IT Organization's Transformation by Exploiting IT Outsourcing

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Abstract

Faced with the rapid change of business environment and technology, IT outsourcing has become an important alternative for IT management. IT outsourcing provides IT organization adaptability and sustainable competitive advantages. Despite the fact that many firms have tried to adopt IT outsourcing, comprehensive case studies on IT outsourcing process have so far rarely been reported. Therefore, this study attempts to analyze a case for the specific methodology and process of IT outsourcing in a distribution company. Proposed stages are first, to analyze inside and outside environment of the company secondly to evaluate organization/human resource/job and lastly to select IT outsourcing tasks and to reassign human resource. Some guidelines for the process and the methodology for IT outsourcing in this study suggest some practical implications for the company preparing for IT outsourcing.

Keywords: *IT Flexibility, Organizational Transformation, IT Outsourcing, Case Study*

1. Introduction

Many companies are trying to strengthen their core competencies and to achieve competitive advantage by utilizing a wide variety of information systems in a rapidly changing environment [1]. Agility and flexibility required for the technological advances in the enterprise, because information systems are need to change in accordance with company-specific situations or their work. In the past the pace of technology development was seriously fast, therefore firms were able to respond enough to changes in the business environment by making the appropriate changes or redesigning to the information systems. Today, however, because it is difficult to predict the IT changes, it is hard to modify their IS at the same time keep pace with the IT changes.

In this study, therefore, we try to explain the process of outsourcing to improve the flexibility by analyzing the company "A" of Korea distributors' the business strategy and organizational structure. Moreover we try to provide guidance to companies that institute the IT outsourcing in the future, through identifying the tasks that need to be considered to improve the IT flexibility.

2. Theoretical Background

2.1. Outsourcing strategy

Outsourcing strategy is an organization-wide and long-term strategy designed to achieve a sustainable competitive advantage [2]. Most of these outsourcing strategies are done in order

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to achieve increased efficiency and innovation [3]. Traditional outsourcing was set up by the pressure for cost savings simply. Today, however, it is often used in order to achieve a sustainable competitive advantage [4]. Organizations have the advantage of focusing on core competencies and accessing to advanced technology. Research on what motivates client organizations to outsource ITO has a list of motivations from outsourcing IT (see Table 1).

Table 1. Motivations for IT outsourcing

Motivation for outsourcing	Description	References
Cost reduction	A client organization's need or desire to use outsourcing to reduce or control IS costs	Gilley and Rasheed [5]
Focus on core capabilities	A client organization's desire or need to outsource in order to focus on its core capabilities	Willcocks and Lacity [6]
Access to expertise/skills	A client organization's desire or need to access supplier(s) skills/expertise	Kang et al.[4]
Improve business/process performance	A client organization's desire or need to engage a supplier to help improve a client's business, processes, or capabilities	Kotabe et al. [7]
Technical reasons	A client organization's desire or need to gain access to leading edge technology through outsourcing	Willcocks and Lacity [6]
Flexibility	The ability to adapt to change	Handley and Benton [8]
Scalability	A client organization's desire or need to outsource to be able to scale the volume of IS services based on demand	Lacity et al. [9]
Access to global markets	A client organization's desire or need to gain access to global markets by outsourcing to suppliers in those markets	Lacity et al. [9]
Alignment of IS and business strategy	The fit or congruence between a firm's business strategy and its outsourcing strategy	Lacity et al. [9]

2.2. Outsourcing and Flexibility

Today, most of IT outsourcing start with the fast changing business environment, non-cost aspects. Firms should steadily maintain or replace their existing information systems in order to adapt continuously to the rapidly changing business environment and technologies. Because IS replacement cycle is getting shorter, it need to be improved IT flexibility. But it is difficult to keep up to date with IT environment over focusing on the core competitive advantage, especially the difficulty is more pronounced in technology-intensive market [5]. The firms can promote the change if they do outsourcing selectively some part of functions, therefore the flexibility is greatly improved, and also increased the quality of services. Especially in technology-intensive markets, firms can achieve strategic flexibility if they take technical assistance by IT outsourcing, and if they build to close supplier relationships in offshore markets when they build new products development capability increasingly to survive [10]. IT flexibility is needed much more in technology-intensive markets, and there are two problems which are solved by IT outsourcing. First, in the market which is occurred rapid technological advances and intense competitions, there is a risk of the obsolescence of knowledge and equipment capabilities [11]. Second, companies are faced with various costs

and threats in the extreme changes [12]. In these situations, firms can improve their productivity and flexibility while reducing costs by IT outsourcing

