

Potential Benefits and Pitfalls of IT Outsourcing from the Viewpoint of Developed Countries: Opportunities and Challenges for Bangladesh

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Abstract

Outsourcing generally refers to the practice of farming out jobs from the home base to other countries, largely in an effort to cut costs. Software developers are among an increasing number of companies turning to outsourcing as a strategy to improve cost control, product quality, product development schedule reduction, and focus on core business activities. As IT outsourcing becomes ever more ubiquitous across the globe, corporations are taking a closer look at the scope, quality, and nature of their outsourcing agreements. By 2015, analysts predict that more than 3 million white-collar jobs in the U.S. will be farmed out to other countries, up from about 300,000 today. If that shift is inevitable, the next question becomes which countries offer the best choice. Here, in this paper some guidelines have been provided to get the answer. Several years ago, software was identified by the government of Bangladesh as having important export potential and the IT industry was declared as a thrust sector. Human resources for the IT industry have also been growing rapidly. Considering all the factors involved, this paper concludes that Bangladesh could become one of the most competitive IT outsource centers for the entire first world. This paper also discusses the opportunities and challenges for Bangladesh in becoming a successful IT outsourcing country.

Keywords

IT Outsourcing, IT Outsourced Country, IT Enabled Services

1. Introduction

Today's business environment has led many companies to streamline business processes and outsource activities not considered "core" business functions. In many businesses, IT development is classified as a non-core activity. As G. Hermann [1] observes, "The IT industry has achieved a notorious reputation for being out of control in terms of schedule accuracy, cost accuracy, and quality control". In response to these problems and business trends, software developers have tried process improvement and project management techniques, and are now outsourcing software development in increasing numbers. Like their counterparts in the business world, software developers think an outsourcing vendor can do the job cheaper, faster, and with higher quality than current in-house efforts. During the last 10 years, outsourcing has transformed many companies of the world, especially in North America and Europe. As the World Wide Web is a well-accepted interconnected resource, companies are moving towards becoming virtual corporations. Information Technology (IT) and IT enabled services have been leading the charge by resorting to outsourcing. Indeed, IT outsourcing continues to play a leading role in the overall outsourcing revolution. The aim of this paper is identify outsourcing strategies, motivations, benefits, drawbacks and show how Bangladesh can play an important role in this field to become one of the best countries for outsourcing.

2. Research Methodology

This research is basically based on literature study. To understand IT outsourcing in detail along with its benefits and drawbacks we depended on proceedings, journal papers and articles from the Internet such as A. E. Petrick [2], A. Woodsworth [3], D. Stokes [4], D. Nuzzo [5], G. Grossman and E. Helpman [6], H. A. Rubin [7], I. Sheila [8], J. Cronk and J. Sharp [9], J. Dwyer [10], J. L. Ogburn [11], J. N. Berry [12], J. Thottam [13], J. Yesulatitis [14], M. C. Lacity and R. Hirschheim [15], M. Smithson [16], V. M. Scheschy [17], W. Benedon [18], W. Jones [19] etc. After gathering information about IT outsourcing, we analyzed a few papers to understand the current situation of IT outsourcing in various countries. The papers that have been discussed in some detail are: A. Oser and H. David [20], K. Lakey

[21], R. Dossani and M. Kenney [22], S. A. Strickland [23], [24], [25] etc. To learn about the various facts and figures of IT outsourcing, we have scrutinized resources such as S. Harken [26], W. L. Currie [27], [28], [29], [30] etc. We then went through a few more articles to understand the current ICT situation in Bangladesh and to explore the benefits, and pitfalls of IT outsourcing in Bangladesh. These papers are: [31], [32], T. Paul [33], etc.

3. Definition of IT outsourcing

According to G. Hermann, [1] IT Outsourcing means contracting (or subcontracting) with an external organization for the development of complete or partial IT products or/and the purchase of packaged or customized package IT products, or/and activities to aid in the software development life cycle.

4. Reasons for company to outsource

"Twenty years ago we stopped putting a premium on assembling products," declared analyst John McCarthy of Forrester Research in Cambridge, Massachusetts in 2005. He suggested that many corporate functions are likewise becoming commoditized and therefore do not require a highly salaried workforce. Companies like Citigroup and General Electric of USA were pioneers, having established specialized centers in other countries. They also begun to relocate more complex and critical functions outside the U.S. Companies like IBM acknowledged the trend and soon attempted to move jobs outside the U.S. before its competitors did the same. IT companies like Software Developers were among an increasing number of companies turning to outsourcing in recent years.

