

# Full Coverage of Internal Audit Based on Value Chain Analysis

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**Abstract:** In order to adapt to the requirements of corporate governance, internal audit must enhance its value and innovate itself to meet new challenges. The value of internal audit mainly lies in the improvement of internal value rather than the improvement of quantitative value. The improvement of internal audit value must be aimed at risk management and internal control. The core of internal audit innovation is the innovation of audit concept and audit thinking mode, and the basic foothold should be on the innovation of audit content, which is the full coverage of internal audit. Full coverage of internal audit refers not only to the full coverage of the audited entity, but also to the full coverage of the audit content. Internal audit should not only be limited to the flow of funds, but should jump out of the small circle of financial audit and march into the decision-making audit and strategic audit. The scope of internal audit must be extended to all aspects of enterprise economic activities. Full coverage of internal audit requires that internal audit must be value-added internal audit aimed at increasing enterprise value, which is value chain audit. Based on the value chain analysis as the breakthrough point, putting the internal audit activity into the organization's value chain, the author put forward that the tentacles of the internal audit should be thoroughly all the value chain analysis, and according to the type of cost drivers respectively constructed three kinds of value-added internal auditing mode, the structured audit mode, process-based audit model and nodal audit model.

**Keywords:** Internal Audit, Value-added, Full Coverage, Value Chain, Corporate Governance

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## 1. Introduction

With the continuous development of economic globalization, the internal audit has entered a new stage of development at the beginning of this century — the stage of value added. The contents and objectives of internal audit need to be continuously and reasonably expanded on the basis of the traditional contents and objectives of audit. Internal auditors should establish a good partnership with the management to keep up with the market demand and provide valuable services to the organization [1, 2]. Internal audit should start with risk management, internal control and corporate governance, and ensure that potential risks of the organization are exposed by evaluating and improving the risk management, procedures of control and governance. Its purpose is to add value to the organization and improves its operational efficiency.

It can be seen that the internal audit has been expanded to comprehensive audit management including risk management,

internal control and corporate governance to achieve the new functions of value added. The value-added function of internal audit should have a positive impact on corporate governance and add value for the organizations [3]. Subsequently, value-added internal audit has become the focus of the industry, and the function positioning of internal audit has gradually changed from "supervision oriented" to "value added".

It is generally believed that the value-added approach of value-added internal audit can be carried out from the two aspects of maximizing the revenue for the organization and minimizing the cost of internal audit. The former mainly includes three aspects: improving internal control by evaluating control, inspecting and evaluating management risks and supervising and evaluating the implementation of corporate governance.

In recent years, the development of international internal audit is very rapid. There are many researches on value-added internal audit, but few of them combine with the

value chain analysis. For the full coverage of internal audit, there is much discussion on the full coverage of the audited entity, but rarely on the full coverage of the audit content. Based on this, this paper analyzes the significance of internal audit covering all economic activities of an organization from the perspective of corporate governance, and further studies the organic combination of value-added internal audit and full coverage of internal audit from the perspective of value chain analysis.

## **2. Full Coverage of Internal Audit from the Perspective of Corporate Governance**

### ***2.1. Adapt to the Requirements of Corporate Governance, Enhance the Value of Internal Audit***

With the continuous strengthening of corporate governance by modern enterprises, the goal of internal audit is gradually consistent with the goal of corporate governance, which aims to increase enterprise value. With the deepening and changing understanding of the role of internal audit, the role of internal audit in corporate governance is gradually strengthening [4]. In order to adapt to the requirements of corporate governance, internal audit must enhance the value of internal audit and drive internal audit innovation, so as to better perform the responsibilities of internal audit. The value of internal audit mainly lies in the improvement of internal value rather than the improvement of quantitative value. The improvement of internal audit value must be aimed at risk management and internal control. The self-innovation of internal audit can be mainly reflected in two aspects. One is the transformation of internal audit function from the traditional supervision function to evaluation, consultation and decision-making support. Another is the expansion of the scope of internal audit. That is the comprehensive coverage of internal audit objects, so the added value of internal audit can be reflected in all departments of the organization [5, 6].

