The Role of Organisational Change Management in Offshore Outsourcing of Information Technology Services

Qualitative Case Studies from a Multinational Pharmaceutical Company

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ABSTRACT

This research study seeks to understand the nature of organisational change with respect to offshore outsourcing of information technology services in a multinational pharmaceutical company, and to examine the effectiveness of approaches used to manage this change so that lessons may be drawn from these experiences. Despite the abundant literature on effective organisational change management, the key factors that need to be managed properly at different stages of the offshore outsourcing process are not well understood. The research adopts a processual view to paint a broad picture of the issues involved in these different stages. A generic process model of change, based on the review of the change literature, was first developed to represent how change was intended to occur. This model focuses on the following four stages in the change process: context, diagnosis and planning, implementation, and institutionalisation.

The research employs an interpretive case study approach and draws on fieldwork from three independent information systems departments (cases) of the company, where offshore outsourcing programmes were implemented. Qualitative data from semi-structured interviews, direct observation and document analysis are analysed by applying the generic process model to produce a detailed account of the way in which change was managed in the case organisations.

The findings reveal that a combination of contextual factors, both external and internal to the company, influenced the adoption and use of offshore outsourcing in the case organisations. Externally, the economic forces were found to be the main catalyst for the change, while internally the role of the executive leadership and the lack of internal resources further explain the motivations behind the adoption of offshore outsourcing. The study illustrates that achieving successful outcomes from offshore outsourcing activities critically depends on the organisation adequately addressing a number of factors, such as conveying a sense of urgency, developing and communicating the vision, identifying the benefits of change and how they will be delivered, generating short-term wins, providing education and training, developing a fit between the change and organisational culture, etc., throughout the change process. The findings also highlight the effects of offshore outsourcing on the case organisations, including change in job roles and responsibilities and organisational learning activities that enable corrective actions to improve change management efforts. An important contribution of this research is the development of a model providing a more comprehensive understanding of the change process associated with the implementation of offshore IT outsourcing.

Recommendations for policy makers and change managers to improve change management practice based on the research findings, as well as recommendations for further research, form a significant part of the conclusions.

Key words: Organisational change; offshore IT outsourcing; interpretive case study; qualitative research methods; pharmaceutical industry

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DECLARATION

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. The work is the result of my own original work carried out in a multinational pharmaceutical company in the USA.

The findings of this study (chapter 6) have been presented at the 15th Annual Multi-Organisational Partnerships, Alliances and Networks International (MOPAN) Conference held in Boston during June 2008. An abstract of the paper titled *The role of organisational change management in offshore outsourcing of IT services: qualitative case studies from a multinational pharmaceutical company* appears in the conference proceedings. These findings have also been presented during the Academy of Management Annual Meeting, which took place in August 2008 in Ahaheim, California. The abstract of the conference paper is published in the proceedings under the title *Processual view of managing change related to offshore IT outsourcing implementation*.

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INTRODUCTION

BACKGROUND TO THE RESEARCH

The pharmaceutical industry is undergoing transformation due to a combination of economic, legal, political, technological, social, and competitive forces. These forces have not only impacted the industry's bottom-line in recent years, they also have helped redefine the dynamics of this industry (Piachaud, 2002). The drivers of this rapid change have included: declining stock prices following the general economic downturn and dot-com crash in 2000, legislative proposals to re-import drugs from Canada and elsewhere to curb the rising costs of prescription drugs, a proposal (McCain-Schumer bill) to reform the Hatch-Waxman Act to limit patent protection, Medicare and state-level reform proposals aimed at curtailing the price of prescription drugs (e.g. Maine Rx Programme), rising research and development (R&D) costs, thin product pipelines resulting from declining R&D productivity, product failures in late-stage development and in the market place, expiring patents, competition from generic drug makers, and curbs on healthcare spending in many countries.

The industry is facing unrelenting financial pressures and the above problems are preventing it from delivering growth of more than 5.3 percent compound annual growth rate (CAGR) in the immediate future, which is significantly lower than the 9 percent predicted earlier by some analysts and certainly well below the double-digit growth the industry experienced during the 1990s (Arlington, Barnett, Hughes and Palo, 2002).

Under these circumstances, pharmaceutical companies are currently faced with two major challenges to generating long-term growth: controlling costs, and improving R&D productivity. Such a state of the industry has led many companies to embrace outsourcing as a strategy to control costs and improve performance. The industry's interest in embracing offshore outsourcing particularly stems from lower labour costs for information technology (IT) services and access to large populations in countries such as India for clinical trial subjects (Miller, 2003).

PharmaCom (pseudonym for the company selected for this research study), a global pharmaceutical company with access to worldwide resources and markets, is not insulated from any of the pressures previously described. In 2003, in order to address these challenges, the executive leadership at PharmaCom (2003a) '*endorsed a set of individual company-wide [change] initiatives aimed at improving the quality of their processes and business, focusing on value-adding activities, eliminating inefficiencies and freeing up resources to fund their future'.* One such change initiative that was actively explored was the offshore outsourcing of IT services in the information systems departments of the various business units of the company.

