

## RESEARCH ON THE CONSTRUCTION AND OPTIMIZATION OF ENTERPRISE INTERNAL CONTROL STRATEGIES UNDER ERP SYSTEM

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### ABSTRACT

With the advent of digital intelligence, information technology era, the internal control of enterprises has also been strengthened with the entry of the era of digital intelligence, enterprise resource planning (hereinafter referred to as ERP) for the strengthening of internal control is also imperative, and constantly optimize the ERP system. Functions ERP system functions are constantly optimized, making it better combined with the internal control of enterprises, reducing the cost of enterprise management, enhancing the utilization of enterprise efficiency, and prompting enterprises to recombine in the industry, thus providing better services for globalization, informatization, and numericalization (Yang, 2024). The lack of effective internal control of enterprise ERP system increases the risk associated with financial reporting and erroneous transactions, and the development of an effective internal control plan for ERP system can reduce the risk of fraud, thereby improve the quality of financial reporting and enhance the overall competitiveness of enterprises. Based on the above, this paper takes the enterprise internal control strategy construction and optimization combined with enterprise ERP system for research, combines enterprise ERP system and enterprise internal control, analyzes the enterprise ERP system internal control strategy construction, overcomes the obstacles to the implementation of the internal control strategy, as well as responds to the key internal control challenges, to help enterprises to transform the business model and improve the core of the potential, so as to achieve more employment opportunities for the society services (Zhou, 2023).

**Keywords:** ERP system; enterprise internal control strategy, etc.

### 1.0 CONSTRUCTION OF INTERNAL CONTROL STRATEGY OF ERP SYSTEM

#### 1.1 ERP system overview

ERP system is Enterprise Resource Planning (Enterprise Resource Planning), is the product of the age of digital intelligence, information technology, information and management in one, information technology to drive the management of information technology, covering the production, planning, manufacturing, finance, sales, procurement, operations management, asset management and other systems, for all the personnel of the enterprise to provide services to the integrated management Service platform (Liu, 2023). ERP system jumps out of the traditional Enterprise Boundary, conforming to the trend of the times, in the ever-changing business models, technological advances, globalization, and the contemporary business

environment, from the block chain to optimize the resources of enterprises, improve the core competitiveness of enterprises, promote the rational allocation of enterprise resources, to achieve the realization of enterprise value objectives, has become a necessary system for modern enterprises, and become part of the enterprise strategy to achieve sustainable and value-creating operations.

## **1.2 Overview of internal controls in enterprises**

The main goal of enterprise internal control is to achieve the business objectives of the enterprise, to ensure that all production and operation activities of the enterprise are carried out legally and lawfully, to avoid all kinds of risks, and to make all kinds of resources operate in a reasonable, lawful and lawful mode, which covers the entire business process of the enterprise's production and operation activities, and to coordinate and improve the quality of each business node and business scope of the enterprise, and the directors, supervisors, and all the staff of the enterprise are the participants in the internal control. The directors, supervisors and all employees of the enterprise are participants in internal control. The internal control of the enterprise is also based on five elements: internal environment, risk assessment, control activities, information and communication, and internal supervision (Li,2023).

## **1.3 Construction of internal control strategies for enterprises based on ERP systems**

ERP system and enterprise internal control complement each other, the overall goal of the two are the same, to ensure that the production and operation of the enterprise, the safe and effective operation of funds for the enterprise to create value and revenue.ERP system opens up the various business processes, the formation of the front and back of the associated process system, the implementation of the enterprise's internal control is also thanks to the assistance of the ERP system functions, to improve the overall efficiency of the enterprise's operations.ERP system serves the needs of business management to ensure the realization of operational objectives, the system architecture should be built with the company's charter, internal management system, business management highly compatible with the company. Management needs to ensure the realization of business objectives, the construction of the system architecture should be highly compatible with the articles of association, internal management system, business management (Li,2022). Through data collection, information sharing timely analysis and feedback on the various work processes of the enterprise, to provide effective information support for the management of business decision-making, and to improve the overall operation and management efficiency and quality of the enterprise. At the same time, it is also necessary to adapt to the environment of the ERP system, the establishment of a perfect process management system within the enterprise, standardize the whole process of operation, and establish a set of information technology system in line with the management of the enterprise's business processes.

