a rose by another name
An Integrated Model to Understanding Outsourcing

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Abstract

Outsourcing has long been a significant part of business strategy. Increasingly global outsourcing of services is no longer about cost reduction, but sourcing innovation. While global outsourcing continues to increase, there has been little in the way of business models that enable one to understand the broad factors that give rise to offshore outsourcing. In this paper, we provide a framework of analyses using a four quadrant model that captures the essence of the external environment, knowledge intensity, and the cost advantages of different types of activity related to a project. We then study projects under each market archetype. Our model framework can help to explain how different forces lead to the evolution of project archetypes. In this initial paper, we describe two such evolutions and an example of market dynamics given by increasing labor costs and corresponding decrease in the competitive advantage of as an outsourcing host.

Keywords: Outsourcing, innovation, market archetypes, technology

JEL Classification: L1, O3, Z0

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1. Introduction

Outsourcing has long been a significant part of business strategy. Starting from outsourcing of services such as maintenance work to security to cleaning, outsourcing has been long viewed as a way of reducing costs allowing a firm to focus on its core competences. Manufacturing firms that previously used to own their supply chains have for over the last few decades turned to outsourcing. Firms such as IBM that would make computers and build their own memory, processor chips, or hard disks have long outsourced the manufacture of many of these elements of their supply chain. Similarly car manufacturers have outsourced locally, nationally and recently globally automotive parts. As part of this evolutionary process, the outsourcer is also the outsourced. Indeed firms like IBM now have a sizeable source of their revenue from companies that have outsourced services to them. Over time, vertically integrated firms have given way to reducing its focus and outsourcing tasks towards horizontal integration

Just as the rising tide of cheap imports from developing countries have provoked protectionist concerns in developed nations, offshore outsourcing has sparked debates and often anger ranging from ethical issues when footwear firms such as Nike are accused of exploiting cheap labor in countries such as Vietnam, to widespread fear of losses of high collar jobs to countries such as India and to some lesser extent to China, Philippines and Russia. Offshore outsourcing has had received significant impetus with the internet phenomenon and high speed global data networks, causing ever increasingly firms to evaluate their business strategies. While this has enabled firms to stay competitive, it has provoked governments into protectionist modes.

Recent years have witnessed a surge in `Business Process Outsourcing´ (BPO) in the drive by firms to stay globally competitive. These moves were initially motivated by the drive to cut operational costs, and were enabled by sophisticated information technology (IT). Internationally, and especially in the United States, firms have chosen to externally source the execution and management of facilities, logistics, customer care, legal and financial research, finance and engineering design etc, in a drive to reduce costs and stay competitive. Global economies of specialization and scale coupled with massive bandwidth are primary enablers of this trend.

All this has resulted and continues to hold the potential to result in large-scale transformation of the firm. New management techniques are needed to deal with the challenges thrown up by the increasing necessity of outsourcing to stay competitive and the involvement with the outsourcing partners. The research company Gartner for instance has noted important shifts in outsourcing's strategic positioning at many companies and organizations. Trends have been noted in the involvement of outside partners taking over entire business processes albeit not core competencies, but important functions (Gartner).

The outsourcing boom has had profound impact on the operations of firms. For instance, it has caused *Supply Chains* to become more like fluid *Networks*, where aspects such as materials or finances no longer move about linearly, from one end of the supply chain to another, but with materials unbundled from their finances (Newview).

The popular press is rich in the narration of the experiences of firms that are moving many of their businesses processes offshore and the consequences. These offshore outsourcing trends are well documented, especially in the IT sector. Individual anecdotes abound about the gains to firms as well as unhappy experiences. And the stories of losses are not just white collar jobs in the IT services, but run the gamut from insurance and finance firms to stock market analysts to pharmaceutical researchers, to office space.

1.2 Outsourcing and Internationalization of Firms

Outsourcing of services facilitated by rapidly diminishing communication costs brought about by information technology advances has caught the imagination of firms in particular and broader actors in the economy in general. Yet, outsourcing of parts of the supply and the value chain to international firms, has to be viewed in the wider context an evolutionary process in the internationalization of firms. In this the literature is rich in research between internationalization of firms and firm performance. Vernon (1971) posited a positive relationship between the extent of a firm´s internationalization and the return on investment and the return on sales. Later Kim and Lyn (1987), Grant, Jammine, and Thomas (1988) Han, Lee and Suk (1998) Jung (1991) among other

researchers, found that firm performance as measured by various indicators were positively related to the internationalization of firms

The benefits of internationalization of firms accrue from a diversification of risk to cash flows (Agmon and Lessard, 1977), cost reductions of overheads due to multinationality, especially critical in R&D- intensive (Tallman and Li, 1996; Kobrin,1991). Other advantages of internationalization are derived from the access to cheaper resources in the destination countries. These resources include cheaper labor, better technology or any country-specific resource (Porter, 1990; Jung, 1991). The internationalization of firms is also often motivated by issues such as market access and circumventing trade barriers.

