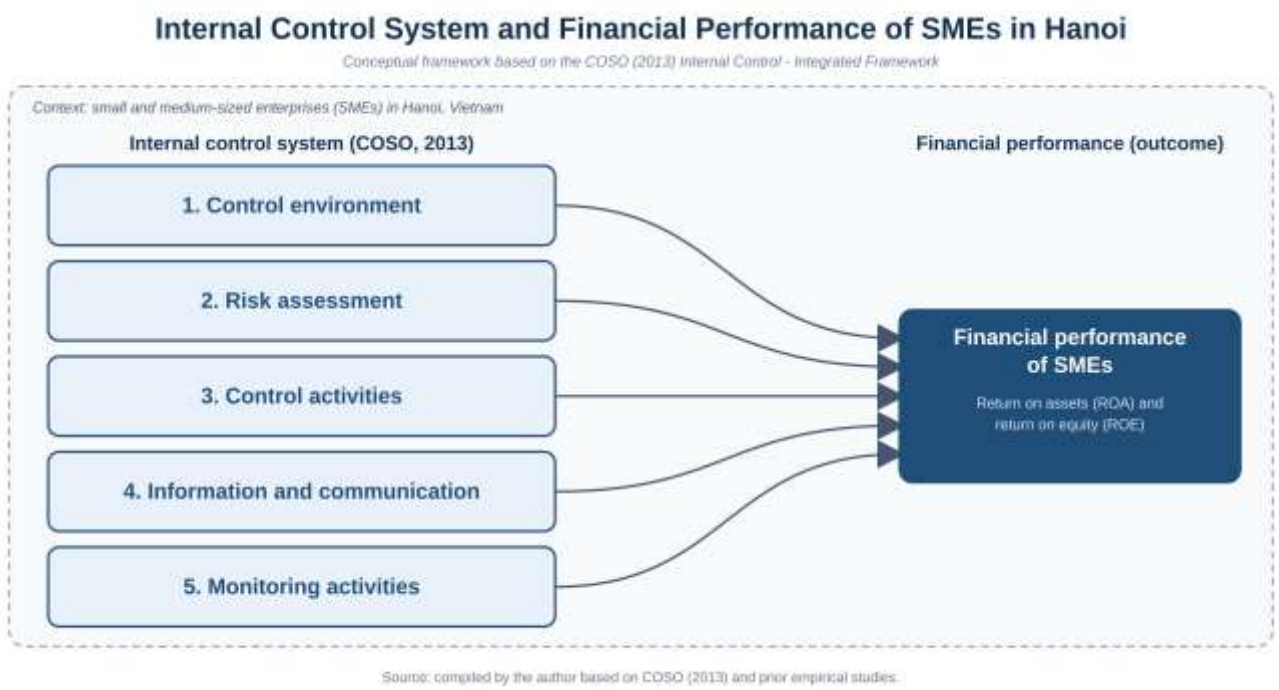


Figure 1. Conceptual Framework of the Relationship between Internal Control Components and Financial Performance of SMEs in Hanoi
Source: Compiled by the author

2.5 Desk Research Methodology

The paper employs a desk research method, guided by Snyder's (2019) methodological guidance on literature review as an independent research method. The process comprises three steps. The literature collection step was carried out across international academic databases, including Scopus, Web of Science, and Google Scholar, combined with domestic Vietnamese databases, using keyword combinations linked to each component of the COSO framework and to the financial performance of SMEs, with publications generally limited to the period from 2015 onward to ensure currency, supplemented by a small number of foundational theoretical works published before this date. The screening step applied exclusion criteria to studies that were not peer-reviewed, that did not fully report their methods and results, or that were not directly related to SMEs. The synthesis, analysis, evaluation, and comparison step was carried out component by component according to the COSO framework, comparing results across the Hanoi context, the broader Vietnamese context, and the international context, in order to determine the degree of consistency of the evidence and to explain the reasons for any divergence, forming the basis for the implications presented in the results and discussion sections of the paper.

3. Results of Analysis and Synthesis

3.1 Control Environment and the Financial Performance of SMEs

Among the five components of the COSO framework, the control environment is the component with relatively the most consistent empirical evidence regarding its relationship with financial performance. In Hanoi, To Tam and Tuan (2021) found that the control environment was the only one of the five components to have a statistically significant positive effect on financial performance, measured by return on assets, among SMEs in the city. This finding is directionally consistent with the study by Adegboyegun et al. (2020) of 120 SMEs in Ondo State, Nigeria, in which the control environment also showed a positive direction of

effect on operating performance, although it did not reach statistical significance in that sample. Musah et al. (2022), surveying SMEs that are members of the Association of Ghana Industries, likewise found that the control environment had a clearly statistically significant positive effect on financial performance. The consistency in the direction of effect across these three different contexts, despite differing levels of statistical significance, is consistent with the agency-theory interpretation presented in Section 2: the integrity and managerial competence of SME owners, who typically hold multiple management roles simultaneously, have a direct and immediate influence on overall governance quality, and thereby affect financial performance even before the more technical control components have been fully established.

