

# Outsourcing, Offshoring and the US Office Market

By

Tanya M. Topolewski

Bachelor of Arts  
Wayne State University  
1994

Masters of Landscape Architecture  
University of Michigan  
2000

Submitted to the Department of Urban Studies and Planning in partial fulfillment of the requirements  
for the degree of

**MASTER OF SCIENCE  
in Real Estate Development**  
at the  
**Massachusetts Institute of Technology**

September, 2004

©2004 Massachusetts Institute of Technology  
All rights reserved

The author hereby grants to MIT permission to reproduce and to distribute publicly paper and  
electronic copies of this thesis document in whole or in part.

Signature of Author .....

Department of Urban Studies and Planning  
August 06, 2004

Certified by .....

Sandra Lambert  
Lecturer, Center for Real Estate  
Thesis Supervisor

Accepted by .....

David Geltner  
Chairman, Interdepartmental Degree Program in Real Estate Development





# **Outsourcing, Offshoring and the US Office Market**

By

Tanya M. Topolewski

Submitted to the Department of Urban Studies and Planning in partial fulfillment of the requirements  
for the degree of

MASTER OF SCIENCE  
in Real Estate Development  
at the  
Massachusetts Institute of Technology

September 2004

## **ABSTRACT**

There is intense debate among industry analysts and scholars over potential job losses caused by offshoring. The real estate industry has been grappling to understanding the implications of these numbers, as some have speculated that the projected job losses seem to translate into significantly lower demand for US office space.

Professional service firms are major users of office space and these firms are increasingly dependent on IT in nearly every aspect of their business. Due to its technical nature and expense, these industries routinely outsource and/or offshore both major categories of IT work: application services (AO) and business process (BPO). To explore how IT outsourcing and offshoring is affecting the US office market, this work examined three professional services industries: high-tech manufacturing/service and financial services, aggressive adopters of IT, and legal services, a non-aggressive adopter of IT. Through a review of relevant research and structured interviews with eighteen companies, this thesis examined IT outsourcing and offshoring activities with respect to three areas: labor force access, company portfolios and workspace utilization/design.

Industry analysts observe that most firms do not yet have global outsourcing strategies in place, but they need to. This work concludes that firms outsourcing and offshoring activities vary across and within industries in relation to labor access and company work place portfolios. High-skill labor that can create innovative services drives high-tech manufacturing firms to access IT labor worldwide, while in financial services firms, cost as well as innovation drives their global strategy. In complete contrast, legal services firms are cost driven, but not dependent on innovation to provide their services and therefore do not outsource or offshore IT. From a company portfolio standpoint, while client location will always bind certain companies to particular locations and markets, IT outsourcing and offshoring may make where they locate more flexible. However in contrast to the direct relationships between IT outsourcing and offshoring and labor access and portfolio strategies, evolutions in workplace strategies across firms including support of mobile work forces, increases in space efficiency, new communication strategies, and work area obsolescence appear to be more related to firm innovation and the integration of technological breakthroughs.

Thesis supervisor: Sandra Lambert

Title: Lecturer, Center for Real Estate

<b>1.0 CHAPTER 1: THE OFFSHORING DEBATE.....</b>	<b>5</b>
1.1 Defining Terms: Outsourcing, Offshoring, IT and Professional Service.....	5
1.2 Job Losses and the US Office Market.....	6
1.3 The IT Outsourcing and Offshoring Market.....	8
1.4 Who Outsources: Aggressive and Non-Aggressive Adopters.....	9
1.5 Labor Access and Portfolio Strategies.....	11
1.6 Workplace Agility.....	13
1.7 Methodology.....	14
<b>2.0 CHAPTER 2: CHANGES IN BUSINESS FROM IT ADVANCES.....</b>	<b>17</b>
2.1 Knowledge.....	17
2.2 Dislocation of Work and Place.....	20
2.3 Communication.....	21
<b>3.0 CHAPTER 3: IT OUTSOURCING AND OFFSHORING.....</b>	<b>22</b>
<b>3.1 Defining IT Outsourcing and Offshoring.....</b>	<b>22</b>
<b>3.2 Application Outsourcing and Business Process Outsourcing.....</b>	<b>22</b>
3.2.1 AO and BPO: A Comparative Snapshot.....	23
<b>3.2 Pushes to Offshore, Pulls to Onshore.....</b>	<b>26</b>
<b>3.3 Business Value.....</b>	<b>29</b>
<b>3.4 Risks.....</b>	<b>33</b>
<b>3.5 Trends in Outsourcing and Offshoring.....</b>	<b>35</b>
<b>CHAPTER 4: INDUSTRY RESULTS.....</b>	<b>39</b>
<b>4.1 High-Tech Manufacturing/Service.....</b>	<b>39</b>
4.1.1 Industry Practice.....	39
4.1.2 Labor Access.....	41
4.1.3 Company Portfolio.....	42
4.1.4 Workplace Agility.....	43
<b>4.2 Financial Services.....</b>	<b>45</b>
4.2.1 Industry Practice.....	45

4.2.2 Labor Access .....	50
4.2.3 Company Portfolio.....	51
4.2.4 Workplace Agility .....	52
<b>4.3 Legal Services .....</b>	<b>54</b>
4.3.1 Industry Practice .....	54
4.3.2 Labor Access .....	58
4.3.3 Company Portfolio.....	58
4.3.4 Workplace Agility .....	59
<b>4.4 Cross Industry Analysis .....</b>	<b>61</b>
4.4.1 Labor Access .....	61
4.4.2 Company Portfolio.....	63
4.4.3 Workplace Agility .....	64
<b>CHAPTER 5: CONCLUSIONS .....</b>	<b>67</b>
<b>5.1 Conclusions .....</b>	<b>67</b>
5.1.1 Labor Access .....	67
5.1.2 Company Portfolio.....	68
5.1.3 Workplace Agility .....	69
<b>APPENDIX: INTERVIEW QUESTIONNAIRE.....</b>	<b>71</b>
Space Occupiers Questionnaire .....	71
Executive Decision Maker Questionnaire .....	74

## 1.0 Chapter 1: The Offshoring Debate

*Forrester predicts that offshoring will cause 3.4 million service jobs to be lost by 2015.<sup>1</sup>*

A more complete picture of what this number means to the US real estate office market begins with defining the terms that are explicit and implicit in the above statement.

### 1.1 Defining Terms: Outsourcing, Offshoring, IT and Professional Service

According to Eischen, the term ‘offshoring’ is used specifically to describe outsourcing of information technology (IT) related high-tech services to offshore locations.<sup>2</sup> Offshoring is particularly important to professional services, as this industry, along with most others, has become increasingly reliant on IT in nearly all aspects of their business. However, as IT work is expensive and involves a wide range of knowledge and skills it is often outsourced.

There is not a common understanding and use of the terms outsourcing and offshoring in the media or across industries. To begin with a common understanding, this work defines outsourcing and offshoring by pulling the practices apart into two core issues: who does the IT work and where it is done. For this thesis, ‘who’ is third-party suppliers and ‘where’ is either onshore in the US or offshore at any non-US location.

---

<sup>1</sup> Hilsenrath, J. E. “Forrester Revises Loss Estimates to Overseas Jobs.” *The Wall Street Journal*. 17 May 2004.

<sup>2</sup> Eischen, K. “Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India.” Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004. p. 2.

Many of the offshoring numbers cited in the media are IT driven and related to professional services such as legal and financial services. As professional services industries are the primary users of office space, Forrester's 3.4 million job loss figure is critical to the projections in US real estate market demand. Therefore, how the real estate analysis are interpreting these numbers bears closer examination in understanding the relationship between IT outsourcing, offshoring and the US office market.

## 1.2 Job Losses and the US Office Market

The real estate industry is struggling to interpret Forrester's April 2004 prediction that offshoring will cause 3.4 million service jobs to be lost by 2015. As service job loss means a decrease in office space demand, ULI's Lachman interprets Forrester's figure to mean a 580,000 million sq ft drop in US office demand.<sup>3</sup> Moreover, her more careful analysis concludes that offshoring is part of the near term lack of demand that is slowing the current US office market recovery by keeping vacancy rates high, real rents from rising and tenant concessions from falling. She concludes that overall, property values will fall.<sup>4</sup> While her predictions are severe, they echo many of the sentiments of others in the industry who have analyzed the topic.

Deriving estimates on how many jobs have already been affected by offshoring is not easy. This issue is complicated by three factors: 1) jobs lost due to dot.com bust; 2) the lingering downturn in the economy; and 3) productivity increases that are constantly removing jobs from the market due to efficiencies.<sup>5</sup> Moreover, it is unclear how these estimates take into account job creation by companies in offshore locations versus the actual movements of existing jobs offshore. With these challenges in mind, it is not surprising that estimate for job losses since the close of the dot.com era in 2001 vary widely. Nonetheless, the summary figure that is often cited is 100,000 service jobs are lost annually.<sup>6</sup> It is also illustrative to look at the overall service job loss to give a sense of scale with respect to the

---

<sup>3</sup> 3.4 million jobs / 175 sq ft per worker= 580,000 million square feet.

<sup>4</sup> Lachman, Leanne M. "The New Exports: Office Jobs." Urban Land Institute Issue Paper Series/Columbia Business School, The Paul Misltein Center for Real Estate. Jun. 2004. p. 4.

<sup>5</sup> Global Insight. "The Comprehensive Impact of Offshore IT Software and Services Outsourcing on the US Economy and the IT Industry." *Information Technology Association of America*. Mar. 2004. p. 3.

<sup>6</sup> Hilsenrath, J. E. "Data Gap-Behind Outsourcing Debate: Surprisingly Few Hard Numbers." *The Wall Street Journal*. Apr. 2004.



overall US job market. The highest overall estimate of loss since 2001 is Wharton researcher Aron's 440,000.<sup>7</sup> This top end figure only reflects a loss of 0.3% of all US jobs. It demonstrates that job losses due to offshoring, even at their highest estimates, represent only a very small part of the US job market.

However, these job loss numbers have a very narrow focus and do not take into account larger economic and foreign investment trends that are part of the discourse on offshoring. Three major trends that are not included in these numbers or Lachman's analysis are: 1) foreign investment and job gain due to insourcing; 2) GDP and job growth due to IT integration and; 3) creation of jobs in the US from outsourcing offshore.

Foreign firms routinely access US labor and invest money on US soil. Both these activities create US jobs. Foreign direct investment by non US companies into the United States (and vice versa, US investment in foreign countries) is called insourcing.<sup>8 9</sup> The insourcing market for professional services to the US is large and growing. For example, the value of professional services such as legal work, computer programming, telecommunication, banking and engineering management consulting brought into the US jumped from \$8.42 to \$131.01 billion in 2003.<sup>10</sup> Even call center and data entry work offshored to the US from foreign companies has been on the rise, increasing \$7.94 billion to \$77.38 billion in 2003 alone.<sup>11</sup>

Moreover, Mann shows that investment in IT spurs job growth through GDP growth. She cites that the outsourcing of IT services beginning in the late 1990's resulted in an increase in GDP and a 22% increase in demand for workers with IT skills in the US. This was double the job growth rate for the economy as a whole.<sup>12</sup>

---

<sup>7</sup> Ibid.

<sup>8</sup> Scholl, R., and S. Chohan. "Offshore Insourcing vs. Offshore Outsourcing." Gartner, Inc. 28 Jul. 2003.

<sup>9</sup> Wriston, W. B. "Ever Heard of Insourcing?" *The Wall Street Journal*. 24 Mar. 2004.

<sup>10</sup> [www.commerce.gov](http://www.commerce.gov)

<sup>11</sup> Phillips, M. M. "More Work is Outsourced to US Than Away From It, Data Show." *The Wall Street Journal*. 15 Mar. 2004.

<sup>12</sup> Mann, Catherine L. "Globalization of IT Services and White Collar Jobs: The Next Wave of Productivity Growth." *International Economics Policy Briefs*. Institute for International Economics, PB03-11. Dec. 2003. p. 3.

Finally, Global Insight's research into offshore outsourcing indicates that there is net job gain in the US when offshoring occurs. Their research projects the jobs created in the US as a result of offshoring to be over 317,000 through 2008.<sup>13</sup>

### 1.3 The IT Outsourcing and Offshoring Market

It is impossible to determine exactly what jobs the offshoring job loss numbers refer to, as very few institutions have been specifically tracking offshoring movements. However, the job losses cited above refer to the overall IT outsourcing and offshoring market. According to several sources, this market is large and growing. One study, Global Insight's 2004 IT Global IT Outsourcing Survey, shows spending on IT by US companies was \$434 billion in 2003 and the offshore portion was 2.3% of the entire market (or \$10 billion). However, they predict that the offshoring portion will grow at 26% compound annual rate through 2008. Even with this impressive growth rate, it is only projected to become 6.2% of the total outsourcing market by 2008.<sup>14</sup> Therefore, offshoring is not predicted to become a dominating force in the IT outsourcing market.

Complementing the growth numbers, the Conference Board's 2003 IT Outsourcing Trends survey<sup>15</sup> shows that 79% of firms outsource IT functions.<sup>16</sup> Only 21% of the firms surveyed currently engage in offshoring. Fully 52% of firms said offshoring is not on the horizon. However, recent work by both DiamondCluster and Jones Lang LaSalle indicates this reluctance may be changing. In both surveys, over 80% of respondents expect their offshore operations to increase in the next five years.<sup>17</sup>

<sup>18</sup> These numbers suggest significant potential for offshoring growth in larger firms. Meanwhile Gartner also suggests discussing a similar potential for the very large small and medium business market to enter the offshore arena.<sup>19 20</sup>

---

<sup>13</sup> Global Insight. "The Comprehensive Impact of Offshore IT Software and Services Outsourcing on the US Economy and the IT Industry." *Information Technology Association of America*. Mar. 2004. p. 2.

<sup>14</sup> Ibid. p. 2.

<sup>15</sup> 53 \$5 billion + professional service and manufacturing firms

<sup>16</sup> Goldsmith, N. M. "Outsourcing Trends." *The Conference Board*. R-1332-03-RR. 2003. p. 5.

<sup>17</sup> Diamond Cluster. "2004 Global IT Outsourcing Study." Spring 2004. p. 4.

<sup>18</sup> Jones Lang LaSalle. "Offshoring Survey." Jones Lang LaSalle. 2004.

<sup>19</sup> Brown, R. H., Browning, J. A. "SMB's: The Biggest Little Outsourcing Market in the World." Gartner, Inc. 14 Nov. 2003.

<sup>20</sup> Browning, J. A. "MSB Application Portfolio Success: Understand and Adapt." Gartner, Inc. 14 Jul. 2003.

Forrester's findings corroborate the large potential for offshoring growth. They report that over 60% of US Fortune 1,000 firms are doing nothing or just beginning to investigate moving activities offshore. They found that less than 5% have established a global sourcing strategy that spends more than 40% of their IT budgets offshore.<sup>21</sup>

Moreover, the media intensity surrounding offshoring does not appear to be dampening companies' enthusiasm for offshoring. In a recent Jones Lang LaSalle Survey on offshoring almost 90% of respondents report that media scrutiny will have little or no impact on their offshoring plans.<sup>22</sup>

These numbers encapsulate the debate surrounding the future impact of offshoring. It is clear the offshoring market is small and growing rapidly. However, while the numbers predict it will not grow to be the dominant model of IT outsourcing delivery, it is also clear that there are large segments of the market that have yet not begun to incorporate it into their IT strategy. Therefore, it is uncertain if offshoring will become a dominant force in the global IT outsourcing market.

