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Analysis of Internal Control Management of Construction Enterprises Based on Risk Management Theory

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Abstract: *In China's construction industry, the importance of construction enterprises is self-evident. They shoulder the construction tasks of various work items. At the same time, the construction scenarios faced by construction enterprises are complex and diverse, which makes construction enterprises have to deal with various risks and difficulties in business management. It can be seen that only based on the risk management theory can the construction enterprises scientifically and reasonably aim at the problems existing in the current internal control link, continuously strengthen the internal control of enterprises, and control and respond to various risks faced by enterprises in the construction link.*

Keywords: *Risk management; Internal control; Construction enterprises; Construction project*

1. Introduction

In traditional construction enterprises, internal management is based on accounting control. However, with society's development, enterprises' internal management has changed. It is no longer limited to accounting control but the control of the overall business of enterprises. However, it is worth noting that in the process of development of construction enterprises, how to deal with and solve various risk problems encountered by enterprises is the primary problem that enterprise managers must attach importance to and face.

2. Theoretical Basis

2.1. Risk Management

Risk management refers to minimizing the possible negative impact of the risks faced in a project or enterprise. Risk management includes risk measurement, risk assessment, and risk response, as demonstrated in Figure 1. Under ideal conditions, when conducting risk management, the risk value should be ranked from high to low, and the risk with the greatest possible negative impact should be dealt with first, so as to minimize the damage of various risks faced [1].

Figure 1: Risk management

2.2. Internal Control

The purpose of internal control is to improve the economic benefits of enterprises, ensure the

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authenticity and reliability of enterprise information data, enhance the quality of enterprise business activities, etc. [2]. In a word, internal control is to serve the business objectives of enterprises, as demonstrated in Figure 2.

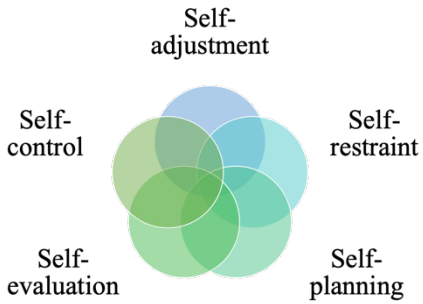

Figure 2: Internal control

2.3. Relationship between Risk Management and Internal Control

In enterprise operation and management, risk management and internal control are just like "left hand" and "right hand", both of which serve for enterprise operation and management, and the relationship between them is very close [3]. Facing all kinds of potential risks in operation and management, in order to ensure the sustainable development of enterprises, enterprises need to scientifically and reasonably deal with and solve these potential risks. Therefore, in the process of managing and controlling these risks, risk management and internal control are the main links, which can also be considered as a whole. Under the guidance of risk management theory, enterprises carry out internal control; Before carrying out risk management, enterprises must strengthen internal control, so as to give full play to the positive role of risk management, as illustrated in Figure 3.

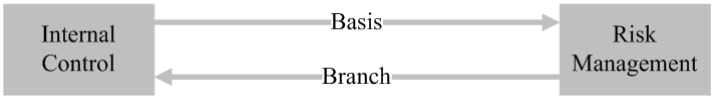

Figure 3: Relationship between risk management and internal control

3. The Significance of Internal Control Management of Construction Enterprises Based on Risk Management Theory

Internal control should be regarded as a kind of management work, which is restricted and influenced by many parties, such as members of the board of directors, management personnel and other employees. Risk management refers to the enterprise's response to and solution to the possible risks according to the established business objectives.

Under the guidance of risk management theory, enterprises should objectively analyze their internal business processes, identify potential risks in a timely manner, evaluate the extent of possible damage caused by potential risks, and then analyze and design an internal control system architecture that conforms to their own conditions [4]. As a high-risk industry, construction enterprises often have various quality and safety accidents in the project construction stage. At the same time, with the accelerating process of urban modernization, the risk factors faced by construction enterprises are increasing. Therefore, building an internal control system based on risk management theory is of positive significance for the long-term development of construction enterprises.