3.2 Risk Assessment and the Financial Performance of SMEs

The evidence on the role of risk assessment is considerably more divided than that for the control environment. In Hanoi, risk assessment showed no statistically significant effect on financial performance in the study by To Tam and Tuan (2021). In Nigeria, Adegboyegun et al. (2020) even found a negative, though not statistically significant, direction of effect between improved risk assessment and the likelihood of SMEs achieving high operating performance. By contrast, Musah et al. (2022) found that risk assessment had a statistically significant positive effect on financial performance in Ghana, concluding that SMEs that maintain regular and effective risk assessment tend to achieve higher financial performance. The divergence among Vietnam, Nigeria, and Ghana for this particular component suggests that risk assessment is an activity that requires a certain level of analytical capacity and specialized resources to translate into concrete financial outcomes, whereas most SMEs in developing economies, including those in Hanoi, still tend to prioritize responding to immediate operational issues over building a systematic risk identification process.

3.3 Control Activities and the Financial Performance of SMEs

The empirical evidence on control activities is also not fully consistent. The Hanoi-based study by To Tam and Tuan (2021) found no statistically significant effect of control activities on financial performance. Adegboyegun et al. (2020) in Nigeria, however, recorded the strongest positive direction of effect among the five components for control activities, although it still fell short of statistical significance, and accordingly recommended that SMEs maintain and build on this relative strength. Musah et al. (2022) in Ghana confirmed a clearly statistically significant positive effect of control activities on financial performance. Taken together, the Nigerian and Ghanaian studies point to a broadly similar positive direction for control activities, whereas the Hanoi results do not show a clear relationship. One explanation consistent with the institutional theory outlined in Section 2 is that the degree of coercive pressure to comply with financial and accounting regulations differs across these SME populations, which in turn affects how strongly control policies and procedures are actually enforced in each institutional context.

3.4 Information and Communication and the Financial Performance of SMEs

Information and communication is the component with the most pronounced divergence in findings across research contexts. In Hanoi, this component showed no statistically significant effect on financial performance (To Tam & Tuan, 2021). In Nigeria, Adegboyegun et al. (2020) found a negative, though not statistically significant, direction of effect between improvements in information and communication and the likelihood of achieving high operating performance. In contrast, Musah et al. (2022) in Ghana found that information and communication had a statistically significant positive effect on the financial performance of SMEs. The opposing directions found between Nigeria and Ghana for the same component, with Hanoi occupying a neutral position between them, suggest that the effectiveness of information and

communication depends considerably on the availability of information technology infrastructure and the habitual use of accounting information in decision-making within each market, rather than being an inherent property of the control component itself.

3.5 Monitoring Activities and the Financial Performance of SMEs

Monitoring activities show a similar degree of divergence to information and communication. The Hanoi-based study recorded no statistically significant effect of monitoring activities on financial performance (To Tam & Tuan, 2021). In Nigeria, Adegboyegun et al. (2020) found the largest negative direction of effect among the five components, though again not statistically significant, between improved monitoring activities and operating performance, and accordingly recommended that SMEs address monitoring-related issues systematically based on the actual operating structure of each enterprise. Musah et al. (2022) in Ghana once again found that monitoring activities had a statistically significant positive effect on financial performance. Notably, Musah et al. (2022) also found that corporate governance plays a moderating role that amplifies the effect of internal control components, including monitoring, on financial performance, suggesting that the presence of stronger corporate governance mechanisms among the sampled Ghanaian enterprises may help explain why four of the five components, aside from the control environment, reached statistical significance in that context but not in Hanoi or Nigeria.

3.6 Summary Comparison of Research Findings

Table 1 summarizes the characteristics and main findings of the four empirical studies analyzed in Sections 3.1 to 3.5.

Table 1. Summary of Empirical Research Findings on the Relationship between Internal Control Components and Corporate Financial Performance

Author(s) (Year)	Research Context	Research Method	Main Findings
Adegboyegun et al. (2020)	120 SMEs in Ondo State, Nigeria	Questionnaire survey; logistic regression analysis	No component reached statistical significance; the control environment and control activities showed a positive direction of effect, while the other three components showed a negative direction
To Tam and Tuan (2021)	SMEs in Hanoi, Vietnam	Questionnaire survey; multiple regression analysis with ROA as the dependent variable	Only the control environment had a statistically significant positive effect; the other four components were not statistically significant
Vu and Nga (2022)	Private manufacturing SMEs in Vietnam; panel data, 2011-2015	Panel data analysis	Internal control, measured as a composite index, had a statistically significant positive effect on profitability, operating through reduced bribery and increased formalization of business operations

Musah et al. (2022)	SMEs registered with the Association of Ghana Industries	Questionnaire survey; two-stage regression analysis with corporate governance as a moderating variable	All five components had a statistically significant positive effect; the magnitude of the effect was amplified among firms with stronger corporate governance

Source: Compiled by the author

Overall, the only point of agreement across the four studies is the positive direction of effect of the control environment, while the other four components show inconsistent results across contexts. Notably, when internal control is measured as a composite index rather than decomposed into individual components, as in the study by Vu and Nga (2022) in Vietnam, the relationship with financial performance is clearly positive, suggesting that internal control components may function more effectively when operating together than when their effects are analyzed in isolation.