3. Case Study

3.1. Methodology

In this study, we set up a step-by-step implementation process for figuring out outsourcing strategy of distributor "A" concretely, developed and applied proprietary analysis methodology. The analysis phase for IT outsourcing is composed of (1) deriving direction of IT strategy, (2) evaluation of IT organization/labor/task, and (3) detailing of outsourcing. Figure 1 provides an overview of this case study.
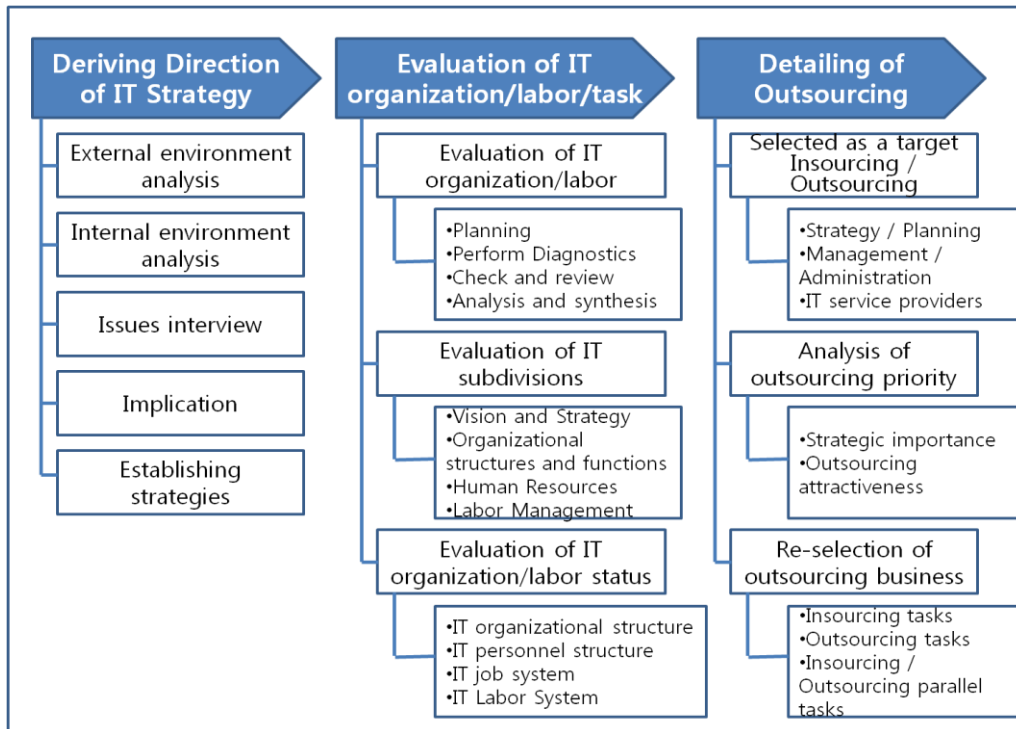
Figure 1. Outsourcing Methodology Overview

