



Research on the improvement of ERP
implementation in purchasing departments from
the perspective of internal control

Ying Zhao and Wei Li

EasyChair preprints are intended for rapid
dissemination of research results and are
integrated with the rest of EasyChair.

December 27, 2018

Research on the improvement of ERP implementation in purchasing departments from the perspective of internal control

(Full Paper)

Ying Zhao*, School of Business Guilin University of Electronic Technology, Guilin, China, zhaoying@guet.edu.cn

Wei Li, School of Business Guilin University of Electronic Technology, Guilin, China, 619792656@qq.com

ABSTRACT

With the wide applications and development of information technology and network technology, focusing on the background of ERP (enterprise resource planning) systems and people's reliance on both information system and accounting information systems, as important parts of ERP, plays a vital role in the management of enterprises. However, due to the continuous introduction of new innovations in the ERP system, enterprises continue to improve their competitiveness and management levels. When advanced ERP management can be practically implemented in the system, it will inevitably present difficult internal control measures, network environmental risks and many other problems. Then how to build the internal control system to ensure that enterprises in the pursuit of ERP information systems, simultaneously better serve the enterprise's own internal controls and management, and minimize the internal control and design defects. In addition to the system controls, in order to better conduct internal controls, one must deeply investigate the business processes, using necessary informational means, and constantly change their own architecture and business process reengineering (BPR), in order to technically improve the internal governance structure. Thus, the corresponding internal controls will include the system-oriented controls and the various business, personnel, and departments' overall grasp of the change. This encourages enterprises to seek reasonable ways, methods and ideas for continuous innovation. We should actively address and adjust the challenges brought by the internal control system of the accounting information system under the ERP environment, and make full use of ERP technology and BPR to realize the internal control norms of enterprises.

Keywords: Internal Control, ERP implementation, business process reengineering, improvement.

LITERATURE REVIEW

In 1977, the International Association of Internal Auditors (Institute of Internal Auditors, abbreviation IIA), published the system auditable and controls (Systems assurance and control, referred to as SAC) report, As the first report combining the concept of internal control and ERP, it stated that information system development, may bring related risks to the enterprise, and the internal controls and development of information systems are closely related. In recent years, research on the relationship between accounting information systems and internal control, including: Ningjiawa (2010), John Morris (2011), Alexandra Kanellou, Charalambospathis (2013) and Aiven (2008) show that ERP positively influences accounting information and practice and the effectiveness of internal controls. It is necessary to complement and develop the traditional internal control framework.

From the perspective of the impacts of ERP accounting information systems on internal controls: Qin Zhigang (2004) analyzed all aspects of the five elements of the impact analysis, and concluded that accounting information makes the enterprise internal controls over the scope, technology, and functions (Zhangyongfang 2008, Aiven 2008) change, thereby leading to the formation of accounting information with new characteristics. However, things usually have two sides, (Tri Ting 2011, Aiven 2008) also believe that accounting information will inevitably bring challenges to the original states of enterprises, For example, the existence of the form of expansion will

increase the security risk of data, but also the organization of the enterprise to improve the structure of the higher level of the requirements.

From the aspect of the improvement of the ERP system and internal controls, the results are mainly divided into the process improvements and overall improvements. In terms of process improvement, Tomas H. Davenport (1993), Xia Yong (2008), Chaoxiaoli (2016), Tri Ting (2011) All think that the use of information technology for business process reengineering, more satisfied with the ERP environment to establish an enterprise internal control framework requirements, ERP implementation and enterprise process reengineering has the role of mutual promotion, in this specific operation, the design of the minimum inventory early warning value (Gao Yingfo 2018), the Business Process Control points (Linjian 2011), and the procurement budget critical Control points (Chaoxiaoli 2016) are used to conduct corresponding studies of the specific internal control issues at the operational level. At the overall level, including the internal control environment (Robert N. Anthony 2010) Lăcrămioara-rodica Hurloiu, Elena Burtea, Bianca Florentina Preda (2014), Internal control supervision and evaluation (Zhang Yongfang 2008), external audit mechanism (Tong Zhang 2018), middle and high level ERP concept (Steven Scott Phillips 2012), technical safety and data security (Liu Weidong 2014, Zhou Yi 2018).