The Upsalla internationalisation model (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977) suggests that lack of knowledge regarding foreign markets can be an obstacle to internationalisation (Fosgren, 2000). Thus setting up foreign subsidiaries is a way for a firm to acquire knowledge and experience by operating in foreign markets.

However not all authors are unanimous in the existence of a positive link between multinationality and firm performance. Some researchers have found no relationship (e.g., Bower, 1981; Dunning 1985; Rugman, Lecraw & Booth, 1985) while some others have found a negative relationship (e.g. Sidtarthan & Lall, 1982). Geringer et. al (1989) and Hitt et. al. (1977) found an inverted U shaped relationship between multinationality and the return on assets and the return on sales. Contractor, Kundu and Hsu (2003) find an inverted-U-shaped relationship suggesting that international expansion beyond an optimal level may be detrimental to firm performance). Testing data from eleven service industries, their research underscores the difference between knowledge -based and capital- intensive service sectors.

Aharoni´s decision process model incorporates ideas from behavioural theory in developing a theory of the internationalisation of the firm. Foreign direct investment is seen as a complex social process (Aharoni 1966, 13). Of the four trigger signals related to foreign direct investment, the third relating to the band wagon effect may have some relevance to the case of outsourcing of business services.

Comparative Advantage & Free Trade: A rose in another name?

SOME theory of comparative advantage…

In The controversy was sparked by Mankiw's Feb. 9 comments calling outsourcing "just a new way of doing international trade" and stating: "More things are tradeable than were tradeable in the past, and that's a good thing. That doesn't mean there's not dislocations; trade always means there's dislocations. And we need to help workers find jobs and make sure to create jobs here."

The consequences of global outsourcing lie beyond changes in management styles, businesses processes and supply chain unstructuring. The implications are felt in the workplace and in the workforce. Before the IT sector outsourcing, job losses in the sourcing countries were generally in the skilled and the semi skilled workforce. In the recent years, offshore outsourcing has meant that jobs high collar jobs previously held by nationals are being taken up in far off countries at wages often 40 to 50% lower with productivities similar. Besides cost reductions, offshore outsourcing has led to a 24 hour functioning of firms that have mad many organizations truly globally, competitive, and nimble. But this continues to fuel discontent, with estimates of further job losses[2]. But both the job losses and competitiveness gains continue to drive the debate in the media and generate lots of public attention[3]. While anecdotal tales of jobs losses associated

[2] Forrester Research for instance estimates that by 2005, 600,000 U.S. jobs - whether IT, back office, customer service or sales - will move to countries such as China, India, the Philippines and Russia. By 2015 their report indicates that the number will climb to 3.3 million.

[3] McKinsey Global Institute (MGI) reports that at current productivity levels, the U.S. will need 5%, or 15.6 million, more workers by 2015 to maintain its current ratio of workers to the total population and current living standards. MGI also estimates that for oa number of reasons - including reduced costs for consumers and new revenue from sales in offshore countries - offshore outsourcing actually creates value for the U.S.

with global service sector outsourcing are regular, recent data seems to bear out little of the widespread fears. In a recent report by the United States Government Accountability Office (GAO) of the 1.5 million layoffs reported in 2003, only 0.9% of this could be due to overseas relocation, and most of those job losses were in the manufacturing sector But the truth remains that offshore outsourcing has become a fundamental armament in the arsenal of business strategies as organizations continue to look for means to stay competitive.

As outsourcing business strategies get more complex, outsourcing itself is getting increasingly crowded with jargon. However, there are 4 current strategies when considering the location of a project. They are Onshore, Nearshore, Offshore and Bestshore. In this paper, we make an attempt using what we call an integrated model, to synthesize business strategies that result from outsourcing.

The Integrated Model

While there has been and continues to be an increasing trend to offshore outsourcing accompanied by some controversy, there has been little in the way of an understanding of a business model that enables one to understand the broad factors that give rise to outsourcing. There have been generic models for instance by Jupiter Media Metrix among other research and consultant firms, that try to get a holistic understanding of country competitiveness for outsourcing. Some academics have also studied and cataloged offshore outsourcing (see for instance Shailendra C J P for the case of outsourcing of IT related activities) with some model framework to understand the outsourcing strategies.