3.2. Status and problems of distributor "A"

In this study, we analyzed internal/external business environment and internal issues for finding strategic direction of distributor "A". First, the result of IT outsourcing trend analysis is that outsourcing was originally introduced in order to compensate for the lack of technology in the companies. Currently the purposes and functions of outsourcing are changing for focusing on core capabilities and achieving competitive advantages as shown in the Figure 2. The result of external environment analysis shown in Figure 3, in summary, the result of A's external environment analysis is that retail industry needs for effective response to a variety of distribution channels, so operating IT processes is absolutely necessary.
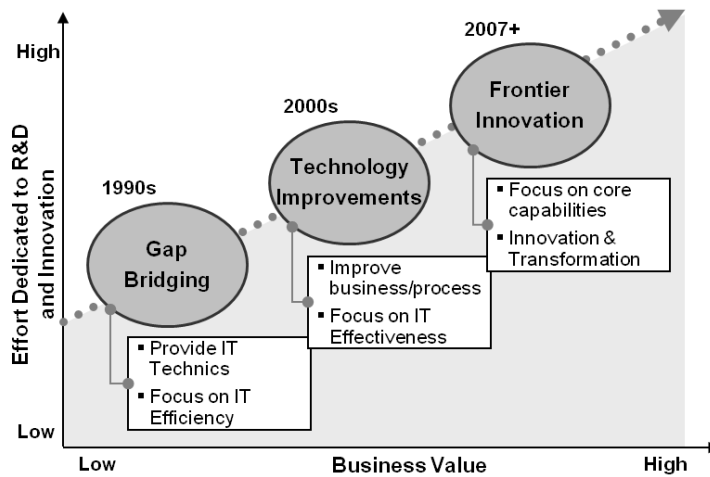
Figure 2. IT Outsourcing Transformation
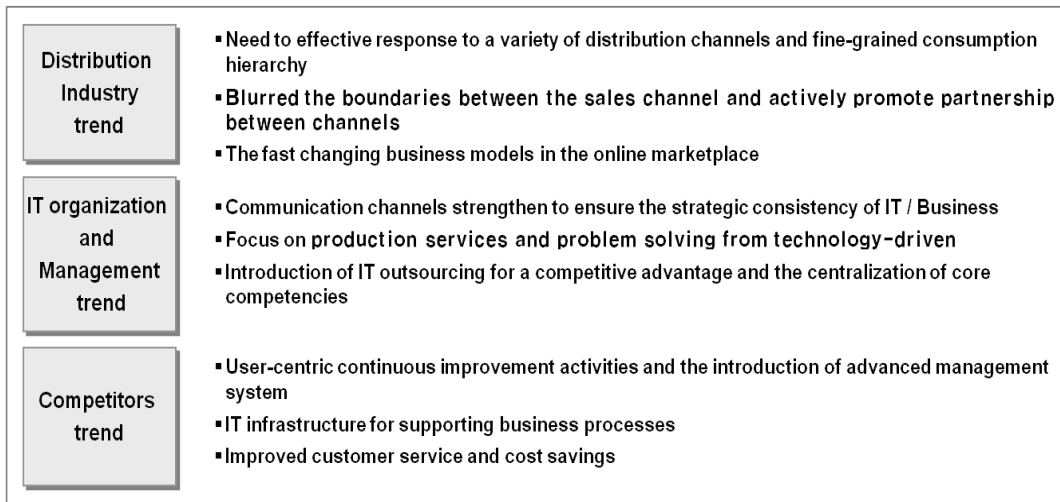
Figure 3. The result of external environment analysis

Second, the result of internal analysis is that reliance on IT has increased due to the increase in sales volume of the growing volume of business and online channels. And because it aims to strengthen the capacity for implementing global standards, IT empowerment is needed. Especially the survey results of internal users' IT service satisfaction is that CSP & Sales department and Manager/Assistant Manager showed the lowest satisfaction, also innovativeness and business understanding is the most underrated in the IT services items as shown in the Figure 4.