## **1.4 Who Outsources: Aggressive and Non-Aggressive Adopters**

It is clear that outsourcing is a well established market and that offshoring is a trend that is here to stay. The literature classifies who is outsourcing and offshoring IT into two groups of industries: aggressive and non-aggressive adopters. Aggressive adopters have integrated IT outsourcing into their business strategies and non-aggressive adopters have been slow to do so. Below is an overview of the unique industry drivers that determine why some industries have pursued a global IT outsourcing strategy and some have not.

---

<sup>21</sup> McCarthy, J. C., B. Martorelli, and S. Moore. "Near Term Growth of Offshoring Accelerating." Forrester Research, Inc. May 2004.

<sup>22</sup> Jones Lang LaSalle. "Offshoring Survey." Jones Lang LaSalle. 2004.

### *Aggressive Adopters*

The initial adopters of large scale IT offshoring were large, multinational companies such as Citibank and American Express who invested heavily in developing their own in house 'captive' service centers in India. Large multinational banking, high-tech manufacturing/service manufacturing and insurance firms enjoy large cost benefits from IT outsourcing and, in particular, offshoring as they have a wide array (scope) of high volume (scale) functions that can be made more efficient through software applications. Banks are an excellent example of an aggressive adopter as their heavily transaction based core business functions have benefited from drops in the cost per transaction by their use of IT.

These companies typically have not been targeted for specific industry related governmental regulation. Moreover, they have the in house IT capabilities and other resources to safely control and maintain compliance when necessary.

### *Non-Aggressive Adopters*

Non-aggressive adopters are industries being forced to consider outsourcing and in particular, offshoring IT work because of the potential cost savings that have become increasingly important in the face of the lingering economic downturn. However, there are three major factors that hold them back from heavily investing in IT outsourcing: size, scope and regulation.

These industries tend to be overall smaller in size and more highly fragmented than aggressive adopters. Therefore, they cannot enjoy the same cost savings as multinationals that have the scope and scale of operations to justify the cost of developing and maintaining applications.

A third major reason companies are held back from outsourcing is heavy governmental regulation. Industries such as healthcare must comply with governmental regulation of patient information through the Health Information Privacy Act (HIPAA). These industries face risks when sharing their patient's private information with third parties. Third-party health care providers must not only maintain confidentiality but also comply with constantly changing laws. The risk is very high for

health care companies to outsource IT functions, as privacy and compliance both come with hefty civil penalties if standards and regulations are not met.

Because of the lack of cost benefit and the increased risks associated with outsourcing IT work, several industries, most notably health care and biotech and to a certain degree the insurance industry, have been reluctant adopters of IT outsourcing. The table below summarizes the risks.

### CHARACTERISTICS: IT Outsourcers

Non-aggressive		Aggressive
Smaller	<i>Industry size</i>	Larger
Non-repetitive or unique core activity driven	<i>Scale</i>	Repetitive transaction or manufacturing driven
Small amount of activities are of a scale that can benefit from outsourcing	<i>Scope</i>	Large amount of activities that are of a scale that can benefit from outsourcing
High	<i>Regulation</i>	Low

**Figure 1: Aggressive and Non-Aggressive IT Outsourcer Characteristics**

### 1.5 Labor Access and Portfolio Strategies

Companies who outsource their IT have a wide array of choices for where to access their outsourcing labor. In fact, according to Jones Long LaSalle, labor access is the factor that most often shapes a firm's portfolio strategy.<sup>23</sup> Therefore, due to IT's importance in business today, IT labor access through outsourcing and offshoring can play an important role in a company's business portfolio strategies. As discussed above, this role can be larger or smaller depending on each industries drivers and inhibitors for IT outsourcing.

<sup>23</sup> Bomba, T. and Samuells, J., "The Labor-Based Portfolio Strategy." Jones Lang LaSalle. 2004.

Following is a summary of the range of outsourcing and offshoring location choices companies can choose from.<sup>24</sup>

Domestic outsourcing

Accessing labor from domestic providers. This is the traditional method of outsourcing. Major US providers offer extensive product offerings and service capabilities across the US.

Body shopping

Accessing labor by relocating foreign labor to an on site, client location.

Captive arrangements, foreign direct investment or insourcing

Accessing labor in house, but at foreign locations. Companies build their own facilities for AO services and BPO services on foreign soil to access all skill levels of labor as considerable cost differentials. This model also offers direct control over the labor and products. This is the original method used by major US companies and is still in wide use today through joint ventures, and partnerships with offshore firms.

Offshoring

Accessing labor from foreign locations typically for sourcing skills at steep discounts to home prices. India is the major destination; other common locations include China, Ireland, Israel, and the Philippines.

Multi-shoring, two-shoring

Accessing labor from multiple offshore locations.

Nearshoring

---

<sup>24</sup> Eischen, K. "Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India." Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004. p. 5.

Accessing labor from offshore locations close to the US for firms wanting to combine the cost savings of offshoring with closer control. Canada and Mexico are popular options that offer labor arbitrage pricing in the 10-15% range as opposed to the 20-40% range for India<sup>25</sup>.

#### Multi-client service locations

Accessing labor from one company who services many clients for the same IT services. Outsourcing handled through one geographic location for multiple clients. The advantages include a full infrastructure, and pool of expertise providing services at lower costs yet able to address the complexity of managing different fiscal, legal, economic and human resource issues on a country by country basis.<sup>26</sup>

#### Insourcing

Accessing labor from companies who are also outsourcers. This model places companies in both provider and provide role for IT services.

As seen above, companies have multiple options available for where to locate their IT services from. Therefore, a company's IT outsourcing portfolio can choose to be fully global or completely domestic.

## **1.6 Workplace Agility**

As a company's workforce and locations evolve in response to their IT strategies, it is reasonable to expect that their physical workplace will evolve in response to these changes. As MIT's Joroff notes, alignment of work, space and IT has become a necessity for organizations. How they accomplish this is called 'workplace agility'. Joroff defines 'workplace agility' as the constant co-evolution of work and workspace where each informs the other, fostering continuous improvements in both. Agility allows the physical aspects of workplaces to be deliberately altered to match the work. This allows

---

<sup>25</sup> Maher, K. "Career Journal: US Firms Hoping to Shave Costs Look Closer to Home, Not Offshore." *The Wall Street Journal*. 23 Dec. 2003.

<sup>26</sup> Marshall, J., and Cohan, P. S. "Offshoring' Drive for Savings Accelerates." *Financial Executive* 19(6): 52. Sep. 2003.

an organization to respond quickly and effectively to rapid change and high uncertainty with their real estate spaces with a minimum of friction or delay.<sup>27</sup>

Applying the concept of workplace agility to companies who are outsourcing and offshoring IT suggests that US office market workplaces engaging in IT outsourcing and offshoring will evolve to accommodate changes from remote locations of workers. Two areas in particular stand out as candidates for change: 1) increasing technologies to support work and an 2) changing work spaces to support an increasingly remote workforce. Moreover, as companies have different characteristics that affect their integration of IT, it is likely that there would be also be unique differences in workspace changes across aggressive and non-aggressive industries.

## 1.7 Methodology

As a consequence of the above, this research has focused on outsourcing and offshoring IT by professional service firms in the competitive business environment. The main objective of this work was to explore relationships between outsourcing strategies, including offshore activities, and U.S. office space.

It is important to note that only a handful of studies about this topic have been conducted and, not surprisingly, most concentrated on the potential for translating U.S. job projections in service industries into office space demand. This research was designed to look more broadly at important distinctions related to a company's work force, its portfolio of work places worldwide, and its workplace design and utilization strategies in relation to the changing nature of office demand in several industries (see appendix).

Based upon a review of the literatures, including studies and industry analyses of trends in outsourcing and offshoring, this research identified characteristics of aggressive and non-aggressive adopters of IT discussed earlier in this chapter. After securing access to business contacts in a broad range of industries, the research focused on professional services in three industries: 1) high-tech

---

<sup>27</sup> Joroff, M. L., W. L. Porter, B. Feinberg, and C. Kukla. "The Agile Workplace." *Journal of Corporate Real Estate* 5(4): 293-311. 2003. p 294-295.



manufacturing/service, an aggressive adopter of IT with significant 'sourcing' experience in manufacturing and more recent experience in both AO and BPO services; 2) financial services, an aggressive adopter of IT with significant experience in AO as well as back-office BPO and a captive services model of accessing employees in non-U.S. locations; and 3) legal services, a non-aggressive adopter of ITES that is considered 'location bound' to its clients both in U.S. and non-U.S. locations.

Eighteen of the over ninety firms contacted agreed to participate in this study, which was organized through structured interviews of respondents. Six respondents were global high-tech manufacturing/service companies with sales, service, manufacturing and R and D located in more than twenty-five countries. Six respondents were financial service companies, both privately held and publicly traded, two with a significant international presence and one global firm. Finally, seven respondents were law firms. Like finance, two companies had international locations and one company was global. In an effort to derive insights within industries, the companies asked to participate in this research were representative of a broad range of products and services in each.

In general, the respondents in this work all represented the views of space users. The individuals who agreed to participate, however, included tenants, corporate decision makers, and corporate real estate executives fulfilling support functions within particular companies or advisory roles to corporations. This mix of respondents allowed flexibility in targeting companies of particular sizes and operations, while accommodating the difficulty associated with accessing potential respondents during the summer months.

The results of these interviews were analyzed within each industry, in relation to relevant literatures as well as studies about that particular industry, and then compared across industries, with respect their implications related to the work force, portfolio, and workplace.



## 2.0 Chapter 2: Changes in Business from IT Advances

According to Dictionary.com, IT is “Applied computer systems – both hardware and software, and often including networking and telecommunications, usually in the context of a business or other enterprise”.<sup>28</sup> Today, Gartner states almost every aspect of business operations, in almost any business of any size, now depends on IT.<sup>29</sup> IT has caused extensive changes in businesses that are far reaching and complex. This work refines Sahay’s work and uses his themes to provide a framework for understanding the impacts of IT on business and the importance of IT outsourcing and offshoring today.<sup>30</sup> These themes are explored below.

### 2.1 Knowledge

Firms today are what Chorafas refers to as ‘knowledge companies’ where the company is more dependent on the brains of its people than on bricks, mortar, machinery, and other real assets.<sup>31</sup> Today’s knowledge companies utilize, manage, manipulate, and control three main categories of knowledge.

#### IT knowledge

According to Eischen and Chorafas, companies have IT knowledge used to create both competitive advantage and business value by combining them with their industry domain knowledge and their general business process knowledge.<sup>32 33</sup>

#### Domain knowledge

Companies keep and manage large amounts of ‘vertical’ or industry-specific domain knowledge about their products and services including all related information regarding customers and all

---

<sup>28</sup> www.dictionary.com. Accessed July 17, 2004.

<sup>29</sup> “Managing the New IT Risks.” Gartner, Inc. 2003.

<sup>30</sup> Sahay, S., B. Nicholson, and S. Krishna. *Global IT Outsourcing: Software Development Across Borders*. Cambridge, England: Cambridge University Press, 2003. p. 34-42.

<sup>31</sup> Chorafas, Dimitris N., *Outsourcing, Insourcing, and IT for Enterprise Management*. New York, New York: Palgrave Macmillan 2003. p. 17.

<sup>32</sup> Eischen, K. “Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India.” Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004. p. 5.

<sup>33</sup> Chorafas, Dimitris N. *Outsourcing, Insourcing, and IT for Enterprise Management*. New York: Palgrave Macmillan. 2003. p. 17.

elements of sourcing along their supply chain. Companies use this knowledge to create new products and/or services that can differentiate themselves in their markets and provide competitive advantage.<sup>34 35</sup>

### Support knowledge

Firms support their business operations with ‘horizontal’ or business support knowledge that spans such functions as human resources, finance and accounting and real estate. Firms can create business value by actively managing these support functions and aligning them with their business strategies.<sup>36</sup> For example, the IT department can actively develop and support applications that create efficiencies in manufacturing or communication along a company’s supply chain that speed production and cut costs.

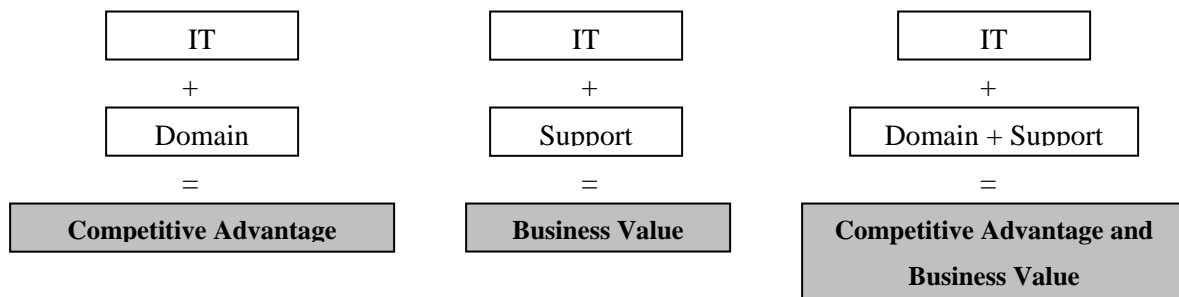
Firms develop, utilize and maintain software applications that support all of their business processes, based on all three forms of knowledge. For the sake of addressing this complex topic, this thesis proposes the following way to think about how companies use IT and domain knowledge together. IT combined with domain knowledge can create new products and processes that give a company competitive advantage. IT combined with general business knowledge can create efficiencies in processes such as accounting that create business value for firms. Finally, when IT is combined with both general support and domain knowledge, it can create highly specialized applications for specific industries such as, for example, circuit board design services. This is shown figuratively in the diagram below.

---

<sup>34</sup> Reponen, Tapio. *Information Technology-Enabled Global Customer Service*. London, England: Idea Group Publishing, 2003.

<sup>35</sup> Chorafas, Dimitris N. *Outsourcing, Insourcing, and IT for Enterprise Management*. New York: Palgrave Macmillan, 2003.

<sup>36</sup> Lambert, S. and J. Poteete. “Managing Global Real Estate”, IDRC’s Corporate Real Estate 2000 Project. 2000.



**Figure 2: The relationships of IT, Domain and Support knowledge to business value and competitive advantage.**

The key is that IT knowledge supports software applications that make these values and advantages possible for firms.

### *2.1.1 IT Knowledge and Skill Level*

As a consequence, companies require all three types of knowledge (IT, domain and support) in their labor force.<sup>37</sup> However, IT is so important in firms today require people who possess a range of IT knowledge and skills. For example, there is a distinct difference in knowledge and skill required of call center operators and software programmers, although both fall under the category of 'IT'. Frank Levy and other noted economists are exploring the impacts of IT on labor. They classify work into categories: work that computers excel at, which is work that can be broken down into rules such as accounting procedures; and work that people excel at, such as recognizing and applying complex patterns. Levy asserts that complex pattern recognition is critical in two areas. The first is 'expert thinking' or solving problems that cannot be resolved by applying well-understood rules. This accurately describes many software services positions such as architecting and programming. The second is 'complex communication' where human interaction is required to acquire information, explain it or persuade people regarding its relevance to their situation. This kind of communication occurs in many kinds of call center work such as mortgage servicing.<sup>38</sup>

<sup>37</sup> Chorafas, Dimitris N. *Outsourcing, Insourcing, and IT for Enterprise Management*. New York: Palgrave Macmillan. 2003. p. 17-24.