In order to better adapt to the needs of corporate governance, internal audit should focus on "three changes". First of all, the function of internal audit should be transformed from the traditional function of preventing and correcting errors to the active and constructive function of avoiding risks, evaluating and consulting. Secondly, the focus of internal audit should change from financial revenue and expenditure audit to value-added management audit, especially decision-making audit. Internal audit should take increasing enterprise value as the audit concept and change from simply emphasizing independence to actively pursuing value-added. Finally, internal audit should be transformed from post-supervision to in-process audit and pre-audit, so as to better play the evaluation and consultation functions of internal audit.

Traditional audit tends to pay too much attention to compliance audit, which limits the play of value-added functions of internal audit [7, 8]. With the change of

enterprise operating environment, the multiple functions of internal audit are changing from traditional financial audit to value-added audit [9]. As an important part of corporate governance, internal audit can add value by both its guarantee and advisory functions [10-12].

The essence and purpose of internal audit innovation is to improve the value of internal audit, and to further promote internal audit work to keep pace with the times through audit innovation. Internal audit innovation covers a wide range of contents and its core is internal audit concept innovation and internal audit thinking mode innovation. The basic foothold should be placed in internal audit content innovation, namely, the full coverage of internal audit.

The internal audit gradually shows the characteristics of expanding audit scope, extensive audit content, diversified audit methods, modernized audit means and comprehensive audit ability. The innovation of internal audit concept and internal audit thinking mode is particularly important, and it is necessary to further expand the scope of internal audit and reconfigure internal audit resources. It is urgent to improve the status of internal audit in corporate governance structure and further plays its powerful role in corporate internal governance. The content of internal audit should also be further expanded to the whole scope of internal economic activities of enterprises, and the limitation of compliance audit and financial audit should be broken through. And internal audit content gradually transforms to the new direction of control as the main line, risk-oriented and value-added for the purpose.

### ***2.2. Full coverage of Internal Audit Content Under Corporate Governance***

The so-called full coverage of audit generally refers to the comprehensive coverage of audit objects in a dynamic sense. The audit object includes the entity and content to be audited. The audited entity refers to audited units, and the audited content refers to economic activities. The full coverage of internal audit refers to not only the full coverage of the audited entity, but also the full coverage of the audit content.

With the continuous expansion of modern internal audit functions, the traditional function of simple supervision to check mistakes and prevent abuses has been unable to meet the needs of the development of corporate governance. The internal audit function is shifting more towards participation in management consulting, which is the need to enhance the value of internal audit, at the same time it is the inevitable needs of modern enterprise development. Internal audit should not be limited to the flow of cash, but should jump out of the financial circle and march towards decision-making audit and strategic audit. The tentacles of internal audit must extend to all links inside the enterprise, and the scope of internal audit should involve all aspects of enterprise economic activities. It can be said that where there are economic activities, there must be internal audit.

The object of traditional audit is often limited to the scope of capital movement. The appearance of operation audit, management audit and performance audit makes the

extension of audit gradually expand. Internal audit should constantly adapt to the new requirements of corporate governance, broaden audit vision and innovate audit methods to improve the quality of audit work. In order to meet the requirements of internal control and risk management, the depth and breadth of internal audit has been increasing. On the basis of financial audit and compliance audit, internal control and risk management audit are constantly promoted. The idea of performance audit should be established to promote the extension of internal audit to management benefit audit.

To implement the requirement of full coverage of internal audit under corporate governance, it is necessary to further integrate internal audit resources, improve internal audit methods, increase the strength of internal audit, clarify the focus of internal audit, and constantly improve the quality and level of internal audit. In order to achieve the full coverage of internal audit with "depth, focus, steps and effectiveness", internal audit should conform to the development of corporate governance, and maintain a high degree of consistency with enterprise objectives in functions and scope of internal audit.

The goal of internal audit must be consistent with the goal of the enterprise, which is also the requirement of corporate governance. The internal audit department should not only provide audit opinions or suggestions to ensure the effective implementation of corporate strategy and promote the internal compliance and effective operation of enterprises, but also provide effective management advice and consultation for the management of enterprises. The direction and emphasis of internal audit development should be decision-making audit and strategic audit.

