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EFFECTS OF OFFSHORE OUTSOURCING ON FOREIGN POLICY FLEXIBILITY: THE CASE OF INFORMATION TECHNOLOGY OUTSOURCING

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Abstract

Offshore outsourcing of Information Technology (IT) is a relatively new phenomenon. Because of the potential cost savings offered, many corporate CEO's and CIO's are looking to give a portion or all of their IT functions, as well as many other business processes, to cheaper offshore labor. To date, little focus has been given to the national or international implications of this practice. This paper proposes a research stream to examine the effects of offshore outsourcing in general, and information technology outsourcing specifically, on the foreign policy options available to an outsourcing nation. I hypothesize that the increased use of offshore outsourcing, especially when outsourcing resources that are difficult to substitute, will significantly increase international economic interdependence. Further, the increased interdependence, coupled with a high degree of visibility of the interdependence, will decrease the realistic options available to domestic foreign policy makers.

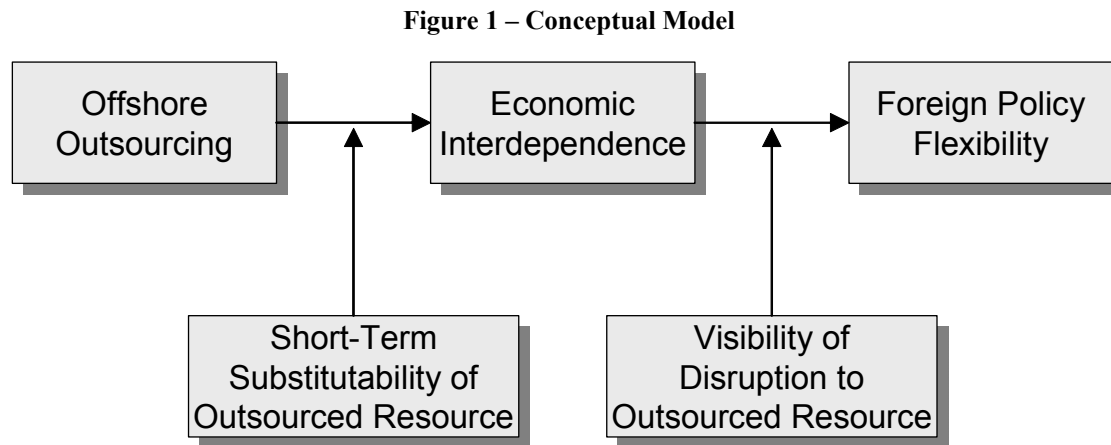
Keywords: Offshore outsourcing, business process outsourcing, information technology, asset specificity, knowledge specificity, economic interdependence, foreign policy

The 1990's saw the rise of a new trend in the Information Technology (IT) industry: the use of offshore personnel as cost effective labor to implement IT initiatives for domestic firms. This trend—facilitated in part by the fall of the Soviet Union, by government initiatives in many developing nations to invest in education and encourage foreign investment, and by the rapid increase in domestic labor costs—has seen rapid growth over the past decade and has now gained a firm foothold as a tool to control costs and increase corporate agility in a globalized landscape that is more and more dependent on IT initiatives to grow, compete, and innovate. Offshore IT outsourcing is a large part of a greater trend, collectively known as Business Process Outsourcing or BPO, which also includes HR, finance, procurement, accounting, call center, etc., and the trend appears to be accelerating. In fact, according to McKinsey & Co., the total market for BPO outsourcing in general is currently \$12 billion, but is expected to see 65 percent year over year gains and reach \$142 billion by 2008 (Marshall, 2003).