Finally, we had an interview with 4 of executives, 16 of working-level, and 5 of IT experts. The result is that executives and working-level raised issues about the quality of IT services and the competency of IT staffs, while IT experts think that their division of duties, communication, and own competency are important. There was a difference of opinion depending on the group of interview as shown in Figure 5.
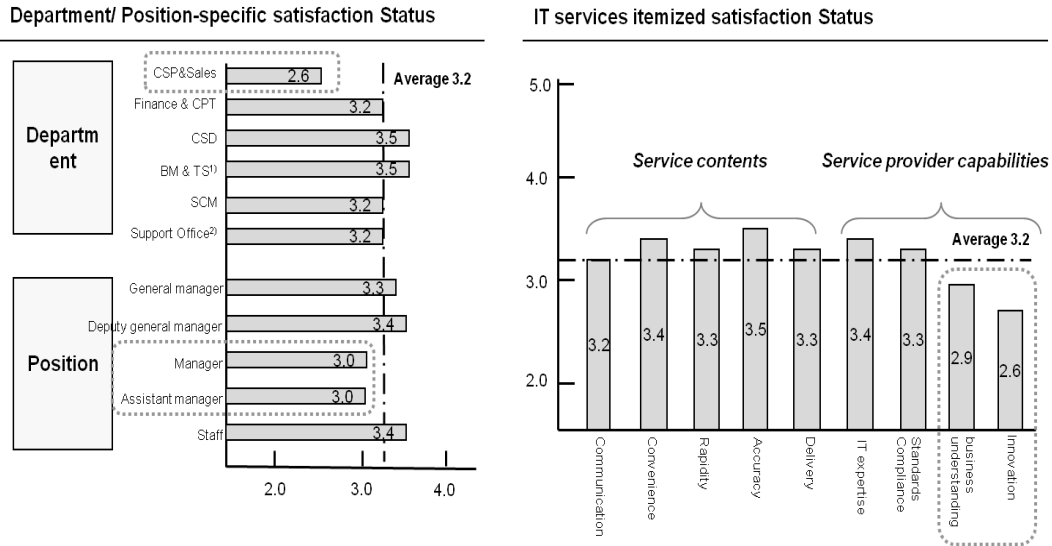
Figure 4. The satisfaction status of internal environment analysis

**Figure 5. Real voice of executives, working-level, IT experts**

3.3. Redesign methodology of IT organization/task/personnel

We first, conducted the interview of IT department staff 19 patients to assess the IT organization and labor. Diagnostic procedure was done to plan, perform diagnostics, check and review, and results of the analysis and synthesis of four steps, as shown in Figure 6. And diagnostic range was set to four domains of vision and strategy, organizational structure and function, human resources, and personnel management
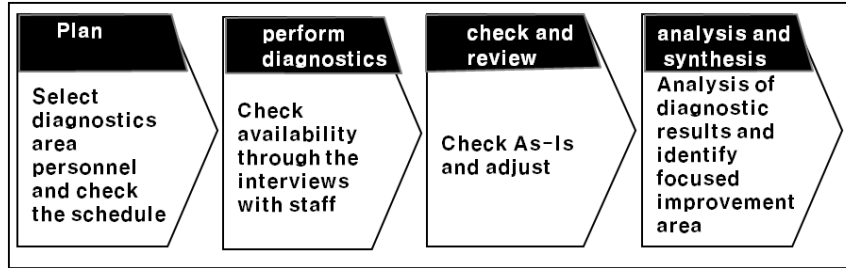
Figure 6. Diagnostic procedure for analyzing IT organization and labor

Also we evaluated specific areas for analyzing IT organization and human resource of vision and strategy area, organization structure and function area, human resource area, and labor management area. Figure 7 provides a result of detail area analysis.
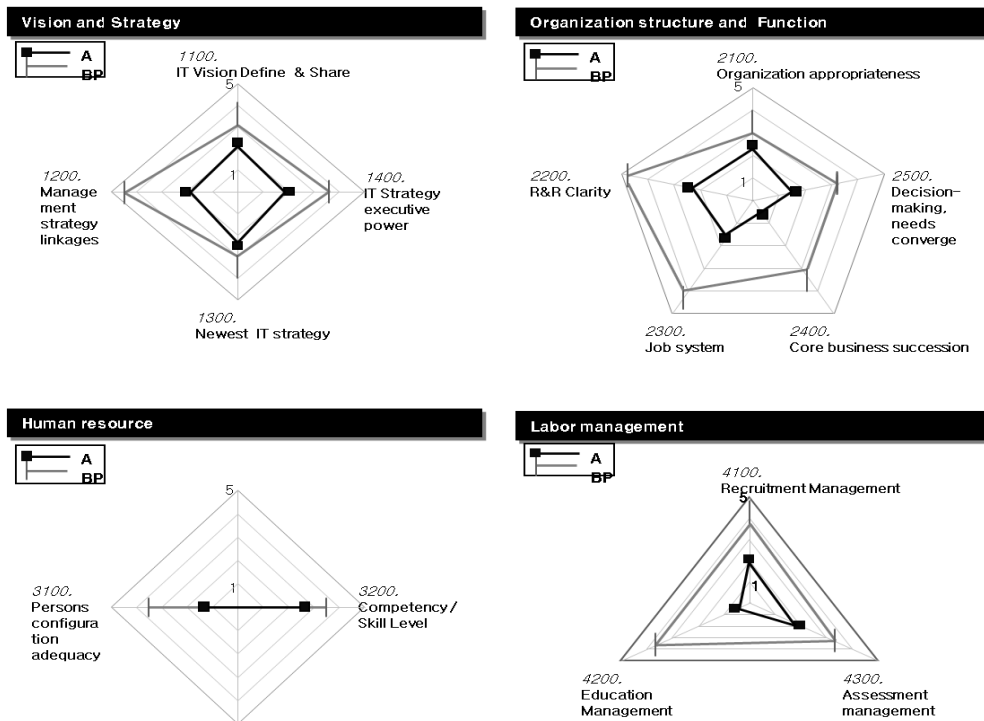
Figure 7. Specific evaluation of IT organization and human resource