Ackerman-Anderson and Anderson (2001) observe that organisations have poor track records of managing change and most often these initiatives fail to deliver the intended business results. They add that large-scale change efforts such as re-engineering and IT implementations are consuming vast amounts of budget, time, and resources without yielding the anticipated return on the investment, thus placing the customer base and faith in leadership at risk. Consequently, 'these failed efforts are causing tremendous resistance and burnout in people, loss of employee morale, and turmoil in the cultures of organisations' (Ackerman-Anderson and Anderson, 2001, p.2).

Against this background, this research study aims to understand the nature of organisational change with respect to offshore outsourcing of IT services in PharmaCom's different information systems departments and examines the effectiveness of the approaches used to manage this change drawing lessons from these experiences.

RESEARCH PROBLEM

The recent emergence of globalised, resourcing strategies by IT and other business functions, which has become known as 'offshore outsourcing', represents a major change for firms operating in the USA and other Western countries. Basically, 'the potential to utilise the resources of developing, low-cost economies to substitute service delivery from developed, high-cost countries is the core of services globalisation' (NeoIT, 2005a, p.1). There are several organisational components in this change phenomenon such as people, process, and knowledge that need to be managed carefully to avoid any detrimental effects on the organisation and the business. These negative effects can include loss of employee morale, decline in customer satisfaction, business continuity problems, among other issues. If not managed carefully, the offshore outsourcing strategy may not yield the intended cost savings or provide enhanced organisational efficiencies. Moreover, employee resistance to offshore outsourcing, which stems from a perceived fear of job loss, may result in the depletion of long-term competitiveness of companies.

RESEARCH APPROACH

Due to the relative newness of the offshore outsourcing phenomenon, the amount of literature concerning how change related to the offshoring process is managed within organisations is limited. Although there is a vast amount of literature on the general topic of organisational change management, the key factors that need to be managed properly at different stages of offshore outsourcing are not well understood. The approach taken by this study is intended to increase understanding of these factors. A processual view of change allows a broad picture to be painted of the issues involved in the different stages of the offshoring lifecycle. This view is important both to increase the information available to decision makers and change practitioners and to provide a useful framework to change researchers for conducting further research and analysis of these issues.

RESEARCH AIMS AND OBJECTIVES

The primary aim of this research study is to understand the nature of organisational change associated with offshore outsourcing of IT services and to examine the effectiveness of approaches used to manage this change so that lessons may be drawn from these experiences.

The fundamental research question posed by this study is: *how do IT organisations manage change associated with offshore outsourcing of information technology services and what lessons can be learned from their experiences*? By studying the processes through which IT organisations plan and implement change, we can enable them to manage change more effectively. The case organisations identified for data collection are the information systems departments of the different business units of PharmaCom.

OBJECTIVES

The following objectives assist in achieving the primary aim of this research study:

1) To explore the environmental forces (internal and external) that either foster or hinder the adoption and use of offshore outsourcing.
2) To identify the organisational factors that either contribute to or prevent successful change management.
3) To understand the effects of offshore outsourcing.
4) To contribute to a better understanding of the problems and possible solutions related to managing change for offshore outsourcing with a view to improve professional practice.

The first objective of this study seeks to explore both internal and external pressures that influence the current change proposition. In so doing, the context of change, that is, the complexities of the business environment (both historical and current) that have shaped the change programme can be better understood.

The second objective involves the analysis of the plans employed for managing change and the actions related to their implementation in the context of critical organisational factors. Current research suggests that various organisational factors can influence success at organisational change. To identify these factors, the author conducted an analysis of the change management literature, including journal articles and books. Based on the analysis, the author grouped the factors into six essential areas or themes:

- The vision for change,
- Change implementation strategy,
- Change leadership,
- Communication,
- Education and training, and
- Organisational culture change.

These are organisational factors that must be addressed during the various stages of the change process for a change effort to succeed (Hayes, 2002; Kotter, 1998; Jick, 1991). Thus, an analysis of the above factors provides for a deeper understanding of the extent to which the change is organised or not organised for effective task performance.

The third objective aims to understand the effects of offshore outsourcing, as perceived by the employees who participated in this change. As the company reacts to environmental pressures and attempts to transform itself, the effects of the changing environment and new behaviours can be realised at the micro level within the organisation. An analysis of these change effects can provide valuable insights into how this change was perceived 'on the ground', that is by those who actually carried out the operational tasks.

These objectives together will allow the critical aspects of the change process to be brought together and examined according to the published generic process models of change, thus enabling the confirmation of current practices and a justification for improvements to those practices.

JUSTIFICATION FOR THE RESEARCH

The original interest in this topic arose when the author was enrolled in a postgraduate course on management of organisational change in The Wharton School of the University of Pennsylvania in Autumn 2003. As part of a project for this class, the author and three fellow students conducted a preliminary investigation of how PharmaCom planned to implement its offshore IT outsourcing strategy. The study project briefly examined the potential consequences of change for employees at PharmaCom using prescriptive theory. For the author, this study project represented limitations associated with applying contingency models to understand complex change processes, and highlighted the need for a more extensive study to develop a holistic understanding of the change process which is necessary to guide practitioners to achieve positive organisational outcomes.

Thus, the goal of this research study is to make important contributions in several areas. First, it will contribute to change research by generating an in-depth understanding of the changes associated with planning and implementing offshore IT outsourcing initiatives. Second, it will add substantive content to our understanding of: the context; the roles played by employees at various managerial levels; and the processes through which organisations plan and implement offshore IT outsourcing activities. At present, such an understanding is absent in both change research and in change management practice.

