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Research on evolution power and path of information technology outsourcing relationship

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ABSTRACT

Information technology (IT) outsourcing Relationship is one of the key issues to IT outsourcing success. To explore how to manage IT outsourcing relationship, it is necessary to understand its evolution power and path. First a model of the evolution dynamic mechanism of IT outsourcing relationship was proposed, and it indicated that IT outsourcing relationship evolves under the external power and internal power. Then an evolution path model of IT outsourcing relationship was developed, which indicated the evolution paths of IT outsourcing relationship, and three typical paths are chose to make a further analysis.

KEYWORDS

Information technology; Outsourcing relationship; Evolution power; Evolution path.

INTRODUCTION

More and more enterprises are aware of the value of information technology (IT) and are investing heavily in construction of information system, IT outsourcing is one of the important ways for enterprise system construction. Goles research shows that efficient IT outsourcing relationship has an important influence on the success of enterprise IT outsourcing[1-3]. Many scholars has study on IT outsourcing and make many progress, but academic research on IT outsourcing relationship is less[4,5]. The comprehensive understanding of IT outsourcing relationship can direct and promote the enterprises manage IT outsourcing relationship which can improve the success rate of IT outsourcing. It is very important to understand the evolution power and path of IT outsourcing relationship. This paper analyses evolution power and path of IT outsourcing relationship to provide guidance for enterprise IT outsourcing relationship management.

THE CONNOTATION OF IT OUTSOURCING RELATIONSHIP EVOLUTION

IT outsourcing relationship is a dynamic and cooperation process that the enterprises (outsourcer) outsource it's IT project to the IT supplier (contractor) by contract or agreement. This process emphasizes three points: (1) the two parties of outsourcing relationship are outsourcer and contractor; (2) IT outsourcing project is the relationship basis between outsourcer and contractor; (3) IT outsourcing relationship is a dynamic and cooperation process.

In IT outsourcing relationship, the outsourcer, contractor and IT project is essential elements. Alborz et al pointed out that relationship quality is a common index to reflect the IT outsourcing relationship[6], and Relationship quality is their common cognition evaluation about the degree of relationship meets their needs according to certain standards[7]. IT project is the bridge between outsourcer and contractor in outsourcing relationship, and the level of IT project directly influence the outsourcing relationship between the outsourcer and contractor[8,9]. Therefore, the relationship quality and IT project's level are important dimensions to measure IT outsourcing relationship.

IT outsourcing relationship evolution is an interaction and mutual influence process by many internal and external factors of outsourcer and contractor, and it is a self-organizing system. Therefore it is more suitable to explain outsourcing relationship evolution by viewpoint of system science. According to the viewpoint of system theory, Evolution is a basic feature of the whole system, and the evolution path will be different. IT outsourcing relationship is a system formed by the outsourcer, contractor and IT project, this system has stability in a certain period, but the relationship quality and IT project's level will gradually occur some changes in the influence of system's external power and internal power. The purpose of this paper is to promote promising developments of IT outsourcing relationship, so this study only considers the process of IT outsourcing relationship development from a lower level to a higher level. The continuous development process of relationship quality and IT project from the low level to the high level is the evolution process of IT outsourcing relationship constantly adapt to the internal and external environment changes.

THE EVOLUTION DYNAMIC MECHANISM OF IT OUTSOURCING RELATIONSHIP

Because IT outsourcing relationship is the relationship between organizations, its evolution is influenced by many powers form internal and external. In the interaction of internal power and external power, IT outsourcing relationship is continuous evolution. From the perspective of system science, System powers come from interaction of people and organization composed of people. Therefore, it is

more suitable to analysis the evolution dynamic mechanism of IT outsourcing relationship from IT outsourcing subject and its behavior.

The external power of IT outsourcing relationship evolution

1) Promote by government policies

Xu et al research shows that government support in policy, capital and other aspects are important factors to promote the enterprise information[10]. 2006 - 2020 national information development strategy pointed out that China should strengthen the development and utilization of information resources in the future, encourage individuals and organizations to participate in information resources' development and utilization, encourage professional information service enterprise to help enterprises' development of information, and promote the development of E-government. Under the government's policy support, outsourcers will improve the level of information and seek new IT strategy to support enterprise strategy, this contributes to a higher level IT outsourcing project. At the same time, the government policy support will help IT suppliers to grow up. As IT suppliers have more abilities and experiences, the relationship between outsourcer and contractor (IT supplier) will become better, that promote the evolution of IT outsourcing relationship.

