

Disclosure of Construction Engineering Cost Information and the Construction of Industry Integrity System

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Abstract: With the increasingly prominent position of the construction industry in the national economy, its healthy development is becoming more and more critical. This article focuses on the construction project cost information disclosure and the construction of industry credit system, aiming at analyzing the relationship between them and promoting the benign development of the industry. Through theoretical analysis, this article deeply discusses the composition and theoretical basis of the credit system in the construction industry, and studies the key role of cost information disclosure and the synergistic relationship between them. It is found that the disclosure of cost information can standardize the behavior of market participants, improve investment efficiency, promote technological progress, and provide data support and supervision basis for the credit system; The credit system creates a good environment for the disclosure of cost information and enhances the credibility of information. They are interdependent and promote each other, and jointly promote the development of the construction industry. Giving full play to the synergistic effect of cost information disclosure and credit system is of great significance for creating a healthy and orderly construction market environment and realizing the sustainable development of the industry.

1. Introduction

Under the background of sustained economic growth in China, the construction industry, as an important pillar industry of the national economy, its healthy and stable development is crucial ^[1]. The disclosure of construction engineering cost information and the construction of industry credit system have become the key factors affecting the future direction of construction industry. Judging from the reality, there is a long-standing phenomenon of opaque cost information in the construction market. Some enterprises use information asymmetry to seek improper benefits in project bidding, construction and other links, which seriously disrupts the market order ^[2]. At the same time, the lack of integrity in the industry is frequent, such as cutting corners and defaulting on project payment, which damages the interests of relevant parties and has a negative impact on the reputation of the whole industry ^[3]. This situation hinders the sustainable development of the construction industry, and brings challenges to the effective allocation of social resources and the healthy operation of the economy.

In this context, it is of great practical significance to study the disclosure of construction engineering cost information and the construction of industry credit system ^[4]. On the one hand, the realization of project cost information disclosure can effectively enhance market transparency, allow all participants to conduct business in a fair and just environment, and reduce unfair competition ^[5]. On the other hand, building a perfect industry credit system will help strengthen the self-discipline awareness of enterprises, urge them to abide by market rules, ensure the quality of projects, and promote the overall image of the industry.

Theoretically speaking, although there are some achievements in the research on the disclosure of construction engineering cost information and the construction of industry credit system, there are still many shortcomings. For example, the research on the interaction mechanism between them is still weak, lacking systematicness and depth. The purpose of this study is to make up for these theoretical gaps, analyze the internal relationship between project cost information disclosure and

industry credit system, and explore the effective path of their coordinated development.

Through this study, it is expected to provide useful reference for the construction industry in terms of project cost information disclosure and credit system construction, and promote the construction industry to develop in a more standardized, healthy and sustainable direction^[6].

2. Theoretical analysis of credit system in construction industry

The credit system of the construction industry is an important basis for maintaining the normal operation of the industry and ensuring fair competition in the market. It covers many key elements and has rich connotations^[7].

Conceptually, the integrity system of construction industry is an organic whole composed of a series of rules, mechanisms and moral norms. Its purpose is to restrain and guide the behavior of all subjects in the construction market, including construction units, construction enterprises and supervision units, and ensure that they follow the principle of honesty and trustworthiness in the operation of the project.

Integrity evaluation standard is one of the core elements. Through the formulation of scientific and reasonable evaluation indicators, such as the contract performance rate of enterprises, the project quality standards, etc., the integrity level of market participants is quantitatively evaluated. The disciplinary mechanism of dishonesty is also indispensable. For those who violate the principle of good faith, corresponding punishment measures, such as fines and restrictions on market access, are imposed to increase the cost of dishonesty and play a deterrent role. At the same time, honesty education and publicity mechanism are also very important. Through training and publicity activities, we can enhance the honesty awareness of industry practitioners and create a good honesty culture atmosphere^[8].

Game theory shows that in the market environment of repeated games, each subject will tend to choose honest behavior for long-term interests. When market participants realize that dishonest behavior will lead to the reduction of future cooperation opportunities and damage to their reputation, they will take the initiative to abide by the principle of good faith. From the ethical point of view, honesty and trustworthiness is the basic moral criterion, and the construction industry, as an important part of social and economic activities, should follow this criterion in order to maximize social benefits. In addition, from the perspective of economic theory, honesty can reduce transaction costs and improve market efficiency. In a construction market with high integrity, the trust among the subjects will be enhanced, and the costs of negotiation and supervision in the transaction process will be significantly reduced, thus promoting the effective allocation of resources and promoting the healthy development of the industry.

3. The key role of disclosing construction project cost information

The disclosure of construction project cost information is helpful to standardize the behavior of the main body in the construction market. In the environment of opaque information, some enterprises may take advantage of information to carry out black-box operations, such as bid rigging in the bidding process and changing the cost at will during the construction process, which seriously undermines the fair competition order in the market. After the cost information is made public, market participants can clearly understand the key information such as the cost composition and price range of various projects, which makes the transaction process more transparent and greatly reduces the space for unfair competition. For example, by disclosing detailed cost information such as material price and labor cost of different types of construction projects in different regions, potential bidders can evaluate the project cost more accurately, make reasonable quotations, and avoid malicious low-price bidding or high-price bidding phenomenon caused by asymmetric information. Taking the construction market in a certain area as an example, the unfair competition behaviors in the market before and after the disclosure of cost information are shown in Table 1.