<sup>38</sup> Levy, F., and R. J. Murnane. *The New Division of Labor: How Computers Are Creating the Next Job Market*. Princeton: Princeton University Press. 2004. p. 47-48.

For the purpose of this work, rules-based work is considered ‘low-skill,’ while expert thinking and complex communication is considered ‘high-skill’. Companies today seek access to available pools with both levels of knowledge and skill and many levels in between to incorporate IT into their business for the best advantage.

## 2.2 Dislocation of Work and Place

Not long ago many types of work were tied to a plant, office or other physical place. IT has changed this basic tenet of business life in professional services firms as advancement in communication now enables many kinds of work to be dislocated from a firm’s physical location.<sup>39</sup> Dislocating work from place allows it to be matched to appropriately skilled labor forces around the world. This has had important implications for work quality, labor access and firm productivity.

Firms can now access pools of labor with specific skills. This can increase the overall quality of the work performed. Accessing highly specialized knowledge labor also enables development of innovative products and services. This can give companies who outsource IT competitive advantages. Moreover, dislocation allows productivity increases, since it also enables work to be done continuously over a 24-hour period. For example, firms routinely share projects electronically with different skill set teams located in multiple time zones. This approach is referred to as the ‘24 hour knowledge factory’ and is seen as the next model for application outsourcing by MIT’s Gupta and Harvard Business School’s LeGace.<sup>40</sup> This 24-hour model is also used extensively in call center applications allowing them to improve service by being strategically located to provide around the clock customer service coverage.

Therefore, dislocation provides companies with the ability to match work with labor. The resulting increases in quality and productivity are essential drivers of the IT outsourcing and offshoring markets.

---

<sup>39</sup> Sahay, S., B. Nicholson, and S. Krishna. *Global IT Outsourcing: Software Development Across Borders*. Cambridge, England: Cambridge University Press, 2003. p. 35.

<sup>40</sup> Legace, M. The Outsourcing Revolution. HBS Working Knowledge, February 2, 2004. <http://hbsworkingknowledge.hbs.edu>

## **2.3 Communication**

IT advances have radically changed the way companies do business. For example, the internet and e-commerce can, in real time, connect business to other businesses and to customers simultaneously. This kind of connection means vast amounts of complex information are now exchanged both between parties within companies and around the globe at high rates of speed. The benefits of the Internet are complemented by technological advances within organizations, like video conferencing and voice-over IP phone systems, that also facilitate new forms of communication. Additionally, the explosion of personal technology communication options such as email, blackberries, laptops, and cell phones connect employees with their firm, clients and customers even as they become increasingly mobile.

## **3.0 Chapter 3: IT Outsourcing and Offshoring**

### ***3.1 Defining IT Outsourcing and Offshoring***

The term ‘offshoring’ can be confusing in the literature and the media for several reasons. First, although where the work is done (i.e., offshore) is clear, authors do not always distinguish who does the work. Many times, ‘offshore’ work refers to labor performed offshore by a company’s employees, not by third-party labor. Second, ‘offshoring’ is not used in the literature to describe the movement of manufacturing production jobs to overseas locations. As Eischen notes, it is used specifically to describe outsourcing of IT-related high-tech services to offshore locations.<sup>41</sup> The confusion comes as the media use ‘offshoring’ in discussions on both movements of manufacturing production jobs and professional services jobs. To be clear, this research uses Eischen’s definition of offshoring: IT related professional services work outsourced to a third party at an offshore location.<sup>42</sup>

### ***3.2 Application Outsourcing and Business Process Outsourcing***

There are two sectors in the IT outsourcing market: application services outsourcing (AO) and business process outsourcing (BPO). This section compares and contrasts the fundamentals of these two fields and their different evolutionary paths, since both are important to consider in relation to office space utilization in the U.S.

---

<sup>41</sup> Eischen, K. “Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India.” Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004. p. 2-3.

<sup>42</sup> Eischen, K. “Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India.” Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004. p. 2.



## 3.2.1 AO and BPO: A Comparative Snapshot

### 3.2.1.1 AO and BPO Defined

AO is the development and support of software applications throughout their lifespan.<sup>43</sup> AO has five main parts: 1) architecture/design, 2) programming, 3) deployment, 4) testing and 5) maintenance of software applications. In the first two phases of AO, architecture/design and programming companies create specific applications that support unique and innovative process and products that provide competitive advantage and/or efficiencies for a firm. Some examples of AO applications include e-banking platforms, software embedded in cell phones that run video applications and customer relationship management software. As Eischen describes, the primary value of AO is not in the delivery of software products to the general public, but in the business products and processes the software supports. In addition, as Sparrow recognizes, the speed with which these unique applications can be developed also brings competitive advantage to a firm.<sup>44</sup>

In contrast, BPO is the delivery of a business process service supported by specific software applications that can be provided more efficiently and many times at a higher quality by a third-party provider. Common examples of BPO processes include payroll processing, finance and general ledger accounting and call center work. These varied processes have been made more efficient by the development of specific software. They therefore require a lower skill labor force. Eischen notes that the business value of BPO is in the efficiency gains in the business processes third-party providers can achieve. As the above BPO example shows, AO fundamentally enables BPO. In fact, BPO is often referred to in the literature as IT enabled services (ITES).<sup>45</sup>

In summary, the values that AO and BPO deliver are fundamentally different. AO supports innovation and efficiencies where BPO provides efficiencies at a higher quality. This fundamental difference has a direct affect on how companies align AO and BPO with their business strategies.

---

<sup>43</sup> Ibid. p. 2.

<sup>44</sup> Sparrow, E. *Successful IT Outsourcing: From Choosing a Provider to Managing the Project*. London: Springer-Verlag. 2003. p. 20.

<sup>45</sup> Eischen, K. "Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India." Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004. p.3.

### *3.2.1.2 AO and BPO: Knowledge and Skill Level of Work*

The applications that are created through AO services are dependent on both IT and domain knowledge. These applications are expensive investments for companies. However, the most significant costs are in two of the five parts of the AO process: architecture/design and maintenance. All areas of AO services are dependent on specific levels of IT knowledge/skill. Software architecting/design and complex programming fit Levy's description of expert thinking. In the context of this thesis, such 'expert thinking' will be referred to as 'high-skill' work. In contrast, maintenance and testing are more routine-IT work that require lower levels of IT knowledge/skill and fit Levy's description of 'rules based work'. This will be referred to as 'low-skill' work.

BPO work also encompasses both low and high-skill work. Routine phone solicitation work at call centers where communication is scripted into a set of rules is considered 'low-skill' work. In contrast, high-skill mortgage servicing or account resolution activities that include information gathering, problem definition and resolution, require greater sophistication. This kind of pattern recognition work fits Levy's definition of complex communication and will be considered 'high-skill' work.

### *3.2.1.3 Rationalization*

The difference between the high and low-skill work hinges upon the ability of the work to be standardized and made routine. This is called rationalization and it has direct implications on how companies access the labor they need. Biggs defines rationalization as "the introduction of predictability and order – machinelike order – that eliminates all questions of how work is to be done, who will do it, and when it will be done".<sup>46</sup> Eischen further recognizes that rationalization allows work to be done faster and more consistently. Additionally, Gartner notes that Indian firms have been pushing standardization (i.e. rationalization) of parts of the AO process to allow more consistent, higher quality work than was previously achievable.<sup>47</sup> In short, Gartner recognizes that

---

<sup>46</sup> Ibid. p.5.

<sup>47</sup> India in particular has been a leader in standardizing quality levels using CMM quality designation which is now widely accepted in the software field.

rationalization allows these lower skill portions of AO to be dislocated from on site work to be done at cheaper offshore locations.

As Levy described earlier, however, expert thinking is work that cannot be expressed in rules; hence, it cannot be rationalized.<sup>48</sup> Eischen describes the same idea more specifically for software development. He explains that because high-level software development translates or ‘codifies’ industry domain knowledge, this service depends upon: 1) the availability of skilled IT knowledge labor who can interact; the 2) organizations and institutions that support the creative process of software development; and 3) the industry domain knowledge that can readily be expressed in code.<sup>49</sup> Therefore, creating competitive advantage through AO hinges upon a company’s ability to access high-skill, expert IT labor and locate this labor in a working environment that supports the creative process of software writing.

In contrast to rationalization in AO, the value of BPO is the rationalization of the business process. For example, when a business purchases a payroll service from a third-party provider, they are buying the most efficient, highest quality service for that process, i.e., the most rationalized payroll process. This example reinforces the earlier distinction. BPO is fundamentally reliant on AO; however, the value of BPO to companies is in the benefits inherent in rationalized services.

Logically, business processes that are rationalized through software applications lower the knowledge level necessary to perform the business process. Therefore, this work can be done by lower skill labor. Additionally, because BPO work is predicated on software, it is inherently dislocatable. These two facts drive BPO work toward lowest labor cost locations.

---

<sup>48</sup> Levy, F., and R. J. Murnane. *The New Division of Labor: How Computers Are Creating the Next Job Market*. Princeton: Princeton University Press. 2004. p. 47-48.

<sup>49</sup> Eischen, K. “Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India.” Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004. p. 8-9.

### 3.2.1.4 The Next Wave: Higher skill/knowledge BPO

Today, the BPO market is viewed as immature.<sup>50</sup> Although there are many service offerings, they typically address horizontal business support functions.<sup>51</sup> Gartner and others predict that as this industry matures it will tailor services to specific vertical industries by developing deep industry domain knowledge. A few examples of this higher-skill BPO process already exist. Third-party check image processing services for financial services firms and computer chip design for high-tech manufacturers are useful illustrations.<sup>52</sup>

## 3.2 Pushes to Offshore, Pulls to Onshore

AO relies on high-skill expert thinkers to develop unique applications and low-skill labor to perform such functions as routine maintenance BPO in general requires low-skill labor, but this high-skill BPO is an up and coming area. In either case, companies may need to look outside their existing work forces to access the appropriate mix of skills. In some situations, this labor is located onshore; in others, offshore. However, there are also other trends that complicate the labor access picture for businesses, as they will pull labor to be done in particular locations.

### 3.2.1 Agglomeration

High level software architecting/design and programming is creative work. IT is typically project driven and heavily reliant on complex communication between team members.<sup>53</sup> In fact, studies have shown that software work is completed most productively when the workers interact closely with one another<sup>54 55</sup>. For this type of interaction, therefore, distance matters. In fact, there are many studies

---

<sup>50</sup> Scholl, R., S. Chohan, D. Sinha, and R. Datar. "India Will Generate \$13.8 Billion from Offshore BPO Exports in 2007." Gartner, Inc. 20 Jun. 2003.

<sup>51</sup> <http://bpo.nasscom.org> defines major classifications of BPO services as: Customer Care, Finance, HR Services, Payment Services, Administration, and Content Development. NASSCOM is the National Association of Software and Service Companies, the major Indian website.

<sup>52</sup> Clark, D. "Another Lure Of Outsourcing: Job Expertise." *The Wall Street Journal*. 12 Apr. 2004.

<sup>53</sup> Eischen, K. "Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India." Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004.

<sup>54</sup> *Ibid.*, p. 7.

that document lower productivity in programming work when team members are located down the hall or even across a room from one another—as opposed to being in each other’s immediate vicinity.<sup>56</sup> Although there is evidence that programming can be effectively dislocated, historically much of this work is still performed onsite or in locations where programmers are in close proximity to one another<sup>57</sup>.

Additionally, as noted earlier, Eischen identified that software work is dependent not only on the need for communication with other programmers but with other companies and supporting institutions as well to spur innovation.<sup>58</sup> For these reasons, high-skill software work will always be drawn to agglomerate in what Porter calls ‘clusters’ which he defines as the collocation of interconnected companies, institutions and associated support businesses of a particular industry in one geographic location.<sup>59</sup> Moreover, through comparisons of programmers in Silicon Valley and their counterparts in India it has been shown that clusters result in measurable increases in productivity, since programmers located in Silicon Valley are consistently more productive than their Indian counterparts.<sup>60</sup> Because of this emphasis on innovation and increased productivity, IT clusters in the US will always attract companies who need to access workers and locate facilities to house software programming activities.

Examples of movement toward software clusters in the US and abroad are clearly apparent. Numerous US technology firms have headquarters and facilities located in US clusters. Foreign firms as well are drawn to these locations as well. The largest IT providers from India, Wipro and Infosys, have global R & D headquarters in Silicon Valley. Satyam, one of the top five Indian software firms, has located four of its seven global development centers in the US. All three Indian companies have extensive on-site operations at other technology-based locations around the globe.<sup>61 62</sup>

---

<sup>55</sup> Feiman, J. “CIO Update: Understand the Economics of AD and Outsourcing.” Gartner, Inc. 22 Oct. 2003.

<sup>56</sup> Glass, R. *Facts and Fallacies of Software Engineering*. New York: Addison-Wesley. 2003.

<sup>57</sup> NASSCOM. <http://www.nasscom.org>.

<sup>58</sup> Eischen, K. “Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India” Center for Global, International, and Regional Studies, Working Paper Series WP 2004-4 University of California, Santa Cruz. p. 8.

<sup>59</sup> Porter, M. E. “Clusters and the New Economics of Competition.” *Harvard Business Review*. Nov.-Dec. 1998.

<sup>60</sup> Eischen, K. “Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India” Center for Global, International, and Regional Studies, Working Paper Series WP 2004-4 University of California, Santa Cruz. p. 7-8.

<sup>61</sup> Solomon, J., and E. Cherney. “A Global Journal Report: Outsourcing to India Sees a Twist.” *The Wall Street Journal*. 1 Apr. 2004.

### 3.2.2 Language and Culture Challenges

Both AO and BPO also have cultural and language communication challenges that affect where this work is located: onshore or offshore. Gartner and many others suggest that language and cultural communication differences are the number one constraint in dislocated AO work.<sup>63</sup> Cross-cultural language affects both high and low-skill work. This work is typically team- or project based and cross-cultural teams have language differences that are difficult to negotiate even face to face. These challenges are magnified with dislocation. When communication is limited to video, phone and email, problems take longer to surface and resolve. As a consequence, language issues have the potential to negate any cost savings that may be driving the work. Because of this risk, many firms shy away from offshore work.

In BPO, much of the communication is not team or project based, but customer/end-user/client interface via phone. Language can affect the quality of services delivered for both low and high-skill work. In general, poor customer services provided through call centers can help or hurt a company's image. Several researchers have documented the fact that non-native English speaking offshore employees cannot always provide the service quality that companies demand because of their accent or phone presentation. Some companies invest in educating offshore workers to remove accents and instill their customer service expectations. This approach works at times and some companies achieve levels of service from offshore workers that can surpass service levels on American soil because of the higher general education level of offshore workers.<sup>64</sup> However, other companies have decided that they cannot achieve the quality level they desire and have relocated customer 'touch' functions back to the US.<sup>65</sup> Interestingly, for BPO work, some companies have found that non-native English speakers can often write English well. This enables some work such as online chat support and legal services research to be performed offshore.<sup>66</sup> In short, language proficiency presents another important consideration for companies deciding whether work can be located onshore or off for both AO and BPO.