Finally, decision makers, change managers and change consultants will be able use the results of this study as well as its insights to enhance the planning and implementation of offshore IT outsourcing programmes.

METHODOLOGY

The social constructionist paradigm, and particularly interpretive assumptions, provides the philosophical basis for the research design of this study to understand the nature of organisational change related to offshore IT outsourcing. The case study methodology was found suitable for achieving the study's main aim and objectives outlined in section 1.3. Qualitative research methods are employed to facilitate an in-depth understanding of the processes, organisational factors and effects of change related to offshore outsourcing within the real-life context of this phenomenon. The independent information systems departments at PharmaCom served as the units of analysis for this investigation. The study utilised a multiple-case design as well as multiple sources of evidence in order to strengthen the validity of findings. An analysis of similarities and differences of the offshore programme outcomes across the three cases provided the basis for drawing conclusions.

DELIMITATIONS OF THE STUDY

The delimitations of this study are as follows:

- Only those employees who participated in the offshore initiative were considered for inclusion in the study.
- Time factor limited the number of cases as well as the employees selected for interview and direct observation from those recommended by some study participants.
- Although an attempt was made to represent the various information systems departments of the company, no representativeness of the employee population is claimed in this study.
- The results are informed by responses from the employees at different managerial levels of the information systems departments at PharmaCom.

OUTLINE OF THE REPORT

This research begins with a critical view of offshore outsourcing and its relevance to the pharmaceutical industry (chapter two). Chapter three offers an evaluation of the organisational change literature in order to gain a better understanding of organisational change, including a look at prominent change theories and change management models. Chapter four outlines the methodology employed to achieve the objectives of this study. Chapter five provides within case analysis of the three information systems departments, utilising interview data, observation notes, and corporate documents. Chapter six discusses the results of a cross-case analysis of the three cases. The last chapter summarises the research effort and presents conclusions and recommendations for future research, as well as recommendations for improvements to existing change management practices.

Critical View of Offshore Outsourcing

Introduction

The term 'outsourcing' refers to the general business practice through which firms cut costs by transferring a portion or an entire organisational function to an external agency located either domestically or abroad rather than performing it internally. However, when this function is performed by the firm's own subsidiary abroad or is outsourced to an agency located in a foreign country through an arm's length agreement, the term 'offshore outsourcing' applies (Harrison and McMillan, 2006). The National Academy of Public Administration (2006) notes that, in spite of the differences between these terms, the definitions tend to focus on the movement of employment and production of goods or services to offshore locations and imply an increase in imports.

The competitive pressures to reduce costs and the rapid changes and innovations in information and communication technologies have together increased the potential of trade in services in recent years, and many service sector activities are becoming increasingly globalised, especially because these technologies allow the production of services to be location independent (Organisation for Economic Cooperation and Development, 2006). With services accounting for nearly two-thirds of output and foreign direct investment in most developed countries (Organisation for Economic Cooperation and Development, 2006), there is growing interest among firms to outsource service activities to offshore locations not only to achieve significant cost savings but also to improve quality of service, obtain expert skills, improve processes, and to allow them to focus on their core competencies. Current research indicates that many U.S. and European firms have achieved significant cost benefits from offshore outsourcing, in addition to mere wage arbitrage savings (The Boston Consulting Group and University of Pennsylvania, The Wharton School, 2007).

In 2003, an estimated 200 of the Fortune 500 companies were using some form of offshore services and the volume of offshored work is projected to increase substantially in the near future (PharmaCom, 2003b). Aron (2003) notes that these companies are going overseas to procure services ranging from customer contact at call centres to complex financial analyses.

Offshore Outsourcing as a Business Strategy

Firms choose to outsource for a variety of reasons and the decision to outsource can be a critical one. A firm that plans to outsource must first clarify its organisational goals and define what it wants to achieve through outsourcing. The goals of outsourcing may be tactical, such as to reduce or control costs or free up capital funds, or strategic, such as to gain access to a specific technology.

Outsourcing is an effective cost-saving strategy when applied properly. It is sometimes more economical to purchase goods or services from firms with comparative advantages than it is to produce these goods or services internally. In this case, a firm may decide to tactically outsource its bookkeeping function to an external accounting firm, as it may be more cost effective to do so than managing it internally with in-house accountants. General Electric, for example, has outsourced about 900 different business processes to India and as a result saves nearly $350 million annually (The Boston Consulting Group and University of Pennsylvania, The Wharton School, 2007). Thus, a firm's decision to outsource falls within the class of 'make' or 'buy' decisions (Walker and Weber, 1984).

Alternatively, firms may outsource activities that are not part of their strategic core competency (Prahalad and Hamel, 1990) and by divesting non-core functions, firms are able to focus their limited resources on activities that are critical to the business. Here, competencies refer to a set of skills that cut across traditional functions such as production, finance, sales, etc (Quinn and Hilmer, 1994). Dell is an example of a company that outsources for strategic reasons. The company regards marketing and sales as its core competencies, which focus on what matters to its customers, and outsources virtually all manufacturing. With a direct sales model, the company concentrates on speeding products through its highly efficient supply chain, thereby reducing inventory time.