As a new trend, relatively little research has been performed to examine and explain the phenomenon and determine the potential costs, benefits, and impacts of offshore IT outsourcing relationships. To date, most research has focused on the short-term micro-economic impacts of offshore outsourcing as well as the effectiveness of the outsourcing relationships. Such research has traditionally focused on the organizational and inter-organizational levels of analysis. Even though this has increased our understanding of the phenomenon, researchers are expending relatively little effort to examine the impacts of IT outsourcing with a long-term view or at an international level of analysis. Whether this is due to the current scarcity of empirical data or simply to a lack of visibility of this trend across disciplines that have traditionally focused on international level phenomena (e.g., political science) is unclear. While offshore IT outsourcing at the national level of analysis is a new phenomenon, the concept of offshore outsourcing itself is not new. Further, while some aspects are unique, many aspects of IT outsourcing can find parallels in other industries or in other phenomena. For example, we can find parallels in the area of foreign resource dependency in the oil and gas industries or in the area of foreign labor dependency in manufacturing and in the textile industries. Research in these areas has explored the issue in detail and has accumulated much empirical evidence. Based on this research, examining the effects of offshore IT outsourcing at the international level of analysis appears to be a fruitful and worthy direction for future research. As discussed, the effects of offshore IT outsourcing may extend well beyond the bounds of business and information technology. Among others, offshore IT outsourcing may impact the domestic and foreign policies of the governments of companies engaging in the practice. This paper seeks to draw a specific correlation between offshore IT outsourcing and the flexibility of implementing foreign policy initiatives against the countries providing the outsourced labor. The primary research question of interest in this study is whether the increasing use of offshore outsourcing in the Information Technology arena will have a negative impact on the flexibility of domestic foreign policy initiatives.

Conceptual Model

Figure 1 below shows the basic conceptual model for this research in the form of a nomological network¹. Each node and proposition will be discussed below.



Proposition 1 – Increased use of offshore outsourcing will increase economic interdependence between the nations involved in the outsourcing relationship.

Interdependence refers to a situation in which two actors depend on one another to provide services or capital in a mutually beneficial arrangement. Economic interdependence is only one type of interdependence (often referred to as economic integration), but it is the most commonly perceived form and the one that we are concerned with in this study. While interdependence can exist both inter- and intra-national, we are concerned only with the interdependence created between nation-states.

There are two competing but complementary definitions of interdependence (Kroll, 1993). One definition revolves around the concept of *sensitivity* (Cooper, 1972; Tollison & Willett, 1973). Based on this definition, states are in an interdependent relationship to the extent that they are *sensitive* to the actions that take place within the borders of the other state.

The other definition, and the one of most relevance to this study, defines interdependence as it relates to *vulnerability* (Baldwin, 1980). In this type of relationship, there is a mutual vulnerability in as much as there are large costs involved for both parties in breaking the relationship.

Proposition 1, which states that increased use of offshore outsourcing will increase economic interdependence between the nations involved in the outsourcing relationship, is based on the following rationale. Offshore outsourcing is, in essence, an international trade agreement for services. Any trade agreement between nations, or between corporations based in these nations, can increase the two nations' economic interdependence upon one another. It is, however, important to this study to measure the degree of interdependence contributed to by IT outsourcing relationships relative to the other economic relationships, such as oil imports, food exports, or outsourced manufacturing arrangements, between the nations involved.

Proposition 1a – The less easily the outsourced resource can be substituted for in the case of a disruption, the greater the interdependence.

Moderating proposition 1 is the proposition that interdependence is increased or decreased relative to the ease with which the outsourced resources can be readily replaced in the case of a disruption to that resource. Perhaps the most interesting factor differentiating IT outsourcing from many other outsourcing relationships is the relative difficulty of replacing the labor in the event of a disruption. This can be generalized as a difficulty in achieving short-term substitutability of an outsourced resource (goods, services, or capital). A disruption could occur due to some form of domestic crisis in the source nation, due to external problems in transferring resources between the nations, or, most relevant to this study, due to sanctions or other foreign policy initiatives enacted upon the source nation by the government of the client nation.

¹ Note that this model is generalized to all forms of offshore outsourcing. Offshore IT outsourcing, as a specific implementation of offshore outsourcing, is characterized as having a low degree of short-term substitutability of outsourced resources (i.e., high-costs and long transition times).

In the case of IT outsourcing, the cost of replacing the labor in the case of a disruption is not simply the differential in labor costs, but the actual and opportunity costs associated with finding, training and transferring knowledge to replacement workers. Further, in the case of an unplanned disruption, knowledge transfer may be complicated (if not made impossible) by the loss of access to key knowledge workers in the offshore organization. These factors make the true costs of a disruption in services significantly higher than might be immediately apparent. This implies that the value of the relationship is measurably higher for the domestic organization (and thus for the host nation) than it is for the offshore organization.

