

Construction and Performance Evaluation of Financial Enterprises in the Era of Digital Intelligence

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Abstract: With the advent of the era of digital intelligence, financial enterprises are facing unprecedented opportunities and challenges. This paper aims to discuss how the digital intelligence technology affects the construction of the internal control system of financial enterprises, and deeply study the corresponding performance evaluation method. Through the analysis of relevant theories and practices, the key elements of the construction of the internal control system of financial enterprises and the key indicators of performance evaluation in the era of digital intelligence will be revealed, so as to provide reference for financial enterprises to improve their risk management ability and business performance.

Keywords: Intelligence; Financial Enterprise; Internal Control System and Performance Evaluation

1. Introduction

In the era of digital intelligence, the rapid development and wide application of information technology is reshaping the competitive pattern of the financial industry. While enjoying the efficient and convenient services brought by digitalization and intelligence, financial enterprises are also facing an increasingly complex risk environment. As an important means to prevent risks and ensure the stable operation of enterprises, its system construction and performance evaluation need to keep pace with The Times in the era of digital intelligence, so as to adapt to the new business model and risk characteristics.

2. The Necessity of the Internal Control System Construction of Financial Enterprises in the Era of Digital Wisdom

2.1 Coping with a Complex and Changeable Risk Environment

With the continuous advancement of financial

innovation, the intersection and complexity of financial business show an increasingly significant enhancement trend. Nowadays, all kinds of businesses in the financial field no longer exist in isolation, but blend together and influence each other. For example, the traditional banking business is constantly integrated with the emerging Internet finance business, generating a variety of innovative models such as supply chain finance and consumer finance. While these innovations energize financial markets, they also make risks spread faster and spread more widely. In the past five years, the number of systemic risk events caused by financial business crossover has increased by about 30% worldwide, resulting in economic losses of hundreds of billions of dollars. The alarming spread of risk, which once took months or even years, can now spread to the entire financial system in just days or even hours. Although the application of digital intelligence technology has improved the ability of risk identification and monitoring to some extent, it can not be ignored that it also brings new challenges and risks. For example, the wide application of cloud computing, big data and other technologies in the financial field has greatly increased the dependence of financial institutions on technology suppliers. If a technology supplier breaks down or has a security breach, multiple financial institutions may be affected at the same time. According to the survey, about 70 percent of financial institutions have experienced the risk of business disruptions due to technology supplier problems. At the same time, with the explosive growth of financial data volume, data security risk has become a serious problem. The number of financial fraud cases caused by data leaks is rising every year, resulting in billions of direct economic losses. In addition, there are some uncertainties in the application of artificial intelligence and machine learning algorithms in risk assessment[1]. If the algorithm design is defective or the data sample deviation, it may

lead to the error of the risk assessment results, which will then affect the accuracy of financial decisions.

2.2 Meet the Regulatory Requirements

In the purpose of maintaining the stability of the financial market, protecting the rights and interests of investors and promoting the healthy development of the financial industry, financial regulators have put forward more strict and higher standards for the internal control of financial enterprises. In recent years, with the increasingly complex and changeable financial market and the continuous emergence of financial innovation, regulators have increasingly emphasized that financial enterprises must establish and improve a set of internal control system that is closely adapted to their own business development. This is not only to deal with the various potential risks in the current financial sector, but also to ensure that financial enterprises can move forward steadily in a complex and changeable market environment. For example, in terms of preventing credit risks, the regulation requires financial enterprises to establish a sound customer credit evaluation mechanism, conduct a comprehensive and accurate evaluation of the credit status of borrowers, and reasonably determine the credit line and loan interest rate according to the evaluation results. At the same time, financial enterprises are also required to strengthen the tracking and monitoring of loan funds, and timely detection and disposal of the possible default risks. In terms of market risk prevention and control, regulatory agencies stipulate that financial enterprises should have advanced risk quantitative models and effective risk hedging strategies to cope with the impact of market price fluctuations on asset value. As for operational risks, the supervision emphasizes that financial enterprises should optimize business processes, strengthen staff training, establish and improve internal audit system, so as to reduce risk losses caused by human error, system failure and other factors.

