Determinants of Global IT Outsourcing

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ABSTRACT

The primary purpose of the study is to investigate the variables that influence organizational decision making on global IT outsourcing. From an adoption of innovations perspective, attributes related organizational characteristics, outsourcing characteristics, outsourcing supplier characteristics, industry characteristics, customer relationship, and external forces are presented and discussed. An integrated model is then developed to demonstrate that these components are actually determinants of global IT outsourcing decisions.

INTRODUCTION

Outsourcing refers to the concept of hiring outside professional services to meet the in-house needs of an organization or an agency (Gupta and Gupta, 1992, p. 45). Along with the rapid globalization process, an increasing number of firms from western countries have adopted outsourcing, particularly offshore outsourcing, in pursuit of various managerial objectives.

The adoption of IT outsourcing for an organization can be understood by theoretical constructions in light of innovation adoption/diffusion theory. Innovation adoption/diffusion theory has been widely used to investigate the determinants as well as the dynamic process of the adoption of particular technologies, processes, or systems in an organization (e.g., Rogers, 1995). Previous research on organizational adoption of innovations focused on evaluating a relatively large number of variables that impact the adoption of specific innovations, which include characteristics of innovation, characteristics of the organization, characteristics of social system, and characteristics of market, etc. In light of the innovation adoption/diffusion approach, the complex nature of IT outsourcing shaped by a variety of determinant variables suggests that the
combination of the unique contribution of each aspect into one model will provide a more nuanced understanding of the phenomena.

STATEMENT OF THE PROBLEM AND OBJECTIVE

The statistical figures involved with outsourcing can be interpreted as both positive and negative. Around three-quarters of U.S. companies outsourced some or all of their IT activities in 2004, and the IT offshore outsourcing market in the U.S. will reach around $14.7 billion by 2009 with an annual growth rate of 14.4% (cf. RTTS, 2005). In the meanwhile, since offshore outsourcing involves the shift of services abroad, 300,000 to 995,000 million lost jobs in 2004 were attributed to offshore outsourcing, and the projected job loss is estimated to be 6 million over 10 years, among 140 million jobs in the U.S. (cf. Center for American Progress, 2004).

It can be seen that outsourcing has significant impact on the shift of services, production, capital, and technology all over the world. Therefore, outsourcing is an important phenomenon worth qualitative and quantitative investigation. From a global IT perspective, a broader range of determinants of outsourcing need to be examined in order to better understand its nature. The goal of this study is to investigate the variables that influence organizational decision making on global IT outsourcing. A model will also be constructed to demonstrate those relationships.

Organizational Characteristics

Clark et al. (1995) contended that two organizational forces, viz. concern for competitiveness and concern for globalization of business, may intensify the organizations’ seeking for IT outsourcing. In light of these organizational trends, organizational characteristics in relation to global IT outsourcing can be underlined by the following four variables.

Resource

Cheon et al. (1995) proposed a resource-based approach of IT outsourcing, which suggests that outsourcing is primarily pursued in order to fill the gaps in an organization’s information system capacities. The information system capacities are determined by the organization’s resource attributes (viz. value, rareness, imitability, and substutability) and resource allocation. Among the organizational resources, asset specificity is considered a determinant intra-organizational feature that is negatively associated with the adoption and performance of outsourcing (De Looff, 1995). Functional complexity, which is the degree to which an organization’s products or activities are diversified, is also negatively related to the frequency, benefit, and performance of outsourcing (Cheon et al., 1995).

Strategy

The resource acquisition by means of IT outsourcing is strategy-driven (Cheon et al., 1995). These studies argued that the gap to be filled by outsourcing is a function of the strategy-wise need and dimensions of resources. Gilley and Rasheed (2000) established that outsourcing peripheral activities may better benefit organizations pursuing cost leadership strategy and
outsourcing core activities may better benefit organizations pursuing differentiation strategy, since organizations pursuing cost leadership strategy lack the skills for reducing the peripheral costs, whereas organizations pursuing differentiation strategy lack the skills for improving the quality of core activities.

**Technology**

Outsourcing decision making may also be influenced by technology forces (Clark et al., 1995). Clark et al. (1995) contended that, along with the rapid progress of information technology, technology production and technology management have become the strategic core business for service organizations. Mol et al. (2004) argued that outsourcing can be driven by the technology core of the innovation process. Mol et al. (2004) established that increased involvement in the technology innovation process increases the need to seek outsourcing for non-strategic activities.