To adapt to the development direction of corporate governance, internal audit should be a value-added internal audit aimed at increasing enterprise value. More and more scholars have found that internal audit can add value and have begun to study the value-added approaches of internal audit from different perspectives [13-15]. Modern internal audit has been expanded to integrate internal control review, risk management and corporate governance of the trinity of comprehensive management audit, and has realized new functions of value added. It is generally believed that value-added internal audit mainly obtains value-added approaches from maximizing the revenue for enterprises. This mainly includes the evaluation and improvement internal control, inspection and evaluation of management risk, supervision and evaluation of the implementation of corporate governance and so on.

### **3. Value-added Internal Audit Based on Value Chain Analysis**

#### **3.1. Value Chain Analysis and Internal Audit**

Since value chain was first put forward by Michael E. Porter, a famous strategist of Harvard Business School in the 1980s,

both theoretical and practical circles have paid more attention to it. When we study the internal audit activities, it is necessary to stand in the height of the value chain and deeply explore the important and indispensable role of internal audit activities in the whole value chain. Internal audit in the value chain is not only a supervisory security mechanism, but also an irreplaceable link that can increase the value of the organization. Its service object is not only related to a single link in the value chain, but should play a very important role in the whole value chain, which is very significantly different from other auxiliary activities in the value chain.

The core of the value chain analysis is the analysis of operations, which should be divided into value-added operations and non-value-added operations. Improving the performance of operations requires eliminating non-value-added operations and optimizing value-added operations.

The value chain is a complete chain, and all the functional activities of the organization are the key nodes in the value chain, which plays an important role in the value increment of the organization. Internal auditors are familiar with the organization's value creation process and are therefore ideal consultants for improving organizational processes. The improvement of internal processes will also have a positive impact on external suppliers and customers, so internal audit can also add value to external parties. It can be seen that internal audit has a considerable influence not only on the internal value chain but also on the industry value chain, so it has a very important position.

Through the various business processes in the organization value chain in the process of risk management, internal auditors can identify to a certain extent affect organizational goals of all kinds of system risk and non-system risk, then provide professional confirmation on the effectiveness of internal control system, the key control points, the weak link of control, the feasibility of governance and improvement measures.

The fundamental purpose of various activities carried out by economic organizations is to seek the maximization of organizational value. And all basic functional activities of organizations can be regarded as value-added activities. According to the theory of value chain, only the departments that can bring value increment are necessary to exist in one organization. Therefore, internal audit as a control link of organizational management must adapt to such requirement and provides value-added services for the organization. Internal audit itself should and must be a value-added activity, which can be fully reflected in the evaluation of internal control, management risk and corporate governance.

The most remarkable characteristic of modern internal audit is that the internal audit changes from financial audit to value-added audit. The goal of traditional internal audit is mainly to check the errors and cheat proof to play its protective and restrictive role. Its audit object is mainly the audited unit's financial activity of income and expense. The purpose is to evaluate and judge the audited unit's accounting documentation and the authenticity, legitimacy of its reflected

economic activities. The post-audit, which focuses on the financial audit and aims to check the errors and cheat proof, cannot directly improve the competitiveness to increase the value of the organization, and easily leads the internal audit department to pay too much attention to some trivial details and ignore the main risks. If defensive services continue to be regarded as the sole function of internal audit and fail to be moved in the direction of constructive services, it will result in an organization missing all opportunities for improvement and losing its capacity for sustainable development.

Therefore, modern internal audit should focus on management audit and benefit audit, and place emphasis on constructive audit to improve management efficiency and increase organizational value.

### ***3.2. New Idea of Internal Audit Based on Value Chain Analysis***

Value-added internal audit is the internal audit that can add value to the organization. It realizes the added value of the organization by participating in corporate governance, evaluating and improving the internal control of the organization, improving the risk management of the organization, and strengthening the assurance service.

Internal audit should realize value-added not only in the field of corporate governance and risk management, but also in the field of strategic management. As a decisive factor in the creation of corporate value, corporate strategy can have a significant lasting impact on corporate value and promote corporate value in the long run. Internal audit should focus on its value in strategic management to ensure that strategies can be reasonably formulated and implemented effectively, then helping the company to cultivate core competitiveness and realize value added.