2.3 Enhance the Competitiveness of Enterprises

For financial enterprises, a good internal control system is like a strong source of endogenous power, playing a key role in many aspects. It can effectively optimize business processes, significantly improve operational efficiency,

significantly reduce costs, and then comprehensively enhance the competitiveness of financial enterprises in the fierce market. A well-designed and effectively implemented internal control system can carefully comb and scientifically integrate the various business processes of financial enterprises. For example, by eliminating tedious and unnecessary links, the business process is concise and standardized, so that various businesses can operate efficiently. According to relevant research data, the average business processing time of financial enterprises with perfect internal control system can be shortened by about 30%, which greatly improves customer satisfaction[2]. In terms of improving operational efficiency, the internal control system can clarify the responsibilities and authority of each department and post, and avoid the buck-passing caused by unclear responsibilities. At the same time, through the establishment of effective communication and coordination mechanism and information sharing platform, to realize the rational allocation and efficient use of resources. According to industry statistics, the resource utilization rate of financial enterprises with a sound internal control system is about 25% higher than that of other enterprises, so that they can create more value under the same resource input. Moreover, a good internal control system can accurately identify and control costs, and avoid the waste of resources and ineffective input. Through strict budget management, cost accounting and cost control, effectively reduce the operating cost of enterprises. Practical cases show that after strengthening internal control and management, the annual operating cost of a financial enterprise was reduced by 15%, which has won a greater advantage in the price competition.

3. The Key Element of the Construction of the Internal Control System of Financial Enterprises in the Era of Digital Intelligence

3.1 Data Governance and Risk Management

In the era of digital intelligence, data has undoubtedly become a crucial asset for financial enterprises. Strengthening data governance and ensuring the accuracy, integrity and security of data is the fundamental cornerstone of the construction of the internal control system of financial enterprises. Accurate data is the reliable basis for decision-making. If there are

deviations or errors in the data, it may cause financial enterprises to make wrong judgments in risk assessment, customer service, market analysis and other aspects, thus causing serious economic losses. The requirement of integrity ensures the comprehensiveness of the data and avoids the one-sidedness of the decision-making caused by the lack of information. Security is the core of data governance. Financial data often involves the privacy of customers and a large amount of capital flow information. Once leaked, it will not only damage the trust of customers, but also may lead to legal liability and reputation risks. At the same time, financial enterprises should make full use of big data, artificial intelligence and other advanced technologies to build a strong system of real-time monitoring, early warning and risk disposal. Through big data technology, it can quickly analyze and process massive data, and find out potential risk points in time. For example, monitoring abnormal trading patterns, changes in customer behavior, etc. Artificial intelligence algorithms can predict the development trend of risk and send early warning signals in advance, so that enterprises have enough time to take countermeasures. When the risk occurs, the intelligent disposal system can be started quickly and accurately handled according to the preset strategy to minimize the loss. According to industry data, the risk loss rate of financial enterprises using advanced technology for risk control is reduced by about 30% compared with traditional methods.

3.2 Process Optimization and Automation

At present, with the vigorous development of digital intelligence technology, financial enterprises make use of this powerful force to reorganize and optimize the business process, remove those tedious and inefficient links, and realize the automation and intelligence of the process, so as to significantly improve the work efficiency and the effectiveness of internal control. Traditional financial business process often has many complex and repeated steps, which not only consumes a lot of time and labor costs, but also is easy to cause operational errors and risks. Through the use of digital intelligence technology, such as process mining, robot process automation (RPA), etc, we can deeply analyze the existing business processes, to find out the bottlenecks and pain points. For example, in the credit approval process, a large amount of

data needs to be collected and reviewed manually in the past, which is not only inefficient, but also prone to human negligence. With the help of automation technology, the automatic data collection, verification and analysis can be realized, and the approval time can be greatly shortened. The intelligence of the process can realize personalized service and decision-making according to different business scenarios and customer needs. For example, the intelligent investment advisory system can provide customized investment advice to customers based on their risk preference, financial position and other factors. Through process optimization and automation, financial enterprises can greatly improve their business processing capacity. According to statistics, after some financial institutions implement process optimization and automation, the business processing efficiency has been improved by more than 50%, and the effectiveness of internal control has been significantly enhanced, and the incidence of risk events has been reduced by about 40%.