---

<sup>62</sup> Ibid.

<sup>63</sup> Scholl, R., and L. Stone. "BPO: Climbing the Learning Curve." Gartner, Inc. 6 May 2003.

<sup>64</sup> Adrian, B. "Make Sure Outsourcing is a Good Idea for Your Call Center." Gartner, Inc. 18 Jun. 2003.

<sup>65</sup> Jones Lang LaSalle "2004 Offshoring Survey." Jones Lang LaSalle. 2004.

<sup>66</sup> Scholl, R., and L. Stone. "BPO: Climbing the Learning Curve." Gartner, Inc. 6 May 2003.

### 3.3 Business Value

IT is expensive and dependent upon access to knowledgeable and skilled workers and is, therefore, ‘a natural target for outsourcing’.<sup>67</sup> Yet, the value companies can achieve through outsourcing IT goes beyond cost savings. While there is extensive anecdotal evidence describing the value companies achieve through outsourcing IT, there are few rigorous studies addressing the issue. The Conference Board Report 2003 IT outsourcing survey is an exception. Its survey of 53 companies, documents the fact that companies are primarily outsourcing IT functions including help desk, other support, software development, and maintenance. They cite the most important reasons companies outsource IT as:<sup>68</sup>

- 77% Cost savings
- 70% Gain access to outside expertise
- 61% Improve service
- 59% Focus on core business
- 56% Gain access to better technology

Each of these areas will be defined and discussed below.

#### 3.3.1 Cost Savings

It is widely cited in the literature that the primary value of IT work are the cost benefits. Companies look to application outsourcing to provide efficiencies that translate into cost savings to bolster a corporation’s bottom line. The first outsourcers and offshorers were large institutions who invested large amounts in IT technologies to support their core functions, from manual work to rationalized processes handled by computers. The banking industry is the best example of this. Their core work is transaction and their initial heavy investment in IT overseas was justified by the benefits they gained in rationalizing a variety of processes (scope) and large volumes of work (scale).

---

<sup>67</sup> Chorafas, Dimitris N. *Outsourcing, Insourcing, and IT for Enterprise Management*. New York: Palgrave Macmillan. 2003.

<sup>68</sup> Goldsmith, N. M. “Outsourcing Trends.” *The Conference Board*. R-1332-03-RR. 2003.

According to Diamond Cluster's Global IT 2004 Outsourcing Survey, controlling or reducing costs is still the most important driver of outsourcing decisions. In fact, the study indicates companies have a higher level of concern today than in 2002.<sup>69</sup> Historically, firms have had high expectations of savings from IT outsourcing and offshoring but these expectations are falling. While the 2002 survey indicated efficiency expectations of 50%, the 2004 survey indicates 10-20% is now the norm.<sup>70</sup> Firms have had even higher expectations of cost savings from offshoring due to the labor cost differentials. Two years ago Khilen reported typical savings averaging above 65%.<sup>71</sup> Current studies are only beginning to emerge on the cost savings expectations for offshoring. A recent article in the McKinsey report suggests that realistic savings are in the 45-55% range.<sup>72</sup> Meanwhile, Eischen cites the 'rule of thumb' for cost savings as being between 20-40%.<sup>73</sup>

Eischen notes that these falling cost savings are in part due to the increasing costs of labor, a point that Phil Middleton of Ernst and Young corroborates.<sup>74</sup> He states that skilled workers such as English speaking Indian PhD's are being absorbed and as their available numbers drop, their wages are rising. In fact, The Sand Hill Group's reports on wages in India show wages rising by 15-30% across the board in India.<sup>75</sup>

For small and medium businesses, which do not have the same level of resources available to invest in IT, cost savings is a critical factor in deciding if the risks of offshoring outweigh the investment of resources and risks. Many small businesses have sat on the sidelines because they cannot enjoy the same scale and scope advantages as larger institutions or commit the resources necessary to overcome the communication and cultural challenges inherent in offshoring. Gartner and Mann both predict that this will change as software and business processes continue to be rationalized and the prices of service drop. As mentioned previously, Mann actually predicts a second wave of productivity growth as the trends within the IT outsourcing industry rationalize processes, reduce prices and deliver products that are more specific to small and medium businesses. Likewise, Gartner and others predict

---

<sup>69</sup> Diamond Cluster. "2004 Global IT Outsourcing Study." Spring 2004. p. 6-7.

<sup>70</sup> Ibid. p. 3.

<sup>71</sup> Khirallah, D. R. "The Politics of Outsourcing" *InformationWeek*, 2 Sept. 2002.

<sup>72</sup> McKinsey & Co., Inc. "The Real Economics of Offshoring 2003." *The McKinsey Quarterly*, No. 4. Oct. 2003.

<sup>73</sup> Eischen, K. "Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India" Center for Global, International, and Regional Studies, Working Paper Series WP 2004-4 University of California, Santa Cruz. p. 9-10.

<sup>74</sup> Spikes, S. Exporting Jobs has Disadvantages *Wall Street Journal*. January 28, 2004.

<sup>75</sup> Ibid.



that entry of these firms into the market is a huge potential source of growth for the outsourcing market<sup>76 77</sup>.

### 3.3.2 Gain Access to Outside Expertise

Keeping IT in house is not easy for firms. Gartner's research shows it is difficult for many firms to conduct consistent, successful training and retraining of IT personnel to keep them abreast with latest methods and technologies. Nor is it easy for firms to accurately budget for highly variable capital expenditures that arise with new technologies. Companies feel compelled to outsource to remain current with their IT needs.<sup>78</sup>

The value of outsourcing IT is that it is a third-party provider's core competency. These providers continually make extensive investments in technology, and high-skill professionals, and methods of cost monitoring that allows them to remain on the cutting edge. They, in turn, pass this knowledge, skill and investment to their clients. Therefore, they typically offer comprehensive expertise that in house IT departments can rarely match.<sup>79 80</sup>

IT providers offer a range of expertise from high-skill to low-skill that companies need available at various times. For example, it is common to outsource IT to help with major reorganizations. In mergers and acquisitions, IT systems integrators can facilitate integration of several disparate systems, a skill that is not typically available in house and can greatly help in smoothing a chaotic process. It is also common for companies to outsource low-skill tasks such as their help desk services and call centers. Although the skill level required may be lower, the expertise in developing good service capabilities is an expertise the third-party provider controls and delivers to clients.

---

<sup>76</sup> Brown, R.H. and Browning, J. A. "SMB's: The Biggest Little Outsourcing Market in the World." Gartner, Inc. 14 Nov. 2003.

<sup>77</sup> Eischen, K. "Working Through Outsourcing: Software Practice, Industry Organization and Industry Evolution in India." Center for Global, International, and Regional Studies. Working Paper Series WP 2004-4. University of California, Santa Cruz. 2004.

<sup>78</sup> J. Feiman. Evaluating the Merits of Application Development Sourcing. Gartner. Publication date: April 23, 2003.

<sup>79</sup> Sparrow, E. Successful IT Outsourcing: From Choosing a Provider to Managing the Project. London, England: Springer-Verlag, 2003. p. 23-24.

<sup>80</sup> Gartner. Geosourcing IS: Is it right for you? Gartner. November 2003.

Many outsourcing relationships are structured to allow access to skilled workers only when needed. This flexibility in staffing numbers can not only lead to great cost savings, but it has been noted that firms who source their labor externally are better able to control and determine when they need the labor and how much of what skill level they need.<sup>81</sup> This combination of flexible labor force access and control of the amount and level of labor needed allows companies to shift the risks of variable demand from themselves to external contractors and therefore buffer themselves from market fluctuations.<sup>82</sup>

### 3.3.3 Improve Service

IT is also used to improve service quality to customers. There are extensive examples of companies using IT outsourcing to assist in rolling out new product developments. For example, banks use outsourcers to handle BPO functions like check processing and to develop new electronic bill payment programs for them. Companies also use IT to develop improved service to customers such as real time tracking of packages or customization of products through e-commerce systems. By hiring world-class third-party providers, companies can achieve dramatic increases in service quality.

### 3.3.4 Focus on Core Business

In the early 1900's, there was a cultural shift in many companies from vertical integration, where all business functions were kept in house and companies enjoyed greater control of all processes, to networked structures where non-core functions were outsourced. Today, Gartner's mantra is that companies must outsource non-core functions to remain competitive.<sup>83</sup> They stress that companies should first define what they are best at and what distinguishes them from others and then develop IT as a tool they can use to most profitably to support those identified core competencies. To pursue this strategy, Sparrow cites that many companies routinely outsource IT expertise, both AO and BPO, as an integral element in their overall business strategy.<sup>84</sup>

---

<sup>81</sup> Clott, C. B. "Perspectives on Global Outsourcing and the Changing Nature of Work." *Business and Society Review* 109(2): 153-170. 2004.

<sup>82</sup> Ibid.

<sup>83</sup> Terdiman, R., and A. Young. "Trends in Application Outsourcing for 2003 and 2004." Gartner, Inc. 28 Jan. 2003.

<sup>84</sup> Sparrow, E. *Successful IT Outsourcing: From Choosing a Provider to Managing the Project*. London: Springer-Verlag. 2003. p. 5-33.

## **3.4 Risks**

While companies create a great deal of business value from outsourcing and offshoring, they must also surmount many risks. Industry experts are examining and clear definitions are only beginning to emerge in the literature. Gartner and DiamondCluster research have outlined general categories that all companies must be prepared for.

### *3.4.1 Third-party Risk*

Companies use IT to manage knowledge and create business value and competitive advantage through third-party relationships; however, these relationships are fraught with risks. Companies who choose to outsource to a third-party provider must safeguard against the misuse of any information shared with that provider. This is particularly relevant to IT outsourcing as companies increasingly share information with third-party providers and other organizations.<sup>85</sup>

### *3.4.2 Security and Privacy*

With the increased sharing of information amongst companies, the IT department has become the de facto protector of privacy and security of all the types of company knowledge and information. Company intellectual property (domain knowledge) and customer information is invaluable, as companies stand to lose competitive advantage through misuse of private processes and confidential knowledge. Also, many companies routinely manage and secure personal information such as legal and health information that is sensitive due to its personal nature. Today, securing information has become of paramount importance for protecting both business advantage and customer privacy.<sup>86 87</sup>

### *3.4.3 Governance and Management*

In the wake of corporate scandals like Enron and problems like identity theft, government regulations have been put in place to protect both corporate and consumer information reporting and use.

---

<sup>85</sup> "Managing the New IT Risks." Gartner, Inc. 2003.

<sup>86</sup> Ibid.

<sup>87</sup> Davis, B. "The Outlook: As Jobs Move Overseas, So Does Privacy." *The Wall Street Journal*. 10 May 2004.

Companies risk serious legal and civil action if they are not compliant. Two primary regulatory guidelines include accounting disclosure compliance via the Sarbanes-Oxley Act and rules governing the handling of personal information security via Health Information Privacy Act (HIPAA).

### *3.4.4 Backlash*

Companies have concerns about domestic political backlash. A DiamondCluster survey noted that 85% of respondents were concerned about legislative measures restricting offshoring. Their concerns are real. There have already been some 80 bills introduced in some 30 states and congress to restrict and/or track offshoring. The US Chamber of Commerce report on sourcing reflects the position of many US economists and the Bush administration that unencumbered trade is essential for the US to remain competitive.<sup>88</sup> Therefore, it is unlikely that these measures will pass and have long term restrictive effects.

According to the DiamondCluster Outsourcing Survey, 62% of respondents cite concerns about media backlash.<sup>89</sup> However, even with intense media coverage, surveys such as Cacao's recent offshoring report show that CFO's believe the media blast will be short-lived and, therefore, it is not influencing their existing or planned offshoring activities.<sup>90</sup>

There are concerns as well about employee backlash. Eighty-four percent of participants in the DiamondCluster survey were concerned about sabotage of the outsourcing or offshoring relationship from not only those employees lost, but those who stay on within the organization.<sup>91</sup>

### *3.4.5 Global Political Instability*

Concerns about the political instability at offshore locations appear to be dropping over time. The most recent DiamondCluster survey showed that 21% of the CFOs surveyed were very concerned 57% somewhat, 21% not at all about global political instability. This is in direct contrast to the

---

<sup>88</sup> Chamber of Commerce of the United States. Jobs, Trade, Sourcing, and the Future of the American Workforce. Apr. 2004.

<sup>89</sup> Diamond Cluster. "2004 Global IT Outsourcing Study." Spring 2004. p. 6-7.

<sup>90</sup> "Offshoring by the Numbers." *CFO The Magazine for Senior Financial Executives* 20(7): 49. Jun. 2004.

<sup>91</sup> Diamond Cluster. "2004 Global IT Outsourcing Study." Spring 2004. p. 6-7.

previous year's survey, where 57% were very concerned and this risk was ranked the highest overall concern of those surveyed.<sup>92</sup>

### **3.5 Trends in Outsourcing and Offshoring**

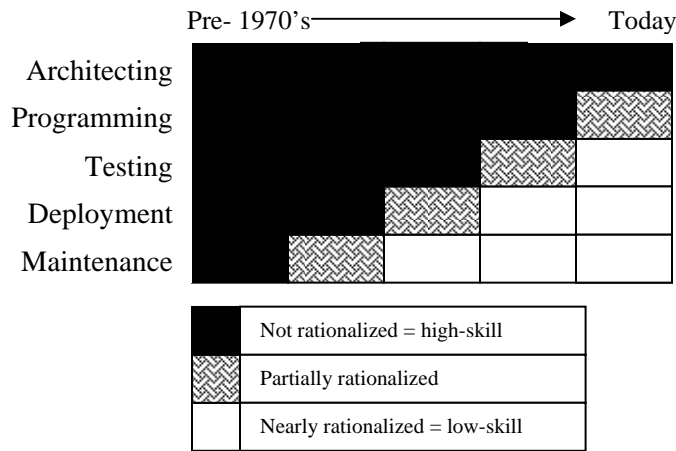
The Wall Street Journal has published 240 articles with outsourcing or offshoring in the title or abstract in the last 12 months. These publications along with various studies, white papers and books witness the complexity of the IT outsourcing field and the pace at which it is evolving. From a review of these sources, three general trend categories emerge: service, delivery and strategy. The implications of each of these general trends are explored in turn.

#### *3.5.1 Service: Discrete Service Offerings to Standardization*

Historically, IT has delivered unique, "one-off" software applications developed for individual companies. As these products were the first of their kind, the processes used to develop, test, and maintain them were unique and therefore tied to high-skill labor. Over time, the push for efficiencies in the AO services industry has rationalized and, therefore, standardized much work within each of the five processes. This standardization of the work enables it to be done faster, with higher quality by lower skill workers, effectively making it 'lower skill work' that is more able to move to lower skill labor offshore. This progression is shown diagrammatically below. However, this ability to transform higher skill work to lower skill is bounded by higher skill software work's innate inability to be rationalized.