4. Specific Strategies for Internal Control Management of Construction Enterprises Based on Risk Management Theory

The main stages of the construction project are composed of four parts, namely, contract signing, preliminary planning, project construction and project completion. Among these four parts, the core part is the engineering construction link, in which the internal control work of the enterprise is mainly carried out, and this link is also the link most likely to cause safety accidents [5]. Therefore, the author takes the engineering construction link of the construction enterprise as the research object, and starts from the risk management theory, analyzes the specific strategies for constructing the internal control management

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system of the construction enterprise, as shown in Figure 4.

Figure 4: Specific strategies for internal control management of construction enterprises based on risk management theory

4.1. Objectives and Objects of Internal Control

In the construction stage, internal control belongs to process control, and its control object is all business activities in the process from the beginning of construction to completion. Therefore, in the construction stage, the internal control should not only follow the overall business objectives of the construction enterprise, but also pay attention to the following four aspects.

First, the investment amount shall not be higher than the price agreed in the contract. In the construction process, the construction enterprise must effectively control the amount invested in the construction project, avoid the actual construction costs higher than the amount specified in the contract, such as project cost, cost changes, etc., and reduce the construction costs on the premise of ensuring the construction quality [6].

Second, the construction progress should follow the duration agreed in the contract. In the construction link, the construction progress is an important factor. If the construction progress cannot be effectively controlled, it will have a negative impact on the construction project. If the construction progress is too fast, project quality problems or safety accidents are likely to occur; If the construction progress is too slow, it will consume too much time and human resources, even lead to high construction costs, and may lead to the payment of huge compensation for exceeding the duration agreed in the contract. Therefore, construction enterprises must monitor all construction tasks in real-time to ensure that each construction link is completed within a reasonable time so as to ensure that the overall progress of the construction project can meet the duration agreed in the contract.

Third, the construction quality meets the acceptance specifications in the contract. In the construction stage, the enterprise should strengthen the review of all aspects of the construction work, such as the qualification of construction personnel, the quality of construction materials, the quality of construction machinery, etc., and strengthen the strict management of each factor that may have an impact on the construction quality, so that the final project construction quality meets the acceptance specifications agreed in the contract.

Fourth, ensure construction safety. In the construction stage, enterprises should put safety first, establish a responsibility system for construction safety production, strictly check the safety of construction facilities, and formulate scientific and reasonable construction objectives to ensure the smooth completion of the construction stage [7].

4.2. Potential Risks of Internal Control

In the construction stage, the internal risks faced by enterprises mainly consist of four parts.

First cost risk. The cost of the construction enterprise includes not only the subcontract payment, material cost and labor cost, but also the machinery cost and management cost. In the construction process, due to the complexity of various expenses, the cost of engineering projects is often higher than the budgeted cost. The main reasons are that the cost has not been scientifically and reasonably budgeted, and the construction cost has not been effectively controlled in the later period. The weak supervision of construction materials leads to excessive use of construction materials, and different technical water bubbles of construction personnel lead to different use of resources.

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Second, quality risk. In the construction process, some enterprises blindly pursue fast construction progress and low construction cost without paying attention to construction quality. At the same time, in the construction stage, there is often the phenomenon of loss and replacement of construction personnel. Different construction personnel have different technical levels and may have problems in the handover link, which makes the construction quality difficult to meet the requirements specified in the contract.

Third, security risks. In the construction stage, some construction enterprises do not pay enough attention to safety management issues, and even have a fluke mentality, so they ignore the safety risk control of the construction project and do not protect the construction site in place, leading to potential safety hazards in many links during the construction process, which greatly increases the probability of safety accidents in the construction stage.

Fourth, process risk. In general, the construction task is heavy, the construction period is long, and there are many factors affecting the construction quality. In addition, the construction work is affected by weather conditions. If the construction enterprise cannot properly arrange the construction task and effectively plan the construction progress, it is likely that it will not be able to complete the project as agreed in the contract.

4.3. Specific Measures for Internal Control

4.3.1. Cost Control

The premise of cost control is to ensure that the quality and safety of the construction project meet the standard.

First, the construction enterprise shall formulate a scientific and reasonable cost accounting system according to the specific conditions of the construction project and the provisions of the contract site, improve and optimize the cost recording link and cost review link, and calculate and plan the expenses required for the construction project according to the effective original cost records.