**Environment**

The environment provides a major source of contingencies faced by an organization (Gilley et al., 2004). Perceived environmental dynamism, which refers to the degree of the activity, uncertainty, and complexity of the market environment, is positively related to the level of outsourcing activities, because the risk inherited in technology, resource, and market can be transferred to the outsourcing supplier (Gilley et al., 2004). From an intra-organization point of view, the uncertainty resulted from the fast-changing and unpredictable market environment is considered an important variable that influences the transaction cost (De Looff, 1995).

**Outsourcing Characteristics**

In outsourcing research, variables that cover the characteristics of innovation may include the benefits, cost, and perceived long-term risk of outsourcing. The three attributes associated with this characteristic are presented as discussed below:

**Benefits**

Organizations are motivated to outsource because outsourcing is useful in creating benefits (Benamati and Rajkumar, 2002). The benefits of IT outsourcing can be related to both increased financial benefits and improved non-financial benefits (Gilley and Rasheed, 2000). In the MIS literature, increased financial benefits of IT outsourcing include reduction of operational costs, reduction of capital invested, improvement of measurability of costs, and transformation of fixed costs into variable costs, whereas increased non-financial benefits include focus on core competencies, improvement of quality, acquisition of external competencies, and control over internal departments (Quelin and Duhamel, 2003).

**Cost**

Cheon et al. (1995) utilized the agency theory in assessing the agency cost of an outsourcing service. Cheon et al. (1995) argued that an organization bases its outsourcing decision on the magnitude of the agency costs; the agency cost of entering an outsourcing relationship is
influenced by environmental uncertainty, risk aversion behavior, performance programmability, outcome measurability, and the length of the agency relationship.

**Long Term Risk**

Perceived risks of outsourcing have a negative impact on the use of outsourcing (Benamati and Rajkumar, 2002). Clark et al. (1995) contended that certain negative consequences of IT outsourcing may become potential risks for an organization, particularly including loss of internal technical knowledge and loss of flexibility, adaptability, and evolvability. Gilley and Rasheed (2000) pointed out that IT outsourcing can lead to a loss of long-term innovativeness and R&D competitiveness. Bahli and Rivard (2003) suggested that the risks of IT outsourcing may also include lock-in of outsourcing relationship, contractual amendments, unexpected transition and management costs, and disputes and litigation.

**Outsourcing Characteristics**

Previous research found that the success of outsourcing is positively affected by outsourcing service quality and outsourcing supplier-client partnership quality (Grover et al., 1996). Thus, the relationship to be established between an organization and its outsourcing supplier is crucial for making the decision of adopting IT outsourcing.

**Power**

For an outsourcing relationship, one party has power over another when the latter is dependent on the former for certain resources (Klepper, 1995). Klepper (1995) argued that power influences the status of the two parties in a relationship, and determines the distribution pattern of the profits earned from the resources. From a power perspective, De Looff (1995) contended that the consequence of IT outsourcing may be negative when the supplier is more powerful in the relationship; such power comes from being authority in the market, being valuable resource providers, or being irreplaceable, etc. In addition, De Looff (1995) pointed out that a strong bargaining power of an outsourcing supplier will create competitive threat that influences the competitive position of an organization.

**Scale**

Using Adam Smith’s division of labor theory, De Looff (1995) proposed that only when the outsourcing supplier performs certain activities on a large scale, the efficiency of outsourcing can be reached. It implies that, if IT outsourcing on a large scale cannot be performed, the financial benefits of outsourcing, such as reduction of operational costs and improvement of measurability of costs mentioned above, are hardly to be achieved. The business scale of the outsourcing supplier, as well as the business scale of the outsourcing market, may be important variables in determining the adoption of outsourcing.

**Industry Characteristics**
Clark et al. (1995) contended that industry forces drive the organizations towards outsourcing because advantages can be taken from over-capacity of IT resources in the industry. The degree of competition in the outsourcing client’s industry can be considered as industry characteristics that influence the decision to adopt IT outsourcing.

**Competition**

Competition between organizations within the same industry has a positive influence on an organization’s decision to adopt a new innovation (Kimberly and Enasko, 1981). From a microeconomics perspective, the degree of competition within the organization’s industry may have a positive impact on the adoption of outsourcing since outsourcing can enhance an organization’s efficiency of operation in different ways (De Looff, 1995).