---

<sup>92</sup> Ibid. p. 6-7.



**Figure 3 Progression of rationalization**

BPO is undergoing rationalization in ways that are different from AO because it is cost driven. This work is not based on rationalization of the software development process like AO. Rather it is the rationalization of a business process that reduces cost. The increasing rationalization allows BPO work to be done by lower skill labor at cost effective locations. However, the quality of labor does matter for both low- and high-skill BPO work. Many companies have found the large university educated work forces that are available in places like India particularly attractive draw as their education level allows them to provide a higher quality level of service even for low-skill work.<sup>93</sup>

Rationalization and standardization in business process outsourcing is the basis for its tremendous growth potential. Horizontal BPO processes already include increasing support functionality. Examples include software for accounts payable/receivable, general accounting, financial management, architectural services, transcription services, and radiological services just to name a few. Moreover, as discussed previously, BPO processes can move across industries to provide domain knowledge specific processes such as third-party banking services that provide check

<sup>93</sup> Adrian, B. "Make Sure Outsourcing is a Good Idea for Your Call Center." Gartner, Inc. 18 Jun. 2003.

processing. This combination of horizontal and vertical growth potential is why many, including Gartner, see unlimited growth potential in the BPO market.<sup>94</sup>

In addition to the expansion of BPO into new horizontal and vertical markets, many predict that standardization will fuel expansive growth in the BPO market and steady growth in the AO market. As both AO and BPO services become more standardized, companies are demanding increasing cost effectiveness. There is increased demand for off-the-shelf AO applications that support BPO processes and require lower amounts of necessary maintenance and support. According to Gartner and Mann, this will entice the large and reticent small and medium sized business market. Economist Mann sees the movement of IT solutions to this large, untapped market a potential 'second wave' of IT growth. They are unable to access outsource and offshore advantages because they are unable to afford the investment of resources necessary to move work offshore.<sup>95 96</sup>

### 3.5.2 Delivery: Tactical to Comprehensive Outsourcing

Companies have experienced value from outsourcing discrete tasks. Now they are demanding bundling of AO services from third-party providers. Today it is typical to demand 'end-to-end' AO service from a vendor that encompasses all parts of the AO process: software architecting, programming, testing, deployment and maintenance services. This higher level of service provides companies with cost benefits from increasing the kinds of work outsourced (the scope) and the volume of the work (the scale). Additionally, there is a strong trend in firms to reduce the number of AO contracts they have to simplify the number of outsourcing relationships they need to maintain.

For BPO services, Gartner reports that most services are still discrete task offerings, yet there is already evidence of bundling services in BPO as well<sup>97</sup>. Human resource support (HR) in corporations is outsourced more than any other BPO according to Gartner and others.<sup>98</sup> Two surveys that explore HR BPO in detail are The Conference Board in 2002 HR outsourcing survey<sup>99</sup> and new

---

<sup>94</sup> Scholl, R., and L. Stone. "BPO: Climbing the Learning Curve." Gartner, Inc. 6 May 2003.

<sup>95</sup> Aeppel, T. "Small Firms Outsource Abroad By Tapping Offshore Producers." *The Wall Street Journal*. 7 Jan. 2004.

<sup>96</sup> Marriott, I. "Smaller Businesses Can Profit From Offshore Outsourcing." Gartner, Inc. 13 Nov. 2003.

<sup>97</sup> Scholl, R., and L. Stone. "BPO: Climbing the Learning Curve." Gartner, Inc. 6 May 2003.

<sup>98</sup> Ibid.

<sup>99</sup> Gelman, L. and D. Dell. "HR Outsourcing Trends." *The Conference Board*. R-1321-02-RR. 2002.

research released this April by TowersPerrin.<sup>100</sup> Both surveys confirm that the same trends that have been occurring in bundling AO services are beginning to be seen in BPO.

These surveys give several concrete examples of how bundling provides business value for firms. In the TowersPerrin survey, respondents on average outsourced 12 or more human resources functions such as payroll, time and attendance administration, staffing, retiree services, and health and welfare benefits. Firms reported that bundling more services provided increased cost savings because of the economies of scale as well as synergies across work. Firms also reported greatest satisfaction when there were no more than two vendor relationships.<sup>101</sup>

### 3.5.3 Business Strategy: Vertical Integration to Global Strategy

As mentioned earlier, the 1990's saw a distinct shift in large firm strategy from vertical integration to horizontal structures where firms outsource non-core business functions to focus their resources on core competencies. Many companies set in place a series of outsourcing relationships for all of their non-core support services such as human resources, accounting, corporate real estate, and, in particular, IT.

According to Gartner research and other experts, the most successful companies view outsourcing as an integral part of their business strategy.<sup>102 103</sup> The clearest example of this involves companies that are global and have clients and customers worldwide. Many of these companies align their outsourcing and offshoring strategy with their business by having a network of relationships that provide a firm access to the appropriately skilled labor, manufacturing and research, and development capabilities to service the markets they are in. This is the heart of what Gartner calls a global delivery model where companies use outsourcing and offshoring to have the right people in the right place at the right time to minimize cost and risk.<sup>104</sup> Even smaller firms are moving along the strategy spectrum from no outsourcing toward global delivery through their outsourcing and offshoring relationships.

---

<sup>100</sup> "Human Resource Business Process Outsourcing: Is It Meeting Its Promise?" *Business Wire*. 7 Apr. 2004.

<sup>101</sup> *Ibid.*

<sup>102</sup> Terdiman, R., and A. Young. "Trends in Application Outsourcing for 2003 and 2004." Gartner, Inc. 28 Jan. 2003.

<sup>103</sup> Scholl, R., and L. Stone. "BPO: Climbing the Learning Curve." Gartner, Inc. 6 May 2003.

<sup>104</sup> Gartner. Geosourcing IS: Is it right for you? Gartner. November 2003.



## **Chapter 4: Industry Results**

While access to labor is a critical determinant for all outsourcing strategies, each of the three industries studied in this research has specific drivers for outsourcing and offshoring that are directly related to the competitive business environment. Companies seek to create business value related to their own business strategies within that environment. This chapter analyzes the data gathered about IT outsourcing and offshoring practices in high-tech, financial service and law firms within each industry context and provides a cross-industry comparison of the results. These results are organized in relation to labor access, portfolio and workplace agility in order to examine practices across industries.

### ***4.1 High-Tech Manufacturing/Service***

#### **4.1.1 Industry Practice**

As stated earlier, the high-tech manufacturing industry is an aggressive adopter of IT. Industry professionals characterize the industry's long history of both outsourcing and offshoring as 'sourcing' strategies, carried out through a complex array of inter-firm relationships designed to align labor requirements and critical customer markets worldwide. However, high-technology manufacturers such as Microsoft and Nokia are dramatically different from resource-based manufacturers like International Paper and Bethlehem Steel.

Bardhan and Kroll explain these distinctions. First, innovation underlies product development. Second, companies rely on highly skilled labor to generate the research that drives new product and service design. Third, the exchange of ideas fuels the innovation and design processes and, in turn, causes these activities to be concentrated in a small number of strategic locations. Fourth, the

manufacturing processes of these firms do not involve high-knowledge labor and can therefore be separated from design and management functions.<sup>105</sup>

One industry researcher describes the main drivers fueling this industry as 1) innovation of products and business processes in the context of 2) structural changes, such as trade barrier rationalization, transportation and advances in communication, that are making globalization a cost-effective and necessary growth strategy for firms. While new product and service launches are the principal revenue source for high-tech firms,<sup>106</sup> the industry has been hit hard by the recent economic downturn in the US. Under pressure to reduce costs, firms routinely look to IT for increased efficiencies and productivity that lead to bottom-line improvements through their ‘sourcing’ strategies.

The service side of high-tech firms, the focus of this work, includes services provided to individual consumers and to businesses worldwide. High-tech companies routinely use a wide range of IT outsourcing processes to increase their competitiveness. For example, AO is used to develop customer relationship management and e-business applications. Meanwhile, BPO outsourcing includes such activities as customer support through call centers and increasingly higher level work such as circuit board design. Larger, international high-tech firms find it cost effective to have outside vendors with specific business process expertise customize SAP, Oracle or Manugistic applications for broad scale functions in various service arms or within support functions like IT, finance and accounting.

These sourcing strategies also create risks within high-tech firms that need to be managed. The most significant risks are the potential misuse or outright theft of IT and industry domain knowledge as well as individual customer information required by third-party vendors. Both the core competencies and the innovative, highly leveraged nature of firms on the forefront of technological innovations have interesting implications for real estate.

---

<sup>105</sup> Bardhan, Ashok D., Dwight M. Jaffee, and Cynthia A. Kroll. *Globalization in a High-tech Economy: California, the United States and Beyond*. Boston: Kluwer Academic Publications. 2004.

<sup>106</sup> Caruso, D. “Throw Ill-Advised Caution to the Wind.” *MSI Magazine*. 1 May 2004.

### 4.1.2 Labor Access

Three of five respondents from high-tech companies outsourced IT support functions. In addition, four of the five companies engaged in business process outsourcing. Two of those companies have payroll and accounting and other human resources work done in India. One firm has outsourced similar work to the Midwest and the other has outsourced its entire IT department to a domestic vendor. All five executives stated that these decisions took into account the four principal business objective discussed earlier: the potential to reduce costs, improve quality, focus on core competence, and access cutting-edge technologies through third-party providers. The importance of each value depended on the nature of the work being outsourced or offshored. As was expected, companies shed non-core functions to maintain the focus on their core businesses. For example, the two companies that outsourced domestically sought productivity gains and operational efficiencies as a way of improving their bottom-line performance.

Although sourcing is a way of life in high-tech companies, the five executives viewed it as a ‘tool in the box’ they can use to source the labor they need. For two companies, however, these strategies were different. In both, services were highly leveraged (by as much as 85% in one case). As a consequence, the companies made daily decisions about which third-party suppliers to engage for services that were not considered core to the business. For these companies, access to outside expertise was the primary driver that trumped all other categories of business value. What these companies said mirrored the literature: they live and die by their ability to innovate and produce new products and services. For them, this ability is directly dependent on the knowledge and skill level of labor they can access. Therefore, their business strategies are primarily labor access driven, and they have global companies manufacturing and service operations in large part due to their labor needs.

Across the board, the high-tech executives stated that the challenges associated with outsourcing and offshoring did not pose exceptional risks. The stand out comments revolved around language and cross-cultural communications, challenges that are commonly cited in the literature. Although two of the five companies noted that these were significant concerns, diversity across the work force was

viewed as commonplace. One company noted that culture and communication differences were actually strengths because employees would use different approaches to solve problems.

### 4.1.3 Company Portfolio

As would be expected with this labor access strategy, the high-tech companies seek large pools of educated labor with specialized skills. In the highly leveraged firms, both executives source services in India, where the pool of highly qualified engineers who graduate from universities each year is much larger than in the US. As one executive noted: “brilliant people do not grow on trees” therefore they access labor wherever it is available. This pushes the companies to locate both in offshore locations like India and in domestic IT clusters such as Silicon Valley.

All five high-tech manufacturers noted they saw no direct relationship between outsourcing and offshoring and their overall portfolio and workplace strategies. Given the prior discussion, this is surprising; however, it does not tell the whole story. The emphasis on skilled labor access in the highly leveraged firms affects their portfolio in several respects. First, they source labor worldwide and, therefore, have a global presence. Second, as one executive described it: they will ‘source’ who they need on the ‘shore’ or where they need it. In this sense, they are ‘right shoring’ or ‘best shoring’ work as the literature describes it. Thus, the impacts on the portfolio have more to do with where third-party suppliers are located than with the company’s own facilities.

As important as it is, however, labor access is only one part of the equation for the high-tech manufacturing companies. Four of the five executives noted they are constantly making decisions about what markets they need to be in to service their customers. While these services to consumers and other companies are location bound, the third-party activities can reside in either a client’s work place or a supplier’s own market-specific location. This provides companies with greater flexibility about where they need to secure their own facilities.

#### 4.1.4 Workplace Agility

All of the high-tech firms decreased their work forces and the size of their portfolios over the past three years, citing the sluggish economy as the primary reason. Interestingly, however, three executives anticipated an increase in future headcount without a corresponding increase in their portfolios. IT has spurred all of these companies to change the makeup of their workforce that actually requires space. Moreover, most of these companies are on the forefront of co-evolving space with work.<sup>107</sup>

Although the sample of high-tech companies interviewed in this work is small, several significant issues stand out. Not surprisingly, high-tech manufacturing firms are aggressively adopting technologies designed to support their mobile workforce. Three of the firms interviewed had set goals to have significant portions of their workforce be fully mobile. Three of the five executives interviewed also used hotelling strategies and work at home policies to support mobility. These actions have broader implications for the workplace.

For example, these technological advances are changing their demand for space and its design. Two executives described new programs being instituted to mobilize as much of their workforce as possible and in two companies, many of their service employees are already mobile. For one company, this means that up to 70% of their service workforce will not be assigned permanent workspace in the future. Additionally, the workspaces that are assigned are customized to the kind of work they do: bench space for engineers, hotel space for workers who are on-site part-time. Two executives observed that the volume of space per worker is only 70sq ft/worker for those who are assigned. One executive noted that even support staff space could be made mobile, as they typically work in teams on projects.

---

<sup>107</sup> Joroff, M. L., W. L. Porter, B. Feinberg, and C. Kukla. "The Agile Workplace." *Journal of Corporate Real Estate* 5(4): 293-311. 2003. p. 293-299.

Work force mobility in high-tech services is designed to support greater customer interface. All five companies interviewed are providing employees with personal connectivity devices including laptops, cell phones, blackberries and IP telephony to support their work. Two executives described this as ‘supporting their workers to do their work in the best way possible,’ which is the definition of workplace agility.

To accomplish this, three of five companies have undergone extensive renovations of spaces within their organizations and have incorporated new technologies to the fullest. All companies have adopted open floor plans that emphasize common use and specialty spaces designed to support such things as team and collaborative spaces, head down spaces, and conference rooms heavily wired with video capabilities.

The introduction of wireless communication strategies was one of the main drivers behind these changes in space utilization. Only one company was fully wireless at every location; however, the rest were in various stages of instituting wireless capabilities across the board. This strategy virtually eliminates the cost of reconfiguring spaces from a technology standpoint, thus reducing the costs typically associated with churn. Interestingly, several companies were not concerned about the possible security risks often associated with wireless technologies. As technology firms, they were confident about their capabilities for maintaining a secure information environment.

In an effort to maximize efficiency in space utilization, two companies are supporting mobility through worldwide space tracking and utilization programs. They are instituting reservation systems throughout their portfolios. For these companies, supplying real estate space has morphed into supplying ‘infrastructure’, where ‘infrastructure’ includes the integration of real estate and technology together. In the future, they envision absorbing much of the new demand for space within their work place designs rather than increasing their overall space volume.

In summary, the companies interviewed for this research fall into two camps: those who see IT outsourcing as a ‘tool in the box’ to access labor and those whose overall business strategy is

predicated on the practice. As expected, both groups source IT both domestically and offshore. Outsourcing and offshoring allows both kinds of manufacturing firms to access labor worldwide to service their global customers. It is therefore an integral part of their portfolio strategy.