In this paper, we provide a framework of analyses in a four quadrant model that captures the essence of the external environment, knowledge intensity, and the cost

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MGI calculates that for every $1 that a domestic company diverts offshore $1.12 to $1.14 value creation is retained in the U.S.

advantages of different types of activity related to a project. We study projects under each market archetype.

It should be stressed that this paper does not have as its objective to serve as a how-to guide for outsourcing issues or with one brush, catalog all the different forms of outsourcing. Its aim is to use the model presented as a framework of analyses that would permit future research and scholars to understand various issues related to outsourcing, and some day provide a global model of international business.

Our model framework can help to explain how different forces lead to the evolution of project archetypes. In this initial paper, we describe two such evolutions. We also give an example of market dynamics given by increasing labor costs and corresponding decrease in the competitive advantage of as an outsourcing host.

The paper is organized as follows. Section 2 presents the basic framework of the model, section 3 describes the market archetypes, section 4 explains how and why the archetypes evolve. In section 5, we study market dynamics trying to understand the metamorphosis of project archetypes. Section 6 presents our conclusions with directions for future research.

2. An Integrated Model to Understanding Outsourcing: The Framework

As a specific form of internationalization of firms, there have been various studies that have examined factors that determine a firms´ decision to outsource[4]. These determinants include costs savings, maximizing internal IT resources, focusing on core competencies, providing 24 customer service, etc. Some studies have focused on the importance of coordination issues for global outsourcing to be successful (Herbsleb, J. and Moitra, D). An empirical research conducted by Chris Coward reveals fourteen major reasons, of the *how* and *why* factors of outsourcing and the *where* a client outsources. Coward analyses factors that are essential for developing countries to possess in able to successfully pursue a strategy of attracting IT enabled export

[4] See for instance Erran C and Ritu A.

(outsourced) services. Besides costs and availability, other factors include time difference, country image, language and culture etc.

There have also been generic models of country competitiveness, for instance by Jupiter, Media Metrix and McKinzey, among other research and consultancy firms, that attempt at a holistic understanding of country competitiveness for outsourcing. Some academics have also studied and cataloged offshore outsourcing (see for instance Shailendra C J P for the case of outsourcing of IT related activities) with some model framework to understand the outsourcing strategies.

In this section we present our model to be considered as a first attempt at understanding the type of firms that opt for offshore outsourcing and the broad consequences. Our framework of analyses is a four quadrant model that captures the essence of the external environment, knowledge intensity, and the cost advantages of different types of activity related to a project. This integration also enables us to also study the dynamics involved when there are changes in the external environment.

In the first, the northeast quadrant, we represent the external environment by the *dislocation facilitation* of a project (as a set of tasks or activities) on the horizontal against the knowledge intensity or the value added on the vertical axis. In this base model, we consider all types of projects and activities, not just those related to the information technology sector.

The horizontal axis includes activities associated with tradeable and nontradeable goods and services. Movement away from the origin implies an increasing degree of dislocation facilitation, indicating an increase in the ease with which activities associated with a project can be dislocated or globally sourced. Note that we can have the supply chain which has certain core activities which are onsite and not amenable to global outsourcing, and other activities which are and lie on the further end of the axis. It is important to note also that activities which lend itself easily to dislocation are also those which involve less project communications. Software development for instance, may or may not involve significant dialogue between clients and the contracting firm, in which physical proximity of programmers may be important, at least in the initial phase of the project.

The vertical axis measures the extent to which a project or certain activities or parts of the supply chain represents *'knowledge intensity´*. Thus higher up on the vertical axis represents project activities that are knowledge intensive or involve greater knowledge creation or alternatively high knowledge value added. Activities or goods or services which are predominantly in the upper end of the vertical axis are part of the knowledge economy. In section 3, we describe further and illustrate the activities or clusters in this external environment quadrant.

Moving anti-clockwise, the second quadrant gives the tradeoff between the knowledge intensity of an activity and the *cost* or the *value advantage* of the activity being domestic or offshore. Besides cost advantage, a managerial input in decision making is also the value advantage, which includes factors such as quality of service, promptness, capability of 24 hour services etc. In this base model, we posit a generic tradeoff function represented by downward sloping, concave surfaces. These curves gives the trade off between the strategy pursued in a given market in terms of the knowledge intensity and the cost advantage that strategy. We posit an initial negative relationship between knowledge intensity of a project and the cost advantage of the project being globally outsourced. The exact curvature or elasticity of these trade off functions is industry specific and shifts of these curves can occur either temporally or motivated by technological improvements or innovation.

