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Outsourcing, Insourcing IT-Related Business: The Impact on the Organization

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ABSTRACT
Outsourcing by American companies has become a way of doing business. Various forms of strategic sourcing are means for firms to compete strategically in the global marketplace. This paper defines outsourcing and describes its evolution over the in terms of job migration and its economic pros and cons. The deployment of IT sourcing is discussed as well – indicating that there are many variations of what we think to be outsourcing and insourcing.

INTRODUCTION
With the growth and diversity in information and computer-based technology firms are pressured to control and manage increasing costs. Many strategies have been employed to control their computing cost. Often it is not just cost but the conviction that a firm needs to focus on its core competencies. Information Technology [IT] is often considered to be a support function. During the 1970's in the era of the mainframe companies farmed out their specialty operations to time-sharing. By the 1980's the growth of service bureaus and facilities management were common place. At one point Electronic Data Systems assumed the complete computing operation of General Motors., then largest company in the world. Even as early as the late 1960's firms frequently relegated their Payroll systems to banks and service bureaus to insure better control — checks and balances. This trend continued with the transfer of other bank-related transaction processing systems such as credit card processing.

For the programmers and other computer systems professionals the period from the 1960s into the 1990s were golden times – high demand and good salaries. A harbinger of things to come was marked by Yourdon's seminal work, "The Decline and Fall of the American Programmer" (Yourdon 1992) – American software is developed at a higher cost, less productively and with less quality. He went on to suggest the deployment of software technologies and innovations such as software reusability and reengineering technologies. Herein was the beginning of true outsourcing – we began to see programming sent overseas to Ireland, India and other technologically astute countries.

By 1996 Yourdon published a sequel to his earlier book – "The Rise and Resurrection of the American Programmer." (Yourdon 1996) He noted that in a four year period from 1992 to 1996 the world of computing went through two generations of hardware technology and witnessed the explosion of the internet, multimedia and other technologies especially the introduction of the World Wide Web. Software was becoming a commodity. This could also be extended to business applications. Customers began to realize that there are multiple vendors and that they can virtually get software anywhere. Remarkably sophisticated accounting systems could be purchased for not much more than the cost of Microsoft Office. More elaborate business and enterprise software could be purchased at much higher prices. If the requirements were unique a firm might turn to consultants or specialists – they did not have to rely on their in-house staff. Development work could be outsourced to a local consulting firm or an offshore programming shops.

Buchholz, in his book, "Bringing the Jobs Home"(Buchholz 2004) relates how four years ago, while lecturing to technology executives, about the preponderance of the outsourcing wave. The executives explained that they might not be firing Americans but they were not looking to hire more. Instead India, Ireland, Israel and China seemed to be nabbing the new jobs. Irish and Israeli programmers earned half as much as Americans while Indians and Chinese worked for one-fourth the salary. Forester Research states that more than 800,000 white-collar jobs have traveled overseas in 2005 and 3.4 million by 2015. This figure doesn't state how many of these white-collar jobs are IT. Regardless Researchers at UC Berkley believe that Forester is too conservative and that 14 million job holders should be "trembling" (Buchholz 2004) The counter measure to outsourcing is "insourcing" where foreign firms are hiring Americans. More than six million Americans already work for foreign firms, and the number is climbing.

The meaning of IS outsourcing has evolved over time (Fink 1994). Traditionally, it referred to the conditions under which the organization's data were processed at an external computer service bureau. Now, however, it can mean much more and the concept has become somewhat blurred. A 1991 American survey of chief information officers concluded "There is little precision in the term outsourcing. Some respondents use the term to mean 'farming out any task, service or function,' while others use it to refer exclusively to the data center utility"(Analyzer 1993). Martinson provides a generalized definition, namely that "Information systems outsourcing is the act of subcontracting all or parts of the IS function to an external vendor as an alternative to relying solely on in house resources and capabilities"(Martinson 1993).

In some cases, outsourcing means selling the existing assets of a company to an outside service provider and then working with their experts to improve those assets.(Associates 2001). The result: better use of capital and potential gains in quality, productivity, and throughput. In other cases, outsourcing is a way to take an existing fixed cost structure and turn it into a variable one in which expenses can move up or down as the business climate dictates.

SOME BACKGROUND ABOUT OUTSOURCING
Outsourcing is not a recent occurrence. American companies have been manufacturing goods abroad in countries such as China and India for decades. Outsourcing has had a significant impact on information technology over the past 30 years. In the 1970's many U.S. companies exported their payrolls processing to outside service providers. This practice continued into the 1980's, where accounting services, payroll, billing, and word-processing were outsourced as well (eds.com 2005). Most often these early outsourcing tasks were only "outsourced" as far away as another state within the U.S., not India or China. By the late 1980's this had changed. Firms were realizing the threat outsourcing

posed for American workers. The growing need for software developers and technical support personnel, combined with the ever-expanding network of telecommunications became a catalyst for the intensification of outsourcing. Early outsourcing to overseas providers by corporations such as Kodak and American Standard captured the public's attention. "Kathleen Hudson, then Kodak's CIO, said, her goal was to 'plug into the wall and have data come out.' That type of thinking helped put outsourcing on the map'. (News.com 2005)

Outsourcing is more prevalent now than ever before. It is estimated that by 2015, $136 billion in wages will move to India, China, Russia, Pakistan, and Vietnam. Europe also has become a Mecca for outsourcing. They expect to reach 25 percent of total global outsource spending. Although media attention has tended to focus on India as the world's most recent outsourcing hotspot, China has three to four times as many outsourced jobs as India over the past 15 years. While the current concentrations of outsourcing are information technology and manufacturing, product research and development as well as healthcare may soon be just as heavily outsourced as technical support centers.