2) Promote by competitive pressure

Competition drives that IT suppliers make progresses continuously and enterprise outsource their IT project. The more the organizations face competition pressure, the stronger desire they use information technology[10]. With more and more intense competition of markets, enterprises have to outsource their complex and important IT projects to professional IT suppliers in order to enhance the core competitiveness, so they seek IT suppliers and establish a good relationship with them to ensure the success of cooperation. At the same time, the "demonstration effect" of competitors in IT outsourcing gives enterprises a chance to learn how to build and maintain a good IT outsourcing relationship. For IT suppliers, under market competition they continuously improve ability and accumulate experience to maintain a good IT outsourcing relationship in order to get client approval and attract more clients.

3) Promote by IT scientific and consulting institutions

IT scientific and consulting institutions promote the understanding of IT outsourcing and form trends pressure in society. When the IT outsourcing has become a trend, enterprises will consider outsourcing their IT projects under trend pressure. For IT suppliers, the trend pressure brings hope and confidence, and they not only have a larger market, also can cooperate with IT scientific and consulting institutions to improve their service ability. Under the trend pressure, two parties of IT outsourcing seek deeper co-operation.

4) Promote by technology

With the rapid development of information technology, more and more enterprises realize the value of IT. Because IT project is very difficulty to implement, it difficult to development enterprise's own information technology, so enterprises have to outsource them. Technology development is one of the important driving forces to promote the development of IT outsourcing service industry. In recent years, China has emergence a large number of professional IT service providers, such as Datang and Neusoft which have formed a set of perfect IT outsourcing service model to provide software outsourcing services for customers at home and abroad. The development of IT industry promote the IT supplier have the ability of IT outsourcing services, but also for many companies to see the practical feasibility of IT outsourcing, and promote the formation and evolution of IT outsourcing relationship.

The internal powers of IT outsourcing relationship evolution

1) Drive by outsourcer

Top managers hold the important resources and management decision-making power of enterprises, so they play an important role in the evolution of IT outsourcing relationship. At first, the enterprise and the contractor's cooperation is tentative due to the top managers' lack of a comprehensive understanding of IT outsourcing, so IT projects outsourced are simple and low levels. As the IT project progresses, top managers understand IT outsourcing and realize the value of IT outsourcing, the willingness of cooperation strengthen. Under the pressure of market competition, technological progress, social environment and other factors, IT outsourcing will be one of the most important channels to obtain the IT capacity and resources by top managers. Finally, top managers will make IT outsourcing as an important strategic choice. At the same time, top managers begin to pay attention to cooperation of the contractor and promote to establish a more closely outsourcing relationship by establishing the information sharing channel and conflict solution mechanism.

IT department plays a crucial role in the process of IT outsourcing as a "gatekeeper" role[11]. IT department is an important force in IT outsourcing project cooperation based on its professional function. On the one hand, IT department contact enterprise and IT supplier, it expresses the enterprise's demand to IT suppliers and supervise service of IT supplier for enterprise. On the other hand, IT departments can assist the top manager to make decision that whether or not to continue to outsource the high level IT project to IT suppliers, so it is an important driving force for the evolution of IT outsourcing relationship.

The operating department is the users of information technology, its comprehension, application and cognition of outsourced project directly affects the success of outsourcing. With the implementation of IT outsourcing project, the efficiency of communication between the outsourcer and the contractor is higher, and the operating department recognize the role of information technology. The operating department will actively promote the enterprises to use more advanced information technology, so the outsourcer maybe outsource higher level IT outsourced project.

2) drive by contractor (IT supplier)

Under the pressure of government support, market competition, technological progress, and society environment, the survival and development of the contractor is facing the opportunity and challenge. The opportunities are that more and more enterprises recognize the demands of IT outsourcing, and that provides business opportunities to the contractor. The challenge is that the competition among IT suppliers is tougher with the development of technology and market. Facing survival pressure, top managers will actively communicate with the outsourcer and will actively supervise technical staff service for outsourcer, which plays an important role in promoting the quality of the relationship between the outsourcer and contractor.