Offshore outsourcing is currently being driven by the recognition of more companies of the benefits of outsourcing as a business strategy. With that recognition has come less emphasis on cost reduction and more emphasis on such benefits as flexibility and speed in delivering business solutions, access to new technologies and skills, ongoing productivity improvement, and enhanced training and development for employees. Moreover, Brainard and Litan (2004) state that offshore outsourcing can have an important effect on firms by helping them to accelerate the development of innovative products and services at far lower cost, an effect that has thus far been unmeasured. Not surprisingly, companies today are engaged in transformational outsourcing, which facilitates rapid organisational change, helps to launch new strategies, and reshapes company boundaries, by partnering with other firms in order to achieve rapid, substantial and sustainable improvement in enterprise-level performance (Linder, 2004).

TYPES OF OFFSHORE OUTSOURCING

With the growth in the outsourcing of business functions and services to offshore locations, the terms 'business process outsourcing' and 'offshore outsourcing' have entered the business discourse and they are often used interchangeably despite important differences. At this point, it is important to first clarify these terms.

BUSINESS PROCESS OUTSOURCING

Business Process Outsourcing (BPO) occurs when a firm completely hands over the execution and management of a particular business process, such as back office processing and call-centre support, to an external supplier that specialises in that process. The underlying theory is that the external supplier can execute the process more efficiently, thereby generating significant cost savings for the outsourcing company. In the last several years, BPO contracts have increasingly been awarded to offshore suppliers in developing countries.

OFFSHORE OUTSOURCING

Offshore outsourcing refers specifically to the practice of outsourcing to suppliers in foreign countries, mainly to take advantage of wage arbitrage. In this practice, companies typically engage foreign suppliers to perform some or all business functions in a country other than the one where the product or service will be sold or consumed. Offshore outsourcing occurs commonly in the manufacturing and service sectors. China has emerged as a preferred destination for manufacturing offshoring since its induction into the World Trade Organisation (WTO) in 2001. Similarly, India has become a major destination for technology-enabled offshoring of services, although there are other countries that are now emerging as alternate destinations. In these countries, educated workers typically work for a much lower wage than their counterparts in developed countries. For offshore outsourcing to be economically viable, however, savings from the lower wage rate must exceed the additional costs of management and risk associated with offshore outsourcing.

The outsourcing of IT functions and services continues to be the dominant offshore activity, but firms are steadily expanding the functions and processes they are relocating to offshore destinations (Lowes, Celner and Gentle, 2004). The scope of these IT services includes: hardware maintenance and support, software maintenance and support, consulting, software development and integration, training and education, IT management, and business process and transaction management (Gartner, 2002). As with the outsourcing of any business function or service, IT outsourcing involves the sharing or transferring of decision making powers and management control to the external supplier, which necessitates two-way information exchange, coordination, and trust between both parties. Although the decisions to outsource have been traditionally driven by cost savings and are based on the assumption that the advantages of outsourcing outweigh its disadvantages, there are some significant risks that require careful consideration. One of the major consequences of outsourcing IT functions and services is that the outsourcing organisation becomes increasingly dependent on the external service provider to perform certain essential functions (e.g. service support to customers), which can subsequently result in the loss of control over these functions or activities. Other consequences include threats to intellectual property, customer dissatisfaction arising from poor quality of service, underestimating cost savings because of hidden costs, and so forth. For example, a survey of 431 U.S. and Canadian chief information officers conducted by the consulting firm Deloitte & Touche highlights that these companies were consistently disappointed with the IT service providers (Scheier, 1997). Another long-term study of 90 offshore initiatives found that over half of the offshore outsourcing initiatives failed to meet cost savings and contract performance targets (Foote, 2004).

Notwithstanding these risks, IT outsourcing provides firms with new options for the provision and governance of information technology resources (Kambil and Turner, 1994). More specifically, effective IT outsourcing can not only result in increased non-financial benefits such as a focus on core competencies, quality improvement, acquisition of external competencies, and control over internal departments, but also provide other benefits like reducing technological risks, improving productivity, gaining access to leading-edge technologies, easing the management tasks, and implementing changes more rapidly (Koong, Liu and Wang, 2007). Thus, all U.S. enterprises must now consider offshore outsourcing of IT services as one of their top strategic sourcing options, according to Gartner (2003), a leading provider of research and analysis on the IT industry.

MODELS OF OFFSHORE OUTSOURCING

Selecting an appropriate model for outsourcing to offshore service providers is an important aspect of a firm's outsourcing strategy. Depending on the level of flexibility and control needed by the firm, a number of potential contractual relationships are possible with the service providers. They range from full ownership, which offers high control and low flexibility, to short-term contracts, which bring high flexibility and low control (Quinn and Hilmer, 1994). The most popular models currently in use are joint ventures, captive centres, and outsourcing to offshore service providers. Each of these models is distinct in that they require different types of investments and carry different risks.

In the case of a joint venture, the client company partners with a local firm either by assuming an equity stake or forming an independent company to which both parties contribute resources, and share in the revenues, expenses and management control. The idea is that both organisations would benefit by complementing each other's strengths.