Based on the results of the evaluation on four specific area, we set the analysis direction of four cases which are IT organizational structure, IT labor structure, IT job system and IT labor system. Also we deduced what should be innovated by organization and personnel system to support business growth of distributor A, as shown in Figure 8.
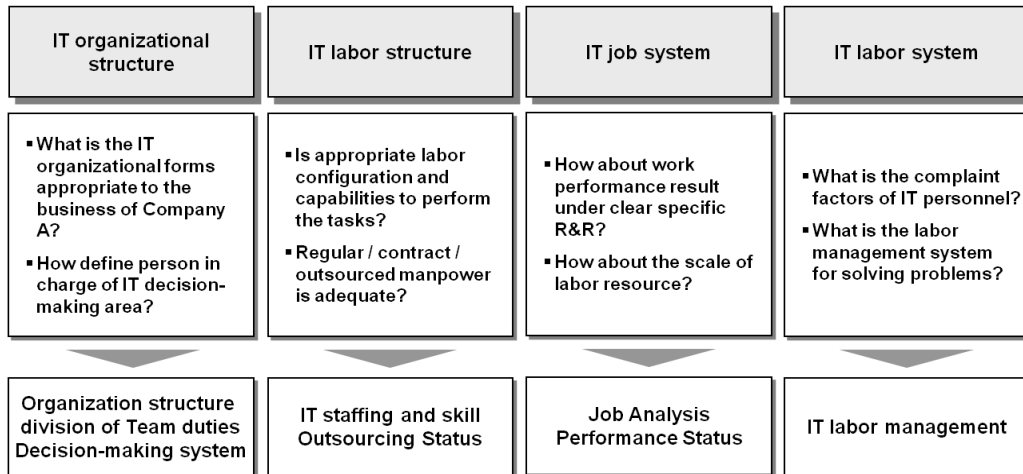
Figure 8. Innovation Plan for IT Organization Direction

3.4. Detailing of IT outsourcing project

IT outsourcing project was carried out in three stages. In the first step, we select insourcing and outsourcing targeted tasks. As a result of evaluating the 26 IT business, there are 16 insourcing task (including strategy establishment, outsourcing management, infrastructure project), 7 outsourcing task (including OA management, system management). And IT security management, emergency planning, HRD were divided into all possible task outsourcing and insourcing.

In the second stage, we analyzed outsourcing priorities by strategic importance and outsourcing attractiveness. Figure 9 show the way to select IT outsourcing task.

Figure 9. The template for selecting IT outsourcing task

Figure 10 provides the result of analyzing outsourcing priority. In the final stage, we selected outsourcing task based on the results of the previous step. Figure 11 provides the proportion of change in A's IT business insourcing/outsourcing.

