

The Impact of Internal Control Quality on Corporate Performance: Promoting or Inhibiting?

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Abstract

We take the data of 100A-share listed companies in 2011-2021 as the research sample, combine domestic and foreign literature research, use multiple linear regression method, and rely on Stata software to conduct an empirical study on "the impact of internal control quality on enterprise performance: promotion or inhibition?". Research has shown that the quality of internal control in enterprises has a significant promoting effect on the improvement of enterprise performance; Effective internal control measures can enhance the level of enterprise management, standardize business processes, optimize financial performance structure, and promote enterprise development.

Keywords

Internal control quality, Enterprise performance, Enterprise management.

1. Literature Review and Research Hypotheses

1.1. Literature review

Many studies have provided clear viewpoints by searching for domestic and foreign literature related to the topic. Xing Yang believes that the improvement of internal control quality has a significant positive impact on the ESG performance level of enterprises. Ji Jinghua believes that promoting the effective operation of corporate governance structure and internal control quality can improve the financial performance of enterprises. Sun Peiyan believes that internal control is an important mechanism for internal supervision within a company, which can create a reliable internal environment for the operation and management of the company and the increase of enterprise performance. Dale Stoel believed that in market competition, if the effectiveness of internal control quality in a company is unsatisfactory, it cannot be compared to a company with better internal management quality, which will affect the company's performance.

1.2. Research hypotheses

From the definition and connotation of internal control quality in enterprises, internal control can effectively standardize business processes, improve management efficiency, reduce unnecessary waste of funds and other resources in enterprise operation, and at the same time, high-quality internal management can reduce the negative impact of market information asymmetry on enterprise development. The quality of internal control in enterprises has two aspects: internal control objectives and five elements of internal control, which have a profound impact on the operation and management of enterprises. Good and effective internal management can balance the interests and demands of all parties involved in transactions to a certain extent, reduce conflicts in market transactions, and optimize and improve the company's governance structure to achieve better financial performance levels and goals. If an

enterprise has a good and effective level of internal control quality, it will gain an advantage in investment and investment attraction in the market. This represents that the enterprise has a standardized operating model and the ability to respond to market risks, providing a safe and reliable investment environment for market investors, and thereby adding momentum to the development of company performance.

Based on the empirical research on the quality of internal control and corporate performance both domestically and internationally, as well as the definition of internal control and its impact on corporate development, we can make the following assumptions:

H₀: The quality of internal control in enterprises has a significant promoting effect on enterprise performance.

2. Sample Selection and Research Design

2.1. Data sources and sample selection

This paper selects the data of 100A-share listed companies in 2011-2021 as the research sample. The internal control quality index is selected from the internal control index of Chinese listed companies designed and published by Shenzhen Dibo Co. Ltd. The other data comes from the National Security Administration Database (CSMAR). After excluding ST, ST* enterprises, and some missing data values, an analysis value of 80 valid data was formed, and they were truncated.

2.2. Variable selection and definition

(1) Dependent variable. By querying the database, this article selects ROA, which is the net profit margin of total assets of the enterprise, as an indicator to measure enterprise performance, which can objectively reflect the ability of the enterprise to use assets to obtain profits and reduce errors.

(2) Explanatory variables. This article selects the DIB Internal Control Index from the database designed and published by Shenzhen Dibo Co. Ltd. to measure the level of internal control in enterprises. This index comprehensively considers various ratings and five major indicators of internal control in enterprises, and has strong explanatory power and comprehensiveness. Therefore, this indicator is selected to measure the quality of internal control in enterprises.

(3) Control variables. Based on existing research data, this article selects enterprise size (SIZE), asset liability ratio (LEV), company growth (GROW), and operating cash flow (OCF) as control variables. This article uses the natural logarithm of a company's year-end total assets to measure its level of scale. There is research indicating that the asset liability ratio (LEV) has a negative effect on corporate performance (ROA). The asset liability ratio (LEV) reflects a company's debt paying ability. When the asset liability ratio is too high, the company needs to repay too much funds, which greatly affects its financing ability and thus has a negative impact on its performance. The growth of a company is measured by the total asset growth rate. If the total asset growth rate is high, it generally indicates that the company has good growth potential. Internal cash flow will affect the company's management investment. When the company has sufficient available funds, it will consider increasing the investment of management funds. In addition, to eliminate the influence of time, the year is set as a dummy variable.