In the captive centre approach, the client company sets up its own development centre in an offshore location to access critical skills and take advantage of low labour costs. The client company, by leveraging its expatriate staff, sets up its own operations through hiring of local staff. Such a model enables the client company to have full operational control, while at the same time reducing risks related to security, intellectual property, etc.

With outsourcing to offshore service providers, Gartner (2005) has proposed a four-tiered Global Delivery Model (GDM) which provides benefits and challenges in terms of proximity to the service recipient, degree of client interface, and potential for cost savings due to labour arbitrage. According to Gartner, the key assumption in this model is that there is a risk-adjusted cost benefit as the delivery location of services moves further from the service receiver to take advantage of labour arbitrage in countries where labour costs are less. At the same time, Tafti (2005) cautions that without the careful consideration of risks such as financial, legal and managerial control at the outset of an IT outsourcing venture, the benefits can be offset not only by financial losses, but also through the loss of individual privacy, data security and IT expertise.

There are three primary modes through which services can be leveraged in the GDM model: i) staff augmentation; ii) project-based consulting and system integration; and iii) service outsourcing. In the staff augmentation mode, the service provider simply provides resources but assumes no risk or responsibility for projects. In the project-based mode, project risk and responsibility are shared between the service provider and client. With service outsourcing mode, the service provider assumes all the risk and responsibility.

Finally, under the GDM model, service providers can render services using either one or a combination of the following delivery options:

- Onsite: services are provided at the client's location;
- Onshore: services provided from the provider's location in the client's country;
- Nearshore: services provided from a different country (e.g. Canada, Mexico) but in the same time zone as the client's country (e.g. United States); and
- Offshore: services provided from a country several time zones away from the client's location (e.g. India, Philippines).

ECONOMICS OF OFFSHORE OUTSOURCING

According to U.S. government data, the offshore outsourcing of business, professional and technical services by private sector firms in the U.S. grew by 76 percent from $21.2 billion in 1997 to $37.5 billion in 2002 (United States Government Accountability Office, 2004). On the other hand, private research by the management consulting firm McKinsey & Company estimates that offshore outsourcing will continue to grow at a rate of 65 percent per annum during the short term and will reach $147 billion by 2008 (Tafti, 2005). The U.S. government data also indicates that in occupations and industries commonly associated with offshoring, greater than average job declines have been observed since 2001 (United States Government Accountability Office, 2004). A recent study on the impact of offshoring on employment and wages points out that roughly 565,000 service jobs in eight sectors have been offshored to low-wage economies (Farrell, Laboissiere and Rosenfeld, 2006). Another study by Forrester Research predicts that 3.4 million U.S. service jobs would move offshore by 2015, and that the use of offshore resources in the near term would grow 40 percent faster than originally expected (Mears, 2004). Some observers even claim that nearly all service jobs from developed nations will eventually move to low-wage countries (Kinetz, 2003).

While it appears that this offshoring trend will likely exert downward pressure on wages in developed countries by opening up additional sources of labour, economists claim that the productivity gains resulting from offshoring could offset these effects (Harrison and McMillan, 2006). Furthermore, Farrell, Laboissiere and Rosenfeld (2006) explain that offshoring will only have a negligible impact on overall employment in the United States during next five years because it is estimated that only 11 percent of all service jobs could be performed remotely. At the same time, these authors also point out that growth rates for wages and the number of jobs in the IT sector, where offshoring is common practice, tend to be higher when compared to those in the U.S. economy as a whole. Dossani and Kenney (2006) predict that employment in the IT sector will experience significant pressure from offshoring by way of available jobs, job tenure and wages during the next decade, and that a large percentage of these IT jobs are under the threat of moving offshore.

POLITICS OF OFFSHORE OUTSOURCING

Offshore outsourcing has been a hotly debated issue in the media in recent years. To illustrate, in 2003, when the U.S. economy began to recover after the 2001 recession, unemployment did not decrease as expected and many came to view offshore outsourcing as the major contributor to the reduction in U.S. output and the corresponding loss of jobs (Schultze, 2004; United States Government Accountability Office, 2004). For example, in the IT sector, many programmers lost their jobs to lower-paid foreign counterparts in India and elsewhere. The offshore outsourcing phenomenon raised fears that the U.S. economy may be permanently losing certain jobs and job categories, which could result in a downward pressure on wages. Many economists, however, have recently concluded that the higher-than-expected unemployment numbers were not the result of offshore outsourcing, and that the effect of offshore outsourcing on the jobless economic recovery has been insignificant (Bosworth, 2005; United States Government Accountability Office, 2004).

The labour unions have been alarmed at the recent trend of offshore outsourcing white-collar jobs (Schramm, 2004). They see the immediate effect of an increase in offshore outsourcing is a reduction in U.S. employment, either through a rise in worker layoffs or a slowdown in new job creation (National Writers Union, 2005). The unions contend that companies lay off white-collar workers from high-paying jobs while adding thousands of jobs overseas. In an attempt to curb offshore outsourcing, legislators at the state and national levels have urged proposals so as to restrict certain aspects of offshore outsourcing (Geary, 2004). For example, the Omnibus Appropriations Bill passed into law in 2004, forbids certain segments of the U.S. government from offshore outsourcing government work to foreign companies. As offshore outsourcing increasingly becomes a mainstream practice, more legislation is slated for introduction under the pretext of protecting American and European white-collar jobs. Even though the various legislative proposals directed at private entities would not completely ban them from offshore outsourcing, these proposals have the potential to impose significant burdens.