However, not all forms of Information Technology will exhibit the same level of indirect costs associated with a disruption in services. For example, an outsourced IT help desk may require less time and resources to transfer services in the case of a disruption than would an outsourced software development effort. The level of proprietary and difficult to replace business and technical knowledge is significantly higher in the latter case than in the former. In either case, though, the cost of disruption to the outsourcing company (and therefore nation) will be equal only to the value of the incoming capital, while the value to the domestic organization (and, likewise, host nation) will be higher due to the opportunity costs of replacing the knowledge and labor.

The theory of *asset specificity*, and more specifically that of *knowledge specificity*, can be used to explain the extra costs associated with knowledge transfer. Jensen and Meckling (1992) look at knowledge specificity from an economic viewpoint, dividing knowledge into two forms, “*specific knowledge* [which is] knowledge that is costly to transfer among agents and *general knowledge* [which is] knowledge that is inexpensive to transmit.” They argue that the effective transfer of specific knowledge takes significant time—and potentially additional costly resources—on the part of both the provider and the recipient of knowledge. While many of the technical and functional skills required of outsourced labor can be considered general knowledge, knowledge of specific business functions and applications is generally very specific to an organization. Thus, in accordance with the theory of knowledge specificity, this knowledge would be expensive to transfer.

Social psychology offers relevant theories to explain interdependence and the competing contingencies involved in explaining this complex relationship. Thibaut and Kelly (1978) describe a theory of interdependence consisting of three variables: *independence*, *dependence*, and *interdependence*. Independence refers to the degree of control that one actor has independently over the value of a relationship. Interdependence refers to the degree of control that is shared mutually between actors. Dependence, however, is the degree to which one actor is completely dependent on the other actor to realize value.

Based on the seemingly inequitable value of the relationship to the domestic organization, as stated above, it seems logical that the degree of *dependence* of the domestic organization on the offshore organization is significant and measurable, and may be a dominant factor in the interdependent relationship. If this dependence is then transferred to the state level, as can be expected in a nation with a market economy, we can now see that this proposition can be a significant factor in measuring international interdependence, not just inter-organizational interdependence.

Proposition 2 – Increased economic interdependence between nations leads to a decrease in flexibility in implementing foreign policy initiatives.

There are numerous theories of interdependence as they relate to foreign policy. Most early theorists, as well as many modern ones, relate interdependence to the likelihood of going to war. Since we are interested in the flexibility of foreign policy initiatives (and going to war is merely one foreign policy option), these theories may provide us with a useful theoretical lens. Sanctions and other crippling economic actions, while not necessarily a new concept, are part of a modern foreign policy arsenal aimed at conducting the small-scale, non-violent warfare that has become a dominant tool in promoting national interests in the increasingly globalized world of the 21st century.

Early theories fell in to two categories: *liberal* and *realist*. Liberal theorists claim that war is less likely due to interdependence because the costs of going to war are greater due to the relative value of the trade between the interdependent nations. Realists, however, claim that war between interdependent nations is more likely due to the increased feelings of vulnerability described above. Copeland (1996) acknowledges these arguments, but augments the arguments with a concept of *trade expectations*, whereby leaders make rational decisions based on their *expectations* of future trade with an interdependent nation. While this theory advances the power of the original liberal and realist theories by adding a human variable to the equation, it does not sufficiently address the sub-war options available to leaders in the 21st century, nor does it take into account the realities of massively increased interdependence seen in an increasingly globalized society. However, it can serve as a theoretical basis upon which to build a case for furthering the validity of this proposition. The greater the *perceived* dependence of the domestic economy on the relationship with another economy, the less likely a domestic leader is to implement foreign policy practices that could damage that relationship, thus reducing the leader’s flexibility in handling foreign policy, possibly to the detriment of other policy imperatives.

Proposition 2a – The greater the visibility of a disruption to the outsourced resource, the more pronounced will be the decrease in foreign policy flexibility.