The economic downturn has forced companies to reduce their workforces and downsize space needs. This pressure, coupled with an increasingly dislocated workforce and access to new technologies such as wireless networks, is enabling companies to increase efficiencies in their space use in the long run. Three of five companies have instituted radical office design changes to open floor plans. Their incorporation of wireless technologies allows them to nearly eliminate the costs of reconfiguring their space to support work. They have also adopted leading edge strategies for aligning the workplace with the work performed.

## **4.2 Financial Services**

### **4.2.1 Industry Practice**

The financial services industry has been and continues to be an aggressive adopter of IT based solutions for managing core transactions. Historically, financial institutions have used IT to streamline operations within this transaction-laden industry. In fact, IT plays such a fundamental role in financial institutions that one executive has been quoted as saying that his company [Charles Schwab] is really an IT company that just happens to be in the finance business.<sup>108</sup>

The largest, most aggressive technology adopters, American Express and Citibank for example, have a long history of developing software and IT applications for back office functions. Additionally, because the industry was an early adopter of IT services, companies also require extensive maintenance of core legacy IT systems that support their back office work. Much of this work has been done in captive offshore centers that handle their core transaction processing functions.

---

<sup>108</sup> MacSweeney, G. "Special Report: IT Gameplan-Outsourcing: Offshoring Can Improve Quality." *Insurance & Technology*. 28(7): 39. Jul. 2003.

Today, financial service firms are also outsourcing functions that have historically been managed as ‘middle’ or ‘front office’ activities. For example, such activities as order management, performance measurement, risk management, data mining, underwriting, credit scoring and other analytical work are being rationalized and packaged by third-party providers.<sup>109 110</sup>

Recent articles describe the largest volume of outsourcing activities in financial services as typical ‘front office’ business processes such as customer contact as well as administrative support in finance and accounting, human resources, and procurement, in that order.<sup>111</sup> Industry analysts suggest that these BPO activities are poised for even greater growth in the near future.

Over time, the financial services industry has developed a sophisticated array of models for accessing labor that provides flexibility in aligning outsourcing activities and general business strategies. These models are distinctive in terms of the business objectives they serve and the extent to which they rely on employees or third-party labor.

#### Captive services

This term describes the cost-effective location of company employees, both domestically and internationally, to perform work. This is the most common model for large, multinational financial institutions, in direct contrast to the common definition of offshoring performed by third parties.<sup>112</sup> Over time, however, it is commonplace for companies to transfer employees to third-party providers as a way of improving performance and cutting costs. In what was described as a ‘high-performance, strategic move’, for example, Canadian Imperial Bank of Commerce put in place a \$156 million human resources contract that transferred 180 employees to EDS to manage fringe benefits, pensions, health insurance, and payroll.<sup>113</sup>

---

<sup>109</sup> Sparhawk, S. “Back Office and Beyond.” *Global Investor*. Oct. 2003.

<sup>110</sup> MacSweeney, G. “Special Report: IT Gameplan-Outsourcing: Offshoring Can Improve Quality.” *Insurance & Technology*. 28(7): 39. Jul. 2003.

<sup>111</sup> Ibid.

<sup>112</sup> Personal communication

<sup>113</sup> McCarthy, J. “Banking on Outsourcing.” *InfoWorld* 24(27): 34. 8 Jul. 2002.



### Third-party outsourcing

Contemporary strategies in the financial services industry include the engagement of true third-party providers. Some providers offer back office ‘straight through processing’ services and data warehousing, where a global transaction hub links multiple legacy systems and routes trades and other information between various custodians and other third parties. These BPO outsourcing capabilities offer financial institutions flexible and scalable processes.<sup>114</sup> They are designed to cut costs, minimize human involvement, and reduce operational risk by speeding up the trade life cycle to meet time-sensitive settlement requirements.<sup>115 116</sup>

### In sourcing

Finally, and importantly, many large financial institutions provide services to other financial institutions. This service is a very large revenue generator for many major banks. The types of services provided include custody, accounting, private label statements and tax services, along with credit card processing, specific application functionality and mortgage servicing.<sup>117</sup>

### Shared services

Financial services companies also engage in third party shared service arrangements where multiple firms access one ‘hub’ vendor for complex transaction services work. While there is concern about privacy of information, companies are willing to take that risk as they all benefit when the increased scale of work drives the provider to innovate and reduce costs across the board.<sup>118</sup> This third-party model of shared services is in addition to the standard definition of shared services where companies combine the functions of the back, middle and even front offices into shared offshore service centers that the organization owns. This is the model across financial services industry especially for larger organizations.<sup>119</sup>

---

<sup>114</sup> Sparhawk, S. “Back Office and Beyond.” *Global Investor*. Oct. 2003.

<sup>115</sup> Ibid.

<sup>116</sup> McCarthy, J. “Banking on Outsourcing.” *InfoWorld* 24(27): 34. 8 Jul. 2002.

<sup>117</sup> Eckenrode, J., and G. Kopp. “Outsourcing in Financial Services: Cost Savings or Competitive Advantage?” *Bank Systems & Technology* 40(3): 32. Mar. 2003. p 32.

<sup>118</sup> Curtis, C. E. “In Offshore Outsourcing, Firms Move Well Beyond Processing.” *Securities Industry News*. 31 May 2004.

<sup>119</sup> Jones Lang LaSalle. “Shared Service Report.” Jones Lang LaSalle, 2003.

Cost reduction is the major driver for the financial services industry. As Echenrode and Kopp from Bank Systems and Technology note, the pressure to cut costs, ongoing budget cuts due to the economic downturn, and pressure to manage operating costs, are major drivers pushing financial services offshore.<sup>120 121</sup> Cost savings estimates for offshore application outsourcing services range from 35-50% depending on the service. According to McCarthy from InfoWorld, this kind of cost differential is enjoyed by the larger, more aggressive outsourcing adopters.<sup>122</sup>

The larger firms also enjoy economies of scale and scope in outsourcing and offshoring activities. For example, these companies can outsource IT/AO to increase the level of services they receive through sophisticated packages that also aim to cut transactional costs across the board. Additionally, outsourcing functions allows for easier scalability for firms on the BPO side. For example, many institutions outsourced the recent surge in mortgage refinancing and then scaled back these commitments as the push for refinancing decreased.<sup>123</sup> In contrast, mid-sized and small banks sitting on the sidelines are only beginning to access these services. These smaller institutions are struggling with the high costs of investing in the management personnel and technical infrastructure necessary to effectively engage in offshoring activities. It has become clear to industry analysts, however, that staying onshore means running the risk of being priced out of the market.

A recent Deloitte survey indicates that 68% of the financial institutions surveyed are offshoring to some extent. Eighty per cent of these companies are offshoring to India.<sup>124</sup> Experts are predicting a second wave of financial institution offshoring. Mac Sweeney, from Insurance and Technology magazine, reports that mid-sized, tier 2 insurance and financial services companies are beginning to join tier 1 firms offshore.<sup>125 126</sup> Traditionally, many domestic banks without outsourcing strategies in place have lagged behind other institutions. This still may be the case, as many financial services

---

<sup>120</sup> Eckenrode, J., and G. Kopp. "Outsourcing in Financial Services: Cost Savings or Competitive Advantage?" *Bank Systems & Technology* 40(3): 32. Mar. 2003. p 32..

<sup>121</sup> Sundaramoorthy, G., and M. Rieker. "Big-Bank Perspectives On Offshore Outsourcing." *American Banker* 169(45): 1. 8 Mar. 2004. p1-2.

<sup>122</sup> McCarthy, J. "Banking on Outsourcing." *InfoWorld* 24(27): 34. 8 Jul. 2002. p 34.

<sup>123</sup> Wade, W. "Offshoring Grows, Along with a Backlash." *American Banker*. 169(4): 13. p 13.

<sup>124</sup> Curtis, C. E. "In Offshore Outsourcing, Firms Move Well Beyond Processing." *Securities Industry News*. 31 May 2004.

<sup>125</sup> MacSweeney, G. "Special Report: IT Gameplan-Outsourcing: Offshoring Can Improve Quality." *Insurance & Technology*. 28(7): 39. Jul. 2003.

<sup>126</sup> Wirth, P., and C. Gentle. "A Crucial Strategy: Offshoring." *American Banker* 168(176): 17. 12 Sep. 2003. p 17.

firms such as SunTrust and PNC are taking their time before taking the plunge.<sup>127</sup> However, Christopher Gentle, the global director of financial services at Deloitte notes, 'If you look at the heartland of America, only a handful of companies are moving in this now, but they are all thinking about it.'<sup>128</sup> In short, many industry analysts agree with Deloitte's Gentle who envisions momentum building for outsourcing and offshoring in the immediate future.<sup>129</sup>

AT Kearney's 2003 study corroborates this industry sentiment. Its survey of 43 financial institutions based in seven countries and including 13 of top 25 financial institutions indicated that US banks, brokerages insurers, mutual funds and other financial services firms plan to relocate more than 500,000 jobs, or approximately 80% of the industry's work force, offshore in next five years.<sup>130</sup> According to CFO.com, the number of global financial services companies that moved specific functions offshore have increased by 38% during the past year.<sup>131</sup>

This move has also accelerated more quickly than anticipated. Last year, CFO.com predicted that offshoring would completely transform the global financial services marketplace over next 5 years. They noted that there was a five-fold increase in offshore job creation in 2003 alone and 80% of the jobs were created in India<sup>132</sup>. Deloitte predicts that by 2010, greater than one fifth of industry's global cost base will have shifted offshore, resulting in an average saving of 37% per relocated process.<sup>133</sup>

A number of risks are associated with this pace of change. A major risk for financial institutions, for example, is the transfer of customer and business knowledge to third parties via the Internet. Schwab's Raneri, states that the company zealously guards the internal IT operations that oversee the

---

<sup>127</sup> Sundaramoorthy, G., and M. Rieker. "Big-Bank Perspectives On Offshore Outsourcing." *American Banker* 169(45): 1. 8 Mar. 2004.p1-2

<sup>128</sup> Wade, W. "Offshoring Grows, Along with a Backlash." *American Banker*. 169(4): 13. p 13.

<sup>129</sup> Curtis, C. In Offshore Outsourcing, Firms Move Well Beyond Processing. *Securities Industry News*. May 31, 2004.

<sup>130</sup> Taub, S. "Offshoring Financial Services." *CFO.com*. 29 Jun. 2004.

<sup>131</sup> *Ibid.*

<sup>132</sup> *Ibid.*

<sup>133</sup> *Ibid.*

customer data and proprietary systems. Security and reliability is central to their reputation and is not easily entrusted to outsiders.<sup>134</sup>

Another large risk for banks, particularly the global firms with worldwide locations, has been potential backlash. Moving work offshore or expanding work in offshore locations draws significant media attention. Moreover, as banks are multinational organizations even a shift of work within their organization can cause a political backlash for them.<sup>135</sup> Alsop, a noted authority on corporate reputation, says “Outsourcing is going to be a reputation killer for American companies because the American public is so angry.”<sup>136</sup> However, according to the American Banking Journal, most financial institutions feel this backlash will be short lived and, as a result, they are not shifting strategies.<sup>137</sup>

## 4.2.2 Labor Access

Although outsourcing and offshoring in the transaction-driven financial services industry is principally driven by the need to reduce business costs, innovation also plays a role in this industry. The largest financial institutions have relied on the development of innovative IT applications and technologies as a means of decreasing transaction costs. However, because of their cost focus, they are driven to access skilled labor in the most cost-effective locations. These large institutions also offer significant services to their customers through BPO services like call and service centers. The larger institutions have also made significant investments in locating these services offshore as well to take advantage of the labor cost differential of and educated work force. The literature noted that only the largest financial services firms are dominant outsourcers and offshorers and that there is a distinct split between those companies and most other financial institutions. This is exactly what was seen in the interviews.

---

<sup>134</sup> McCarthy, J. “Banking on Outsourcing.” *InfoWorld* 24(27): 34. 8 Jul. 2002.

<sup>135</sup> Sundaramoorthy, G., and M. Rieker. “Big-Bank Perspectives On Offshore Outsourcing.” *American Banker* 169(45): 1. 8 Mar. 2004. p. 1-2.

<sup>136</sup> Cocheo, S. “The Dobbs Effect.” *ABA Banking Journal* 96(5): 32. May 2004. p. 32.

<sup>137</sup> *Ibid.* p 32.

Of the six financial institutions interviewed, five companies were multinationals. While five companies outsourced activities within the US, one of the largest companies interviewed engaged in outsourcing and offshoring. The latter was a very small percentage of their budget for information technologies. To access the IT labor they needed, however, they outsourced more than fifteen percent of their IT staff domestically. This company outsourced both AO and BPO processes and, similar to the high-tech manufacturers, the executive interviewed stated that the company's business objectives included cost reduction, quality improvement, focus on core competence, and technology expertise. The business value associated with outsourcing decisions was evaluated on a case by case basis. This institution did note it was currently evaluating the potential for offshoring BPO and AO service to a much greater extent, which is consistent with industry predictions.

Only two companies outsourced their IT. One outsourced all IT functionality to a large provider who absorbed the IT staff into their organization and maintained their on-site location. The other outsourced many BPO processes, including back office as well as customer service functions like help desk, auditing, and fund accounting. One of the companies interviewed had outsourced its telephone support, but had subsequently returned it to an in house function

Even this small sample of firms parallels what is happening in the larger financial services industry. Two high volume, transaction-driven companies outsource their IT departments and cite cost as a main driver, while two firms offering more elaborate customer services keep all their IT in house. Moreover, none of the companies interviewed saw outsourcing and offshoring as an integral part of their overall business strategy. This is consistent with the low levels of activity discovered within the firms interviewed.

### **4.2.3 Company Portfolio**

An interesting feature about many financial service companies is that they operate both back and front office functions that are driven by different business objectives and IT requirements. For example, while some front office functions require personal interface with customers, both individual consumers and other institutions, others are driven by customer access via telephone or Internet. In

the latter example, the 'front office' is an IT supported BPO function that can be located anywhere. Meanwhile, most back office functions of financial service companies are technology-driven and, therefore, can be easily automated to reduce costs.

These activities are not location bound to their clients and their back office functions can be located virtually anywhere. For these firms, location is also influenced by other factors, such as proximity to executives, which drove the location of facilities in for one smaller firm in particular. The smaller firms interviewed kept their back office under their roof. The mid-sized, transaction-driven companies offshored their IT and another kept IT in house in a different, less expensive U.S. market. The largest company had a significant outsourcing system in place in support of its efforts to reduce costs, but the company was also looking into offshore potential. Not all back office services can be located anywhere, however. Mid-sized institutions achieve efficiencies when back office locations are situated in close proximity to locations that interface with customers and need to transfer transaction-based materials to the back office for processing.

Disaster protection and redundancy were also location-related concerns for two institutions, one of which cited the need for redundant functions far from primary locations and the second who specifically noted the need for site dispersion in areas subject to the loss of power during severe weather systems.

Finally, the technology can also be a limiting factor for back office locations. The larger financial institution cited 'access to good fiber' as critical for them locating office work back in the US. Their daily volume of transactions required a significant infrastructure, in essence, limiting them to larger cities and their surrounds.