Technical department of IT supplier is operator of IT outsourcing project, its main task is to guarantee the success of IT outsourcing project. In order to complete its task, the technical department will actively provide solutions and train staff for outsourcer, which promotes the improvement of the relationship quality. The efforts of the technical department can gain credibility and good reputation for the contractor which can make the IT supplier get more IT project.

The evolution dynamic model of IT outsourcing relationship

According to the principle of synergetic, when the pressures from government support, market competition, IT scientific institutions trend, and technological progress increase as external parameters, services of exchange with the outside world and competitive position will change for outsourcers and contractors. The outsourcers feel the pressures and value of information technology, produce requirements of IT outsourcing, and consider a higher level of outsourcing project. At the same time, the

contractors improve service ability of IT outsourcing in order to meet the demand of higher level project of outsourcers. The synergistic effect of outsourcer and contractor form the internal motive force of IT outsourcing relationship evolution. The outsourcer, contractor and subjects from external environment mutually promote the evolution of IT outsourcing relationship. The evolution dynamic model of IT outsourcing relationship is shown as Figure 1.
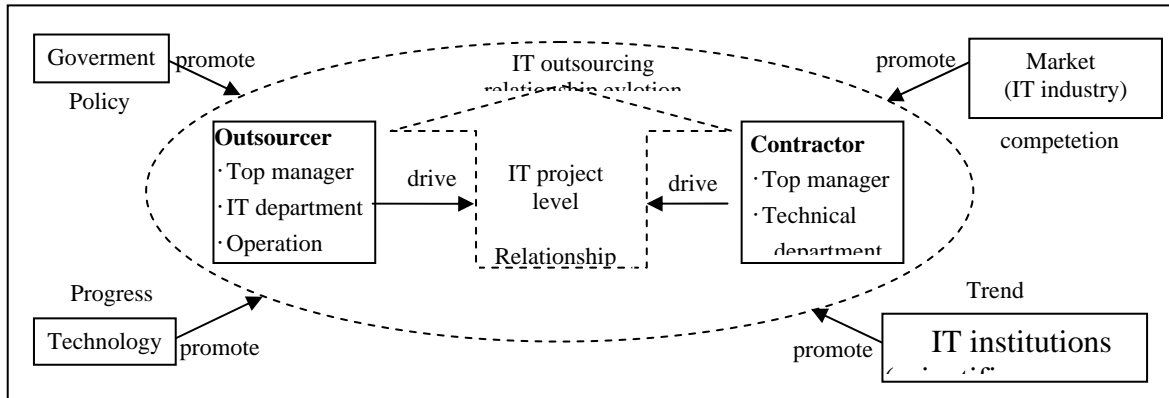

Figure 1 : The evolution dynamic mechanism model of IT outsourcing relationship

The model shows that internal dynamic factors form outsourcers and contractors are direct powers of IT outsourcing relationship. The external dynamic factors are indirect powers, and they affect relationship by internal powers. Synergistic effect of internal and external dynamic factors promotes IT outsourcing relationship evolution in two dimensions: IT project level and relationship quality.

The external dynamic powers make outsourcer produce new requirements of information technology and contractor improve the ability level of service, and they affect relationship by internal powers. The internal dynamic factors directly affect IT outsourcing relationship evolution. Synergistic effect of internal and external dynamic factors promotes IT outsourcing relationship evolution. From the IT outsourcing project, at first, the enterprise and the contractor's cooperation is tentative due to the top managers' lack of a comprehensive understanding of IT outsourcing, so IT projects outsourced are simple and low levels. As the IT project progresses, the outsourcer understand and realize the value of IT outsourcing, IT outsourcing project will be strategic choice. From the relationship quality of IT outsourcing, the cooperation of the outsourcer and contractor are closely by establishing the information sharing channel and conflict solution mechanism.