In a comprehensive analysis, most scholars have not studied this aspect deeply enough, and the relationship between theory and practice still needs to be improved, Sun Li (2015) proposed countermeasures to achieve effective internal controls based on the simple theory of the firm; Lu Yan (2017) studied and analyzed the issue without going into the business module; Huang Jianfang (2017) introduced the ERP system implementation process stage, but this research also lacks a typical case study and analysis. Thus, along with the informationization degree unceasing enhancement, draws lessons from the Overseas Mature Experience Foundation, with our country enterprise's concrete situation unifies, the establishment of a targeted internal control system is still one of the developmental directions in the field of internal controls in China, and it also highlights the value of this study.

THE RELEVANT THEORY

Internal Control Theory

Internal controls, refer to the mechanisms that ensure the safety, integrity of and reliability property, and accounting information, improve business management, improve economic efficiency, and ensure the company's economic development. To ensure the normal conduct of the company's economic activities, the company takes a series of necessary management measures with respect to the internal management control system, in order to address the fierce external competition and internal management needs for the purpose of strengthening its continuous development. The COSO Committee issued the internal control program document called the COSO Report, which established the overall framework of internal controls and outlined, the five elements of internal control, including the control environment, risk assessment, control activities, information and communications, and monitoring, along with another five interrelated elements. Later, the modern internal control theory, represented by COSO, divides internal control into internal environment, goal setting, item identification, risk assessment, risk response, control activity, information and communication, monitoring eight elements, and further increases internal control to risk level. Later, but for China, the Ministry of Finance's "internal control basic norms" in the form of reference to the COSO report five elements framework, but also reflected in the content of the risk management eight elements of the essence of the framework.

ERP Information System Theory

The ERP (Enterprise Resource Planning Enterprise Resource plan), was first proposed by the Gartner Group Inc, a consulting firm in the United States. It aimed at optimizing the enterprise's material resources management, human resource management, financial resources management, and information resource management of the integrated enterprise management software. The core idea is to maximize the enterprise's upstream and downstream resources based on the effective management of the system. The 1990s, relying on computer technology, enterprises to continuously improve the external environment adaptability and comprehensive competitiveness, strengthen the enterprise supply chain management, but also how to gradually develop the enterprise internal resources overall planning to become effective use and management of the overall resources management thought of the qualitative leap. Compared with the previous, the integration of computer, Internet development, its stage contains more advanced management concepts, and realized the logistics, capital flow and information flow of integrated management, optimization and comprehensive integration of the enterprise resource allocation.

Business Process reengineering theory

Business process reengineering is a method of using information technology to fundamentally change enterprise processes and achieve major business goals. Business process reengineering was first established by the American business management master Michael. Hammer. He emphasized using business processes to transform objects and centers and established the goal of caring about customer needs and satisfaction. He stated

that, existing business processes required fundamental rethinking and thorough redesign through, the use of advanced manufacturing technology, information technology and modern management tools. This would, maximize the functional integration of technology manage the functional integration. In the process, this would break the traditional functional organizational structure and establish a new process-oriented organizational structure, to achieve dramatic cost, quality, service and speed improvements in businesses.

THE CURRENT IMPLEMENTATION OF ERP SYSTEM ON THE IMPACT OF ENTERPRISE INTERNAL CONTROL

Internal controls and the ERP system are different from each other. The core of ERP system is to "plan", and the core of internal controls is to "control". The plan precisely needs the enterprise to use the means of control, and the object of control is also the enterprise's plan. The internal control thought to be embodied in ERP system, are the use of information technology to serve the business objectives of the enterprise. Both show the "You have me, I have you" relationship in good conditions. The internal controls play an important role in the ERP system, and the ERP system supports the internal controls. With the continuous development of information technology and the introduction of advanced ERP system, enterprises will inevitably have a huge change in the original internal controls, which will and impact their businesses.

Compared with the traditional accounting information system, the main changes of the ERP system are as follows: (1) The emphases of their designs are different. The traditional accounting information system only designs the whole business process from the perspective of the whole enterprise and even the enterprise-centered upstream and downstream of the supply chain system are designed, more macroscopically. (2) There are different degrees of automation. The application of information technology allows enterprises in the accounting process to achieve a human-computer interaction mode. They can use accounting vouchers and other related financial information to implement basic automation. The ERP system directly from the original certificate, To reduce the impact of human factors on accounting data, effectively control accounting fraud, but also improve the security of information processing data. Accounting vouchers and other related financial information basic implementation automation, the system can automatically detect the subject code, accounting voucher code, date, amount, etc. (3) The accounting functions are different. The traditional accounting information system belongs to the afterwards control more, and the ERP system improves the enterprise's accounting efficiency, makes each core business function unify, realizes the integration and sharing of the information data of the internal resources, plays the function of control, forecast and decision-making, and improves the management efficiency of the enterprise, strengthen the financial forecasting, decision-making, and controls; and also improves the financial management of enterprises, This results in the full cooperation of various departments in order, to achieve the plan, adjustment the events and, controls, and give full play to the supervisory and decision-making functions. The ERP system implementation will inevitably have a certain impact on the internal controls of enterprises, mainly in the following areas:

Internal Control Environment

Flatten the organization

The organization level is reduced, the control responsibility is clarified, the decision-makers and the employees can communicate quickly, and the efficiency is continuously improved. Of course, in the information-sharing enterprise environment, the distance between departments is narrowed, and the coordination between departments and the overall management efficiency are improved.

The scope of control is expanded

The enterprise's internal prior control scope mainly included the personnel, finance, and information processing methods and procedures for the internal management and control of the enterprise. However, with the continuous development of ERP information system, the enterprise's internal control scope is constantly expanding. It no longer just encompasses people and the management system, but now focuses on the enterprise's internal management activities, such as the system development, software development, management model, supply and marketing, human resources and performance evaluation. In other words, for the overall management of enterprises, the collection of financial department and business unit data is also expanding, which will allow for the real-time control of the enterprise.

The form of the control program

"Human-Computer Interaction" mode will be used, so that accountants will have the help of computer functions

and centralized data processing. Therefore, according to the functional division and the main division of labor internal controls are no longer applicable to enterprise management. This result in the accounting staff's function no longer being only accounting and supervision and expands the scope of the accounting staff, which may bring more work enthusiasm into the business management control decision-making.

Risk Assessment

During the extensive application and development of the ERP system, accounting personnel relying on computers to improve work efficiency. Based on information technology, the enterprise's control environment conducts the necessary risk assessments. Due to the expansion of the scope of the control environment, it changes the traditional risk control content and methods, and will also be affected by the risk of the information technology itself, such as: the intrusion of computer viruses, corrupted or forged data due to negligent controls and data damage and loss due to the faulty preservation of the data. Therefore the first input error or procedural failure will inevitably increase the risk of loss or errors. We need to strengthen the protection of our own systems, and fully develop the ERP system with its risk assessment advantages, to prevent and control the business process risk.

Control Of Activities

With the full use of ERP technology and the "human-Computer Interaction" mode the focus of control moves from people and systems to people, and computers, which obviously increases the difficulty of internal controls. Control means can be changed, compared with the traditional control method, based on the enterprise business process that integrates or optimizes the program, it is more flexible. Internal controls are to achieve the optimal allocation of resources, and the use of an ERP system simplifies manual efforts by using information to monitor the efficient use of resources in the business.

Information Exchange And Communication

With the help of the ERP system and network technology, the speed of accessing the originally isolated and lagged financial information of the enterprise is effectively accelerated, which effectively integrates the enterprise flow, capital flow and supply chain. The efficient transmission and sharing of information provides for good communication conditions between the various departments of the enterprise, so that the financial department avoids the "island of information" and provides convenience and timeliness for the users of the information. However, because the enterprise's organizational structure is not rigorous, the ERP system's powers and responsibilities may be ambiguous, which may cause each department in the enterprise to have unnecessary contradictions.

Supervision

In the ERP environment, many control methods and various procedures are completed through the computer, so the object of supervision from the management of people to the supervision of personnel and system security, Monitoring the system on time and controlling the control parameters and adjusting them in accordance with the procedures of the enterprise is an effective guarantee for the enterprise to implement the internal control.

PROBLEMS IN THE IMPLEMENTATION OF ERP IN PURCHASING DEPARTMENT AND ANALYSIS OF CRITICAL CONTROL POINTS

ERP Cannot Meet The Internal Control Requirements Of Its Own Defects

(1) The ERP system authorization setting relies on the rigorous organization structure. With the help of the information, everyone in each department will be operating on the network, which requires the ERP system to be implemented with strict authorization. The problem is that ERP cannot detect fraud. Its authorization settings rely on

the organization of the enterprise structure, and the internal controls are closely related to the company's poor organizational structure, which will naturally lead to ERP licensing setting problems. For example, sales and marketing managers are also authorized to manage the purchasing and marketing departments, which clearly violates the internal control that states that incompatible duties should be separated from the manager to eliminate decisions made for personal gain.