#### **4.2.4 Workplace Agility**

The three smaller financial services companies decreased their work force and their space. They foresee this trend continuing. Meanwhile, two of the six firms have increased or maintained their

work force and increased their space. They are both projecting company growth as well as a need to increase their space volume. One firm has grown in headcount and space due to mergers and acquisitions, and the executive interviewed projects that their space use will drop with the reduction in redundant space and intensification of space use.

Executives reported that their workplace designs remained unchanged and only three out of six companies were considering the integration of wireless communications in their facilities. Some institutions made the point that their work forces do not need to be mobile. Five companies did not integrate strategies like hotelling or work at home strategies into their work places. Only two companies were beginning to discuss the use of such strategies, while only the largest company routinely employed hotelling strategies.

In fact, only one of the firms interviewed had recently performed a large-scale renovation of space, which included a more open floor plan and a wide variety of amenities such as a gymnasium and a fully equipped 'club room'. These amenities were viewed as incentives for workers to stay in the office to meet project requirements.

In summary, the financial services industry is an aggressive adopter of IT services using IT to decrease costs through innovation and to support their legacy systems. Additionally, they access BPO functions for increased customer service quality and general support functionality. Their long history offshoring via captive arrangements has driven the development of a sophisticated array of outsourcing arrangements including captive services, third-party services, shared services and insourcing.

The main driver for IT outsourcing in financial services is cost and the interviews confirm this. Smaller firms have been sitting on the sidelines because of the resource commitment and inherent risks involved. Since most of the firms interviewed in this work do not outsource significant activities, this was not a dominant concern.

As expected from the literature, IT is heavily outsourced but minimally offshored by the largest financial firms surveyed in this sample and, as expected, smaller, transaction-driven companies outsource to a minor extent as well.

The financial services portfolio has both innovation and cost drivers. Their front office work can be separated from their back office work. This division leaves front office locations client bound in the vast majority of firms. The exception to this is companies who service their clients via phone and web and therefore can locate their front offices anywhere.

Due to the risks of confidentiality, this industry's workforce is not highly mobile and there is a decreased emphasis on personal connectivity device use. Similarly, there were few design changes seen to support mobility. Wireless is not being used in these firms due to security risks and there are few changes in space design. The only notable exception is the movement away from private office spaces to cube spaces in back offices to increase utilization efficiencies.

## **4.3 Legal Services**

### **4.3.1 Industry Practice**

There is an emerging trend in the legal profession for outsourcing and offshoring core legal services work, however, the industry is resistant to incorporating these strategies. Legal outsourcing is done via BPO of lower skill legal work such as legal transcription and document management, document drafting, legal reference and, and preparing briefs for attorneys<sup>138</sup>, assembling facts in support of litigation claims, and patent, trademark and employee retirement income security act (ERISA) work.

There is considerable speculation on the size of this market. Morrison, senior director at Hildebrandt International Consulting, estimates that 20-25% of US legal work could be moved abroad.<sup>139</sup>

---

<sup>138</sup> "Now, BPO Hits US Legal Eagles." *The Economic Times*. 3 Jun. 2004.

<sup>139</sup> Fried, J. "Offshoring Work; Law Departments are Cutting Costs by Sending Work Abroad." *National Law Journal* 26(37): S1. 17 May 2004. p. S3.



Moreover, Forrester Research Inc. predicts that by 2015, more than 489,000 US lawyer jobs, nearly 8% of the field, will shift abroad.<sup>140</sup> However, industry analysis reveals considerable skepticism in the field about the possibilities of offshoring.

Notwithstanding this reluctance, there are currently three dominant models for outsourcing legal work. The three strategies are domestic outsourcing of legal work, offshore services for multinational companies who wish to supplement their legal departments, and offshoring of legal work by law firms.

#### Domestic outsourcing by businesses

Domestic firms like LRN and Kelly Law Registry provide temporary lawyers that do discovery, document review and due diligence. Law firms use these services to handle surges in work. This practice is somewhat mainstream and is considered a high growth area.<sup>141</sup> Some legal temporary firms report over 300% growth in past 3 years. Some firms are exploring combining in house core legal services with strategic outsourcing of lower level legal work. This reduces costs, accommodates work surges and provides access to expertise beyond in house specialization.<sup>142</sup>

Meanwhile, a number of corporations outsourcing at least a portion of their legal department to a third party. For example, Chevron Phillips considered a broad outsourcing arrangement, but instead set up a joint venture between Chevron Corp and Phillips Petroleum's legal department.<sup>143</sup>

---

<sup>140</sup> Fried, J. "Offshoring Work; Law Departments are Cutting Costs by Sending Work Abroad." *National Law Journal* 26(37): S1. 17 May 2004. p. S1.

<sup>141</sup> Fried, J. "Offshoring Work; Law Departments are Cutting Costs by Sending Work Abroad." *National Law Journal* 26(37): S1. 17 May 2004. p. S3.

<sup>142</sup> Bellis, J. P. "Learning How to Let Go." *Legal Times*. 16 Feb. 2004. p 21.

<sup>143</sup> Fried, J. "Offshoring Work; Law Departments are Cutting Costs by Sending Work Abroad." *National Law Journal* 26(37): S1. 17 May 2004. p. S2.

### Offshore work of law departments of large international businesses

The “Legal Model” describes large, multinational businesses that place some employees in Indian locations. GE and DuPont pioneered this model and their savings have been impressive. DuPont has been conducting legal work in India for 11 years and the company estimates they have saved \$8.8 million in 2002 alone.<sup>144</sup> This allowed them to reduce their US staff from 175 to 127 lawyers. Meanwhile, GE estimates \$2 million from a similar strategy.

### Offshore legal work by law firms

Some kinds of legal work such as transcription, document management and drafting, reference and research and preparing briefs for attorneys has been moving offshore. This nascent trend has caused a flurry of articles in the literature and the sprouting of service providers in the field. Many of the articles espousing legal outsourcing appear to be driven by supply-side interest. Moreover, there are no numbers available that characterize the size of this trend.

Similar to other industries, cost is the primary driver for outsourcing legal work. Both large and small legal firms have the potential to benefit from outsourcing or offshoring work. Large multinational firms can benefit from economies of scale in outsourcing. For example, Heffernan, VP of the outsourcing firm Mindcrest, noted that outsourcing in large, multiple office law firms could move junior associate work offshore at a fraction of the cost. This would allow firms to operate profitably and focus on complex matters while still giving clients discounts.<sup>145</sup> Some analysts believe that smaller law firms can also benefit by outsourcing or offshoring work to service providers as a way of leveling the competitive playing field with larger firms.

---

<sup>144</sup> Fried, J. “Offshoring Work; Law Departments are Cutting Costs by Sending Work Abroad.” *National Law Journal* 26(37): S1. 17 May 2004. p. S3.

<sup>145</sup> Fried, J. “Offshoring Work; Law Departments are Cutting Costs by Sending Work Abroad.” *National Law Journal* 26(37): S1. 17 May 2004. p. S1.

Overwhelmingly, articles cite that privacy/confidentiality are the greatest risks in utilizing outsourcing as part of a business strategy for legal firms.<sup>146 147</sup> It is common practice for legal firms to source work outside a firm in times of surge or when they do not possess specific expertise in house. In this case, information sharing has become an accepted practice. Sharing work with third-party firms and transmitting work over the Internet, however, are still considered security risks to privacy of client information. Moreover, some lawyers are questioning the need to disclose where work is performed to clients. There is also a growing concern among others about the trustworthiness of non-US trained lawyers who are not bound by the same ethical standards as practitioners in the states.

Interestingly, some analysts speculate that this has to do with the nature of work, which often involves written products rather than customer interaction. For example, cultural issues related to language are rarely mentioned as a concern. A second major area of concern is quality and control of the work performed. The liability risk to law firms of outsourcing and offshoring work is high, since companies are responsible for the work performed by third parties. In general, however, the law industry does not see this as a threat since third-party providers work under the direct supervision of U.S.-based firms.<sup>148</sup> From a corporate perspective, DuPont executives noted that after working with same lawyers repeatedly, third-party providers understand a client's company and provide better quality work. Moreover, these providers are performing the work as a matter of choice rather than in the capacity of a junior associate who is not always enthusiastic about assignments.

Some companies take the view that they may lose billable hours as well as training opportunities for young lawyers on less complicated tasks if they farm out work to third parties. Gordon Davidson, chief outside counsel to Cisco Systems counters that argument by the discovery work performed by in house staff is routinely discounted, thereby reducing the revenue from the engagement.<sup>149</sup>

The interview data that follows reflects many of the above concerns.

---

<sup>146</sup> Ibid. p. S1.

<sup>147</sup> Rosenberg, G. "Offshore Legal Work Continues to Make Gains." *National Law Journal* 26(37): 17 May 2004. p. S3.

<sup>148</sup> Ibid. p. S3.

<sup>149</sup> Ibid. p. S3.

### **4.3.2 Labor Access**

Legal services are different from the prior two industries in two important respects: first, they are not inherently reliant on technology (and therefore AO) to provide their services; and, second, their locations are not driven by access to labor. They are, however, very reliant on their legal domain knowledge. As a consequence, the outsourcing and offshoring markets discussed above can be viewed as BPO by firms with domain expertise. Given the nature of the work being outsourced and offshored, AO is not involved.

None of the seven legal firms interviewed outsource any IT work, nor do they plan to. In fact, none would consider outsourcing or offshoring legal work from a quality standpoint, which is consistent with concerns raised in the literature.

### **4.3.3 Company Portfolio**

In contrast to high-tech manufacturing and financial services firms, whose location choices are related to IT, law firms typically locate in close proximity to clients, including strategic movements into new markets. Of the five national or international and global law firms interviewed, all cited that they must be located near their clients. Several executives indicated that their firms move to new markets when their clients request their presence. Two firms also referred to strategic movements into new areas of practice that required them to locate in new markets.

Because their locations are primarily client driven, four out of seven firms noted that they require prestige locations, in CBD office space. This runs counter to many other industries. As one lawyer put it, “if we’re not in a tower, our IQ drops 50 points.” Because of their location requirements, the relative cost for their space is significantly higher than in many other industries. In contrast to manufacturing firms, legal firms stated that their space costs totaled approximately 15% of their costs because of their prestige locations. This explains the emphasis three of seven respondents placed the costs of their real estate. These locations were seen as an integral part of the business.

### **4.3.4 Workplace Agility**

Overall, six out of seven of the law firms interviewed have grown in headcount over the past three years. In five out of seven firms, this has increased the volume of their US office space they lease. Only one firm has grown at the same time it has decreased the volume of its office space; in this case, the company introduced more efficient space utilization strategies. Four of the seven firms interviewed forecast an increase in office demand in the immediate future as they predict continued headcount growth.

None of the firms had lawyers working without assigned space, none were engaging in hotelling and none had instituted work at home policies. Executives saw the strong need for the work force to interface with others in the organization and with clients on-site. It is this dual need that is reshaping their technologies and workspaces.

Even though this industry is the most location bound, they too are supporting greater mobility for the work force. Lawyers are using the same personal technologies as their more tech savvy manufacturing counterparts to connect themselves with clients. The only exception is the current lack of IP telephony across legal firms. These firms lagged behind those in other industries in relation to their use of wireless technologies. Of the seven executives surveyed, only three have limited wireless technologies installed in their office space, limited to their conference room spaces only. One of the largest concerns limiting the use of wireless technologies across the board in law firms is the security of client information.

It is, therefore, not surprising that none of the law firms surveyed had reconfigured their space to take advantage of new technologies. Most had retained standard offices lining perimeter walls. There was ample evidence of a strong emphasis on public spaces and less emphasis on personal office space. Across the board, the law firms noted that their conference rooms had been upgraded technologically to include laptop drops, video conferencing and auditorium features. Executives state that they are investing in technology in this public space where lawyers meet with clients who expect full

technological functionality, including wireless capabilities. Thus, the size of individual offices, including those of partners, is shrinking significantly in five out of seven firms interviewed in order to increase the volume of billable space.

The amount of support staff required in law firms has also decreased as a consequence of new information technologies. Whereas the golden rule has historically been one staff to one lawyer, five out of seven firms noted an increase in the amount of lawyers supported by each staff member. In several firms, each staff member routinely manages up to five lawyers. This newer staff ratio has led to changes in the design of space for support staff to accommodate increased traffic and support functionality like storage. A final, significant impact of technology on law firm space is that all firms reported either eliminating or significantly downsizing the library spaces. The Internet has made law libraries obsolete. Two out of seven firms noted that they have decreased size of their libraries, but they still staff them to assist lawyers in legal searches.

In summary, the legal services firms are non-aggressive adopters of IT primarily because they are not dependent on technological innovation for their work. They are expressly reliant on their domain knowledge to provide their services. Still, there is a nascent BPO trend for provision of routine legal work. The primary driver is cost. Large firms could benefit from the cost savings due to scale of work done to drive down their overall costs, while smaller firms can use these services to lower their costs of labor and be more competitive. The primary risks are privacy, confidentiality and quality control and the industry is highly resistant to incurring these risks.

These firms are location bound to clients. They move to new markets to service clients or strategically access new markets. Their workspaces are undergoing significant changes due to increased emphases on supporting their mobile lawyers and pressures to more efficiently use space. Lawyers are heavily reliant on personal connectivity devices to keep them in touch with clients. Although, there have been no movements toward radical floor plan redesigns, private office spaces are shrinking. In contrast, there is an increased emphasis placed on common areas such as conference room where staff meet with clients. Wireless is being installed here to meet client expectations. Additionally, the rise of the Internet has caused shrinking, libraries across the board.

## **4.4 Cross Industry Analysis**

### **4.4.1 Labor Access**

This analysis points to a relationship between the need for innovation and global strategy for IT outsourcing. The highly leveraged high-tech manufacturing/service firms are one extreme. They live and die by their ability to innovate. Their global strategies are designed to access high-skill and best-in-breed labor through worldwide outsourcing and offshoring relationships. In the middle are the non-leveraged high-tech manufacturing/service companies and large financial services firms who are also heavily reliant on IT to provide both innovation and cost advantages. These dual drivers push them to outsource and offshore their labor needs to access both high and low skill IT labor. The other extreme are the smaller boutique financial services and legal services firms who not reliant on innovation to provide competitive advantage with their customers and whose transaction volumes are low. The interviews found these firms do not engage in IT outsourcing.

There is also a relationship between the costs of IT labor and a firm's pursuit of global IT strategies. Large financial services firms have a long history of adding value to their major cost categories, such as IT, by accessing steep labor cost differentials offshore. Both non-leveraged and leveraged high-tech manufacturing/service companies and smaller transaction driven financial firms engage in high and low skill domestic and offshore BPO for high cost savings in addition to higher quality horizontal business support functions. Additionally, national banks are now on the precipice of offshoring, although they have been domestically outsourcing to achieve cost savings for many years. Cost is also a major factor driving business decision in legal services firms, however, they do not outsource IT because, as mentioned previously, they are not innovation driven. A particularly interesting finding is that while cost matters across the board for firms, for the leveraged high-tech firms, knowledge is the primary driver that pushes them to access labor globally and this trumps all other drivers, including cost. This is in direct contrast to all of the other firms where cost is one of several factors pushing them toward global strategies.