OFFSHORE OUTSOURCING IN THE PHARMACEUTICAL INDUSTRY

Unlike other industries such as banking, insurance and financial services, the pharmaceutical industry has been slow to embark on this shift towards offshore outsourcing. To illustrate, a survey of 1,346 North American and European decision makers by Forrester Research points out that only 19 percent of the industry was actively using offshore IT services as of June 2004 (McCarthy, 2004). The industry's interest in embracing offshore outsourcing stems from increasing pressures to shorten product lifecycles and drive costs down. These pressures have led a number of companies in the industry to adopt sourcing strategies that not only control costs, but also improve organisational performance. For example, GlaxoSmithKline, which has an extremely large procurement organisation with an annual outlay of $12 billion, has set a goal of developing what it calls 'best value purchasing' strategies (Hannon, 2004). The purpose of these strategies is to ensure that the company gets the best possible purchase price and cost for everything it buys. According to McNamara, Anderson and Kapur (2001, p.1)***, s***trategic sourcing decisions are not only more important and urgent than ever for the pharmaceutical industry, but they offer the opportunity to 'extract cash from the value chain and set the stage for continued product and service innovation and growth'.

The pharmaceutical industry's intention to expand offshore outsourcing investments in IT presents new opportunities in two areas. First, offshore outsourcing of IT services such as software development, software maintenance and service support can help realise operational cost savings fairly rapidly, improving cost margins. Second, by offshore outsourcing these services, pharmaceutical companies are able to achieve business efficiencies (through a combination of improved customer services, reduced costs, better scalability, and workforce flexibility), which can lead to a greater return on existing and new IT investments. Furthermore, with pharmaceutical companies wishing to capitalise on recent advances in genomics and high-throughput screening technologies, which generate large volumes of complex highly-complex data (in terabytes), IT and informatics have taken on a stronger role in drug discovery and are experiencing relative growth within the enterprises.

SUMMARY

With major advances in communication and information technologies in recent decades, many service sector activities, especially IT-enabled services, have become increasingly tradable and globalised. The globalisation of services brings both advantages and disadvantages. Offshoring of services enables firms to achieve lower costs, higher productivity, and increased efficiency in production of services; however, it displaces existing jobs and tends to put downward pressure on wages. Despite concerns, many argue that offshoring of services offers many benefits for the consumers, including lower prices, and that the increased economic activity creates new job opportunities by way of increased demand for services. Although the pace of offshoring varies considerably from one industry to another, experts predict greater levels of offshoring will occur as firms learn to re-engineer their business processes.

Literature Review

Introduction

In today's complex and competitive global business environment, organisations must adapt to changing environmental conditions by continuously initiating changes in order to remain competitive and profitable. Significant change occurs when organisations undertake changes such as implementing new technologies, mergers or acquisitions, downsizing, restructuring operations, outsourcing, and when introducing new programmes like Six Sigma or Business Process Management. Hayes (2002) notes that these changes are usually prompted by a need to maintain or improve an organisation's effectiveness, where effectiveness relates to the organisation's ability to use resources efficiently to achieve immediate goals as well as embracing the need to changing conditions to be able to remain efficient over the longer term (Carnall, 1999). According to France, Harrington and Maguire (1987), improving an organisation's effectiveness has important consequences for its overall corporate performance. Despite the availability of a number of models to aid the successful diagnosis and implementation of change efforts, Beer and Nohria (2000, p.88) claim that 70 percent of all change initiatives fail because managers immerse themselves in an 'alphabet soup of initiatives' without fully understanding the nature and process of corporate change. Thus, there is a growing need for organisations to understand how change occurs so that they can better manage the change process to improve their organisational effectiveness.

Against this background, this chapter aims to organise and review the relevant literature on organisational change. The first section of this chapter provides a brief review of major theoretical perspectives to understand organisational change. In the second section, the key approaches involved in the management of change in organisations are reviewed. The last section reviews the current literature on organisational change in outsourcing and highlights the key phases and issues involved in the change process.

Nature and Dimensions of Change

Definition of Change

Over the last four decades, organisational change has been studied a great deal in various disciplines such as psychology, sociology, management and organisational studies, and as a consequence, the literature is filled with definitions of change. According to one definition, organisational change involves 'moving from the known to the unknown, from relative certainty to relative uncertainty, from the familiar to the unfamiliar' (Cohen, Fink, Gadon and Willits, 1995, p.396). Van de Ven and Poole (1995, p.512), on the other hand, define 'change, one type of event, is an empirical observation of difference in form, quality, or state over time in an organisational entity'. A third definition comes from complexity theorists, who state that organisational change is 'characterised as a process that unfolds over time, revealing periods of greater and lesser instability, in which the restlessness of a system is an instinctive response toward survival in a continually changing environment' (Ferdig and Ludema, 2003, p.8). A common theme found in these definitions is that change represents a movement from the present state of the organisation to a desired future state.

Nadler and Tushman (1989) adopt a broader definition of change in which change can involve one or several components of an organisational system, or a realignment of the entire system, affecting all key sub-systems such as strategy, work, people, and formal and informal processes and structures. When the change impacts a large part of the organisation, the change is considered to be strategic in nature, but when the change is limited to specific organisational components, with the aim of maintaining or regaining congruence, it is treated as incremental. According to these authors, the main problem of change deals with how to maintain congruence of the organisational components in the system during change implementation.