(2) "Human-computer interactions" increase the ordinary and operational risks in the enterprise. The process is difficult to analyze and respond to enterprises in the introduction of ERP system, accompanied by the increase in the scope of risk, "human-computer Interaction" mode so that enterprises need to pay more attention to the computer system risk control, but the enterprise in the ordinary risk In addition, the ERP system is designed operated, and completed by human. High amounts of front-end input data that are used to determine the accuracy of a series of related works, will also increase the risks, and even affect management decision-making. However ERP also needs the large-scale front-end data to key points. Furthermore, the internal control measures of the enterprise must be embedded in the business processes, and the use of ERP can periodically generate relevant reports from various departments, such as: inventory reports, customer credit reports, forecast the company's sluggish inventory, the calculation of the stock Zhou Zhun rate of the enterprise information, In the business process will only be in the system for the implementation of the correct and wrong or beyond the circumstances of the judgment of the hint, this will only cause the final warehouse demand or the backlog of raw materials, will affect the normal production of enterprises. Therefore, the problem is that the enterprise has not yet reached the appropriate standard. Expectations such as the assessment of the risk period are, not used to analyze the changes in the external environment, and it is more difficult to identify the changes in the factors that affect the emergence of increased risk. This cannot be the middle link in the risk of information transfer to other management departments, The links between enterprises are not close, and it is not possible to take into account and attach importance to other risks through the occurrence of a risk; Of course, the system can not actively deal with these risks, ERP system has no advanced risk prediction model, the existing model is only to reflect the history, not the future factors into the model, There is not much impact on the future, more cannot replace the comprehensiveness of human judgment.

(3) The construction enterprise that does not pay attention to control activity key point in the process design in order to carry out the effective control activity, nothing more than in the business process to add a number of new procedures to check the power of the department, of course, The "at what time and which link to add" problem increases the difficulty of control activities. Enterprises do not pay attention to the construction of the key points of control activities, or to the efficiency comparisons before and after procedure changes. Enterprises in the business process blindly increase the processes to achieve internal controls, and in the course of business add many links that will inevitably increase costs. Although the long-term optimization, will improve the management efficiency of enterprises, it will reduce the short-term efficiency of enterprises. This is the reason why modern enterprises pursue more short-term effects rather than optimizing processes.

(4) The results of the implementation of the system are not strictly, positive evaluation feedback system for the internal controls. If the implementation is not smooth, it will feel like the internal controls are feasible. This judgment standard obviously has some subjectivity and lacks the rigor, of a positive evaluation feedback system. Unclear provisions will also create contradictions between departments. In the fragmented basic information input process, ERP cannot identify the accuracy of personnel information and supplier evaluation data is not comprehensive, which will impact the information exchange.

(5)The ERP system has not yet reached a complete audit effect since it is not monitored by a special department determines whether it is in accordance with business processes to do. Therefore, ERP has not yet achieved full audit results. For the control that cannot be realized through automation, it also needs to be controlled by people, which will inevitably result in negligence and ineffective supervision.

General Issues Based On The Overall Dimension

(1) There is a lack of in-depth understanding of the internal control management of internal controls. The internal controls are mainly based on the enterprises' control effectiveness and are not aware of how the internal controls of enterprises have been affected by accounting information. The introduction of an ERP system does not integrate

ERP supply chain management into the internal control of the enterprise. In general, the enterprise's internal control system only stays at the specific operational level, and the construction of a perfect internal control system needs to be further strengthened.

(2) Managers do not pay attention to the implementation of the system with the continuous development of enterprises. To adapt to the changing external competitive environment, enterprises must introduce ERP information systems, according to the specific organizational structure of their enterprises and their business needs in order to establish a relatively flexible, personalized accounting information system. But the leadership of the internal control of the construction lack sufficient attention, resulting in the company only introducing the general-purpose ERP that is not set up in line with their own business process reengineering. Then, they rely on the information of the internal control system to improve the construction of the ERP, which actually does not require much. The implementation process will also be more staff members that do not pay attention to the phenomenon where a person responsible for multiple posts still appears. Therefore, the role of mutual control between the posts is not strong. Internal audit also did not play an effective role, and the lack of internal control of the evaluation process will affect the overall management efficiency of enterprises.

(3) The enterprise's own internal control environment is too poor for the introduction of ERP technology. In the organization structure, the personnel must have permission to address problems that still exist due to negligence or unreasonable placement, the lack of scientific evidence, the enterprise's culture, the staff's evaluated capacity and human resources policies. The phenomenon of the structure and the number of posts causes the ERP system to have drawbacks with respect to the powers and responsibilities, which will be contrary to the ERP environment for internal control requirements.