The construction of an enterprise internal control strategy is an important vehicle to ensure that the ERP system, enterprise internal control as a factor to be considered in the implementation of ERP may sometimes be overlooked, so it is necessary to strengthen the control function in the enterprise internal control as an integral mechanism to support the efficiency of the organization's operation of the ERP system, to achieve the operational objectives, the competitiveness of the organization and to strengthen the role of the enterprise. An effective corporate internal control strategy ensures smooth day-to-day organizational

operations and significant reduction of organizational risks, thus constituting an integral part of the ERP system. Therefore, the construction of an internal control strategy must be part of the overall ERP system planning process. one of the key strengths of an ERP system is the integration of business processes with uniformity and effectiveness and thus aiming to improve organizational efficiency as well as effectiveness, internal corporate control also complements the functionality of an ERP system and determines the way in which it enables the organization's internal control system to help ERP to collect, analyze, and report information in a constantly changing context. information in an ever-changing context. The architecture of an effective corporate internal control strategy requires organizations to go beyond standards and comply with policies and procedures that help to articulate the social, human, and cultural factors that affect the operation of an ERP system.

Business operations require continuous information synthesis and regular updating of the internal control system to respond to changing organizational requirements, and management needs to further work on clarifying how changes in the internal systems of the business directly affect the operation of the ERP system. Therefore, business management can determine whether the existing internal control system is adequate to support the organization's current needs regarding the operation of the ERP system. Business management supports strategic opportunities to support organizational change, behavior, and culture through organizational performance and employee engagement The effectiveness of control activities and processes depends on the dedication, motivation, and collaboration of rank-and-file employees The ERP system brings a shift to a new logical way of thinking for the organization that may conflict with the existing logic, and can facilitate the effective use of the ERP system and enable the business to achieve higher levels of profitability, based on which On the internal control of the enterprise should be adapted to the logic change of ERP system. It is recommended that through an effective communication system, such as technical staff can guide to meet the needs of employees on ERP system, so that the ERP system can be successfully implemented in an organization, this communication in the continuous improvement of ERP is also affected by the internal control of the business communication of the strategies used by the organization, because it ensures that information is available to the ERP system for a more practical decision-making. Through effective communication, the ERP system can monitor both changes and patterns internal and external environments so that the ERP system remains unchanged responding to changes in the environment to ensure that the internal control of the organization is functioning. But there may also be a lack of understanding of the ERP system, ERP system involves the implementation of a wide range of changes business processes and business models, significant changes in structure, and personal responsibility include several risks, including implementation, technical and functional. These risks require the organization to respond to the process by restructuring and customizing the new organization, which is the key to ensure the success of the enterprise ERP system. Based on the above analysis and research, it is imperative to build an enterprise internal control strategy based on the ERP system, aiming to reduce costs, improve quality and efficiency, increase the effectiveness of enterprise operation and management, strengthen information monitoring and communication, and enhance the efficiency of enterprise decision-making.

## 2.0 BARRIERS TO INTERNAL CONTROL STRATEGIES FOR ERP SYSTEMS

From the background of many years of research on ERP systems and corporate internal controls, it is critical to understand the key barriers that are critical choke points preventing organizations from implementing effective internal control strategies to support more efficient ERP system operations, and the audit and inspection challenges that impact the auditor's ability to identify weaknesses and risks associated with ERP. New business models and processes create a new risk because the framework is different from the original system.

## **2.1 ERP system business processes are not standardized**

In the various business management processes in the enterprise, the original internal control system and business processes along with the survival and development of enterprises, often involving production, distribution, financial management, business management, audit management, quality management, sales and many other complex businesses, and the emergence of ERP systems will have a certain impact on the previous enterprise-related processes, of course, we consider the negative impact, these negative impacts are bound to Business operations to bring a certain impact, making it difficult for enterprises to achieve satisfactory results.