Table 1 Comparison of Unfair Market Practices Before and After Cost Information Disclosure

Comparison Item	Before Disclosure	After Disclosure
Number of Bid-Rigging Cases (per year)	20	5
Number of Cost-Related Complaints (per year)	30	10
Average Cost Estimation Error Rate (%)	25%	10%

After the disclosure of cost information, the number of bid rigging incidents and complaints caused by cost disputes has been greatly reduced, and the accuracy of project cost evaluation by market participants has been significantly improved. This reflects the positive effect of cost information disclosure on standardizing the behavior of market participants^[9].

Secondly, the disclosure of construction project cost information is of great significance to improve the investment benefit of construction projects. For investors, accurate and comprehensive cost information is an important basis for making scientific investment decisions. Through the open cost information, investors can know all the costs required for the project construction, including the whole process costs of pre-planning, material procurement, construction and post-maintenance, so as to arrange funds reasonably and avoid the project delay or low efficiency caused by insufficient budget or waste of funds. For example, when investing in commercial complex projects, investors can refer to the published cost information of similar projects, accurately estimate the cost of building structure, decoration standards, equipment selection and other aspects, and optimize the investment plan.

Furthermore, the disclosure of construction engineering cost information can promote the technological innovation and progress of the construction industry. When the cost information in the industry is widely publicized, enterprises can clearly understand the impact of adopting new technologies, new processes and new materials on the cost. If a new type of energy-saving material is used, although the initial procurement cost is higher, but it has advantages in terms of long-term operation and maintenance costs and energy consumption, enterprises may actively try to apply it and promote industrial technology upgrading. This open sharing of information makes enterprises more motivated to explore and adopt advanced technologies while pursuing economic benefits, so as to improve their competitiveness.

4. Synergistic relationship between cost information disclosure and credit system

In the ecosystem of construction industry, cost information disclosure and credit system do not exist in isolation, but depend on each other and promote each other to jointly promote the healthy development of the industry. This synergy is reflected in several key levels. On the one hand, the disclosure of cost information provides a solid data support and supervision basis for the credit system. The comprehensive and accurate disclosure of cost information makes the behavior of each subject in the construction market in a transparent environment. For example, in the project bidding stage, the open project cost information can let the regulatory authorities and other participants know clearly whether the quotation is reasonable, and whether there are dishonest behaviors such as maliciously winning the bid at a low price or driving up the price. Through the continuous tracking and comparative analysis of different project cost information, an effective credit supervision mechanism can be established.

On the other hand, the credit system has a negative effect on the disclosure of cost information and creates a good environment for information disclosure. A perfect and strictly implemented credit system will make the construction market participants realize the importance of credit management and consciously abide by industry norms. When enterprises realize that honest behavior will bring them long-term benefits and good reputation, while dishonest behavior will be severely punished, they will actively and truly disclose the cost information. For example, in order to maintain its own reputation, honest enterprises will actively cooperate with the information disclosure work to ensure the accuracy and integrity of the cost data provided; Under the constraint

of the credit system, untrustworthy enterprises will also dare not deliberately conceal or tamper with the cost information because of fear of punishment. Table 2 shows the supervision effect of cost information disclosure in a certain area on the integrity behavior of enterprises.

Table 2 Oversight Effectiveness of Corporate Integrity

Year	Information Disclosure Rate	Corporate Misconduct Rate	Accuracy of Integrity Assessment
2018	50%	15%	70%
2019	65%	12%	75%
2020	80%	8%	85%
2021	90%	5%	90%

With the gradual improvement of the degree of disclosure of cost information, the incidence of dishonesty in enterprises has shown a significant downward trend, and the accuracy of integrity evaluation has been continuously improved. This shows that the more fully the cost information is made public, the more effectively it can supervise the enterprise behavior, improve the accuracy of credit evaluation and provide a strong guarantee for the construction of credit system.

Credit system can also enhance the credibility of cost information. In the market environment with strong integrity atmosphere, the cost information provided by each subject is more easily trusted, thus improving the use value of information. This trust will further promote the disclosure and sharing of cost information and form a virtuous circle. For example, when both the construction unit and the construction enterprise uphold the principle of good faith, the communication and disclosure of cost information between the two parties will be smoother, and the information blockade or false transmission caused by mutual suspicion will be reduced.

5. Conclusions

In the construction industry, the disclosure of cost information and the construction of credit system are of indispensable importance. The disclosure of cost information plays a significant role, which regulates the behavior of the main body of the construction market to a certain extent, and makes the market transaction more transparent by disclosing all kinds of cost information. At the same time, the disclosure of cost information provides investors with key decision-making basis, helps them to arrange funds reasonably and improve the investment benefit of construction projects. Enterprises can better evaluate the cost-effectiveness of new technology application based on open cost information, thus promoting the technological progress of the industry.

The construction of credit system is also of great significance. It is based on the theoretical basis of game theory, ethics and economics, and restricts the behavior of market subjects through factors such as integrity evaluation criteria and disciplinary mechanism for dishonesty. Integrity system and cost information disclosure cooperate with each other, and cost information disclosure provides data support and supervision guarantee for integrity system. With the improvement of openness, the incidence of corporate dishonesty decreases and the accuracy of integrity evaluation increases. The credit system reacts to the disclosure of cost information, creates a good environment, urges market participants to disclose information consciously and truly, and enhances the credibility of information. The construction industry should attach importance to and strengthen the disclosure of cost information and the construction of credit system, and give full play to their synergistic effect, so as to create a fair and healthy market environment.

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