(4) Operations and maintenance have high costs. The adaptability of ERP as a kind of information technology is not strong. Its introduction, operation and maintenance require strong financial support, and for small enterprises this creates a certain pressure. In addition, in the ERP, its process is set according to the specific requirements of various departments. There are trade-offs and, there are no uniform standards. Therefore, enterprises cannot use a standard measurement and evaluation of the performance level of each department.

(5) The operator of the ERP system in all enterprises have not been sufficiently proficient in recent years due to, the continuous introduction of ERP systems. However because the operator's own capacity is insufficient, the company's technical training is also insufficient, thus resulting in operators that do not understand the new business processes under the various modules and insufficient proficiency. This can easily lead to work errors. Therefore, in this state, effectively implementing and improve the internal controls of enterprises is impossible.

Specific Problems In The Implementation Of The Procurement Business Process

Problems arising from the actual work of the Procurement Department

The procurement personnel does not pay attention to the beginning data entry, which later causes the system to automatically generate data and the authenticity comes into question. The garbage data output adds some unnecessary work and troubles, and the procurement personnel sometimes proceed without the purchasing department manager's authorization. This allows the purchaser to complete the work in lieu the authorization. Since the accuracy of the front-end input data determines a series of related work, without the control of the procurement manager, the initial data monitoring and inspection abilities will be lost. After this failure fraud may also occur. This work is not rigorous, is bound to cause increased risk, and can affect management decision-making.

Although procurement personnel in accordance with the requirements of the early stage to do a large number of basic data work, but the enterprise has not improved the previous procurement department inventory backlog or is in short supply phenomenon, so that each procurement link cannot be carried out according to the main production plan smoothly. There is no detailed market research on the materials that have significant impacts on production. Therefore, the system includes the procurement lead time, master production planning, and BOM material levels. Small and important basic data information is not very clear, and only approximate subjective

guesses. As a result, procurement impacts production. In addition, in the implementation process, because everyone's interests drive, do not want to be real-time control and supervision, so that the ERP system to enable enterprises to achieve the responsibility of clear, material control, reduce waste of the controlled state of the goal has not been achieved.

In the actual workflow of the purchasing operations, the procurement department does not to affect production. However, they do receive the blame of superiors, who have to borrow money to buy new raw materials. This causes capital tensions, supply chain ruptures and the excessive accumulation of raw materials in the warehouse, but it also reduces the turnover speed of capital, affects the performance and evaluation of the warehouse management. This causes dissatisfaction in the department and contradictions between the two departments appear. To solve the contradiction between the two, the internal control requirements of the procurement departments must occur in real time according to production plans for material procurement. However, they are also worried that the procurement department in order to shirk the responsibility of production demand, does not act in accordance with the provisions of the production department issued in the material demand plan. Both the procurement department manager and the warehouse management department manager must have consistent decision-making and agree to proceed smoothly. However, in the actual operations, there are two parallel control processes, and there may be inconsistencies and controversies that will affect the production department and normal material procurement and supply. In this way, it is easy for one side's mistakes to affect the other process, which decreases the efficiency.

When the purchasing department negotiates the price with the supplier, the original enterprise, in order to prevent the Purchasing department manager eat gaining rebates, has designed the finance department to check the purchasing department manager according to the price list sent by the purchasing staff after asking the supplier. Such dual-line control will inevitably cause unnecessary contradictions and affect the progress of the entire process efficiency.

Supplier problems

The supplier's personal basic information is established, but there are often coding mistakes, no rules, and the product specifications, models, quotations and other material information are not well delineated and disclosed. Therefore, in the selection of suppliers, companies often spend much time checking the supplier's personal information and correctly matching the provided materials provided. This can also cause the ERP to be unable to directly match each supplier to material prices, specifications for comparison and trade-offs, in order to quickly and accurately select the right supplier.

Statistical supplier evaluation data is not comprehensive, and the supplier evaluation system is not perfect. Although the ERP system can establish the basic information of a supplier, but the evaluation criteria for suppliers can be too simple and, only provide the delivery time and quality. The cause of this phenomenon is due to the ERP receiving time point and the vendor's delivery time not being synchronized. As a result, the system cannot acquire the material in time to enter and leave the factory. In addition, evaluations are based on errors and, the same scoring standards, thus resulting in different characteristics of the manufacturers and rating inaccuracies.