Here to some sales-oriented enterprises as an example, the enterprise in order to save costs, simplify the process, the ERP system used by the majority of direct purchase, which caused the enterprise in the process of research and development of ERP failed to invest in sufficient resources, but also makes the enterprise may require a certain amount of time to familiarize themselves with the ERP system, the system is difficult to match the needs of the enterprise's actual operation and management, the general system will be more or less there will be certain drawbacks, because This system has a common general rules, sales enterprises in the operation of most of the process will take the previous experience, ignoring the system should have the function, there will be part of the business cannot be carried out through the implementation of the system, and thus cannot build a comprehensive and effective ERP system.

But does not rule out the enterprise through independent research and development or commissioned the development of ERP systems, enterprises through the knowledge of the purchase of the development of software, commissioned by the enterprise for the enterprise's actual management needs and business process characteristics of the professional system set up in a targeted manner, but in this case the R & D costs are high, on-line after the application of the enterprise's various departments of the personnel for the comprehensive knowledge of the ERP system and a clear positioning may be insufficient for the ERP The degree of importance of the system is not enough, resulting in the use of ERP internal control departments may be more likely to have some deep-seated errors, cannot use the ERP system for efficient management, with the application of the ERP system needs to cover the entire business management of the enterprise, large to small departments to employees, in practice, part of the work of the enterprise is still just a form of shallow application of the system, the subordinate personnel for the importance of ERP system and the degree of cognition stays at a low level, the ERP system is not enough. Cognitive degree stays at a low level, low level of system operation and operating errors cannot be corrected in a timely manner, to a certain extent, hindering the application of the system. Part of the enterprise for the ERP system cognition to a certain degree of bias, cannot effectively play its actual value, difficult to enhance the management efficiency of the enterprise (Li,2022).

## **2.2 There is a lack of match between ERP system and enterprise internal control**

With the deepening of informatization, after the application of ERP system in enterprises, it is necessary to improve and supplement the existing internal control system, so that the relevant personnel can perform their duties with reference to the content of the new system. On the one hand, the original enterprise internal control requires the participation of all staff, but due to the lack of clarity in some enterprises on the department and job setup, the need to grasp the key links are not highlighted, and not well-established ERP system to match the internal control positions, which results in an unfavorable evaluation and analysis of the overall performance of the enterprise. On the other hand, some of the functions of the ERP system to achieve excessive reliance on human intervention, the degree of intelligence is not high, it is very easy to lead to human reasons for the situation cannot be predicted or not yet well predicted and judged the situation of all kinds of data and information research or prediction to grasp the inadequacy of the information caused by the lack of information, affecting the normal operation of the enterprise, a serious impediment to the development of the enterprise. In the modern ERP environment, data processing and management control in one of the modern systems to be widely used. However, enterprises generally in the process of enterprise internal control design is mainly biased towards the aftermath of the research and analysis, not from a comprehensive overall grasp to solve the ideas and frameworks, that is, the lack of pre-judgement and tracking, not the ERP system management and the integration of the enterprise's entire business activities, but also failed to effectively integrate with the day-to-day business activities, and therefore the internal management of the benefits of the basis has not been significantly improved. Based on the analysis of the above affairs, it is difficult for such methods to achieve satisfactory control effects, resulting in the isolation of the ERP system and the decline in the relevance of the enterprise's internal control, which is not conducive to the long-term development of the enterprise.

## **2.3 The business capacity of the relevant personnel of the enterprise needs to be upgraded urgently**

Today's era is the era of popularization of ERP systems, ERP system development and application are inseparable from the talent, the talent pool is related to the lifeblood of enterprise development. In the use of ERP systems, the enterprise demand for composite talents gradually increased, composite high-quality and comprehensive talent is related to the survival and development of the enterprise backbone, both know the business, but also know the technology, the management is also familiar with the full range of talents is particularly important and scarce. Modern enterprises, the lack of such composite professionals lead to ERP systems in the enterprise internal control cannot achieve the desired results, resulting in the overall goal of the enterprise's internal control is also unsatisfactory. For example, in carrying out internal control activities, financial and accounting personnel need to utilize the ERP system, but usually financial and accounting personnel are not familiar with the ERP system, or lack of appropriate information literacy, which will likely lead to operational errors in the financial personnel, affecting the effect of financial internal control. Another example, enterprise producers in the use of ERP production system, for the cost of accounting and supervision if not familiar, too much since the financial personnel, it is difficult to ERP system for comprehensive and effective and reasonable use, which in turn affects the overall production effect and management of the enterprise operating results. Such phenomena once