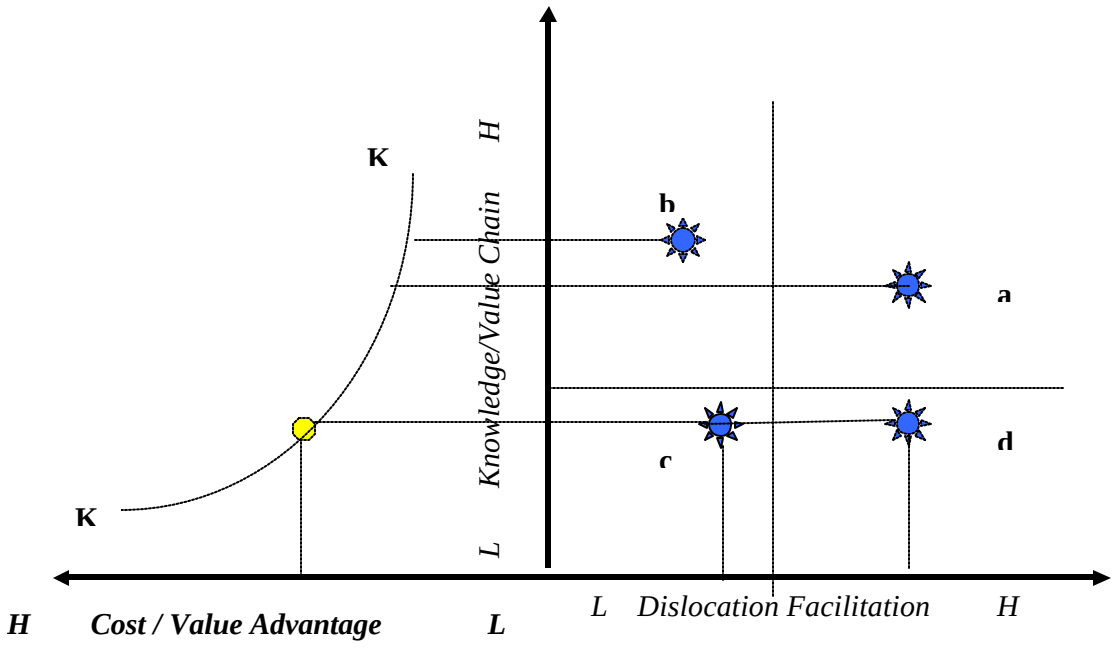
The coordinates of a position on this northwest quadrant gives the cost and value advantage of an activity being offshore and the degree to which the activity is knowledge intensive and high value added. The inverse relationship posited indicates ceteris paribus, an activity or project which is knowledge intensive has a low cost advantage of being globally outsourced. On the other hand, in more labor intensive and low value added activities, offshore foreign developing countries are likely to have a comparative and competitive advantage[5].

Shifts of the trade off curves can occur either due to temporal factors, changes in cot structures or due to technological improvements or innovation. Thus a shift of the trade

[5] Michael Porter´s approach to competitive as opposed to comparative advantage has been adopted in our model as well.

off curve towards the knowledge intensity axis could occur due to technological advancements, advancements and opportunities in the developing countries[6], changes in factor costs in sourced economies and other external influences. Thus a shift towards the vertical axis would imply that ceteris paribus, for a given level of knowledge intensity of an activity, there is a decrease in the cost advantage and vice-versa for shifts away from the vertical axis.

Figure 1 illustrates activities in relationship to the knowledge intensity and dislocation facilitation (northeast quadrant) while in the northwest quadrant is an illustration of one tradeoff between knowledge intensity of an activity and the cost advantage of it being globally outsourced.



[6] As a first version of this new integrated model, we have deliberately chosen to keep the exposition as simple as possible.

Figure 1: The External Environment, Knowledge Intensity and Returns

In figure 1 activities *b* and *c* are activities which are not amenable to global outsourcing. However, activity *c* is low knowledge intensive as opposed to activity b. Activities *a* and *d* both lend itself to global outsourcing, again the difference being in the knowledge intensity of each activity. As noted earlier, a tradeoff function illustrated by the curve KK is generic, and its exact nature is sector, project and indeed activity dependent.
As illustrated in the figure the two activities c and d both have the same knowledge intensity and enjoy the same cost advantage the difference being that while d can be potentially globally outsourced activity c is much more difficult (from either management or natural perspectives) to be outsourced.

The third and the southwest quadrant, maps the cost and value advantage of an activity being offshore on to itself via the 45º construct. This device enables us to study in the final southeast quadrant, the correspondence between the cost and value advantage to the dislocation facilitation. Future research would have the relationship better defined via another function mapping the relationship between the cost advantage to the value advantage of an activity being offshore.

The fourth and the final quadrant thus maps the cost and value advantage of a project to its dislocation facilitation. The matrix below summarizes the nature of activities and projects in this quadrant.