The transformation from operational audit to strategic audit is one of the ten trends in the development of internal audit. Modern internal audit must focus on strategic audit. The implementation of strategic audit can improve the efficiency of strategic decision-making and strategy implementation, and can further improve the corporate governance structure and give full play to the function of internal audit to realize the value-added of organizational value. Strategic audit is an important tool for corporate strategic control and evaluation. Its audit object involves the whole process of corporate strategic management, including the formulation and implementation of strategy.

Strategic value chain analysis needs to understand not only the position of the company in the whole industry value chain, but also the value chain of competitors to identify the opportunities and challenges we face. At the same time, we should study deeply the internal value chain of the company and try to eliminate non-value-added activities to reduce costs.

Internal audit is to disassemble all value chain activities to maximize value chain optimization. In the elimination of non-value-added activities and optimization of value-added activities, the unique independence of internal audit can avoid the spread of departmentalism.

Obviously, the tentacles of internal audit should go deep

into the whole value chain analysis, but the value chain audit is different from the value chain analysis of business departments, which reflects the detached independence of internal audit. In a sense, we can even directly say that value-added internal audit is the audit of the value chain.

### ***3.3. The Construction of Value-added Internal Audit Mode Based on Value Chain Analysis***

The precondition of value-added internal audit based on value chain analysis is operation analysis and value evaluation. Value chain analysis regards an organization as a series of interrelated value activities, that is, value chain. In the view of value chain analysis, every economic activity of an organization is a value activity. The chain formed by the orderly arrangement of various economic activities of the organization is a kind of operation chain from the form, and a value chain from the inner understanding. Operation analysis is to recognize the organization's working process, then find opportunities and ways for continuous improvement. The main content of operation analysis includes analyzing and evaluating operation, improving operation and eliminating non-value-added operation. Value evaluation takes activities as the evaluation object. On the one hand, it evaluates the benefits of activities, and on the other hand, it evaluates the risks of activities. It judges the value of activities by considering both benefits and risks comprehensively, laying a foundation for the construction of value chain.

From a value chain perspective, each value-creating activity has a unique set of cost drivers. Cost drivers can be divided into two levels: One is the cost drivers related to the specific production activities of the company at the micro level, which are the factors driving daily operational costs, namely the cost drivers of operational activities, including the number of parts, times of transport, product quantity, customer order quantity, returned product quantity and so on. Second, cost drivers at the strategic level, such as company scale, technological diversity, quality management, etc. Most of these cost drivers are intangible, and are mainly considered from the macro perspective of the overall strategy of the organization, which means strategic cost drivers. It can be divided into structural cost drivers and executive cost drivers.

Therefore, we can construct three modes of value-added internal audit according to the types of cost drivers: namely, structured audit mode, process-based audit mode and nodal audit mode.

#### ***3.3.1. Structured Audit Mode Based on Structural Cost Driver Analysis***

Structural cost driver is the cost driving factor that determines the basic economic structure of an organization. It is the basic choice about the operation strategy, operation scope and technology adopted of an organization. Based on this, structured audit mode is a strategic evaluation of the whole value chain activities, which can be regarded as an important tool for strategic control and evaluation of the organization, and can be used to evaluate the management performance of the organization.

This kind of audit mode mainly focuses on realizing value-added in the field of corporate governance, and it is oriented to the management activities at the highest level inside the organization. It is a kind of management audit with a holistic view of the company, which can provide a comprehensive evaluation for the strategic situation of the company. It can impose constraints on the board of directors and the management at the same time. Therefore, the internal audit department should have a high enough organizational status, authority and independence. For example, the independent director of the company can be responsible for execution. At the same time, internal auditors must have higher quality, receive more training and have rich experience.

### ***3.3.2. Process-based Audit Mode Based on Execution Cost Driver Analysis***

Execution cost drivers refer to the cost drivers associated with the execution of operational procedures by the organization, which is a choice of processes and activities of the organization. Executive cost drivers are established after the structural cost drivers are determined. It usually reflects how the business and management decisions of an organization achieve the strategic objectives by using resources efficiently. Process-based audit mode achieves value-added mainly through accelerating the response speed of value chain and improving the operation efficiency of value chain.