Table 1. Variable Definition

Variable type	Variable Name	Variable symbols	Variable definition
dependent variable	Enterprise performance	ROA	After tax net profit/average assets

independent variable	Internal control quality	ICQ	The natural logarithm of the DIB internal control index
control variable	Enterprise scale	SIZE	The natural logarithm of the total assets of a company at the end of the year
	Asset liability ratio	LEV	Total liabilities/total assets
	Company growth potential	GROW	(Current year's operating revenue-previous year's operating revenue)/Current year's operating revenue
	Operating cash flow	OCF	Total cash flow from operating activities/total assets
	year	YEAR	If in that year,take 1; otherwise, take 0

2.3. Model design

Based on the theoretical analysis and variable definition mentioned earlier, this article constructs a research framework for the impact of internal control quality on corporate performance. With corporate performance as the dependent variable, internal control quality as the explanatory variable, and corporate size, debt to asset ratio, corporate growth, and operating cash flow as control variables, a linear relationship between the dependent variable, explanatory variable, and control variable is constructed. To empirically study the correlation between them and verify hypothesis H0, this article establishes the following model:

$$ROA_{(i,t)} = \beta_0 + \beta_1 ICQ_{(i,t)} + \beta_2 SIZE_{(i,t)} + \beta_3 LEV_{(i,t)} + \beta_4 GROW_{(i,t)} + \beta_5 OCF_{(i,t)} + \beta_6 YEAR_{(i,t)} + \epsilon_{(i,t)}$$

Where, *I* represents the industry, *t* represents the year, and the coefficient that focuses on examining the quality of internal control in the model β_1 . According to hypothesis H0, the quality level of internal control in a company has a promoting effect on its performance. Therefore, the expected coefficient β_1 is significantly positive.

3. Empirical Analysis

3.1. Descriptive statistical analysis

From the descriptive statistical results in Table 2, it can be seen that the mean value of enterprise performance (ROA) is 0.02, the maximum value is 0.241, and the minimum value is -0.118. From the data, we can see that there is a significant gap in the performance level of Chinese enterprises, with imbalanced development status and uneven development speed. The average internal control quality (ICQ) of enterprises is 6.459, with a maximum value of 6.732 and a minimum value of 5.052. It can be seen that the overall difference is not significant, but there is still room for improvement.

Table2. Descriptive statistical results of variables

Variable	Sample size	Average value	Median	SD	Max	Min
ROA	80	0.0200	0.0220	0.0480	0.241	-0.118
ICQ	80	6.459	6.508	0.227	6.732	5.052
SIZE	80	23.86	23.70	1.649	29.30	19.8
LEV	80	0.570	0.604	0.191	0.918	0.0550
GROW	80	0.0830	0.0330	0.355	3.080	-0.166
OCF	80	0.0720	0.0340	0.329	2.836	-0.658

3.2. Correlation analysis

From Table 3, it can be seen that the correlation coefficient between corporate performance and internal control quality is 0.254, which is significant at the 1% level, with a positive sign and a positive correlation. It indicates that improving the quality and level of internal control in enterprises can effectively promote the improvement of enterprise performance. Therefore, enterprises need to design and implement internal control quality plans that are in line with the characteristics of enterprise operation and management status. If they can be effectively implemented, it will greatly promote the development of the enterprise. At the same time, there is a certain positive correlation between the size and growth of the enterprise and its performance, which is also an important consideration factor in the daily management of the enterprise. The correlation coefficient between corporate debt to asset ratio and corporate performance is -0.277, which is significant at the 5% level with a negative sign. There is a relatively obvious negative correlation, that is, the lower the corporate debt to asset ratio, the better the corporate performance. To maintain the level of corporate performance, it is necessary to control the fluctuation space of corporate debt to asset ratio. The above variable correlation analysis results are consistent with the actual economic situation and our theoretical expectations, and the selection of variable data and indicators has a certain degree of correctness.

