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Influence Factors and Control in International IT Outsourcing Management: A Contingency Perspective

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Abstract

Rapid advances in technology and increased globalization and competitive pressures have forced many firms to search for alternatives that will reduce organizational cost, and at the same time create and/or maintain their competitive advantage in the global market. In this respect, many firms are turning to global outsourcing as a means of leveraging information technology (IT) for competitive advantage without having to worry about factors like technological obsolescence and skyrocketing IT expenditures. Of course, jumping onto an outsourcing deal without prior analysis of the situation and the vendor could make the organization worse off than before. Recent studies and anecdotal evidence point to the fact that even though a 'watertight' contract can absolve the client from many would be problems, the success and outcome of the outsourcing partnership ultimately depends on the management of the relationship. The management of the outsourcing contract becomes more complicated in cases where the vendor is based in a foreign country (International Outsourcing). The focus of this article is to present a contingency perspective of global IT outsourcing management (vis-a-vis control mechanisms) under various scenarios of the outsourcing context. Additionally, this study identifies a number of future research areas and proposes a direction for future research in the area of global IT outsourcing management.

Introduction

Increasing competitive pressures and globalization has forced many firms to search for better and more efficient ways of utilizing IT for competitive advantage and superior performance (Beaumont & Sparks, 1990; Parsons, 1983; Wang and Turban, 1994; Broadbent et al., 1994). In this regard, more and more firms are turning towards cooperative relationships as a solution to their IT needs. This allows the firm to "share and spread" the IT expenditures and the responsibility of keeping it state of the art. Within this cooperative spectrum, the phenomenon of outsourcing has picked up a lot of momentum in recent years. Broadly speaking, IT outsourcing refers to "handing over to third-party management, for required result, some or all of an organization's IT, information systems (IS) and related services" (Willcocks et al., 1995, p. 334). Ever since the IBM-Kodak outsourcing megadeal, outsourcing has exploded into a multi billion dollar market. This positive trend is also evident in the area of global IT outsourcing. We define global IT outsourcing as *any contribution to a client organization by one or more external vendors with a different country of origin in tangible, intangible, human, and/or nonhuman resources related to the IT infrastructure.*

A research report by the IDC group predicts that the outsourcing market in Europe is going to double by 1999. In 1996 alone, Paul Whitwam, group executive director of ICL, predicts a growth of 25 percent in Europe bringing the value of the outsourcing market to about 3.9 billion pounds (Lauchlan, 1996). Both the U.S and the worldwide outsourcing market is projected to grow at a tremendous pace in the next few years. American companies are spending close to $40-50 billion on IT outsourcing, a dramatic increase from $18.2 million in 1991 (Barrett, 1996).

With this increasing trend in using IT outsourcing as a means to attain competitive advantage, firms are looking at factors which will make their outsourcing partnership a success. It is becoming increasingly clear that a thorough prior analysis and a good contract is a necessary but not sufficient condition for a successful outsourcing partnership. An abundance of anecdotal and empirical evidence point out to the fact that the management of the outsourcing relationship is as important [if not more] as the contract itself. The task of managing the outsourcing relationship is further complicated in the case of global IT outsourcing due to the presence of additional factors like the cultural differences between the client and the vendor, IT infrastructure and communication facilities in the vendor country and so on. The goal of this article is to lay down a foundation model for global IT outsourcing management on which future studies in this area can build on. In line with this goal, the authors develop a conceptual model that would delineate the effect of the influence factors on one of the elements of global IT outsourcing management, vis-a-vis control mechanisms, and it's effect on the overall performance of the outsourcing partnership.

Research Model

A contingency view of business strategy indicates that the relevance of different strategies depend on the contextual setting of the business (Hambrick and Lei, 1985). The most effective strategies are those which result in a fit between environmental conditions and organizational factors (Cheon, 1992; Drazin and Van de Ven, 1985). Grounded in management and IT outsourcing literature, we present a contingency model to derive the optimal control strategy under different scenarios of the influence factors.