In addition, Mezias and Glynn (1993, p.78) consider innovation as organisational change, with innovation defined as 'non-routine, significant, and discontinuous organisational change that embodies a new idea that is not consistent with the current concept of the organisation's business'. Based on this definition, an innovative organisation is one that is characterised by the following features: that is intelligent and creative, that is capable of learning effectively, and that is capable of creating new knowledge (Lam, 2004). For Hage (1999), the subject of organisational innovation is relevant for studying the most basic problems of society.

Organisational Change Types

Ackerman (1997) distinguishes between three types of organisational change: i) developmental, ii) transitional; and iii) transformational. Developmental change deals with enhancing or improving an existing situation in an organisation, often focusing on improving skills or processes. Transitional change is about moving from the current state to a desired state in which management of the interim transition state occurs over a controlled period of time. Transformational change, which is radical in nature, requires a shift in assumptions on the part of the organisation and its members. In this type of change, a new state develops, which is unknown until it emerges, from the chaotic death of the old state, and the time period of transition from the old state to the new state cannot be easily controlled.

Another distinction between two forms of change is offered by Smith and Tranfield (1991): i) morphostatic; and ii) morphogenic. While morphostatic change is concerned with adapting to a status quo position and where the issue is about deciding which parameters need adjustment to bring things back to a steady state, morphogenic change is concerned with finding new and more appropriate organisational forms.

Similarly, DeWit and Meyer (1998) differentiate between operational change and strategic change. Operational change, which is the most common type of change found in organisations, focuses on enhancing the organisation's performance within the limits of the current system in order to align it with the environment. Strategic change, by contrast, aims to alter the organisation's alignment with its environment (Rajagopalan and Spreitzer, 1996). It is increasingly viewed as a shift in structures and processes as well as a reorientation of an organisation's mission and purpose (Fiss and Zajac, 2006). In sum, 'while operational changes are necessary to maintain the business and organisational systems, strategic changes are directed at renewing them' (DeWit and Meyer, 1998, p.163).

Finally, Nadler and Tushman (1995) propose the following typology to understand change: i) incremental; and ii) discontinuous. Incremental change, or first-order change, is defined as a series of initiatives, each of which 'attempts to build on the work that has already been accomplished and improves the functioning of the enterprise in relatively small increments' (Nadler and Tushman, 1995, p.22). Discontinuous or revolutionary change, which is second-order change, on the other hand, involves fundamental transformation of the system. 'It is change that is major in scope, discontinuous with the past and generally irreversible. The [revolutionary] change effort distorts existing patterns of action and involves taking risks' (Quinn, 1996, p.3). Incremental change in firms is concerned 'with those periods when the industry is in equilibrium and the focus for change is "doing things better" through a process of continuous tinkering, adaptation and modification' (Hayes, 2002, p.6). Firms that tend to follow discontinuous change aim at realigning the organisation with the environment and the change occurs during periods of disequilibrium.

Change Dimensions

It is essential to first understand the magnitude and pace of change in order to properly differentiate and explain change theories. DeWit and Meyer (1998) describe the magnitude of change as consisting of two dimensions, scope of change and amplitude of change, and the pace of change as having two components, timing of change and speed of change. The scope of change may be comprehensive or narrowly focused, with comprehensive changes affecting the organisation at large and different organisational functions, while narrowly focused changes are limited to specific parts of an organisation or organisational functions. The amplitude of change varies from high to low, with low amplitude denoting incremental changes to the current state of the organisation, and high amplitude signifying radical changes to organisational structure, culture, processes or people.

The pace of change depends on the point in time during which changes are introduced and the time span over which changes occur. The timing of change ranges from intermittent to constant. In intermittent changes, the organisation selects the appropriate time to introduce changes and thus distributes change activities over time, while in constant changes, the timing for introducing changes is unimportant so long as there is no peak at any given point in time. The speed of change differs between high and low. The change speed is high when a significant change is implemented within a short duration, and the change speed is low when a minor change is implemented gradually over a longer duration (DeWit and Meyer, 1998).

Dawson (2003a) takes a slightly different view on change dimensions and states that the change process consists of four dimensions: i) movement over time from a present state to a future state of the organisation; ii) the scale or scope of change focusing on permanent, influential, large-scale operational and strategic changes; iii) the political dimension indicating the varying degrees of political intensity depending on the settings and types of change initiatives; and iv) the substantive element of change, which refers to the essential nature and content of the change in question. Dawson adds that researchers often employ some combination of these four dimensions to define and classify organisational change.