Outsourcing and Corporations

International Business Machines (IBM) has been the dominant provider of mainframe computing for over fifty years. They also were the leader in the personal computing industry, introducing their first PC in 1981. Since then, IBM has encountered intense competition from Dell, Hewlett-Packard, Toshiba, and other companies. In response to this competition, IBM shifted their focus from PC manufacturing to what it calls "business transformation services," or, what is more commonly known as outsourcing. (ibm.com 2005) Companies are increasingly outsourcing the development and management of information technology to IBM to gain access to specialized skills, costs, staff utilization, reduced recruitment and training, high standards of control and security, and specialized information services. (Downing 2003) There are reasons though to retain the development of IT applications in-house – subject matter expertise, confidentiality of business data, reduced vendor risk, ease of development and acceptance of internal adaptation, and the desire to develop internal leading-edge competence.

The overseas movement has become commonplace within the corporate industry. From HP, to Motorola, to Bank of America, companies continue to send jobs abroad through business process outsourcing (BPO). Offshore companies provide lower labor costs than their domestic counterparts. The lower wage-restrictions of many Asian and Middle Eastern countries allow offshore companies to hire more middle managers, who are then able to "devote more time to building the skills of their employees and to improving their processes than would be economical for most Western companies" (ibm.com 2005). By developing and producing goods less expensively using offshore manufacturers, companies are able to sell products to consumers at reduced prices.

IBM — Its not all Outsourcing

IBM Global Services provides services to make corporations more proficient through what it calls "business transformation services." By partnering these large corporations with strategic partners, IBM can "streamline business processes, business applications, and IT infrastructures" (ibm.com 2005). IBM primarily helps companies reduce costs as well as risks by managing their IT business core. In terms of costs, IBM's Global Services has significantly reduced costs for numerous corporations by assuming the majority of the firm's IT operations. According to a 2003 Deloitte Research study surveying 27 global financial institutions, 33 percent of respondents are using IT outsourcing with IBM, and 75 percent said they planned to outsource within the next 24 months. Financial institutions outsourcing their IT functions reported an average savings of 39 to 50 percent when compared to in-house IT function (eds.com 2005).

IBM's IT outsourcing capabilities have helped corporations reduce the risks involved with conducting business. When information technology departments are not centrally located, the threats of in-house system failures, outages, and/or security breaches are lessened. IBM's business transformation services have also helped companies become more productive by outsourcing technical support centers. As an example, the employees of a financial investment firm can call the company's overseas technical support desk for assistance related to departmental computer problems eliminating the need for in-house IT tech support.

Outsourcing is nothing if not versatile. IBM obviously exploited this when successfully transforming itself into a consultancy and service provider within the IT sector. But as strategic repositioning is notoriously difficult, it would clearly have been folly on IBM's part to put all of its eggs into this new basket – even though the company already had prior experience of providing service for its own products. On the other hand, expansion obviously increases demand on resources. So how did IBM manage to pull it off? The company decided to outsource production of its computers, servers and workstations, thus freeing up resources for its own transformation into provider for others (Leavy 2004; Group 2005) .

Initially the Internet served as a communication platform connecting end users and computers. Today, the internet facilitates a broad range of business functions, including marketing, sales and transactions, customer service and other business applications. As a result, the process of building and maintaining e-business infrastructure has become more complex, time-consuming and expensive. Current e-business implementations involve integration and management of numerous components, including server hardware, networking elements, software, storage, security and system monitoring. Furthermore such a structure needs to be operational 24x7x365.

The U.S. hosting service market continues to expand despite current macroeconomic conditions and technology sector turmoil (Posey 2004). The internet boom era is over, but companies continue to leverage the internet as a communications and transaction-oriented business medium. According to IDC the U.S. market for outsourced hosting services will grow from $5.5 billion in 2003 to $10.4 billion by 2008.

Outsourcing Destinations

US companies outsource to almost anywhere in the world. The two major United States outsourcing countries are India and China. (Naughton 1997; Bauer 2002; Gallagher 2004; Nanda 2004; Rahagopalan 2005) They offer the highest amount of laborers at the most competitive wages. Other countries like Pakistan, Ireland, Russia, and Philippine are also candidates for outsourcing services. Pakistan recently launched efforts to attract corporations by claiming to be a better place for outsourcing than India. Even though the scale of Pakistan's IT industry is far smaller than India's, Pakistan is marketing their country as having lower operation costs and a more neutral English accent than India. For Pakistan to become a major player in IT outsourcing industry, it will need to improve in physical infrastructure and education base.