THE EVOLUTION PATH ANALYSIS OF IT OUTSOURCING RELATIONSHIP

IT outsourcing relationship system is an open and complex system; its evolution is not only influenced and interacted by many factors from the internal and external, but also affected by the historical factors. Therefore, IT outsourcing relationship evolution has the characteristics of accumulation and path dependent, and it is a gradual process. Based on the idea of managerial grid theory t, this paper proposes the evolution path model of IT outsourcing relationship, as Figure 2.
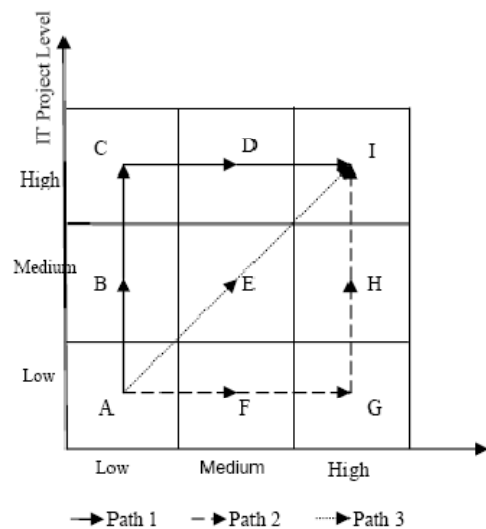
Figure 2 : The evolution path model of IT outsourcing relationship

In Figure 2, the abscissa represents relationship quality and ordinate shows IT project level, and two coordinates are divided into three levels: low, medium, high. In the model, IT outsourcing relationship evolution path has many kinds, such as A→B→D→I, A→B→E→D→I, A→B→E→H→I, A→B→E→I, A→E→H→I, A→E→D→I, A→F→H→I, A→F→E→I, A→F→E→D→I, A→F→E→H→I, A→B→C→D→I, A→F→G→H→I and A→E→I, but three typical paths are A→B→C→D→I, A→F→G→H→I和A→E→I.

Typical path 1

A→B→C→D→I, this path means that outsourcer outsources all the IT projects from the equipment management and system management to strategic IT projects to IT service providers. As the projects progress, outsourcing relationship quality is from low to high. This path is a more extreme path, and the outsourcer takes the highest risks. In order to share the risks, the outsourcer must choose reputation partners[12]. So, in general, this path is more suitable for the famous IT suppliers and its clients.

The relationships between SAP (a powerful IT supplier) and its clients evolve in this path. When companies want to improve business processes, and enhance the core competitiveness by using advanced information technology, they choose ERP system of SAP Company. Through cooperation with SAP, enterprises get not only the business process reengineering and strategy development support, but also have good opportunities to promote management level. At last, the outsourcing relationship will be high IT project level and high relationship quality.

Typical path 2

A→F→G→H→I, this path means that the relationship quality develops well by cooperation of low level projects, such an the equipment management and system management. When they trust each other very much, outsourcer outsource its high level projects to contractor, such as business process and value chain integration and strategy development and support project. Both sides eventually formed a strategic partnership based on trust. In this path, the outsourcer first outsources the low levels IT project to the IT service provider. When relationship quality becomes well after long-term investigation, outsourcer considers outsourcing other more important project to the contractor.

In general, some small and medium-sized IT services which are not powerful and famous establish relationships with their outsourcers that evolve in this path. At first, IT projects outsourced are simple and low levels. As the IT project progresses, the IT service provider's abilities have been recognized, the outsourcer and contractor trust each other, and the relationship quality is improved. At

last, the outsourcer outsources its strategic IT project and the outsourcing relationship will be high IT project level and high relationship quality.

Typical path 3

A→E→I, this path means that the cooperation of outsourcer and contractor is low level project at first. As the relationship quality has improved, the outsourcer outsources its higher level IT project. In further cooperation, the relationship quality further improves between two parties. At last, IT project level and relationship quality reach the highest level and the relationship become a strategic partnership.

CONCLUSION

In order to explore how to manage IT outsourcing relationship, this paper deeply analyses evolution power and path of IT outsourcing relationship. First an evolution dynamic mechanism model of IT outsourcing relationship was proposed, and it points out that the evolution of IT outsourcing relationship is the results of dynamic synergy; the external powers are from government, competition, IT scientific and consulting institutions and technology; the internal power are from outsourcer's top managers, IT department, operating department and contractor's top managers and technical department.

Then an evolution path model of IT outsourcing relationship was developed, which indicated the evolution paths of IT outsourcing relationship, and three typical paths are chose to make a further analysis. This paper analyses evolution power and path of IT outsourcing relationship to provide guidance for IT outsourcing relationship management.

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