

Risk Management of Information Technology Outsourcing based on Cobit

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Abstract: At present, more and more enterprises outsource their information technology, which causes various risks. The first part of this paper is the brief introduction of COBIT, second part is the detailed analysis of COBIT-based outsourcing related risks of information technology, and the final part is a series of risk management measures related to the risks. This paper is expected to provide some information and advices to the relevant enterprises.

1 INTRODUCTION

At this stage, in this context of the rapid development of the market economy, the development of enterprises' information technology faces more stringent requirements. In this environment, information technology outsourcing has gradually developed. However, enterprises' mode of information technology outsourcing has both advantages and disadvantages for the development of the enterprise itself, on the one hand it could meet the needs of information technology very well, but on the other hand it also brings the risks to enterprises' business operation. To make full use of the maximum value of information technology outsourcing, IT project management must be reasonably used (Qianglin Z,2010). Strengthening risk management of information technology outsourcing based on COBIT, could effectively control the risks, promote the application of information technology, so as to promote the successful implementation of the outsourcing projects, and ensure the normal operation of enterprises, what's more which is beneficial to the progress and development of the whole social information technology (Kun H,2010).

2 COBIT OVERVIEW

ISACA (Information Systems Audit and Control Association) represents the information systems audit and Control Association in the United States, COBIT (Control Objectives Information and Related Technology) refers that, based on the control target system before, according to current relevant international standards and industry standards, control objectives system established by optimizing them, which is the world's most authoritative, most advanced information technology management standard (Dejian W,2007). COBIT is applied to the audit staff's information technology outsourcing control work, and which could provide a certain reference. According to the information system cycle, COBIT can be divided into four areas of planning and organization, acquisition and implementation, delivery and support, monitoring and evaluation, as shown in figure 1 (Lei H 2013).

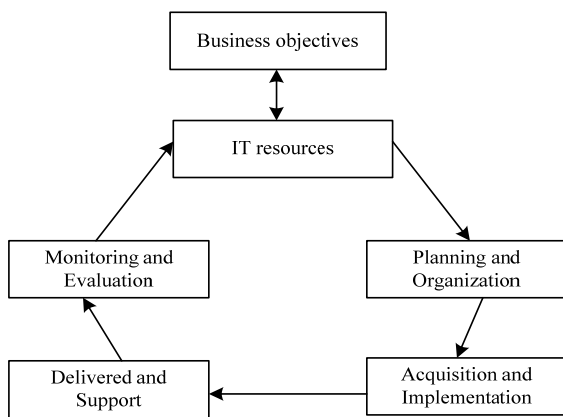


Figure 1: Overall framework of COBIT

First, the part of planning and organization involves the enterprises' strategies and tactics, mainly focuses on searching for how IT making the best contributive channel for completing business tasks. Second, acquisition and implementation, in order to complete the IT strategy of the enterprise, it is needed to identify, purchase and implement the IT solution of the supplier and at the same time integrate the solution into the business of the enterprise organically. In addition, this area also involves the situation of maintaining and changing of current system used, so as to ensure the continuity of this solution and meet the requirements of the business objectives (Zongbin Y,2013). Third, delivery and support, the focus of this area is the actual delivery situation of the service needed, which contains user support services, security and continuity management, etc. Fourth, the part of monitoring and evaluation represents that enterprises need to do regular assessment for the quality and control degree of the IT process. In this field, internal supervision and performance management, legalization and standardization will be mainly explained (Juan L,2012).

3 RISKS OF INFORMATION TECHNOLOGY OUTSOURCING

In the level of enterprise management, information technology outsourcing service refers to the strategic use of enterprises' external resources: it is kind of management mode that users effectively integrate and use the enterprises' external ideal IT specialized resources, so as to promote the cost reduction, work efficiency and the core competitiveness of

enterprises. In essence, the information technology outsourcing service mainly refers to a model that for achieving a goal the user (outsourcing subject) outsources its original all, part, or planned information technology service to professional companies by signing the contract and to service under the operation of specialized companies and personnel (Hanmi L,2010).

The main reasons for enterprises' outsourcing: 1. cost, adopting information technology outsourcing, can greatly reduce the non-core business, and then achieve the costs reduction of enterprises' operation. 2. Technology, technical outsourcing could cleverly use supplier's technical strength to meet their own information technology needs. 3. Core competence, outsourcing non-core business of the enterprise can promote the development of core business. 4. Business process, outsourcing can promote the process design optimization of enterprises' business, information, and management (Xiaowen L,2009).

3.1 Risks of planning and organization

First, the risks caused by blind outsourcing. The enterprise does not carry out scientific analysis on outsourcing, does not fully understood the specific scope and necessity of outsourcing, and does not know its own business objectives and positioning systematically, in this case the information technology outsourcing will have certain risks. Second, the risk of information positioning, the enterprise should reasonably evaluate its own informationization degree, so as to fully grasp its own information technology needs, should not blindly seek and apply the latest information technology, if ultimately its development status could not adapt to the information technology, in turn it will affect the improvement of enterprise's work efficiency. Third, the risks caused by outsourcing cooperation mode and content. We all know that the companies are very different, which makes the outsourcing process particular and complex, and there are obvious differences in terms of security and confidentiality, process supervision, division of rights and responsibilities.

3.2 Risks in acquisition and implementation

First, risks in choosing the outsourcing service providers. Supplier plays a key role in outsourcing, and we must pay attention to the choice for suppliers to ensure that the supplier has high qualification and advanced technology. Enterprises should carry out

reasonable and objective evaluation for outsourcing service providers, and fully understand the level of its information technology, corporate reputation, specific financial situation and enterprise culture. Third, the risks caused by lack of restraint mechanism. In the process of signing the outsourcing contract, if the supplier does not give clear and obvious regulations and restrictions for the standard of service, fault reaction time, it will cause certain risks to enterprise's own economic interests and initiative (Shizhong A,2011).