At this juncture, we need to identify the reasons for which a company will outsource its jobs to companies located overseas. Actually, companies turning to outsourcing for IT products or services are typically under pressure to deliver high-quality products within budgetary and schedule constraints. According to M. Nuala, [34] the following are some reasons for which a company can outsource:

4.1. Delegate "non-core" activities

An important reason for a company to consider outsourcing arrangements is to delegate non-core functions to another organization. The company can then concentrate on doing that which it does best.

In this scenario outsourcing is part of a growth strategy. Through outsourcing, an organization is able to concentrate on those things that offer the most potential for innovation and high quality service.

4.2. Lower Cost

Another important reason for a company to consider an outsourcing arrangement is to reduce or control costs. Outsourcing can lower costs because:

1. an outsourced company may be able to accomplish the task with fewer staff, especially in the areas of supervision and administration;
2. the costs of labor and employee benefits of an outsourced company may be lower;
3. community nonprofit contractors might accomplish the tasks partially through the use of volunteers;
4. on-going costs for permanent staff and training, and overhead costs for space and equipment may be reduced;

4.3. Increased Access to Specialized Skills and Expertise

Outsourcing enables organizations to gain access to expertise and state-of-the-art capabilities that are not normally available in-house. Institutions can benefit by contracting with specialists or professionals for specific tasks that the organization itself could not afford to hire on a permanent basis or might not need except in particular circumstances. Many organizations outsource very specialized, technical information and communications technology requirements.

4.4. Improve Service Quality

Outsourcing to a supplier with more expertise or more staff can result in an improvement in the quality of the work done or the service provided. By building quality measures into the outsourcing agreement it is possible to improve turnaround times and volume output and introduce more innovation and creativity into the work being outsourced.

4.5. Increased Flexibility

Outsourcing can provide greater flexibility to management in making adjustments to the size of a program, service or function. Outsourcing enables an organization to get the work done at the time it needs to be done. This is particularly the case for special programs, sudden emergencies, temporary tasks or seasonal work.

So, these are the few reasons for which a company can outsource a few tasks to other companies. But as IT outsourcing becomes a norm, corporations are taking a closer look at the scope, quality, and nature of their outsourcing agreements. With prices coming down, and customer service expectations rising, enterprises are no longer satisfied with vague service level definitions. Today's savvy CIO's are demanding in-depth, detailed service level agreements that are tailored to their business needs, IT resources, and future development plans. That's why companies which want to get outsourced jobs should be careful about their strength and commitment. Otherwise, it will be difficult to get the job done.

5. Current Situation Analysis

IT outsourcing has not only grown impressively in recent years, it has also evolved and changed steadily, according to *The Outsourcing Institutes IT Index*. The IT Index suggests that the industry has become more multi-faceted and varied, and companies have become more comfortable in forging deals and maintaining relationships. Examples of innovations and trends can be easily found. Software giant Oracle, for example, recently said that it is moving 2000 developer jobs from the USA to India, doubling the number of developers it has on payroll there. Then HP announced plans to close a customer-service operation

Table 1: Number of US jobs moving towards other countries				
Number of USA jobs moving to other countries				
Job Category	2000	2005	2010	2015
Management	0	37,477	117,835	288,281
Business	10,787	61,252	161,722	348,028
Computer	27,171	108,991	276,954	472,632
Architecture	3,498	32,302	83,237	184,347
Life Science	0	3,677	14,478	36,770
Legal	1,793	14,220	34,673	74,642
Art, Design	818	5,576	13,846	29,639
Sales	4,619	29,064	97,321	226,564
Office	53,987	295,034	791,035	1,659,310
Total	102,674	587,592	1,591,101	3,320,213

Source: U.S. Department of Labor and Forrester Research Inc. All numbers are made rounded

in Florida and send the operation's 1200 jobs to India. Like Oracle and HP most large companies have diverted their operations or outsourced some of their services to offshore venues. However, there are plenty of opportunities left for many companies. According to the U.S. Department of Labor, 3.3 millions of high-end technology and service jobs will be shifted from USA to less expensive foreign venues by 2015.

The above research and data clearly shows that an ample market for outsourcing exists worldwide and any company can position itself to take advantages of this trend.