Secondly, the focus of cost control includes project material control, personnel labor control, construction equipment control and project cost control. The construction enterprise shall strictly control the quantity of construction materials received by construction personnel, and regularly check the surplus of construction materials; The construction enterprise shall timely sort out and recycle the revolving materials used in the construction project; The construction enterprise should also streamline the management organization to avoid additional costs; The construction enterprise shall also maintain the construction equipment regularly to ensure that the equipment can be used normally, so as to avoid safety accidents; The construction enterprise shall also strictly review the costs incurred in the construction process to avoid additional costs.

Third, construction enterprises should establish clear cost assessment objectives according to the content of the project contract. The construction enterprise shall regularly assess the cost, establish an incentive mechanism to reward outstanding employees, improve the performance assessment indicators, and incorporate the cost assessment into the performance assessment of the construction project manager.

Fourthly, construction enterprises should also introduce advanced construction processes and concepts, and adopt more advanced technologies and concepts to reduce construction costs on the premise of ensuring construction quality.

4.3.2. Quality Control

Construction enterprises should also pay attention to the quality control link, which directly has a decisive impact on the quality level of the entire construction project. This paper believes that it should be carried out from the following three aspects.

First, in the early stage of project construction, the construction enterprise shall formulate the quality specifications of the construction project according to the quality standards required in the signed contract, and implement the responsibility for project quality control to each person in charge layer by layer, so as to ensure that the experience and person in charge of the construction project can understand the project quality required in the contract.

Second, construction enterprises should also build and optimize the construction quality management system. Whether it is daily construction material procurement, construction equipment management, construction personnel level, etc., will have a significant impact on the overall quality of the construction project. Therefore, construction enterprises should strengthen the management of these links that may

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affect the quality of construction projects.

Third, construction enterprises should also achieve a dynamic balance between the degree of quality control of construction projects, the degree of cost control of construction projects and the schedule of construction projects. The construction enterprise cannot reduce the construction quality in order to control the construction cost, nor can it reduce the construction quality in order to speed up the construction, nor can it pursue the construction quality excessively so as to fail to complete within the completion time agreed in the contract. The construction enterprise shall balance the relationship between the three parties and complete the construction project on time as far as possible according to the contract and on the premise of meeting the contract acceptance specifications.

4.3.3. Safety Control

In the safety control link, in order to ensure the safety of the construction site, the construction enterprise should strengthen the safety control from three aspects.

First, construction enterprises should strengthen the investment in construction safety facilities, adhere to the use of safety construction equipment and equipment, and strengthen safety education for construction personnel to improve their safety awareness.

Second, the construction enterprise should take safety measures for the closed area and scaffold area in the construction site, and the construction of special types of work must be approved. In addition, in the construction stage, the enterprise should strictly require the project manager and supervisors to strengthen supervision on the construction site, ensure that the construction links strictly comply with technical specifications and safety requirements, and eliminate illegal construction.

Third, construction enterprises should require construction supervision units and supervisors to strictly perform their safety supervision responsibilities and strengthen the safety supervision of construction projects.

4.3.4. Progress Control

In the construction stage, the project construction progress control is also an important link. There are many reasons that affect the construction progress of the project, such as the change of construction design scheme, shortage of construction materials, construction equipment failure, weather environment, etc. Therefore, the construction enterprise should scientifically arrange the construction progress according to the duration specified in the contract, regularly arrange maintenance personnel to repair the construction equipment, and also strengthen the technical training for construction personnel. In addition, in the construction phase, a responsibility system for all construction personnel shall be established, and the construction project manager shall be required to strengthen the supervision of construction. At the same time, in the construction stage, the construction enterprise shall regularly check the construction progress of the construction project. If problems are found, the construction scheme shall be adjusted and optimized in time to ensure that the construction project can be completed on time. In case of weather and other natural factors, the construction enterprise shall timely coordinate to avoid default.

5. Conclusion

To sum up, the economic society is in the rapid development stage, and the competition in the construction market and industry is becoming increasingly fierce. If construction enterprises want to stand firm in the construction industry, they must constantly improve their own management level. For construction enterprises, the main way to enhance the level of enterprise management is to realize the organic application of risk management and internal control. Therefore, according to the risk management theory, construction enterprises should strengthen internal control, build a sound risk assessment mechanism, and take effective internal control measures to control potential risks.

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