For the previous frequent supplier, unilateral shortages of material occur and the evaluation results cannot be timely fed back to the procurement department. Therefore, the procurement of suppliers and the inquiries, parties, bids, and the implementation of the purchase price list, for the suppliers cannot occur in real time due to the possible credit risk and service quality of suppliers that affect making a reasonable choice. In addition, these need people to make comparisons, and ERP cannot identify the supplier's information and evaluation results. This is important and relatively irreplaceable to the company's production since it will have significant impacts on the suppliers. The first failure to supply raw materials will result in large losses for enterprises and therefore enhance its importance. Nevertheless, simply put, the contracted defaulter is subjectively identified as the supplier of the occasional credit risk. There is no significant impact on the enterprise by the supplier of these problems. In research, we must discover the real reasons for the risk and use a positive method to help to ensure the overall efficiency of the block chain. It is precisely because enterprises do not do so when these problems occur that causes, a vicious cycle of a significant quality of material purchases and declining productivity.

Problems with Warehouse Management

Before the supplier's material arrives, the warehouse management department inspects it. If it is approved, the direct warehousing reports this to the Finance department for payment. If it encounters unqualified deficient product, it reports this to the purchasing department, who negotiates with the supplier, and conducts bad article processing. The whole process appears to be very broad, and the control of the entire process is not very rigorous. To save labor costs, one person is responsible for a number of positions, including the regular quality inspection and complete acceptance, and there are no technical and quality checks. The responsibility for this is unknown, resulting in the production of numerous poor quality products.

Analysis Of Critical Control Points In The Process

Material requirement plan to release and purchase requisition link

Risks: Not in harmony with the requirements plan and without proper permission to address problems.

Control measures: (1) Procurement departments should be in line with the actual needs of the production department to prepare timely and accurate purchase demand plans, and actively adjust the procurement budget. (2) The warehouse management departments should do a good job of coordination and communication, effective diversion, and scientific procurement. (3) There should be clear responsibility and approval processes.

Select Supplier link

Risks: The supplier and purchasing department personnel show favoritism, the supplier's credit risks, and the supplier's product quality risks

Control measures: (1) Scientifically and reasonably determine procurement pricing and a fair and impartial selection of appropriate suppliers (2) Establish a comprehensive evaluation system of supplier credit and improve the Supplier Management System. (3) Strengthen the establishment and supervision of the procurement contract system to ensure the procurement quality and the solve contract disputes. (4) Carry out the effective tracking of important materials provided by suppliers. (5) Enhance the authority and status of QC personnel.

The Purchase order approval link

Risks: Favoritism, neglect of duty, ignoring the careful examination of orders resulting in less or more purchase

Control measures: (1) perfect the corresponding approval process (2) to the approval Department and personnel to do a good job of authority control and effective supervision, only authorized person can be approved and must be personally approved.

The completion of purchase orders and evaluation links

Risks: Errors frequently caused by evaluation, and the impact of performance evaluation on employee positivity

Control measures: (1) Timely evaluate procurement staff performance and supplier credit issue and improve the relevant management evaluation system (2) Strengthen information the exchange between departments to evaluate the sharing and lessons.

Warehousing quality inspection links

Risks: the supervision of warehouse personnel is unreasonable or there is fraud, the acceptance of normative material loss, quality control and warehouse management duties are performed by the same person, and the lack of QC ability

Control measures: (1) QC personnel and warehouse management personnel should not be the same person, and there should be effective separation of duties. (2) Establishment of a normative and scientific acceptance System. (3) Warehouse management personnel that accepts goods, the procurement of materials such as the quantity, specifications and other basic information must be consistent with the purchase order data. (4) Strengthen the quality inspection skills of QC personnel and improve the inspection technology. (5) The relevant departments should make timely processing decisions according to the actual situation.

The payment link

Risks: Inaccurate payments and delayed payment lead to upstream and downstream credit risk problems for enterprises;

Control measures: (1) Strengthen the supervision of financial personnel and responsibility training. (2) Strengthen the examination of the authenticity and legality of purchase invoices.