many times, resulting in part of the work of a serious lag, will inevitably affect the long-term development of enterprises, so the enhancement of all aspects of the business level of the enterprise staff is particularly important and prominent, so that all-round, composite talents to increase. Therefore, the comprehensive level of enterprise staff is not enough to become one of the obstacles affecting the application of ERP systems and internal control, the overall business level of the relevant personnel to be improved.

#### **2.4 Inadequate information technology controls and risk awareness need to be strengthened**

ERP system to enhance the operational efficiency of enterprises, reduce the occurrence of various types of risks for the enterprise management work at the same time also brought new challenges and new opportunities. Enterprise information transfer and effective communication has always been an important part of the internal control of enterprises, but at present, most enterprises in the process of information transfer and information recognition for the confidentiality of information and the lack of security in-depth protection measures, the lawless elements through the operation of super software technology can easily enter the ERP system, the internal control of the information to be deleted and stolen, the emergence of information leakage, information loss of the situation. These situations have greatly affected the normal operation of the enterprise. Enterprises use simple protection measures are mainly focused on operating privileges, and did not take effective protection measures. Part of the enterprise in order to reduce costs, but also the use of poor data processing equipment and resources, cannot effectively meet the requirements of the operating environment of the ERP system, affecting the overall operation of the enterprise, resulting in an increase in the cost of the burden of the enterprise.

### **3.0 OPTIMIZATION OF INTERNAL CONTROL STRATEGIES IN ERP SYSTEMS**

#### **3.1 Standardization of ERP business processes and improvement of related systems**

Based on the ERP system to improve the enterprise's business processes and systems, is the embodiment of the effective implementation of the enterprise's internal control. Enterprises should start from their own needs, the integration of the needs of different departments and then optimize the application of the system for each business process. First of all, is in the business process, to optimize the ERP business process, set up the process belongs to the respective businessman's authority, including approval authority and approval records, optimize the process of reasonable division of labor. At the same time, with the expansion of the enterprise scale and development needs, the need for continuous research and development of ERP systems, new features and new practices to ensure that the functions can be used in an orderly and normal way, so that the formation of the various departments to cooperate and work together to promote the business process can be better carried out. According to the enterprise staff to use ERP system functionality and the way of different, flexible settings process mode, to help users adapt to different functions, regardless of the face of the user, manager, executor, etc. can be organized, there are ways to solve the use of a variety of problems encountered in the process of perfecting the various business processes, so that the ERP system to better serve the enterprise. Secondly, enterprise management should attach great importance to the company's internal control management related work, and actively promote the evaluation of the internal control system, internal control supervision, as well as the

implementation of internal control and other related systems to the ground. Enterprises should need ERP system to establish and improve the system operation system, job system, training system, implementation system, supervision system, each department for the company's system to develop responsibility for the implementation of the plan, compaction of the relevant responsibility for the position and authority division of the ground, implementation. For example, financial companies need to develop a strict internal control system, financial companies need to business department, finance department, risk control department and other departments involved in the implementation of internal control, which requires the establishment of a sound ERP system in the process of perfecting the internal control system, the various departments of the personnel to complete the optimization of the function of the ERP system, to further expand the scope of the system's functionality, enhance the operational efficiency of the ERP system.