DISLOCATION FACILITATION / **COST/VALUE ADVANTAGE**	***Low***	***High***
Low	*High Skilled Domestic white collar*	*High Skilled Offshore white collar*
High	*Low Skilled Migration*	*Labor Intensive Offshore*

This fourth quadrant can also be considered the decision matrix for firms. The greater the cost and value advantage of host nations for projects that lend to offshore outsourcing, in business strategic terms, the more it makes sense to undertake offshoring contracts. However, as we shall see later via an example, an increase in labor costs of the host nation would lead to a decrease in its competitive advantage as an outsourcing destination, for given level of knowledge intensity of the project. In further research we propose to delve more into the question of the evolution of competitive advantage as an outsourcing destination.

Figure 2 below presents this four quadrant graphical framework of analyses. In the first quadrant, we have the external environment given by the dislocation facilitation of a project and the knowledge intensity. The second quadrant gives tradeoff between the knowledge intensity of an activity and the cost or the value advantage of the activity being domestic or offshore. The third quadrant employs the 45º line that enables us in the fourth quadrant to study activities as they relate the cost and value advantage to the dislocation facilitation.

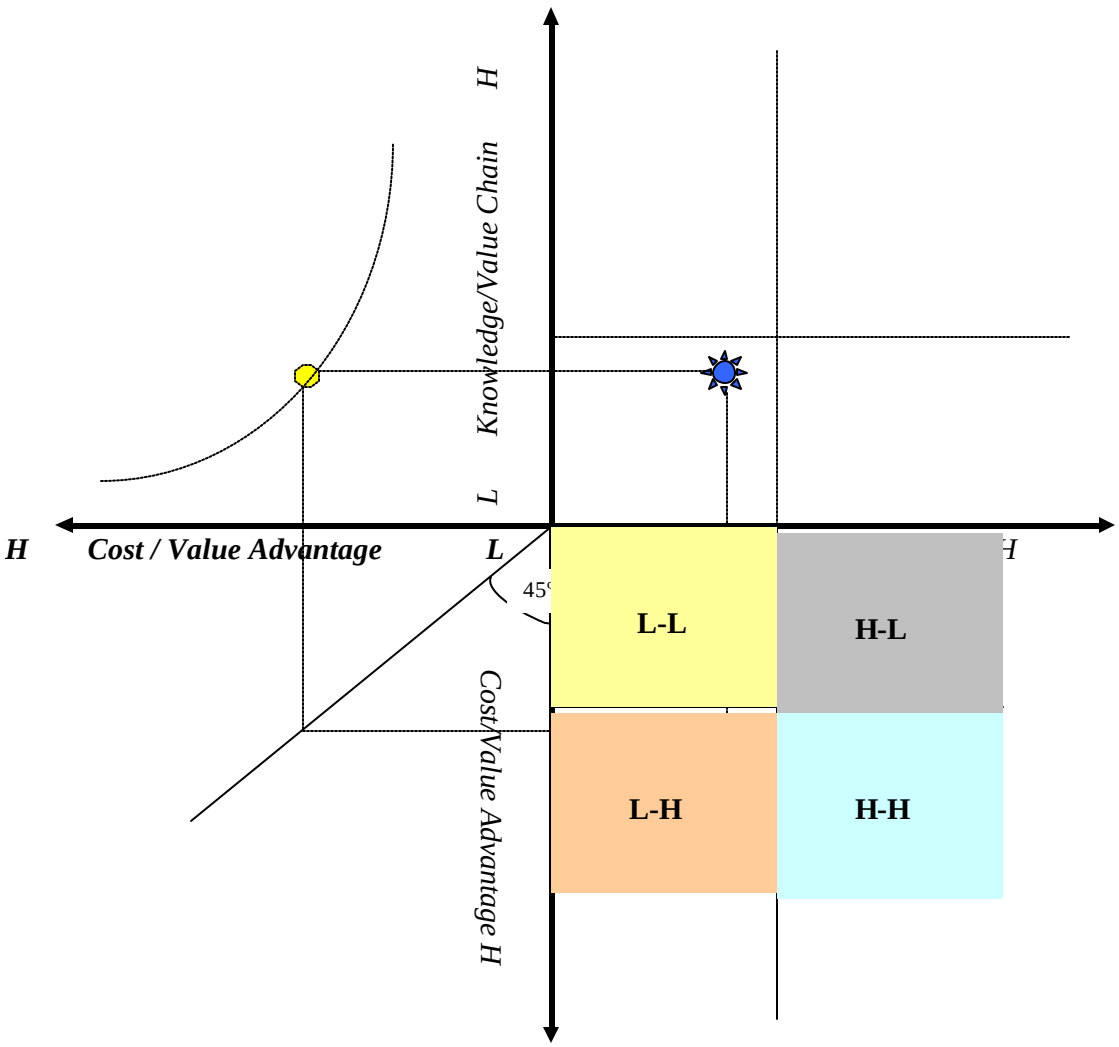


Figure 2: The Integrated Framework

3. Project Archetypes: The Gazelle, the Elephant, the Ant and Fox Markets

In this section, we describe four major project market archetypes determined by the dislocation facilitation of a project and its knowledge intensity that was earlier presented corresponding to the northeast quadrant of figures 1 and 2