INTERNAL CONTROL FROM THE PERSPECTIVE OF PROCUREMENT DEPARTMENT ERP IMPLEMENTATION IMPROVEMENT MEASURES

Reconstruct The Organization Structure

There should be clear authority, to prevent fraud and to reconstruct the organization structure. The successful implementation of ERP relies on a strict organizational structure since the ERP cannot detect its own corrupt behavior. Therefore, the internal control environment requires the purchasing department to implement strict authorization settings for the ERP system, and the authorization setting depends on the strict organizational structure of the enterprise. Thus, to enact the ERP advanced management platform, we must first establish a good control environment, with a strict organizational structure a sound control system, and mutual restraint. If we model the strict approval system in this way, we can use the ERP system to prevent fraud and find job-compatible private interests and behaviors in order to achieve relatively strict authorization control.

*Objective Assessment Of Risk, Use Of Advanced Technology To Identify Risk Prevention**Using large data to obtain the supplier's credit data*

In many developing Internet technologies, the positive influence of large data on the quality of accounting information has been preliminarily confirmed. The credit information of the enterprise is converted from the information. In general, the credit information of the supplier is stored in the database only after processing the data of the enterprise in order to establish a uniform data format for the production enterprise credit reports. Therefore, only through the full use of large data technology by the supplier of the economic activities and the credit ratings from dynamic reporting can, an enterprise enact the early identification of the upstream risks and enact preventative responses.

Based on block chain technology to reduce the suppliers' risk

Enterprises order and procure raw materials according to market sales. This makes procurement the most important step in the supply chain. It purchases directly affects the later production quality and sales. Therefore, in

the complex supply chain, the enterprise can use block chain technology to procure raw materials from the source. Block chain technology must require suppliers to provide specific information on raw materials, which will help enterprises understand partners or select partners by providing a reference through the use of two-dimensional code technology for raw materials in the production and the factory before the specific information identification. The manufacturing phase also provides detailed records of the production of various product workshops, including the production time and other information, which is coupled with the sales phase. Consumers with the products in their hands can scan the product two-dimensional code, which can directly obtain products information from the acquisition of raw materials to the production and circulation of all aspects. A chain of alliances can be built by the participants in the chain. Regardless of, which stage encountered errors, the various links can be traced back through the block chain in order to assign responsibility and correct errors. In addition to the block chain technology being highly secure and tamper-resistant, which reduces the control risks for enterprises, it provides the necessary technical support for its internal management.

Based on backup management system risk prevention

While using information technology to improve work efficiency and strengthen internal controls, the information system will inevitably impact the enterprise risk. We need to actively conduct backup management. In the selection of backup system, to the system must meet the increasing requirements for the system capacity and ensure that the use of backup software for mainstream systems and database applications plays a certain supporting role. In the network background of the rapid development of information technology, the network data storage Management system is fully utilized, and centralized management is carried out through the specialized data storage management software to realize automatic backups, file archiving, data grading storage and disaster recovery.

Improve And Standardize Control Activities And Carry Out Business Process Reengineering

Through the analysis of the key control points of the purchasing department's business process, the BPR thought is used to reorganize the business process in order to strengthen the monitoring of the internal control activities, meet the requirements of internal control, improve the working efficiency and improve the operational management efficiency of the whole enterprise.

Establishing A Unified Basic Database And Perfecting The Information Communication Link

In the face of various information data generated by the purchasing department, it is necessary to establish a unified basic database to prevent the decrease of information isolation and protect the efficiency of information transmission sharing. Currently, the development of XBRL technology provides the same convertible format for the various valuable information of various departments, provides a more convenient channel for information exchange and communication, and realizes the goal of "counting one, sharing information". In addition, among the various business departments, there should be a mutual understanding and communications, and they should cultivate the awareness of and cooperation among the various departments. In addition, there should be clear responsibilities and influences for all department mutual constraints should control the overall operational efficiency of the enterprise in order to improve its purpose.

Upgrading Of Traditional Audit Instruments And Strengthening Of Internal And External Audit Collaboration

Auditors need to participate in the internal controls of the business process and the division of responsibilities between departments. With the continuous development of information technology and the economy, traditional audits also have higher requirements, including the expansion of the scope of the audits, audit technology and so on. Under the background of the "double trial system", the joint audit of the internal audit and the qualified external auditor has become a major feature of contemporary audits. Therefore, for internal audits, management should pay significant attention to the company's various aspects of the internal audit work in order, to lay a foundation for

the development of the external audit. In addition, they should strengthen communication with internal auditors, make full use of internal audit results, and provide authoritative audit reports and guidance suggestions for the company. In other words, both of them are not only different from each other, but are also interrelated and complement each other. Under the premise of giving full play to their inherent advantages and maintaining objectivity and independence, the combination of the internal audit and external audit actively and effectively establish a good, long-term, good cooperative relationship that improves the overall audit quality and efficiency. It is more advantageous to supervise the supply chain of the enterprise and make corresponding guiding evaluations to improve the internal control efficiency of the enterprise.