An outline of the research model is shown in figure 1. The model consists of three major components:

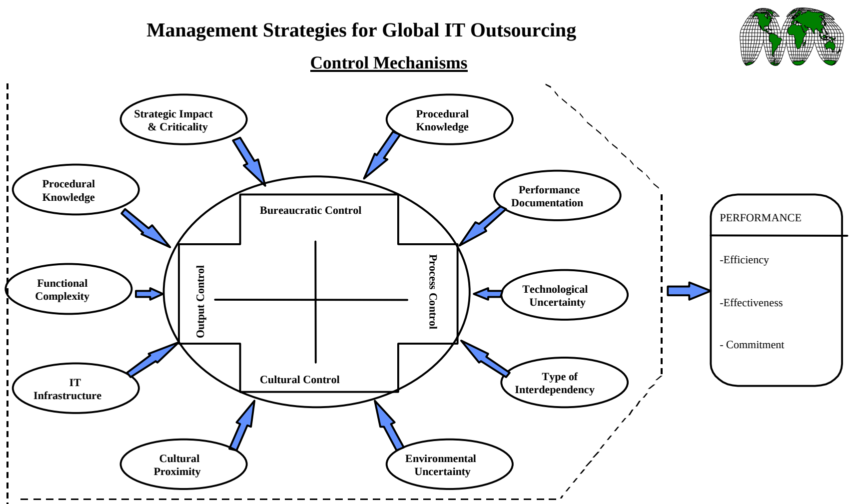

Figure 1

(i) Elements of Management Strategy - Control Mechanisms

"The purpose of control is to minimize idiosyncratic behavior and to hold individuals or groups to enunciated policy, thus making performance predictable " (Tannenbaum 1968, p 3). Broadly speaking, two categories of control mechanisms can be identified in the literature --formal and informal (Jaworski , 1988; Sawhney & Frazier, 1996). In formal control, written, management established mechanisms are set down to influence the desired party so as to achieve a desired outcome, where as in informal control, the mechanisms are less rigid, unwritten, and typically worker-established (Jaworski, 1985). Formal control can further be classified into two groups - outcome control (reliance on end results) and behavior control (reliance on the process).

Another perspective on control is obtained by looking at the implementation and diffusion of the control mechanisms within the organization. From this perspective, control can be viewed as either bureaucratic or cultural. In a bureaucratic system, control is established with the help of explicit rules and regulations (similar to formal control) which specify the desired performance in terms of output and/or behavior (Baliga and Jaeger, 1984). An alternative to bureaucratic control is a cultural control system wherein control is established through informal and implicit mechanisms (Baliga and Jaeger, 1984). In a cultural control system, the shared values and beliefs within an organization guide the norms and behavior of the personnel in that organization.

Within the context of global IT outsourcing, the type of control mechanisms which need to be established will vary from client to client depending on the environmental and contextual factors specific to the firm-dyad.

(ii) Factors Influencing the Outsourcing Relationship

Strategic Impact and Criticality. The strategic impact of the outsourced IT to the client firm's operation and success would shape it's managerial response in terms of the control mechanisms implemented to monitor the vendor firm. In many firms, IT also forms a critical component in the building up of the core competence (McFarlan, 1984; Porter and Millar, 1985). If the outsourced IT component is vital for the organization's survival, then the firm would be less inclined to give the vendor complete autonomy (Pfeffer and Salancik 1978; Oliver 1991).

Technological Uncertainty. Within the context of global IT outsourcing, parties tend to avoid getting into 'fixed' contractual agreements because of technological uncertainty (Ang, 1993; Richmond et. Al 1992). Technological uncertainty refers to the unpredictability in the various aspects of the outsourced IT. The degree of uncertainty in these aspects of the outsourced IT would have a direct bearing on the nature of control exerted by the client on the vendor.