3.3 Risk in delivery and support

In this part, if the service fitting in with the actual demand is the first risk. If in the process of the project execution, outsourcing service providers could not ensure to provide information technology services meeting the enterprise's needs, when the project begins to run, it is bound to face the hidden risks. Second, risks caused by outsourcing ideas. By information technology outsourcing, the flexibility and control force for its own information technology of enterprises decrease significantly. The implementation of outsourcing requires the cooperation between enterprises and outsourcing service providers, if the enterprise is too dependent on outsourcing service providers, it is bound to bring some risks for their own normal management (Xufeng L,2014).

3.4 Risks in monitoring and assessment

When the information technology outsourcing delivery is complete, although there is the signed outsourcing contract, the enterprise can use the relevant provisions of the contract to stringently constrain the outsourcing service providers, but if the completion effect of the project is successful, if the outsourcing supplier can complete the intended target, enterprises need to evaluate the project in every stage, stringently monitor the specific effect of project implementation. The monitoring and evaluation method can encourage enterprises to use their own initiatives to effectively avoid the project out of control and reduce the economic losses of enterprises.

4 MANAGEMENT MEASURES FOR OUTSOURCING RISKS

4.1 Risk management in planning and organization

System planning activity is the first step of the process of information technology outsourcing, this part relates to enterprises' strategic target, technical indicators study and internal policies and regulations; original construction mode and construction target; information organization, personnel management and function structure; benefit research and implementation plan of information technology outsourcing. The scientific planning of the project has very important impact on the construction of outsourcing projects.

The overall goal of the whole information system is to enhance the work efficiency, promote the comprehensive service and coordination function of the enterprise, and promote the optimization of the core business process of the enterprise. The corresponding planning needs to meet the following requirements: first, the planning should be simple and accurate to ensure vast majority of enterprises staff could understand and recognize. Planning needs to be fully licensed by the leading group; planning objectives should be measurable; planning should be drawn up based on the full investigation of internal and external information (Guoyan L,2015).

4.2 Risk management in acquisition and implementation

System analysis is the deep analysis for the enterprise's internal management and information processing situation based on the comprehensive, systematic research. System analysis involves complex data, business, personnel, information, and the workload of specific implementation is huge. At the same time in the actual work, the enterprise's informatization cannot be confirmed by one time, and it keeps changing; in addition, the information technology contractors do not know the specific business of every department, and there are always deviations in understanding in the actual work, thus the modeling errors. So, the system analysis needs to fully meet the requirements of validity, integrity, unity, reality and so on. Then, based on the system analysis, enterprise should repeatedly discuss and analyze the specific operability of the outsourcing program provided by the contractor, and then determine the corresponding technical standards and specific implementation rules.

4.3 Risk management in service and support

The demand of the enterprise is not immutable and frozen, the business objectives change along with its own development, the contractors need to carry out the efficient data tracking, meet the needs of enterprises as far as possible in the premise of ensuring feasibility, timely improve and optimize the related issues in the development plan. First, tracking the level of outsourcing services, the business organizations of the enterprise sign relevant agreements with outsourcing service providers, thus to ensure that enterprise and service provider to maintain consistency in business needs, priorities and other aspects. The service level agreement relates to the specific expectations of the business organization for the system, in detail, the agreement makes clear provisions on the service level reporting, service level measurement, the cost and other performance levels. Signing operation level agreement with suppliers is to ensure that each organization can obtain the most advanced technology, so as to better meet the needs of the service level. Enterprises need to organize regular inspection activities to check the accuracy of the service level agreement, so as to ensure the relevant contents could effectively adapt to changes of demand. Second, the continuous management for outsourcing services, developing IT continuity plans to prevent business disruptions due to system crash. The plan needs to involve every key function of the system, as well as the recovery priority of each function, recovery methods and damage tolerance. Information technology corresponds to kinds of contract content and methods, such as the development of information system, completion of system delivery, the enterprise should be able to independently ensure the orderly operation of the system, etc. But if it comes to some special industries, such as the financial sector, once the system is in trouble, and even if only a very short period of time, it still will cause incalculable damage.

4.4 Risk management in supervision and evaluation

After the implementation of information technology outsourcing project, the security and availability of the system has to be ensured, the information related to the system is the valuable resource in the process of enterprise's operation. The internal audit is the audit agency of information system built by the

enterprise in its interior, internal auditors can strictly inspect and evaluate the security and stability of electronic information system, and timely report the final evaluation results to the management of the enterprise. Internal audit institution of information system is independent from every functional department of the enterprise. The establishment of COBIT-based management and audit model of information system could help people to better analyze and understand the information system, play an important guidance role in building relevant mechanism for people, and place all of the construction of information system and application in a certain control range. It can help the investment and management staff of information system to achieve the balance of investment and risk in unpredictable conditions. By the management control and audit, etc. it could provide effective security and service activities for staff using information systems. As for the auditor, it could provide strong help and support on the audit trail, so that the identification of the audit staff could be more persuasive.

5 CONCLUDING REMARKS

In summary, we have known that, in the background of current rapid development of information technology, the demand of enterprise for information technology continues to increase, in order to better carry out various business work, enterprises could choose to outsource the information technology, which could not only effectively meet the enterprises' constantly updated needs for information technology, but also reduce their own business workload, so that it can focus more on the core business activities. We deeply analyzed the risks of COBIT-based information technology outsourcing, and finally put forward the risk management measures for specific risk, which are expected to effectively meet the needs of enterprise for information technology, and promote the further development of the enterprise.

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