영역	Division	Feature	Selection Plan
1	In-Sourcing	SI: High OA: Low Notation : I-2	• A's Core Competency • Performed by its own personnel
2	3rd Grade Outsourcing (Control-Oriented)	SI: High OA: High Notation : O-3Q	• Selecting IT outsourcing companies of supplier's expertise, systemic management than the cost
3	3rd Grade Outsourcing (Cost-Oriented)	SI: Low OA: Low Notation : O-3C	• Selecting IT outsourcing companies to reduce costs
4	2nd Grade Out-Sourcing	SI: Mid-Low OA: Mid-High Notation : O-2	• Promoting IT outsourcing area • Second ranking
5	1st Grade Out-Sourcing	SI: Low OA: High Notation : O-1	• Priority IT outsourcing area • Priority ranking

Figure 10. Outsourcing priorities matrix
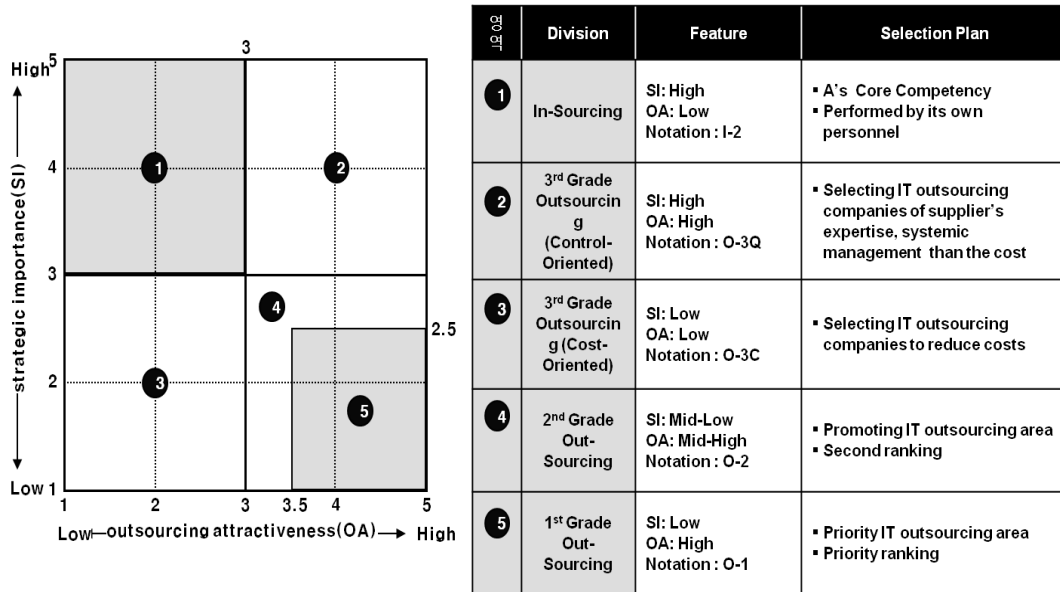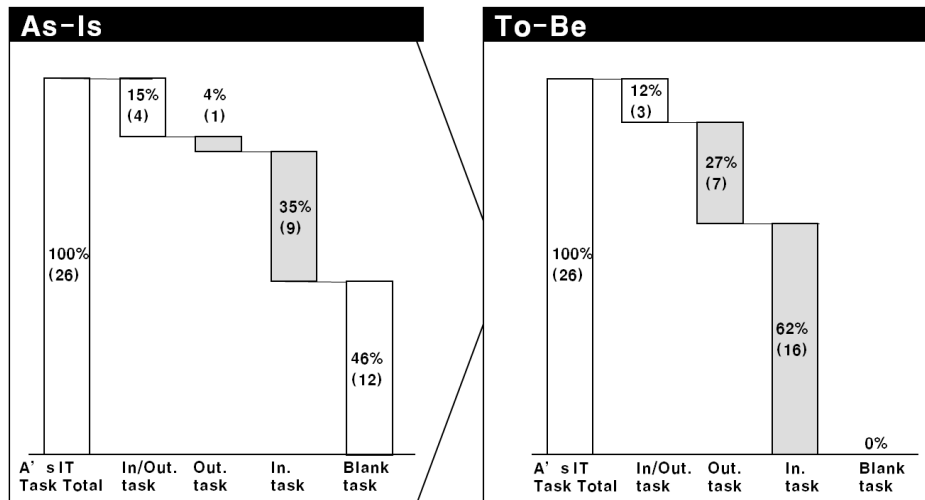
Figure 11. Proportion of change in company A's IT business insourcing/outsourcing

4. Conclusion

In this study we looked for ways to expand outsourcing for enhancing IT flexibility using distributor "A" Case. We can summary three phases of this study that the distributor A's internal and external environment analysis and interviews were conducted in the first step.