Functional Complexity. Another factor affecting the choice of a particular control mechanism for managing the relationship between the client and the vendor is the degree of functional complexity in the outsourced IT. Ang (1993, pp40) refers to functional complexity as "the difficulty of coordinating an increasing number of differentiated yet interrelated activities in IS services." In cases where the outsourced IT is distributed, an additional factor, namely, spatial complexity enters into the picture. Sometimes, the clients run a variety of software applications on geographically dispersed platforms using different computer configurations (I/S Analyzer, 1990). These kind of situations mandate management strategies emphasizing a high level of coordination and flexibility.

Procedural Knowledge. Withing the context of global IT outsourcing, procedural knowledge refers the extent to which the outsourced task activities can be clearly and unambiguously defined by the client. For the purpose of this study, we contend that the procedural knowledge is high for those IT applications that are routine, clear, and where the information requirements are unambiguous (Leifer and Mills 1996).

Performance Documentation. Performance documentation refers to the availability of measures to evaluate employee performance and the degree of clarity and specificity in the measurement of outcomes (Overton, Schneck & Hazlett 1977; Ramaswami 1996). Within the context of global IT outsourcing, low levels of performance documentation can result when the outsourced IT application is changing at a rapid rate (which makes it difficult to study its impact on the organization), or when it is difficult to gauge the effectiveness of the IS activities (Nam et al., 1995).

Asset Specificity. Asset specific IT investments in an outsourcing arrangement refers to those investments which are unique or idiosyncratic to the particular agreement.

Cultural Proximity. Since global IT outsourcing involves a difference in the country of origin of the vendor and the client, cultural differences assume a very crucial role in the management of the outsourcing relationship. There are many dimensions along which culture can differ. For the purpose of this study, cultural differences are viewed along the dimensions put forth by Hofstede (1980)-- individualism, power distance, uncertainty avoidance, and masculinity.

Environmental Uncertainty. The role of environment in strategy formulation is well documented in the strategic management literature. In a global IT outsourcing relationship, the management of the outsourcing relationship becomes a more challenging task for the client firm because of the variability of certain environmental factors.

IT infrastructure (of the host country). It is contended that the 'level' of IT infrastructure in the host (vendor's) country would play an important role in the selection of control and coordination strategies in a global IT outsourcing relationship.

Performance Measures

We use three criteria to measure the success of the outsourcing relationship -- efficiency, effectiveness, and commitment. Efficiency refers to the speed at which the vendor responded to the client's needs. Effectiveness is defined as the impact of the vendor's service on the overall functioning of the client organization. Further, the future intentions of the partners will be measured along the dimensions of satisfaction, and commitment vis-a-vis the outsourcing relationship (Bucklin, 1972)

Formal Research Hypotheses

On the basis of the research model and literature review, the following major hypotheses are put forward to be investigated.

- *H1: The smaller the cultural distance between the client and the vendor, the more desirable it is to implement cultural control mechanisms as the mode of control.(Jaeger 1983).*
- *H2: The higher the level of strategic impact of the outsourced IT to the client firm, the more desirable it is to implement bureaucratic control mechanisms as the mode of control (Baliga and Jaeger 1984).*
- *H3: The lower the level of performance documentation for the outsourced IT application, the more effective it is to adapt a process control approach (Ramaswami 1996).*
- *H4: The lower the level of procedural knowledge for the outsourced IT application, the more effective it is to adapt formal (objective) control mechanisms (Ramaswami 1996).*

Conclusions

As mentioned earlier, even though there has been some research done on IT outsourcing, there are very few studies dealing with the management of IT outsourcing, especially global IT outsourcing. The current study represents one of the first attempts to look at the management of an IT outsourcing relationships within the global context. One of the contributions of this study is that it provides the academics and the practitioners with a base model for managing the outsourcing relationship. Future studies should be directed towards finding empirical support for the proposed model and also exploring the effects of influence factors on various other elements of management strategy like coordination, communication, conflict management and so on.

References

References available upon request. Contact Ned Kumar, (nskumar@fedex.com).