Public opinion has long been acknowledged as a major factor in shaping policy decisions in democratic nations. Public opinion is highly complicated and is influenced by numerous factors (Nincic, 1992). It is difficult just to understand all of the factors—in fact most researchers argue that we do not yet understand many of them—and even harder to manipulate and control public opinion. Nincic argues, however, that it is the awareness of an issue and the understanding (or *visibility*) of the potential cost or benefits of action or non-action related to an issue that has the largest impact on shaping public opinion. Thus, once an issue becomes visible to the public (to or through one of the sources discussed below), public opinion is likely set and is difficult to manipulate. If opinion is against a certain policy initiative, this makes the implementation of that initiative difficult. Either the leader must implement an initiative against the wishes of the public or attempt to reshape public opinion in support of the initiative.

The sources of public opinion available to leaders are varied and vast, but are generally classified into five categories: *elites*, *interest groups*, the *news media*, *elected officials*, and the *general public* (Powlick, 1995). According to Powlick, the most influential of these today are the news media and elected officials. It follows, then, that the more visible an issue is to these two sources, the more powerful the impact of public opinion on the implementation of foreign policy initiatives.

It seems logical that, as the dependence of domestic organizations on outsourced labor increases, the impact of a disruption to the labor will increase in kind. It is further logical that the greater the impact is, the more likely the impact is to be perceived by organizations, very likely even in advance of the implementation of a foreign policy initiative that would disrupt the outsourced labor. Large organizations with significant foreign interests have often leveraged their sizeable resources to influence the opinions of both their elected officials and the news media (e.g., Rodman, 2001). As stated above, these sources of opinion have been shown to have a significant impact on the conduct of foreign policy. Thus, we propose that the visibility of the disruption to organizations moderates the relationship between interdependence and flexibility in the implementation of foreign policy initiatives.

Research Methodology

To test the propositions, a multi-method study will be employed. Specifically, propositions 1 and 1a will be tested by collecting and analyzing archival trade data. Propositions 2 and 2a will be tested via existing case studies. The specific measures and methods for proposition testing are discussed in detail below.

Propositions 1 and 1a

The degree of interdependence will be assessed by obtaining the direct value of the outsourcing relationships for corporations based in the United States to three of the top outsourcing provider nations: India, Philippines, and Russia. The value of these relationships will be assessed year-over-year for the past five years to assess growth. To assess the value of these relationships relative to other economic relationships, the overall level of trade with each nation will also be measured over the same five year period. The total level of IT outsourcing for each nation will be broken down into four parts to determine the level of outsourcing for each of four common types of offshore IT outsourcing: *infrastructure* (e.g., application service provider), *support* (e.g., help desk), *maintenance* (e.g., legacy system outsourcing), and *development* (e.g., custom software development or packaged software customization)².

Proposition 1a requires that we derive a reasonable multiplier to measure the direct and indirect cost associated with substituting domestic labor for outsourced labor. The multiplier will include the increased labor costs of transferring the labor to a domestic provider³, the costs required to transition the labor from the old provider to the new one, and the opportunity costs related to the time lost during the transfer. A separate multiplier will be constructed for each of the four forms of IT outsourcing described above. Archival data will be used to calculate the multipliers.

By examining the value of the relationships between the US and the three provider nations, and by further relating these figures to the overall value of trade between the US and India, Philippines, and Russia, we will determine the degree of interdependence that IT outsourcing contributes to the overall measure of economic interdependence (i.e., trade) between the

² A fifth form of IT outsourcing, IT Strategy Outsourcing, is rarely utilized in offshore relationships, and thus will be excluded from this study.

³ For the purposes of this study I will assume transition to a domestic provider, although it is possible that the transition could occur to an alternative offshore provider.

US and these nations. The following formula will be used to calculate the relative level of interdependence associated with IT outsourcing:

$$\frac{V_{ITOutsourcing}}{V_{Total}} = I_{ITOutsourcing}$$

where V is the value of the outsourcing relationship or of the total of all trade relationships, and I is the relative level (percentage) of interdependence. Any positive, non-zero value for I will be sufficient to support proposition 1. However, the larger the value of I , the greater the impact of IT outsourcing on the overall level of international interdependence.