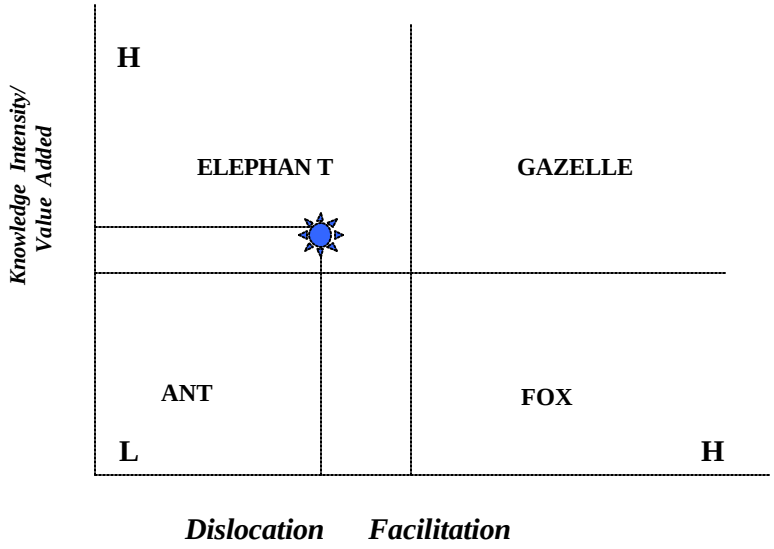


Figure 3: Project Market Archetypes

Projects and activities based on the ease of their global dislocation facilitation and their knowledge component, can broadly be thought composing of four major archetypes: the Gazelle, the Elephant, the Ant and Fox [7].

The Gazelle Combination:

This archetype consists of project activities that are high value added, knowledge intensive and lend relatively easily to being globally outsourced. Gazelle projects would require little (or only in the early stages of the contract) need for project monitoring and intense communications by the outsourcing firm. Examples of gazelle projects in services would largely be in areas IT enabled as well as in the manufacturing of high

[7] Here we follow some tradition in the strategy literature where matrix characteristics are described using various metaphors.

value added IT components. For the service sector, examples could be certain types of software development, BPO like research analyses for financial and accounting firms, drug research for biotechnology companies, risk analyses, industrial engineering etc..

The Elephant Project Archetype :

This archetype corresponds to knowledge intensive activities that are difficult to be sourced globally. Most top tier managerial functions for instance cannot be outsourced. Indeed most managerial functions would fall under this elephant archetype., as would non-tradeable activities in the service sector such as doctors, lawyers, scientists, professors etc. (although R&D is increasingly being offshored). High skilled manufacturing on site jobs would also fall under this category. Under suitable conditions, jobs in this sector are likely to attract high skilled, technically qualified personnel from abroad.

The Ant Project Archetype:

These are projects which would are labor intensive that have to be performed on site. Many low paying jobs in the service sector would fall under this category, such as working in restaurants, supermarkets, store clerks etc. Low skilled jobs in the agricultural, manufacturing and construction sectors could also be described as ants projects. Jobs in this sector are again attractive for immigrants from poor countries. This sort of trade would be classified as part of Mode 4 trade by the WTO.

The Fox Project Archetype:

A lot of the offshore IT enabled work outsourced by firms in recent year could be called fox projects. They are projects that require little project communications and can be carried out in countries such as India, Philippines, China, Russia, Israel etc. These destination countries have labor markets which are abundant, cheap and qualified to perform the tasks. Some examples of these projects would be call centers, various back office operations, data entry, programming, transcription, web design, low level research analyses etc.

4. Metamorphosis: Archetypes and Evolution

Market archetypes evolve depending on a wide variety of forces, both those determined by internal competencies and technological developments and also those conditioned by macro and global economic dynamics. Our model framework can help to explain how some of these forces lead to the evolution of project archetypes. In this initial paper, we describe two such evolutions. We also give an example of market dynamics given by increasing labor costs and corresponding decrease in the competitive advantage as an outsourcing host.