This kind of audit mode mainly realizes value-added in the field of risk management. Risk-oriented value chain audit should pay more attention to the appropriateness of risk management program design before the occurrence of economic activities, the effectiveness of risk management implementation during the occurrence of economic activities, and the rationality of dealing risk loss after the events. Meanwhile, the key value points of the business should be identified, including the activities with large amount of money, high risk and key position in the value chain, as well as the activities that have a certain bottleneck effect on the whole value activities.

### ***3.3.3. Nodal Audit Mode Based on Operational Cost Driver Analysis***

Operational cost drivers are the amount of work (activity) performed to meet customer needs, and are the cost drivers related to the specific production activities of the company at the micro level. This kind of audit mode is mainly to achieve organizational value increment through evaluating and improving the internal control of the organization.

This audit mode requires to disassemble all the value chain activities, finds out the key nodes and optimizes the value chain to the maximum, eliminates all the non-value-added activities as far as possible, at the same time makes the value-added activities achieve the optimal efficiency, so as to eliminate the non-value-added costs.

The essence of the above three audit modes has no change, but still reflects that internal audit adopts systematic and standardized methods to evaluate risk management, control

and governance procedures, so as to improve operational efficiency, increase organizational value and achieve the goal of maximizing organizational value.

## **4. Full Coverage of Internal Audit Based on Full Value Chain Analysis**

Internal audit is an irreplaceable and important link in the value chain that can increase the value of an organization. It plays a quite important role in the whole value chain. Internal audit can increase the value of the organization. In order to truly realize this goal, it is not only the value activities of the single chain of the internal audit department, but also the components of the value chain of both the audit subject and object, and even the multiple parties. Through a series of organic integration and harmonious interaction, the benign development of each chain can be coordinated, so as to maximize its value efficiency. The three audit modes of structured, process-based and nodal are standing at the value chain level to promote the smooth operation of the value chain, so as to play a positive value-added role of internal audit in the value chain of the organization, making beneficial contributions to the realization of the goal of maximizing the value of the organization.

Modern internal audit should be a value-added internal audit that can add value to enterprises. It can evaluate and improve the internal control of enterprises, integrate risk management and corporate governance to realize the value-added of enterprise value. In addition to realizing value increment in the field of corporate governance and risk management, it is more important to focus on realizing value-added value in the field of strategic management. As a decisive factor of value creation, enterprise strategy can have a significant and lasting impact on enterprise value and can improve enterprise value in the long run to realize the value increment. The full coverage of internal audit should also focus on the development of strategic audit and reflect its own value in strategic management to help enterprises to cultivate core competitiveness, ensure that the strategy can be reasonably formulated and effectively implemented to realize the value added of enterprises.

The full coverage of internal audit under corporate governance must focus on strategic management audit, through the implementation of strategic management audit to improve the efficiency of strategic decision-making and strategy implementation, then to realize the value added of enterprises. Strategic management audit as an important tool of enterprise strategic control and evaluation, its audit object should include the formulation and implementation of strategy. That is to cover the whole process of enterprise strategic management.

Internal audit should carry out comprehensive coverage of the entire value chain analysis, and integrate all value chain activities to maximize value chain optimization. In the elimination of non-value-added activities and optimization of value-added activities, the unique independence of internal

audit can avoid the spread of departmentalism. Internal audit should be an important link in the value chain that can increase the value of enterprises. It plays an important and irreplaceable role in the whole value chain.

## 5. Conclusion

In order to adapt to the requirements of corporate governance, internal audit must enhance its value and innovate itself to meet new challenges. The function of internal audit has been transformed from traditional supervision to service functions such as evaluation and consultation. The scope of internal audit should be extended to cover all the objects of internal audit. To implement the requirement of full coverage of internal audit under corporate governance, it is necessary to further update the concept of internal audit, expand the scope of internal audit, innovate internal audit methods and integrate internal audit resources, constantly improve the internal audit quality and level to achieve full coverage of internal audit with "depth, focus, steps, effective". The objectives of internal audit must be highly consistent with the objectives of the enterprise. Internal audit cannot be divorced from the daily activities of the enterprise, which is also the requirement of corporate governance. Internal audit must be value-added internal audit aimed at increasing enterprise value and its tentacles must go deep into the analysis of the whole value chain. Value-added internal audit can also be said to be value chain audit.

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