Outsourcing Failures and Risks

The unique and distinct characteristics of IT can put clients at a disadvantage with respect to IS outsourcing providers for the following reasons: IT evolves so fast that there is a high degree of uncertainty involved in any decision related to outsourcing; IT is present in all business functions — knowing the idiosyncrasy of the organization becomes necessary to carry out many IT activities; the costs involved in changing from one IT provider to another are very high— making it complicated to encourage competition; and, clients often lack experience in signing outsourcing contracts — this is not the case for the provider. As a result of this information dissymmetry, providers are in a much better position in order to favor their own interests.(Claver 2002)

Outsourcing IT and software services can have benefits of cost savings to a company. Provider's services can be expensive and may not meet customer's expectations. Sometime the customer assumes that offshoring will result in comparable person-to-person saving without considering costs such as travel, systems compatibility, infrastructure maintenance, or additional equipment. Most IT companies save about 15% to 25% during the first year of implementation, and can reach 40% by the third year when expectations align and reach maturity. The main cause of failure seems to be the differences between customer's expectations and the perceived results to be provided by the service provider.

Failures in outsourcing of customer service such as call centers can have adverse effects and potentially damage a company's brand and reputation. The main perception customers have when they hear a foreign accent is to anticipate or expect a bad experience. For example, two years ago Dell computers had to restructure and rescale its technical support call centers in Bangalore, India due to overwhelming complaints. Many loyal customers were frustrated by the poor customer service when their calls were routed from one support agent to another and nothing is done. Currently Dell continues to route their customer service calls offshore — over half of their employees are located abroad.

Another concern outsourcers have is the protection of intellectual property (IP) and security. Companies often are more focused on cost savings and gaining productivity without taking into account security issues. Although countries such as India have patent, copyright and IP protection laws, these laws are often difficult to enforce. For example, when Jolly Technologies discovered source codes and design documents were allegedly uploaded and emailed by an outsourced employee in India, the company tried but failed to get local authorities to investigate (Rebecca 2004) To avoid potential disappointments in outsourcing services, the customer and service provider need to have a strategic alignment between each other and set a standard that can be measured. Mechanisms need to be established to manage problems and insure ongoing management of relationships.

CONCLUSION

The impact that outsourcing on the global economy will only continues to grow. (Pierlott 2004) As telecommunications become increasingly efficient into the 21st century, the outsourcing of information technology will become a normative practice. As China continues its development into a world power, its workers are becoming more educated and skilled, providing an increasingly attractive option for U.S. companies wishing to outsource.

It is impossible for a company to be expert in every aspect of their business (Overell 2004). It is not only too expensive but a recipe for incompetence. Core competence is the goal. Technology has cut sharply the costs of communication to the extent that outsourcing of many information technology activities is becoming increasingly standard. So strong is this trend that outsourcing specialists themselves also tend to outsource several further specialized aspects of a task to others. The result, in practical terms, is that organizations are maintaining many more relationships than previously. These firms are now in the age of the "middleman."

The challenge to outsourcing is determining when to outsource a particular business function. While it is not a good idea to outsource mission-critical areas, administrative and support tasks that are not part of the business' core competencies would be acceptable for outsourcing. In general, if the activities are those that do not add direct value to the firm's customers, they can be considered (Papp 2004).

For years, "sourcing" has been just another word for procurement (Gottfredson 2005) – a financially material, but strategically peripheral, corporate function. Globalization, aided by rapid technology innovation, is changing the basis for competition. According to Gottfried and his associates it is no longer a company's ownership of capabilities that matters but rather its ability to control and make the most of critical capabilities – whether they do or do not reside on the firm's balance sheet. Outsourcing has become so sophisticated that even core functions like engineering as well as manufacturing can and often should be moved outside. This will change the way firms think about their organization, their value chains, and their competitive positions.

Bossidy and Charon in their book, "Confronting Reality"(Bossidy 2004) present the practicality that we now face – virtually every business is now a player on the global stage. The new rule is that almost any business activity is ever more likely to have a worldwide dimension. Any one, anywhere can make a firm's life difficult. The firm needs to recognize that they can become the new player that blindsides the complacent player. IT employees need to become chameleons. They must learn and change – adapting a dynamic global business and economy. The development of information technology has reached a stage where IT knowledge workers are no longer up-to-date but are instead experiencing various degrees of technological obsolescence . Outsourcing is one of many challenges presented by the continued growth of technology. Although its effects may now seem detrimental, one should probably not bet against the long-term domestic growth which may eventually come as a result of outsourcing.

To flourish over the long run, most companies need to maintain a variety of innovation efforts.(O'Reilly 2004) They must constantly pursue incremental innovation – small improvements in their existing products and operations that let them operate more efficiently and deliver ever greater value to customers. Companies also have to make architectural innovations – applying technological or process advances to fundamentally change components of their business. Capitalizing on the capabilities of the Internet and perhaps taking advantage of low-labor-cost alternatives, such as call centers, where the impact does not affect the customer value.

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