6. Position of Bangladesh in this Scenario

With a population of almost 150 million people, Bangladesh is one of the least developing countries of the world. According to IBTCI (2002) [31] Bangladesh was expected to earn \$2 billion in revenue from the IT sector by 2006. This was too optimistic a projection, but it definitely indicates the potentials of IT. At present, 79 public and private universities and some institutes and colleges are offering degree courses in the area of Information Technology. According to T. Paul, [33] every year around 3000 IT graduates are coming out of these institutions. In addition, there are large numbers of IT training centres, some of which are operating under foreign franchise. Last but not least, the Bangladesh Government has declared IT as a thrust sector. Considering all these trends, it can be said that in recent years Bangladesh governments and the people of Bangladesh have realized that this country could become a competitive IT outsource center for the United States and the entire first world. We have very bright students in Bangladesh, with adequate skills and knowledge in mathematics and science. If we could train them to become IT professionals, we could attract United States clients for lucrative outsourcing contracts.

6.1. Reasons for choosing Bangladesh for IT Outsourcing

Use of computers in Bangladesh as a research and data manipulation tool dates back to more than 30 years. Today computers are widely used in the country's offices, businesses, educational institutions, at home and in field-level work. The state provides many fiscal and infra-structural facilities to accelerate the use of computers and boost the growth of the IT industry. When software was identified by the government of Bangladesh as an industry with an important export potential, the Ministry of Commerce established a task force in 1997 to identify methods by which this sector could be developed. The report (known as

JRC report), that was submitted by a committee headed by Mr. J.R. Chowdhury in September 1997, identified Bangladesh's competitive advantages in this sector as follows: low labor costs, high programmer productivity and widespread knowledge of English, the availability of a wide range of hardware platforms, existence of an experienced software sector, etc.

Of the advantages identified for software export in the 1997 report, the first one "Low labor cost", is the most important. Most of the companies from abroad are interested to outsource their jobs because of costs. If we can provide the lowest cost to them then definitely we have ample chance to be the market leader in a short time.

The size of the IT industry at this time is estimated to be at around USD 150 million but is growing at more than 20% each year now. Among the major IT projects already done/undertaken in Bangladesh are: (according to T. Paul [33])

1. Preparing a national voter database and producing computerized ID cards for each voter.
2. Implementing computerized nationwide seat reservation and ticketing system for Bangladesh Railway.
3. Preparing and administering motor vehicles and drivers registration database. The nationwide system handles more than one million registrations/renewals each year.
4. Establishing a National Data Bank. This on-going state-funded project started in 1995 and plans to be the ultimate repository of all information of Bangladesh.
5. National pre-university examination system automation. The boards of secondary and higher secondary education process more than 30 million examination papers each year through the automated OMR based computer system.

The software and data-processing industry in Bangladesh has had a successful track record of exporting to the USA and Europe for more than a decade now. The areas of competency of the IT industry in Bangladesh (as per the report by BASIS [32]) are as follows: Web-page design and web-enable software development, Multi-media design and publishing, alphanumeric data processing (from paper documents, scanned images and verbal

recordings), relational database applications development. Front-end tools used are Visual BASIC, Developer 2000, Power Builder, Access, FoxPro and others. Back-end systems used are Oracle, Informix, Sybase, DB2 and others, Device drivers for UNIX, Windows NT and Windows 95/98, Y2K related database and program modification work, Euro-money related database and program modification work.

Human resources for the IT industry have grown rapidly since the government declared this industry as a thrust sector and embarked on a mission to make the industry a substantial part of the USD 36 Billion economy. According to IBTCI (2002) [31] the vital statistics for this sector included: more than 300,000 IT professionals engaged in the industry, 79 public and private universities and some institutes and colleges offering degree courses in the area of Information Technology, and more than 1000 private and public sector computer training institutes providing IT skill development at various levels.

True to its commitments, the government cut through a lot of red tape to ensure the right kind of environment for IT entrepreneurs to thrive in the country. The incentives and infra-structural facilities made available for the IT industry include: (discussed in the report by BASIS [32]) up to 2Mbps telecom link with North America, full exemption from income tax, state-sponsored "IT village" which offer high-tech offices ready for rental by software companies at preferential rates, working capital loan from banks at preferential interest rates and with no collateral requirement, absolutely duty and tax free import of computer hardware and software, etc. Considering the above situations it can easily be said that Bangladesh should be the first choice as an IT outsourced country for many companies of the developed world.