4.1 Fox to Gazelle: Moving up the Knowledge and Value Chain

As the host country develops its infrastructure, global management competencies, reputation, technological and labor market competencies, global market expertise, it develops the capabilities to move up the knowledge and value chain of outsourced projects. This has been true for outsourced and foreign direct investment enterprises in some of the erstwhile Asian Tiger economies like South Korea and Taiwan in the manufacturing sector, and holds true for IT enabled business support services today. For instance in one of the favorite destinations for outsourcing of IT enabled services, India, there is increasing trend of outsourcing not just of more manpower intensive services such call centers, database development, transcription etc of Fox projects, to the more knowledge intensive services such as research analyses for investment banks, brokerages and accounting firms, R&D Research for pharmaceutical and biotechnology companies, clinical testing etc. These represents a metamorphism of the host fox markets evolving into high value and knowledge intensive gazelle markets.

This evolution marks therefore an evolution of the host market competencies and an accompanied evolution of the motivation for outsourcing. While fox projects destined for reasons of for costs reductions and value, the gazelle market implies that the reasons for outsourcing is no longer about cost reductions but indeed about innovation and efficiency gains.

4.2 Gazelle to Elephant: Inward Foreign Investment

Development of competencies in the host countries often lead to the closing of the circle in the form of investment into the erstwhile client nations, by the host countries. Although, these host nations, all developing countries, continue to remain recipients rather than sources of FDI, outward FDI stocks from them have grown rapidly over the last ten years. The share of developing countries in global outward stock rose from 5 percent in 1990 to almost 12 percent in 2000. Many of the developing country multinational companies are still in the nascent phase of internationalization, some already apear among UNCTAD's list of Top 100 MNCs and among the Fortune Global 500. In the service sector, this phenomenon is being seen in the IT sector, where now Indian software companies have set up offices all over the globe, not just to channel outsourcing services to their parent companies in India, but are not providing consulting services eating up markets of giants like IBM, EDS, Accenture etc.

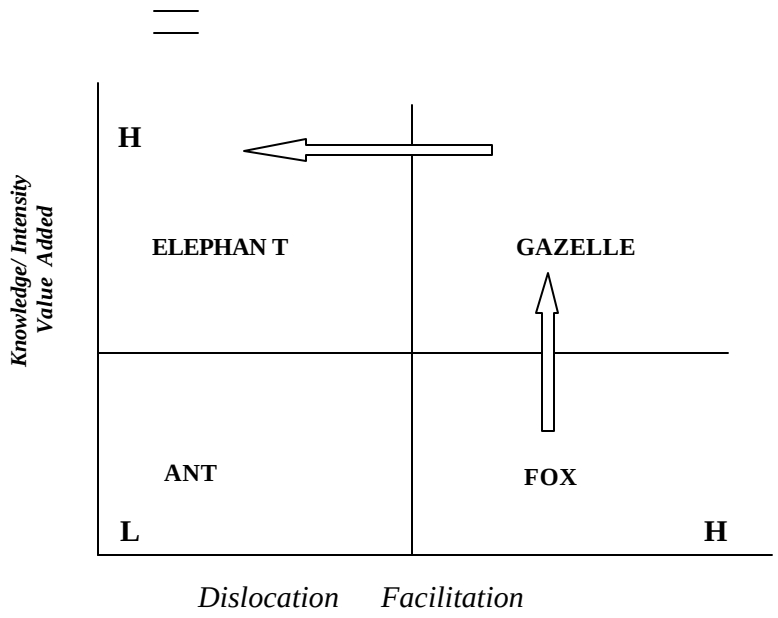


Figure 4: Two Market Evolutions

4.3 Further Dynamics: Technology Development and

While we have described two major market evolutions in the outsourcing history, there is yet another market dynamic that we briefly explore in this paper. This relates to the shifts in the tradeoff between knowledge intensities and cost advantages, via shifts of the respective trade off curves. Figure 5 illusrtates one example of this market dynamic.

In the figure, the fourth quadrant gives the cost advantage of a project with respect to its global outsourcing facilitation, for given technology. As labor costs increase in the host country, with the knowledge intensity remaining unchanged, there is a decrease in the cost advantage of the project. Thus in the final quadrant which is the decision matrix, the competitive advantage of outsourcing gets reduced as reflected in the movement from P to P´. In subsequent research we shall focus more on these dynamic aspects of competitive advantage, including technological developments.