### **3.2 Enhance the integration of ERP system and enterprise internal control**

The high degree of integration of ERP system and enterprise internal control is the inevitable result of the enterprise to strengthen internal control. According to the needs related to the integration of business and finance, ERP system is a key tool for the integration of business and finance, is an inevitable choice for the effective implementation of business processes and financial management implementation, which is conducive to the implementation of the internal control of enterprises to enhance the effectiveness of internal economic management. Enterprises for the process of daily business activities, investment activities, financing activities, fund management activities, financial management and other financial activities into the daily business activities, to form a collaborative work of the whole. So that in the process of ERP system implementation can also simplify the process and improve efficiency. For example, through the ERP system to make the internal control of enterprises in the role of the effect is more obvious. In the normal business activities of the enterprise, the departments reported data to the ERP system, the financial department can view and analyze data through the ERP system, find and feedback problems. Finance department at the same time in-depth to business activities, through financial data analysis and prediction, feedback to the business sector and management decision-making level, so that the enterprise's management decision-making is more scientific, on the basis of the ERP system with the integration of the further release of the ERP system and the integration of internal control of the enterprise in the integration of finance has also been the depth of the integration of the improvement of enterprise operational efficiency, to create more value for the enterprise.

### **3.3 Enhancing IT literacy of corporate talent**

ERP system development and application of continuous development, talent in the ERP system development and use of ERP systems play an increasingly important role, is now a very mature management tools are used in all walks of life. ERP use of the process, the need for composite professionals to carry out, because of a single ERP system to understand the talent is not necessarily on the use of the ERP system how much insight to strengthen the cultivation of talent is particularly important. Strengthening the training of talents is particularly important. This requires financial personnel in the study of accounting and other related knowledge should be strengthened at the same time the learning of computer expertise; business personnel and then familiar with the business process at the same time to have a familiar with financial

management, and all personnel should strengthen the business and financial ability to learn together, learning theoretical knowledge on the basis of learning practical skills. Enterprises in the training of employees in cooperation and innovative thinking, the training content to complete the assessment and personal career development, performance and treatment linked to mobilize the enthusiasm of employees, so as to provide personnel for the sustainable development of the enterprise security mechanism.

### **3.4 Optimizing the level of technology, strengthening risk identification and enhancing information security**

Enterprises should build basic information security protection systems according to the characteristics of ERP systems to improve the security of data and information transmission and sharing. Enhance the security operation and stability of servers and databases, continuously improve security protection, virus removal, security detection, equip and improve the corresponding anti-intrusion system, and set up security access management. At the same time, after upgrading the system security protection, it is necessary to strengthen the publicity and training on security operation for employees. According to the previous analysis, network security is an important issue that cannot be ignored by the internal control of enterprises under the environment of ERP system, in this regard, enterprises should take measures from the following three aspects: First, combined with the staff training above, to ensure that the internal control of the relevant personnel to effectively apply the ERP system to carry out their work, to avoid errors in the work to the internal control of the obstacles caused by the work. The second is to strengthen the network security construction, especially in the ERP system login stage, through dynamic authentication, data keys and other forms of security barriers, to avoid idle personnel to log in to the ERP system at will. The third is to do a good job of regular overhaul and maintenance of the ERP system, upgrade and update, to ensure that the system itself has advanced performance and full functionality, in order to provide protection for the subsequent internal control.

### **4.0 CONCLUDING REMARKS**

In view of the above analysis, ERP system as a new concept and information management system, the internal control of enterprises has a significant impact on the realization of ERP system and internal control of the efficient combination of ERP system can help to lead the enterprise to comply with the trend of the times, and at the same time to enhance the ability of enterprise management, operational capacity, and development capacity. Enterprises based on the ERP system, strengthen the direction of optimization of internal control, from the business system, business processes, business and financial integration, talent training, risk control and other aspects of the implementation of the optimization of internal control strategy to meet the business needs of enterprises, to achieve the goal of sustainable and stable development of enterprises. The ERP system plays an important role in the internal environment, risk assessment, control activities, information communication and internal audit. The ERP system and the internal control of enterprises are effectively combined to analyze the internal control strategy of the ERP system, overcome the obstacles to the implementation of the internal control strategy, as well as deal with the key challenges of internal control, to realize the efficient combination of the ERP system and the internal control, to effectively prevent the

various risks that exist in the management of the enterprise, and to comprehensively enhance the enterprise's economic efficiency and management level.

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