The result was the rapid development of IT technology in the retail industry, and IT outsourcing management system improvements were needed internally. In the second stage, the IT organization level is much insufficient than Best Practice comparison target in the step of the organization / personnel / job evaluation. And in detail, significant problems were found in the IT vision and strategy areas, organizational structure and functional areas, and human resources areas. Especially personnel management needs of priority improvement as shown the lowest level. The process of IT outsourcing was determined through these internal / external environment analysis and the evaluation of organization/labor/task. Finally, in the third stage, we selected insourcing and outsourcing task. And priorities were determined by evaluating outsourcing availability by detailed metrics based on strategic importance and outsourcing attractive area, and the outsourcing task has been reselected. As a result of outsourcing project, insourcing / outsourcing tasks of the enterprises are coordinated efficiently, and the workforce was relocated on their tasks. This causes that corporate have been able to expect efficient business performance through IT flexibility as well as the cost savings.

We have several implications. First, we presented IT outsourcing specific process in the companies. In many studies related, it is insisted on the necessity and benefits of IT outsourcing [9], but companies shouldn't start because they don't know how to proceed IT outsourcing. So in this study, through presenting three main steps, namely, internal / external environmental analysis, organization / staffing / job evaluation, and the progress stages of IT outsourcing, should provide a guideline to progress systematic outsourcing project to enterprises. Second, we presented a evaluation tool for organizational structure, labor and task, which is using for the real IT organizations. Not only steps of IT outsourcing simply but also methodology which can redesign the IT organization / workforce / job specifically presented. These results could be used as input data to select the outsourcing business. Therefore in this study, through distributor "A" case, we provide the methodology for expanding IT outsourcing.

References

[1] B. C. Adeleye, F. Annansingh and M. B. Nunes, "Risk management practices in IS outsourcing:an investigation into commercial banks in Nigeria", International Journal of Information Management, vol. 24, **(2004)**.

[2] D. Jennings, "Strategic sourcing: benefits, problems and a contextual model", Manage Decision, vol. 40, no. 1, **(2002)**.

[3] B. Wu, J. Chen and Z. Wu, "The research of R&D outsourcing mode, measurement and impact on firm innovative performance", Studies in Science of Science, vol. 27, no. 2, **(2009)**.

[4] M. Kang, X. Wu, P. Hong and Y. Park, "Aligning organizational control practices with competitive outsourcing performance", Journal of Business Research, vol. 65, **(2012)**.

[5] K. M. Gilley and A. Rasheed, Making more by doing less:Analysis of outsourcing and its effects on firm performance. Journal of Management, 26, 4 **(2000)**

[6] L. Willcocks and M. Lacity, "The practice of outsourcing: From information systems to BPO and offshoring", London: Palgrave, **(2009)**.

[7] M. Kotabe, M. J. Mol and J. Y. Murray, "Outsourcing, performance, and the role of e-commerce: a dynamic perspective", Industrial Marketing Management, vol. 37, no. 3, **(2008)**.

[8] S. M. Handley and W. C. Benton, "Unlocking the business outsourcing process model", Journal of operations management, vol. 27, no. 5, **(2009)**.

[9] M. C. Lacity, S. A. Khan and L. P. Willcocks, "A review of the IT outsourcing literature: Insights for practice", Journal of Strategic Information Systems, vol. 18, **(2009)**.

[10] D. A. Griffith, N. Harmancioglu and C. Droge, "Governance decisions for the offshore outsourcing of new product development in technology intensive markets Original Research Article", Journal of World Business, vol. 44, no. 3, **(2009)**.

[11] K. A. Swan and B. B. Allred, "A product and process model of the technology-sourcing decision", Journal of Product Innovation Management, vol. 20, no. 6, **(2003)**.

[12] M. M. Appleyard, "The influence of knowledge accumulation on buyer–supplier codevelopment projects", Journal of Product Innovation Management, vol. 20, no. 5, **(2003)**.

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