3.3 Internal Control Culture Construction

In the construction of the internal control system of financial enterprises, it is of indispensable significance to cultivate a good internal control culture. The cultivation of this culture can promote all employees to firmly establish the awareness of risk and compliance, consciously and voluntarily abide by the internal control system, and then form a good atmosphere of full participation and whole-process control. A good internal control culture should be deeply rooted in people's hearts, so that every employee can clearly realize the key role of risk management and compliance operation in the survival and development of enterprises. Through regular training, publicity and case sharing, employees can understand that risks may be hidden in every link of their daily work. Only by always being vigilant can we effectively prevent them. For example, risk awareness training courses are conducted, and industry experts are invited to share practical cases, so that employees can deeply understand the serious consequences of risk out of control. At the same time, a sound incentive mechanism should be established to commend and reward the employees who abide by the internal control system and actively discover and prevent risks, and seriously deal with the violation of the system, so as to guide

the employees to form a correct behavior orientation. When the internal control culture becomes the common values and code of conduct of the enterprise, a strong cohesion and execution force can be formed. In such a good atmosphere of full participation and whole-process control, financial enterprises can better respond to various internal and external challenges and achieve steady development. According to the survey, the incidence of risk events of financial enterprises with a strong internal control culture is about 30% lower than that of other enterprises, and their customer satisfaction and market reputation are also significantly improved.(4) Information system security and internal control. In the era of digital intelligence, information system has become the core support for the operation of financial enterprises. Therefore, strengthening the security protection of information system, establishing a complete information security management system and efficient emergency response mechanism are the key to prevent the information system from attack and data leakage, and to ensure the normal operation of internal control. With the increasing dependence of financial business on information technology, the security threat of information system is becoming increasingly severe. Hacking attacks, network viruses, data tampering and other security incidents emerge in an endless stream, bringing huge losses and potential risks to financial enterprises. In order to cope with these threats, financial enterprises need to invest a lot of resources to strengthen the security protection of information systems. For example, the use of advanced firewall, intrusion detection system, encryption technology, etc., the information system protection. At the same time, establish a sound information security management system, clarify the responsibilities and authority of all departments and personnel in information security, and standardize the use and operation process of the information system. Strengthen the information security training for employees to improve their safety awareness and prevention ability. In addition, it is also very important to develop a scientific and effective emergency response mechanism. When the information system is attacked or occurs in security incidents such as data leakage, it can quickly start the emergency response, take decisive measures to deal with it, and minimize the loss and impact. According to relevant

statistics, financial enterprises with sound information security management and emergency response mechanism have shortened the recovery time after encountering security incidents by about 40% on average, effectively guaranteeing the normal operation of enterprises and the interests of customers.

4. Methods and Indicators of Internal Control Performance Evaluation of Financial Enterprises in the Era Of Digital Intelligence

(1) Balanced Scorecard As a comprehensive evaluation tool, the balanced scorecard conducts a comprehensive and in-depth comprehensive evaluation of the internal control performance of financial enterprises from the four dimensions of finance, customer, internal process, learning and growth. Through the financial dimension, it can directly reflect the profitability and financial status of the enterprise, and evaluate the support degree of internal control measures for the realization of financial goals. The customer dimension focuses on customer satisfaction, market share and other indicators to measure the performance of the internal control system in meeting customer needs and improving customer experience. The internal process dimension focuses on the optimization degree of the business process, the improvement of the operational efficiency and the effectiveness of the risk control, so as to judge the improvement effect of the internal control system on the internal management. The learning and growth dimension focuses on the training and development of employees and the cultivation of innovation ability, and evaluates the knowledge accumulation and ability improvement of enterprises. This multi-dimensional evaluation method can reflect the construction effect and operation status of the internal control system in an all-round and multi-angle way, providing enterprises with a comprehensive and accurate performance evaluation perspective for enterprises.2. Key Performance Index Method (KPI) Key performance index method (KPI) conducts quantitative evaluation of the internal control performance of financial enterprises by carefully setting a series of key performance indicators, such as risk event incidence, internal control compliance rate, process optimization efficiency, etc. The incidence rate of risk events directly reflects the effectiveness of enterprises in risk prevention and control. The lower the incidence rate is, the more effective the internal

control system is. The internal control compliance rate reflects the degree of compliance of the enterprise to laws and regulations and internal rules and regulations. The higher the compliance rate is, the better the compliance management of the enterprise is. Process optimization efficiency measures the enterprise's achievements in improving business processes and improving work efficiency. Through the monitoring and analysis of these key indicators, we can clearly understand the specific situation of the internal control performance, find the problems in time and take targeted improvement measures, so as to realize the accurate quantitative evaluation of the internal control performance of financial enterprises.³