Also in line with the literature on cost savings are the actions of smaller transaction driven financial firms. In many cases, professional service firms that have outsourced domestically have not seen the dramatic cost savings of the large institutions who offshore. It was therefore not surprising to see that one firm outsourced its entire IT functionality to a major domestic vendor but reported that it has seen only questionable cost savings, and is therefore considering taking the functionality back in house.

While innovation and cost are the primary drivers behind IT outsourcing for many firms, other business values do play a role. Service improvement was cited as a value for financial services firms who strive to decrease costs as a way of serving their customers' interests. Surprisingly, only one financial services company interviewed placed any business value on accessing new technologies through IT outsourcing as the literature predicted. Meanwhile, high-tech manufacturing/service companies stated they have the latest technologies in house and could not access better.

The primary risks for all industries with respect to IT are client/customer information privacy. For innovation-driven high-tech manufacturing/service companies, a primary risk for them is IP theft, as their IT knowledge underlies their competitive advantage. Surprisingly, several categories of risk that repeatedly appear in the literature went without mention. It was particularly surprising that no company cited sharing confidential information with a third-party vendor as an issue, given its high risk nature. Moreover, no company cited domestic political maneuvering for new laws or overseas political instability as risks.

This general lack of perception of risk could be taken as an indication of increasing acceptance of the practice; however, there are other possible explanations. For highly leveraged high-tech manufacturing service companies these risks are an integral part of their business model. For other industries and firms, it is more likely an artifact of lack of their limited outsourcing activity and who was interviewed. For the most part, interviews were conducted with executives in the corporate real estate unit or liaisons to the real estate unit. While these individuals were aware of many of the general risks associated with offshoring, they were likely not privy to the decision making process leading up to the actual practice.



### 4.4.2 Company Portfolio

This work identifies two primary drivers for portfolio locations: high-skill labor access and client/customer location. These two drivers are present in all three industries; however, they are emphasized differently across industries. As discussed above, labor access pushes innovation-driven high-tech manufacturing and financial services firms to access high and low skill labor pools around the globe. The second driver is customer and client location. This driver is found consistently across industries, as nearly all firms require physical locations in customer markets to provide efficient services. An exception is the small financial services firms who service their clients via phone or internet, and therefore do not require a physical presence in their clients' markets. On the other hand, client location is the primary driver for the locational preferences of small transaction driven financial firms' locations since they rely upon face-to-face service to clients.

It is reported in the literature that language/cultural challenges have the potential to pull or keep work in the US. Of those companies in this sample who routinely engage in offshoring, only one cited these challenges as a considerable. This seems at odds with the emphasis the literature places on this risk. However, it may be explained by the limited amount of offshoring reported by firms. Unexpectedly, one firm noted that cultural differences can be a distinct positive, as it brings new ways of looking at and solving problems. A second company responded that language and culture are a facet of their every day business life. These companies have extensive offshoring experience and these comments seem to indicate the level that offshoring has become an integral part of their business strategy.

Agglomeration also has the potential to pull or keep work in the US in both the high-tech manufacturing/service firms and the financial services firms. This is apparent in the both the non-leveraged and leveraged high-tech manufacturing/service companies who locate work based on the skills they need worldwide. Both routinely access labor in Silicon Valley and other IT focused centers abroad, as much of their work requires the highest skill and knowledge they can find.

### 4.4.3 Workplace Agility

For all three industries, the two main drivers for increased space utilization are an increasingly mobile workforce and the need for new communication strategies. Mobility has different meaning within the three industries; however, its affects are being felt in all of them. In high-tech manufacturing/service firms, mobility means workers without assigned space. In legal services and boutique financial services firms, it means lawyers and associates increasingly serving clients outside the office. In contrast, both larger and smaller transaction driven firms mobility means very little, as their workforces are considerably location bound and their mobile workforce is only an exceptionally small fraction of their total workforce. One way mobility is affecting these firms across the board is the increasing use of technologies connecting employees with their firm and their clients. These include across the board use of global cell phones, laptops, voice over IP, email, and blackberries, for example.

Another way mobility is affecting firms similarly is in the physical design of the office. Wireless technologies allow both workers and work to be mobile within a space and is a key driver behind extensive redesigns in two industries. High-tech manufacturers, in particular, are maximizing the use of wireless capabilities as they implement new open floor plans that emphasize collaborative, flexible and teaming spaces. This allows workers to move to spaces that best suit the work they are engaged in. These firms are the model of workplace agility. The other extreme are financial services firms whose extreme reluctance to adopt wireless into their office designs is solely dependent on security risks. In the middle ground are the legal services firms where wireless is being installed in conference rooms only, and that is primarily to meet clients expectations. Here too, the major constraint to full office implementation is security.

Across the industries there is an emphasis on common space and corresponding de-emphasis on personal space leading to overall space efficiencies. In the high-tech manufacturing/service companies, their emphasis on mobility is dropping their overall space needs as their fully mobile workforces (up to 70% of employees in one firm) are not assigned personal spaces but still require access to common, collaborative, team as well as specialty individual work spaces. Moreover, for

those employees that do have assigned space, the standard size is dropping to ~70 sq ft for two of the firms. Similarly, in legal services, face-to-face client interactions are being pushed toward high functionality common spaces such as conference rooms. Individual offices are shrinking and more universal furniture gears them toward individually focused work in contrast to the highly personalized status conveying furnishings that were necessary for client meetings in the past. Even in financial services firms private spaces are disappearing. In their back offices, the standard ratio of cube/office has been 80/20. Today, these firms are instituting 100% cube floor plans.



## **Chapter 5: Conclusions**

### **5.1 Conclusions**

The effects of outsourcing and offshoring in US office demand go far beyond increases and decreases in space volume. The trends seen in the labor access, portfolio and space design and utilization provide many interesting insights for the US office market.

#### **5.1.1 Labor Access**

The IT outsourcing markets for both AO and BPO are in growth mode and they are increasing the volume and comprehensiveness of services available. As these trends continue, there is increased emphasis on standardization of products. The literature predicts that third-party providers have already begun to target the small and medium business market. This exceptionally large market has been sitting on the sidelines because of the high cost of applications and their subsequent support. Once these barriers to offshoring have been removed, this market is likely to increase. Moreover, as the IT needs of all companies become more complex as they access IT from several different providers at different locations, the literature notes a trend toward comprehensive service where firms can outsource their entire IT departments to one firm. This motion toward a comprehensive service via a global delivery model for IT services is already present in some of the firms in this research. The results of this work indicate how global IT strategies will be incorporated into industries workplaces will be different depending on the industry. Future research into this area must recognize this differential evolution in workspaces.

The literature states the BPO market as well is poised for explosive growth. Currently, this market's share of the global IT market is small (well less than 10%); however, its wide application across horizontal business functions as well as potential applications in vertical markets make it a high growth area. The vertical applications are particularly interesting to speculate on with respect to real estate. The literature and this work suggest that BPO applications are predicated on access to

specialized domain knowledge labor and large, low skill labor pools as rationalization of process brings down the labor level necessary for this work. As areas of the US has the highest skill level labor possible in some technology areas and large pools of lower skill labor, an important question for real estate is whether companies will focus on US based locations for these BPO applications.

### **5.1.2 Company Portfolio**

Labor access and client locations are two of primary location drivers for all industries. However, not all companies are physically tied to their clients. For example, this work showed that legal firms and the front offices of larger, transaction-driven firms are intensely location bound. On the other hand, IT drives dislocation of some kinds of work and gives some industries the ability to be completely dislocated from clients. This is happening in the smaller financial services firms. For real estate, this suggests that the role of technology in US office space needs to be carefully analyzed on an industry-by-industry basis.

Moreover, this leads to the question of whether further enhancements in communication technologies will shift the behavior of firms and ultimately professional practice, toward more dislocated structures and service delivery. For example, legal firms already support their mobile workforce and some have enabled their lawyers to work from home; however, it remains to be seen if they would support fully dislocated lawyers with portable video conferencing equipment.

A common theme in the literature that has not been directly addressed in the prior discussion is whether high-skill work will continue to remain in the US. Levy asserts that expert thinking and complex communication, the hallmarks of pattern recognition, are higher skill work. This kind of work is clearly seen clustering in Boston for biotechnology and Silicon Valley for IT. As discussed previously, AO work will always be drawn to these high-tech areas. Both the complexity of high skill work and the propensity to locate certain kinds of work in clusters supports an argument that high skill work will remain in the US.

### 5.1.3 Workplace Agility

The literature has extensive discourse on workplace agility, which is the coevolution of work and space. This thesis points to four areas where workplace agility is changing the shape of space use across three industries: mobility, efficiency, technology and obsolescence.

Many firms are coping with the challenges of an increasingly mobile workforce. Mobility for these industries can mean a fully officeless sales and service worker or it can mean a lawyer on the road who is still able to work on her laptop via her global phone. Both kinds of mobility are spurring redesigns of spaces across industries. In high-tech manufacturing/service companies, open floor plan designs coupled with wireless technologies are being instituted; in legal services firms, conference rooms are being reconfigured to incorporate new technologies. Even financial services firms are beginning to discuss programs for employees to work at home and share office spaces. This coevolution of work and space is likely to continue as technological breakthroughs support increasing dislocation of worker from office.

Further, companies across all industries are instituting space efficiency policies that shrink personal spaces in response to the nature of work and general economic pressures. In turn, they are investing heavily in technologically supported common, team, and conference room spaces to support face to face meeting and collaborative work. Moreover, the increased costs of infrastructure are spurring some companies to maximize the use of all spaces via reservation systems. These efficiencies will most likely intensify in the future, as companies struggle to remain competitive and as new technologies such as wireless allow more work to be done with less space.

The use of wireless communication technologies in the three industries is a particularly interesting case in point. The adoption of this technology ranged from aggressive implementation in high-tech manufacturing firms to almost no adoption in financial services firms. The single concern that interviewees cited about wireless was security of information. Where high-tech firms felt their mastery of this technology overcame this obstacle, the remainder of firms are waiting for this risk to be eliminated. Based on the enthusiastic interview responses, the advantages of wireless technologies may make them as ubiquitous as landlines in offices once these risks have been addressed. In the

firms who wish to maximize its potential, respondents observe that their companies will redesign their space to accommodate it.

The Internet makes certain office spaces obsolete. This was clearly evident in the decrease or elimination of libraries in law firms. Other spaces that were mentioned in the interviews include decreased record rooms with the increasing use of imaging technologies and the closing of bank check processing centers. Undoubtedly, there are other types of spaces that are no longer required as technology reshapes our world.

In conclusion, outsourcing and offshoring are clearly part of a firms' labor access and portfolio strategies. Accessing high-skill knowledge worldwide to drive innovation is the definition of a global IT strategy. Moreover, as the BPO offerings increase in scope and expand to more highly specialized markets, the complexity of offerings may tempt more companies, including the small and medium businesses to investigate or experiment with offshore strategies. While client location will always bind certain companies to certain locations, IT outsourcing and offshoring may make where they locate more flexible. In contrast to these logical extensions, the relationships between outsourcing and offshoring and workplace agility are less direct. This work concludes that, at present, these changes have more to do with advances in technology than outsourcing and offshoring practices in professional services industries.



## Appendix: Interview Questionnaire

### Space Occupiers Questionnaire

#### *The Work Force*

1. Has your work force increased, decreased or remained the same. Please describe.
2. What are the principal business operations in your workspace? Have they changed?
3. In relation to the last question, have you outsourced specific business functions?
  - Which functions
  - Which countries
4. Why did you outsource the functions
  - Cost savings
  - Access to outside expertise
  - Improved service
  - Focus on core business
  - Access to better technology
  - Other: (transformation or cultural change, for example)
5. To date, what have the biggest outsourcing and/or offshoring challenges been?
  - Cultural differences
  - Political differences
  - Evaluation of contract performance
  - Accountability
  - Staff turn over
6. Have specific work activities conducted in the space changed? If so, why and how?

7. Have any work requirements, such as communication or coordination with workers at remote locations, become more important in achieving your business goals?
8. Do you plan to outsource functions to companies in other countries in the next three years?

### *The Work Environment*

1. Has your work place changed in relation to any of the following?
  - The square feet of space per worker
  - The design of the workspace
  - The amenities provided to workers
  - The space allocation strategies (such as hot desking, etc.)
  - The technology infrastructure in the workspace
  - Other?
2. If so, what business objectives were associated with the changes you made?

### *The Current Leased Property*

1. What factors have influenced your decisions about the volume and location of your space?
2. Were these factors identified at the corporate or business unit level or both.
3. Has the overall volume of space at your present location increased, decreased or remained the same?
4. Has outsourcing, offshoring, or both had an impact on your workspace decisions? If so, describe.
5. Have you leased 'non-traditional' space, such as serviced office space, to meet short term work demand. If yes, in the US or abroad?

### *The Future*

1. In the next several years, what are the three most significant changes you foresee in relation to your office space volume, location and utilization?
2. What will be the impacts of new media and information technologies on your works force an space requirements?

## Executive Decision Maker Questionnaire

### *The Work Force*

1. Has your business unit's work force increase, decreased, or remained the same? What is your forecast for the next three years?
2. What has caused changes in the size and/or character of the work force?
3. Have the locations of particular business lines changed? If yes, please describe.
4. Have you outsourced specific business functions?
  - Which functions?
  - Which countries?
5. If the answer to #4 is yes, do you plan to outsource more functions to companies in other countries in the next three years?
6. Why did you outsource the functions?
  - Cost savings
  - Access to outside expertise
  - Improved service
  - Focus on core business
  - Access to better technology
  - Other (change?)
7. To date, what have the biggest offshoring challenges been?
  - Cultural differences
  - Political differences
  - Evaluation of contract performance

- Accountability
  - Staff turnover
8. Have any work requirements such as communication or coordination with workers at remote locations become more important in achieving your business goals?
9. What changes if any would you make?

### *The Work Environment*

1. Have your work place requirements changed in relation to any of the following?
  - The # square feet per worker
  - The design of work space
  - The amenities provided to workers
  - The space allocation strategies (hot desking, hotelling, etc)
  - The technology infrastructure in the work place
  - Other
  
2. If the answer to one or more requirement in above was yes, what business objectives were associated with the changes?

### *The Business Unit's International Portfolio*

1. What factors have most significantly influenced the location of your office space portfolio?  
(probe: access to labor force, access to particular skill sets, information and media technologies, industry restructuring, etc.)
  
2. Were these factors identified that the corporate or business unit level or both?
  
3. Has the overall volume of office space in your US portfolio increased, decreased, or remained the same? In the US? In particular markets? Abroad?
  
4. To what extent, has outsourcing and/or offshoring influenced the size and/or location of your portfolio?
  
5. Have you leased 'non-traditional' space such as serviced office space to meet short term business requirements? In the US or elsewhere?

### *The Future*

1. Do you anticipate your demand for office space increasing, decreasing, or remaining the same in the next 3 years?
2. Do you see a direct relationship between your outsourcing strategy (including offshoring) and your demand for office space?
3. What will be the impacts of new media and information technologies on your work force and space requirements?