Strengthening Of Personnel Training In The System And Training Of Compound Talents

To guarantee the smooth operations of ERP, we must strengthen the system training for the personnel and cultivate the compounded talents that will become the key of the enterprise internal control construction. In the information background, we must improve the financial management staff recruitment threshold. The incumbent financial staff must conduct the necessary professional and technical training, accelerate the transformation of the traditional financial work, change the functions, increase the participation in the management of the enterprise, strengthen the supply chain work flow controls actively learn computer technology, enact flexible responses to solve various technical problems, and maintain good data integrity and sharing.

Strengthening The Focus Of Leadership

The good and bad of internal controls are more dependents on the level of attention of the enterprise's top leaders. Leaders should be aware of the use of advanced technology to improve efficiency, but also should ensure the overall management efficiency of enterprises. While revising and perfecting the internal control system, we should integrate the business process reengineering into the supply chain of the enterprise, and only establish an ERP system suitable for the development of the enterprise, to enhance the enterprise's competitiveness. Leaders should learn more advanced technologies and actively embrace and support innovative development projects.

REFERENCES

- [1] Alexandra Kanellou, Charalambos Spathis. Accounting benefits and satisfaction in an ERP environment[J]. International Journal of Accounting Information Systems.2013(3):209-234.
- [2] Aiven, Wang Yahi. Research on internal control of enterprise accounting informationization [J]. China management Informatization, 2008 (15): 14-17.
- [3] Chaoxiaoli. Case study on internal control optimization of a company in ERP environment [D]. China Institute of Fiscal Sciences, 2016.
- [4] Gao Yingfo. Analysis on how to apply ERP system management for cost control [J]. Accounting studies, 2018 (09): 105+107.
- [5] Huangjianfang. Discussion on the implementation strategy of ERP system of listed companies under the information environment [J]. Contemporary accounting, 2017 (12): 7-8.
- [6] Lacramioara-RodicaHurloiu, Elena Burtea, Bianca-FlorentinaPreda. Organizing Inspections Regarding Managerial Internal Control and Preventive Financial Control[J].Procedia Economics and Finance, 2014,16:275-280.
- [7] Linjian. Research on ERP internal control based on rooting theory [J]. Accountant, 2011 (10): 65-66.
- [8] Liu Weidong. Research on improvement of ERP system in DL Locomotive Company [D]. Dalian University, 2014.
- [9] Luyan. Z Power supply Company Internal control research in ERP environment [D]. Jilin University of Finance and Economics, 2017.
- [10] Morris, John J. The Impact of Enterprise Resource Planning (ERP) Systems on the Effectiveness of Internal Controls over Financial Reporting [J]. Journal of Information Systems, 2011, Vol.25 (1), pp.129-157.
- [11] Ningjiawa. Theoretical framework and development strategy of internal control of accounting information

- System [J]. China management informationization, 2010,13 (01): 6-8.
- [12] Qin Zhigang,. Thoughts on internal control in enterprise Informatization Environment [J]. Accounting Newsletter, 2004 (02): 78-80.
- [13] Steven Scott Phillips. Control Your ERP Destiny: Reduce Project Costs, Mitigate Risks, and Design Better Business Solutions [M].Lightning Source Inc (US,UK,AU) . Frist Printing: May 2012.
- [14] Sun Li. Analysis of internal control of accounting information system under ERP environment [J]. Quotient, 2015 (22): 139.
- [15] Tomas H. Davenport. Process innovation: Reengineering work throughinformation technology [J]. Harvard Business School Press, 1993:19-28.
- [16] Tri Ting. Internal control under the environment of Accounting informationization [D]. Shanxi University of Finance and Economics, 2011.
- [17] Xia Yong. Analysis on the key points of establishing and implementing internal control system in ERP environment [J]. China management Informatization, 2008 (14): 5-7.
- [18] Zhang Yongfang. Research on internal control of Enterprise accounting information System under the environment of Accounting informationization [D]. Ocean University, 2008.
- [19] Zhang Tong. Perfecting the function of ERP system to strengthen enterprise internal control [J]. Taxes, 2018 (05): 145+147.
- [20] Zhou Yi. Defects of internal control of small and medium-sized enterprises in ERP environment and its improvement measures [J]. Operations and Management, 2018 (03): 101-103.