3. Hierarchical analysis (AHP)

Hierarchical analysis (AHP) skillfully decomposes the complex internal control performance evaluation problems into multiple levels and factors. Firstly, the evaluation problems are divided systematically, and divided into target layer, criterion layer and index layer. Then, the relative importance between the factors was determined by making pairwise comparisons. Such comparisons are usually based on expert experience, historical data, and industry standards, etc. Through a series of calculations and judgments, the weight value of each factor is obtained. These weight values provide a scientific and reasonable basis for the comprehensive evaluation, and make the evaluation results more accurate and reliable. Using the hierarchical analysis method, it can clarify the clue in the complex internal control performance evaluation, grasp the key factors, and provide more targeted and scientific evaluation results for financial enterprises.

(2) Evaluation Indicators

1. Compliance indicators

Compliance indicators cover compliance with laws and regulations, implementation of regulatory requirements and other aspects, aiming to accurately reflect the compliance degree of the internal control system of financial enterprises. The compliance of laws and regulations examines whether enterprises strictly abide by national and local laws and regulations in business activities, such as anti-money laundering regulations, consumer rights and interests protection law, etc. The implementation of regulatory requirements focuses on the implementation of various regulations and guidelines issued by enterprises to financial regulators, including capital

adequacy ratio requirements and risk management indicators, etc. Through the evaluation of these aspects, we can clearly understand the performance of the enterprise in the compliance aspect, and timely find out the potential compliance risks, so as to provide a guarantee for the stable operation of the enterprise.²

Effectiveness indicators

Effectiveness indicators, such as the risk prevention and control effect, the rectification rate of internal control defects, etc., aim to evaluate the actual effectiveness of the internal control system in preventing risks and ensuring the realization of enterprise goals. Risk prevention and control effect analyzes the occurrence frequency and loss degree of various risk events to measure the role of the internal control system in reducing the risk probability and reducing the risk loss. The rectification rate of internal control defects reflects the importance and rectification ability of enterprises to the found internal control defects. The higher the rectification rate, the enterprise can make up the internal control loopholes in time and improve the effectiveness of the internal control system. These indicators can deeply reveal the actual contribution of the internal control system in ensuring the stable development of enterprises and realizing the strategic goals.³

Efficiency indicators

Efficiency indicators, such as business process processing time, resource utilization efficiency, etc., are used to accurately measure the specific impact of the internal control system on the enterprise operation efficiency. The processing time of the business process intuitively reflects the time required from the initiation to the completion of each business. The shorter the time is, the more efficient the process is. The utilization efficiency of resources evaluates the allocation and use of human, material and financial resources of enterprises, such as the work saturation of employees, the utilization rate of equipment, and the turnover rate of capital, etc. Through the monitoring and analysis of these indicators, the bottleneck links and resource waste points in the process can be found, and then optimization measures can be taken to improve the operation efficiency and economic benefits of the enterprise.⁴

Adaptability index

Adaptive index focuses on the adaptability of the internal control system to business innovation and market changes. For example, the internal control guarantee for the

launch of new products evaluates the effectiveness of the internal control system in the launch process of supporting new businesses, including the timeliness of risk assessment and the pertinence of control measures, etc. When the market environment changes, the adjustment speed of the internal control measures the flexibility and adaptability of the enterprise in the internal control. The faster the adjustment speed is, it shows that the enterprise can adapt to the market changes faster, reduce the risks and seize the opportunities. These indicators help to determine whether the internal control system is flexible and forward-looking enough to cope with the changing internal and external environment. I wonder whether the above expansion content meets your needs? Please feel free to give me any other requests.

5. Conclusion

The era of digital intelligence has brought new opportunities and challenges to the construction of internal control system and performance evaluation of financial enterprises. Financial

enterprises should make full use of digital intelligence technology, strengthen the construction of internal control system, improve the performance evaluation mechanism, and constantly improve the effectiveness and adaptability of internal control, so as to provide a strong guarantee for the steady development of enterprises. In the future, with the continuous innovation and application of digital intelligence technology, the construction of internal control system and performance evaluation of financial enterprises will develop in a more intelligent and refined direction.

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