**Customer Relationships**

The importance of managing customer relationships and customer assets has been highlighted for market-oriented organizations (e.g., Guo, 2002). The ability to understand and satisfy customer needs is crucial for an organization in sustaining a competitive advantage.

**Customer Needs**

Changing customer needs may drive market-oriented organizations to adopt outsourcing. An organization’s market orientation, which refers to its concerted effort of gathering, disseminating, and responding to market information pertaining to current and future customer needs, has a positive effect on the organization’s performance (Guo, 2002). Accordingly, customer needs are the primary focus of a market-oriented organization (Guo, 2002). The growing need by customers in obtaining tailored products and services may drive the organization to utilize market solutions such as IT outsourcing to better respond to fast-changing customer needs.

**External Forces**

Offshore outsourcing involves deploying international human resources, and the flows of services, capital, and jobs caused certain problems in a social and political context (Doh, 2005).

**Social Norms**

Rogers (1995) posited that an innovation’s degree of compatibility with the values and norms possessed by the social system is positively related to its rate of adoption. In other words, an organization’s inclination to adopt outsourcing may be influenced by the social norms. The impact of social norms may be particularly significant in the context of offshore IT outsourcing. Given the fact that a large number of jobs have been outsourced abroad, the calls for corporate social responsibility become a social norm for the organizations outsourcing abroad (Doh, 2005). Corporate social responsibility requires an organization to contribute to social needs of the home country and protection of natural environment in the outsourcing destination; on the other hand, the low-cost labor seeking behavior of organizations is criticized (Doh, 2005). The normative consideration influences an organization’s decision on adopting IT outsourcing.
**Political Impact**

Government policy has been changing dramatically for economic activities involving foreign parties (Graf and Mudambi, 2005). Pressures from domestic may cause a country to use governmental intervention, technical barrier, or taxation to control the volume of offshore IT outsourcing. Meanwhile, the outsourcing destination may use preferential policies to counterbalance the home country policies. Political policies have significant effect in an organization’s choice of foreign business, including offshore IT outsourcing (Graf and Mudambi, 2005). From a transaction cost perspective, incentives provided by the destination government can reduce the transaction costs and attract organizations to outsource in the destination (Qu and Brocklehurst, 2003).

**CONCLUSIONS, IMPLICATIONS AND FUTURE RESEARCH**

This study developed an integrated model containing a number of the major determinants of global IT outsourcing. The proposed model represents an early attempt to incorporate a series of determinants that influence the decision of adopting IT outsourcing in light of intra-organizational forces, inter-organizational forces, market forces, and social forces. As a result, the combination of the variables offers a broader framework to better understand the global IT outsourcing.

As an integrated model, this study provides some insights for business organizations that are in the need for evaluating global IT outsourcing. The model not only focuses on organizational characteristics and outsourcing characteristics that have been frequently assessed for the decision of adopting IT outsourcing, but also draws the attention on inter-organizational relationship, dynamics of competition and market, and variations in a social and political context. For example, outsourcing supplier’s bargaining power and production scale must be better emphasized in order for the financial benefits of IT outsourcing to be achieved. For this reason, this model offered a more balanced and practical perspective to managers who must often make decisions in the light of multiple objectives.

Moreover, as global business is increasingly service-oriented and market-oriented, current and future customer needs is the primary pursue in order to realize the profits. Finally, social responsibility should be highly emphasized. Unemployment in the home country and environmental protection in the destination country must be considered in the decision making process. Overall, this study offers a series of principal constructs that may be useful in developing effective strategies in evaluating and adopting a variety of processes, innovations, and systems in the global IT environment with the interest of various stakeholders in mind, especially those that are directly and may be negatively affected by the decision.

**GLOBAL IT OUTSOURCING: DETERMINANTS**

In investigating the determinants of global IT outsourcing, an integrated model (See Figure 1) incorporating a series of variables that are associated with intra-organizational characteristics, outsourcing characteristics, market characteristics (in terms of competitor, supplier, and
customer characteristics), and social characteristics as external forces will be used. As can be seen in Figure 1 below, the model reflects that the characteristics are causal factors because they are all pointed toward the centre.

**REFERENCE**


**Figure 1**

An Integrated Model of the Determinants of Global IT Outsourcing