The multipliers discussed above in the measures section will then be used to calculate the actual “value” to the US of the outsourcing relationships with each of the three provider nations. The difference between the shared value of the outsourcing relationship (i.e., V in the formula above) and the value of the relationship to the US represents dependence⁴, as represented in the following formula:

$$(V_{Infra}M_{Infra} + V_{Support}M_{Support} + V_{Maint}M_{Maint} + V_{Dev}M_{Dev}) - V_{ITOutsourcing} = D_{ITOutsourcing}$$

where M is the multiplier for each of the four common types of outsourcing and D is the measure of dependence. The degree of dependence that IT outsourcing contributes to the overall measure of dependence (i.e., trade imbalance) between the US and each country studied will be assessed by comparing D as calculated above with the overall trade imbalance, utilizing the following formula:

$$\frac{D_{ITOutsourcing}}{D_{Total}} = D_{Relative}$$

A positive, non-zero value for $D_{Relative}$ will be sufficient to support proposition 1a. However, the higher the relative dependence, the more profound the impact of IT outsourcing on international interdependence.

Propositions 2 and 2a

There is a large base of empirical case studies that can be used to develop support for propositions 2 and 2a. While it is difficult to determine if factors of interdependence and visibility have pre-empted foreign policy decisions, it is relatively easy to see how these factors have contributed to a reversal (or easing) of a particular foreign policy decision. For example, corporate, diplomatic, and public pressure forced the United States to back down on strict export controls to China in a 1961 incident in which Ford-Canada was initially blocked from filling an order for one thousand trucks bound for China. The conflict was highly publicized in both nations, and rather than risk major political fallout in a highly interdependent relationship, the US government backed down. Another example occurred in 1982 when the US sought to block the construction of a natural gas pipeline from Russia to Europe by blocking US corporate subsidiaries operating on foreign soil from bidding on contracts (or fulfilling for the pipeline’s construction. This action resulted in a large, highly-visible political incident involving close European trading partners as well as huge US-based multi-national corporations. Again, the US eventually backed down from the sanctions.

These and other cases will be examined and the results consolidated to show that interdependence between nations not only reduces the flexibility of nations to conduct foreign policy initiatives (*proposition 2*), but also that the effects of interdependence on foreign policy flexibility are greatly amplified when the impact of foreign policy initiatives are highly visible to the public and to policy makers (*proposition 2a*).

Implications of the Research

This research is significant as the first to examine economic interdependence as it relates to the offshore outsourcing of IT resources (and, in general, any knowledge-based resources). It also adds significantly to a very small collection of research related to macro-level effects of offshore IT outsourcing. Additionally, it further contributes to the study and theory of economic interdependence by adding the costs of replacing labor to the overall measure of interdependence as well as directly relating interdependence and the visibility of the interdependence to foreign policy flexibility.

⁴ Dependence as a component of interdependence as per the Kelley & Thibaut model.

If the above propositions are supported, this research should provide significant “*food-for-thought*” for both businesses and policy makers. There has been a significant focus on the cost-saving potential for organizations and on domestic job loss concerns. Very little focus has been placed on the potential costs associated with the disruption of services or on the domestic and foreign policy impacts of offshore outsourcing.

Executives in organizations currently engaging in or considering pursuing offshore outsourcing should consider ways of minimizing the transitional costs associated with the disruption of offshore resources. These may include upfront transition plans, identification of alternate providers with quick “ramp-up” capabilities, strategic placement of domestic resources in key positions to lessen the potential effects of the loss of intellectual capital, careful consideration of outsourcing relationships with more “troubled” nations, etc. Organizations may even wish to invest in lobbyists to increase the visibility of their dependence on these relationships to policy makers in an attempt to preempt foreign policy actions that may affect these relationships.

Policy makers, on the other hand, may need to analyze the impact of offshore outsourcing relationships on their ability to effectively enact policy decisions. They may need to consider legislation to limit offshore outsourcing and/or control certain aspects of the relationships. While the *laissez faire* policy currently employed in the US and other major outsourcing client nations may make sense when weighing only cost-savings and job loss associated with offshore outsourcing, the addition of the foreign policy effectiveness variable may obviate a need for further analysis.

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