3.7 The Current State of Internal Control Implementation among SMEs in Hanoi

The synthesized evidence presented above is, to some extent, explained by the current state of internal control implementation among enterprises in Hanoi. A recent study by Nguyen et al. (2025), surveying 150 accountants, auditors, and finance professionals at enterprises in Hanoi, found a clear differentiation in the influence of internal control components on the quality of accounting information systems, in descending order: information and communication, the control environment, monitoring, risk assessment, and, lastly, control activities. This ordering suggests that, in Hanoi, components related to governance culture and information flow receive more attention than components requiring rigorous technical procedures, such as control activities, which is broadly consistent with the limited evidence found for this component in the financial-performance studies discussed in Section 3.3. The same study also identifies several common reasons why SMEs in Hanoi find it difficult to build and operate an effective internal control system, including limited financial resources, relatively low managerial competence, and a shortage of personnel with specialized accounting and auditing expertise. These limitations are directly connected to the four core weaknesses of Hanoi SMEs identified by the city's management authorities in the introduction to this paper, particularly the lack of management experience (Nhân Dân, 2025). This evidence further reinforces the need for the management implications proposed in the discussion that follows, aimed at helping SMEs in Hanoi allocate resources appropriately across the components of the internal control system.

4. Discussion

The synthesized results in Section 3 point to one consistent pattern: the control environment consistently shows a positive effect, holding true in Hanoi, Nigeria, and Ghana alike. The remaining four components do not show consistent results. Risk assessment, control activities, information and communication, and monitoring activities only show a clear effect in Ghana. In Hanoi and Nigeria, these components are largely not statistically significant.

This difference can be explained through the institutional theory presented in Section 2. Musah et al. (2022) show that corporate governance amplifies the effect of internal control components. SMEs in the Ghanaian sample have a stronger corporate governance foundation. This may explain why the remaining four components show a clearer effect in Ghana than in Hanoi and Nigeria. One limitation should be clearly noted. The synthesized evidence in this paper comes from only three emerging economies: Vietnam, Nigeria, and Ghana. The paper does not yet have direct empirical evidence from SMEs in developed economies. However, according to institutional theory, developed economies typically have stronger coercive

pressure regarding auditing and financial disclosure. This pressure may cause the technical components of internal control to be more strictly adhered to, independent of the goodwill of individual business owners. This is a theoretically reasonable hypothesis. It needs to be verified through future empirical research, rather than being a conclusion drawn directly from the data synthesized here. The current situation in Hanoi reinforces this interpretation. Nguyen et al. (2025) show that information and communication, together with the control environment, are the two most emphasized components. Control activities is the weakest component. This is consistent with control activities showing no clear effect on financial performance in Hanoi.

From this, the paper draws two implications. First, for SME managers. Enterprises do not need to wait until all five components are fully established before taking action. The first priority should be strengthening the control environment - specifically, the integrity, managerial competence, and commitment of the business owner. This is a relatively low-cost investment with the clearest evidence of impact. Technical components such as risk assessment, control activities, and monitoring should be added gradually, in line with actual resource capacity.

Second, for policymakers. The Scheme to Support SMEs for the 2026-2030 period sets a target of training 5,000 chief executive officers (Nhân Dân, 2025). The training content should not stop at general management thinking. It should include specific, practical content on control activities and monitoring. These are the two weakest components in Hanoi, according to the evidence presented above. Designing training around actual weaknesses will help the policy achieve greater effectiveness.

5. Conclusion, Limitations, and Future Research Directions

This paper used a desk research method to synthesize, analyze, evaluate, and compare empirical evidence on the influence of internal control systems on the financial performance of SMEs. The results show that the control environment is the only component with relatively consistent evidence of a positive effect, in Hanoi, Nigeria, and Ghana alike. The other four components - risk assessment, control activities, information and communication, and monitoring - show a clear effect only in Ghana. This difference may be related to differing levels of corporate governance quality and institutional pressure across contexts. The current state of implementation in Hanoi shows that control activities is presently the weakest component, consistent with the synthesized results above. On this basis, the paper proposes that SMEs should prioritize strengthening the control environment first, and recommends that the training content under Hanoi's 2026-2030 SME support scheme should focus on control activities and monitoring. The paper has several limitations worth noting. First, the desk research method only synthesizes secondary evidence and does not collect primary data from SMEs in Hanoi. As a result, the paper cannot directly test the causal relationship between individual internal control components and financial performance within this specific research context. Second, the comparative evidence is based on only three countries: Vietnam, Nigeria, and Ghana. This scope is still limited for generalizing to all emerging economies. Third, the synthesized studies use samples, financial performance measures, and analytical techniques that are not fully homogeneous. Methodological differences across the original studies may also contribute to the divergence in results, not solely the contextual factor. Building on these limitations, future research should conduct a direct quantitative survey of SMEs in Hanoi. Such a survey should simultaneously test the five hypotheses proposed in Figure 1, while incorporating corporate governance into the model as a moderating variable, in order to more clearly confirm the explanatory mechanism for the differences identified in this paper.

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