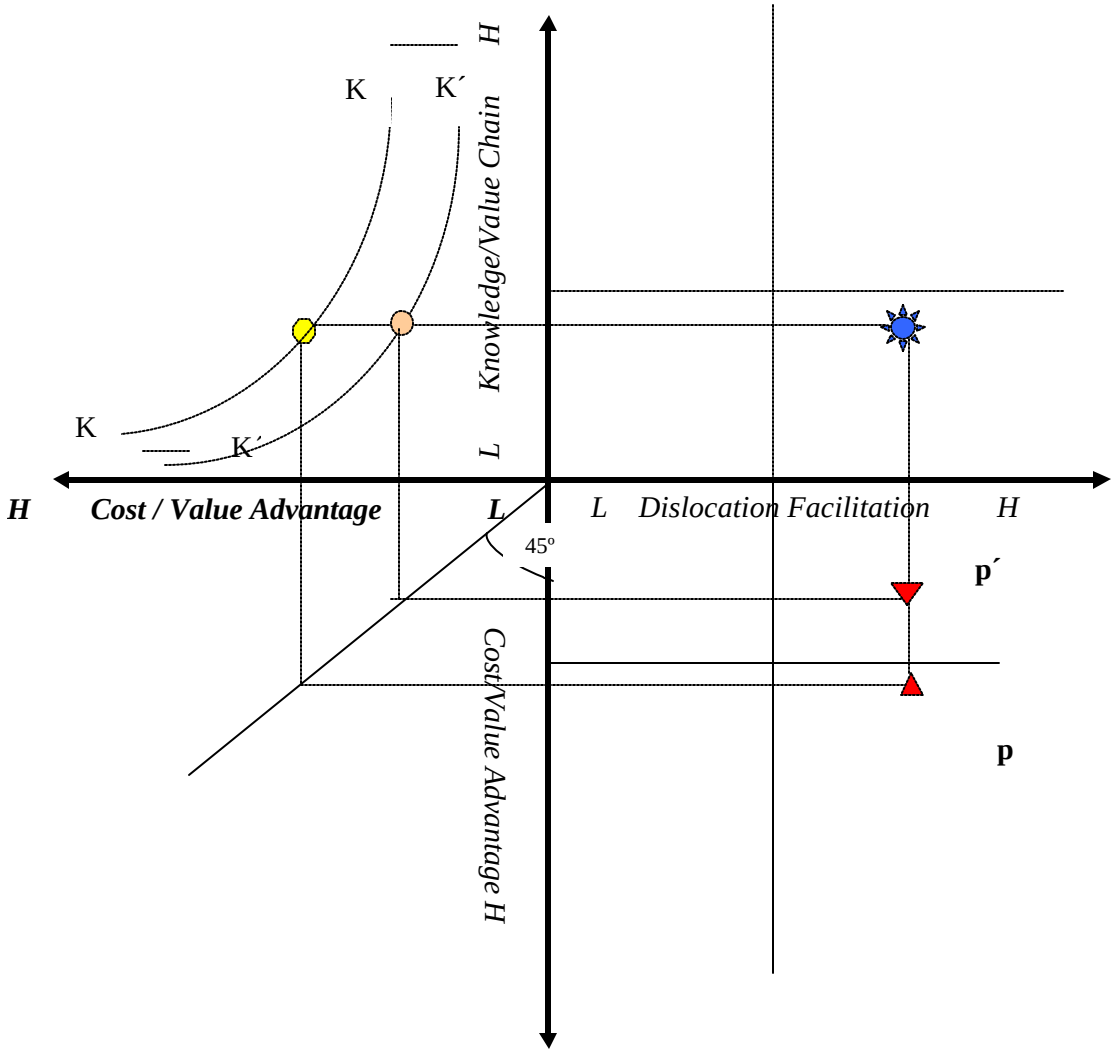


Figure 5: Market Dynamics: A Decrease in the Cost Advantage

5. Conclusions

Global outsourcing of parts of the supply and the value chain to international firms, has to be viewed in the wider context of an evolutionary process in the internationalization of firms. Viewed in itself, global outsourcing of services is continuing to be one of the major strategic moves as firms devise ways not just to lower costs, but indeed to tap into R&D sources of innovation. Yet there has been little in the way of an understanding of business models that enables one to understand the broad factors that give rise to outsourcing. In this paper, we provide a framework of analyses in a four quadrant model that captures the essence of the external environment, knowledge intensity, and the cost advantages of different types of activity related to a project. We then study projects under each market archetype.

Our model framework can help to explain how different forces lead to the evolution of project archetypes. In this initial paper, we describe two such evolutions. We also give an example of market dynamics given by increasing labor costs and corresponding decrease in the competitive advantage of as an outsourcing host.

Future research would further consolidate this model with case studies of the market evolutions described. We hope to study also the changes in the competitive advantage brought about by changes in factors such as global market conditions, increased international competition, rising labor costs and technological improvements.

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