6.2. Challenges for Bangladesh

Nevertheless, even after offering such ample scope in various sectors Bangladesh has not been able to attract sufficient outsourcing ventures. This is no doubt because of the various problems, starting from political to personal ones which exist here. If we look at India we will be able to find out the following reasons for which they are the first choice for IT outsourcing jobs right at this moment [24]; strong human resources, low labor cost, availability of high quality IT firms having SEI-CMM level 5, availability of technologically advanced outsourcing firms, reliable communication facilities

and stable government. Now if we compare the Indian scenario with Bangladesh, we will find that we are far behind India in the last two points i.e. the reliable communication facilities and stable government. We do not have good and reliable communication facilities and without them it is impossible to get good deals from outside countries. We are not also politically stable, which is also a factor for not getting good jobs from overseas companies. The JRC report which was submitted in 1997 had identified a few other problem areas for Bangladesh. These were: poor telecommunications infrastructure, insufficient number and capacity of ISP's, lack of contacts with international markets, etc.

Another area of concern for Bangladesh is the brain drain. At the moment, an expert IT-sector is important for Bangladesh, since it generates foreign exchange and provides highly skilled jobs. To achieve this, the education system must produce better-equipped students and the IT infrastructure should be improved. If such an IT-industry does not develop, the problem of the brain drain will continue to exist. Around 80% of graduates and teachers have indicated that they would migrate to other countries if they could (UNCTAD, 2001). So far, Bangladesh has lost the majority of its scientists, technologists and engineers to the western world.

Considering all these drawbacks to become the leader among the IT outsourced countries the government of Bangladesh should take necessary steps so that the following solutions could be found as soon as possible; good communication infrastructure, improved contacts with international markets, restriction on the movement of trained IT personnel and stability in politics.

7. Pitfalls of IT Outsourcing

Though the benefits of IT outsourcing are difficult to deny, there are some pitfalls or risks involved. Few of the pitfalls mentioned in the Business Fact Sheet, Blue Phoenix Solutions, USA [28] are discussed below.

7.1. Loss of Control

The boards and management of the outsourcing company may have to surrender some of the controls to the outsourced company. This might happen especially when core functions are outsourced.

7.2. Decline in Service Quality

When a task is outsourced, there may be a risk that the new group doing the task will not maintain the same levels of quality as previously established. As a result the quality of services might decline.

7.3. Risky Dependency

When a task is outsourced to another company, whether a private business or a not-for-profit organization, there may be the risk that the outsourcing company will become too dependent on that outsourced company. Becoming too dependent on the outsourced company can be dubbed risky dependency.

7.4. Increased Cost

Because many functions or tasks of an outsourcing company might be unique, there could be very few alternative service suppliers available. In a situation where there is only one alternative supplier the dependency of the outsourcing company on the supplier may become excessive, as there would be no fall-back position should the supplier fail. When there is only one alternative supplier there is no competition and therefore it is possible that the anticipated cost-savings may not be realized; rather, it would be increased!

7.5. Negative Impact on Jobs and Professional Careers and Staff Morale Problems

When an outsourcing company's function or service is outsourced, the jobs in that company related to the performance of that particular function or service usually become redundant. Therefore, some public sector jobs will be lost unless the outsourcing company decides to reassign those positions to different departments or work areas. When professional functions are outsourced, professional jobs may be lost, together with the expertise that accompanies them. The remaining professional staff may have fewer opportunities for advancement because the jobs that have been outsourced could no longer be available to them. The outsourcing of professional work is often perceived to be, and in fact, often does lead to the de-professionalization of those jobs. Because of the impact on jobs and promotions, outsourcing always has an impact on staff morale and it can be a negative one if not handled effectively.

Outsourced countries like Bangladesh should have clear understanding of these pitfalls so that they can take necessary actions before or after taking the outsourced jobs.

8. Conclusion

Outsourcing has become an established management tool. Outsourcing can be a cost-saving and efficiency-building mechanism. Outsourcing companies, as well as their governing authorities and donors, have begun to consider outsourcing as an alternative service delivery mechanism. However, outsourcing presents both benefits and problems. If not done well, outsourcing can cause significant problems.

A country like Bangladesh can be considered a potential destination for IT outsourcing. Few companies from abroad have already started to outsource jobs to Bangladesh and have expressed satisfaction with the results. One of the most interesting advantages is the potential to achieve a significant reduction in project costs. There is not a very large turnover of staff and a wide range of hardware platforms is available here. These are advantages Bangladesh has over competing countries in the region, such as India.

The IT sector of Bangladesh is not yet well known internationally and software exports are still limited. Many local IT companies do not yet have international experience. To improve this situation, export promotion should be a major goal for Bangladesh. Firms must be prepared to invest in marketing activities such as commercial representation, networking and advertising. If that is the case, then more companies from Bangladesh might be able to generate revenue from outsourcing companies from North America, Europe etc for global IT outsourcing.

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