THEORETICAL PERSPECTIVES ON CHANGE

To understand and explain the process of how and why organisations change, change researchers have utilised concepts, metaphors and theories from various disciplines, thus creating a diversity of theories and concepts as well as the compartmentalisation of perspectives (Van de Ven and Poole, 1995). A good majority of these theoretical perspectives on change focus on the relationship between the organisation and its environment, with roots in organisational theory. In order to understand organisational change related to offshore outsourcing and to place this study within a theoretical framework, it is necessary to first provide a brief review of these theoretical perspectives. In this theoretical review, consideration will be given to systems theory, particularly the open systems view, since it forms the basis for this research. Systems theory considers the individual, group, organisation, as well as the organisation's larger set of interdependent organisations as a dynamic, interrelated whole (McCann, 2004). It recognises that change in one part of a system can trigger changes in other parts of the system. In taking such a view on change, systems theory is able to facilitate a holistic understanding of change processes in organisations. Furthermore, while classical and neoclassical organisational theories provide a narrow view of change by treating the organisation as a fragmented and closed system that operates independently of external forces, the open systems approach adopts a broader perspective on change by considering the organisation as a living system that changes in the process of interacting with and adjusting to the environment and often attempts to influence that environment (Malhotra, 1993). In essence, the open systems perspective emphasises the consideration of the relationship between the organisation and its external environment as well as what goes on within the organisation (Malhotra, 1993), and in so doing, it offers a more adequate theoretical framework for analysing change in complex organisations.

POPULATION ECOLOGY

The population ecology perspective holds that, 'to survive, organisations must be compatible with their environments, which include all the external social, economic, and political conditions that influence their actions' (Druckman, Singer and Van Cott, 1997, p.2). The theory explains organisational change as a function of environmental forces on populations of organisations, focusing on the demographic processes of selective replacement, i.e. organisational founding, growth, and mortality. Population ecology holds that the rates of founding and the rates of mortality are dependent on the number of organisations in an industry environment. It emphasises the concepts of legitimation and competition. As the population density increases, legitimation tends to increase the founding rates and to reduce the mortality rates for organisations, while competition attempts to reduce the founding rates and increase the mortality rates. These opposing forces cause competition to prevail at high density and legitimation at low density.

From this macro-level view, the organisation's ability to survive depends on having a structure that allows it to respond appropriately to the environment in which the organisation operates (Gharavi and Sor, 2006). Hannan and Freeman (1989) explain that structures of organisations have high inertia which hinders their adaptation when the environment changes. Those organisations that are incompatible with the environment are eventually replaced through competition with new organisations that are better suited to external demands (Hannan and Freeman, 1989). Thus, organisations can increase the chances of survival only if they are able to respond to the changes at the same rate as the changes in the environment.

Population ecologists subscribe to an evolutionary view of organisational change in which organisations descend from former or existing organisations and population-level change in organisational forms tends to be slow and continuous. Sammut-Bonnici and Wensley (2002) provide a detailed treatment of evolutionary theories in relation to organisational change. While some researchers have used population dynamics to describe the development of organisational strategies, others have applied ecological models to organisations with an objective to understand questions concerning their differentiation, their strategies for adapting to environmental change, and their evolutionary characteristics (Javalgi, Todd and Scherer, 2005). For example, Gharavi and Sor (2006) employed the population ecology perspective to study evolutionary change caused by the major perturbation of the internet in the Australian travel industry. Similarly, Javalgi and colleagues have applied population ecology to evaluate the international growth dynamics of the internet in order to describe the long-term survival and differentiation strategies that impact success. Despite its influence in many management circles, the population ecology perspective has been criticised for taking 'an inverted image of managerial omnipotence—a theoretical framework in which individual and corporate actors are incapable of significantly modifying themselves or their environments' (McLaughlin, 2001, p.12).

Management researchers' attempts to strengthen this theoretical perspective have resulted in extensions to population ecology, with punctuated equilibrium theory being the most prominent. The punctuated equilibrium theory suggests that 'radical and discontinuous change of all or most organisational activities is necessary to break the grip of strong inertia' (Romanelli and Tushman, 1994, p.1143). In this model, 'firms go through periods of convergence and reorientation. The periods of convergence include incremental change which moves the firm towards greater internal consistency. The periods of reorientation include simultaneous discontinuous shifts in strategy, the distribution of power, structures, and control systems' (Taylor, 1999, p.524). Further, change is theorised to occur in five organisational activity domains, viz. organisational culture, strategy, structure, power distributions, and control systems (Romanelli and Tushman, 1994). These activity domains individually and as they interrelate with each other yield various levels of performance and inertia which are, in turn, basic factors affecting organisational change (Beugelsdijk, Slangen and van Herpen, 2002).

According to Romanelli and Tushman (1994), the punctuated equilibrium model has emerged as a prominent theoretical framework for explaining fundamental changes in patterns of organisational study. Gersick (1991), in applying the punctuated equilibrium model, discovered the following limitations. First, avoid the assumption that this is the only way that systems change. Second, avoid transporting models from one domain to another without first questioning how it might apply in other settings. These limitations paved the way for new research on pace and sequencing of action in change processes (Gersick, 1994; Weick and Quinn, 1999). For example, Gersick's (1994) research distinguishes between temporal and event pacing, the two mechanisms that are used to modulate the speed and course of change. While temporal pacing enables punctuated change at milestone transition points and is suitable for non-routine situations, event pacing is appropriate for fostering incremental change because it focuses on specific events that indicate when actions are to be initiated. Weick (1999), on the other hand, emphasises the need to move beyond action sequencing and focus on developing process theory using stories that provide meaning to process. To Weick (1995), change is an occasion for sense making in organisations. Taylor (1999, p.525), in an attempt to further the sense-making concept, calls for moving past 'the insight that