Table3. Correlation Analysis Results

Variable	ROA	ICQ	SIZE	LEV	GROW	OCF
ROA	1					
ICQ	0.254***	1				
SIZE	0.130**	0.274**	1			
LEV	-0.277**	-0.107	0.567***	1		
GROW	0.039*	-0.018	-0.222**	-0.140	1	
OCF	-0.217	0.002	-0.0840	0.0340	-0.252**	1

In order to ensure the stability of model fitting, we conducted a multicollinearity test on the model, and the maximum value was 1.700. The overall VIF value was less than 2. The test results met the requirements of a maximum value less than 10 and an average value greater than 1, indicating that subsequent model settings and tests can eliminate the interference of multicollinearity.

Table4. VIF multicollinearity test

Variable	VIF	1/VIF
SIZE	1.700	0.589
LEV	1.490	0.669
GROW	1.150	0.869
OCF	1.110	0.904
ICQ	1.100	0.912
Mean	VIF	1.310

3.3. Regression analysis

From the analysis of the regression results, it can be seen that the regression coefficient between the quality of internal control and corporate performance is 0.142, which is significant at the 1% level, with a positive sign and a positive correlation, in line with assumptions and expectations. This indicates that designing and improving internal control standards can

effectively promote the improvement of corporate performance and high-quality development. This requires enterprises to strengthen internal management, establish and implement effective internal control measures, use enterprise systems for real-time monitoring, rely on strong rule constraints to enhance the awareness of internal control quality, improve the level of internal control quality, and pay attention to the reasonable use of funds, reduce the debt ratio of enterprises, improve the availability of funds, and minimize the control effect of negative factors affecting enterprise performance.

Table 5. Regression Results of Internal Control Quality and Performance in Enterprises

variable	ROA
ICQ	0.142***
	0.017
SIZE	0.012***
	0.003
LEV	-0.135***
	0.002
GROW	0.006**
	0.01
OCF	0.041***
	0.006
Constant	-0.467***
	0.086
Observations	80
Adjusted R-squared	0.266
FirmFE	YES

3.4. Robustness testing

In order to enhance the persuasiveness and reliability of the regression results of the model, this article selects the Tobin Q index as a replacement variable for the dependent variable to conduct robustness tests on the model. Through comparison, it was found that the replaced results are generally consistent with the original results, indicating that the selection of data and the setting of the model in this article are more appropriate, and the empirical results are more reliable.

4. Conclusion and Inspiration

4.1. Conclusion

This article, based on the above empirical research, shows that for enterprises, a high-quality level of internal control can not only optimize the internal management structure and monitor the implementation of projects, but also greatly promote the development of enterprise performance. The improvement of internal control level can drive coordination among various departments of the enterprise, ensure the orderly development of various businesses, standardize business processes, and improve employee work efficiency, reduce unnecessary expenses and waste of resources. At the same time, it also plays an irreplaceable role in the management of funds and financial supervision of enterprises. By establishing standardized management regulations, enterprises can make reasonable use of funds and effectively manage

them, avoiding unnecessary waste of funds. Accurate financial information and good financial condition have great reference value for the operation and decision-making of enterprises. Therefore, improving the quality of internal control in enterprises is conducive to improving the quality of business decision-making and thereby enhancing the performance of enterprises.

4.2. Inspiration

(1) Create a good internal control environment and strengthen the overall coordination of the internal control system. Firstly, creating a good control environment within the enterprise is a challenging task. The business of the enterprise is mostly complex, and it is not easy to achieve effective control and supervision at every stage of the project. For different projects, different control plans need to be developed, and the workload is both complex and disorderly, which is prone to errors. In response to this phenomenon, Enterprises should combine key control with general control to break down the workload of internal control. Key control should be adopted for core business and projects, with targeted and conscious investment of funds and other resources in some key links, to ensure that key problems can be perfectly solved without affecting the overall progress and development of the project. Secondly, specialized management should be carried out for personnel and financial aspects of these projects, to ensure the stability of project implementation. Implement general control over the general and less urgent business of the enterprise, reduce the number of related positions, and improve the efficiency of resource utilization. In internal control management, it is necessary to adhere to the principle of coordinating responsibilities and positions, and implement the internal control system of the enterprise.

Strengthening the overall coordination of internal control in enterprises refers to implementing a closed and integrated model from business processing to financial accounting, ensuring that internal control measures can fully cover the business processes of the enterprise. In the early stage of control, do not overly rely on bank loans, seek multiple financing channels, broaden multiple financing channels, and improve the ability of the enterprise to cope with funding risks in the development process. In the later stage, financial accounting should be considered as a part of departmental and employee performance evaluation, to enhance employee participation and depth, strictly implement financial accounting standards, and prevent the occurrence of distorted and fraudulent behavior. Finally, while standardizing business processes to enhance the level of internal control through external incentives, attention should also be paid to internal factors, namely the motivating effect of internal control culture in the enterprise. It is necessary to consciously promote and output relevant aspects of culture in the enterprise, improve employee awareness of internal control management, ensure the implementation of internal control systems, and improve the effectiveness of internal control.

(2) Improve financial control and evaluation system, enhance financial process management level. If a company wants to improve its internal control level, it has to start with financial management, which is the most crucial aspect of enterprise management. Financial management plays a very important role in the business decision-making of enterprises, and is an important reference basis for enterprises to participate in market activities. Therefore, by improving the internal financial control and evaluation system of enterprises, the authenticity and effectiveness of financial information can be guaranteed, avoiding misleading information on business decision-making and causing losses to enterprises. In enterprise financial management, comprehensive budget management measures can be introduced to strengthen the security of the use of enterprise financial funds, ensure the independence of the finance department in handling financial issues, enhance the strategic level of internal financial management, focus on the unified and coordinated development of financial management and internal control, continuously optimize the enterprise financial management process, improve

business processing efficiency, and reduce unnecessary waste of financial resources, Improve the efficiency and flexibility of corporate financial work.

(3) Improve the level of internal control informatization construction and optimize the internal control management structure. Information is an important mechanism to guide enterprises in conducting market activities. While improving internal control levels to adapt to the operational risks brought about by market changes, enterprises should also pay attention to the introduction of internal information systems, establish specialized information control systems, and strive to achieve comprehensive supervision and management of business in various departments of the enterprise. In addition, intelligent technology can be introduced to intelligently process general and simple tasks in enterprises. On the one hand, it can improve the efficiency of enterprise work, and on the other hand, it can optimize the capital structure of enterprises, reduce management expenses, and improve management efficiency. In the process of information management, it is also possible to rely on internet big data to standardize various data and information of enterprises, develop unified measurement standards, and achieve the feasibility of free flow and dissemination of information resources in enterprise management, improve the degree of information sharing. At the same time, establish a unified platform for information sharing, build specialized risk analysis and management indicators, and intelligently analyze the sorted information, Based on the analysis results, formulate corresponding enterprise development plans and decision-making directions, reduce the impact of market risk information deficiency on enterprise management, and reduce potential internal control issues.

(4) Train high-quality employees and establish a professional team. The above three points all illustrate the ways to improve the quality of internal control from the external conditions of enterprise management, but ultimately, it is still human control and human management. Promoting and cultivating the awareness of internal control among enterprise employees is one aspect, and how to train employees to master internal control technology is a more important task. Enterprises should embrace all kinds of challenges and openly recruit outstanding technical talents from the whole society. They should be able to apply these technologies to internal management, build a high-quality and technical internal control team, and carry out training activities on relevant business processes. They should focus more on how to efficiently handle work and add momentum to the development of the enterprise. On this basis, enterprises should strengthen the management of internal personnel, introduce new incentive methods, implement performance evaluation systems, reward and punish personnel based on performance results, improve the enthusiasm of participating personnel, ensure the consistency of internal control team goals, enhance enterprise cohesion, and effectively play the role of internal control system in promoting enterprise performance development while doing their own job well.

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