The rise of offshore IT outsourcing industry: An attempt to assess Bangladesh's competitive advantages

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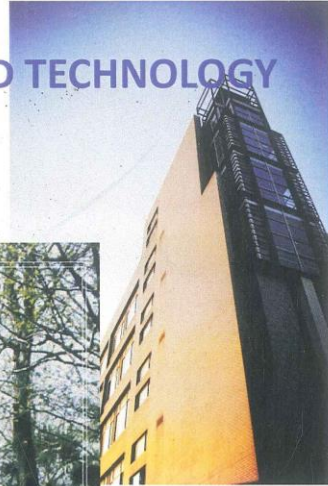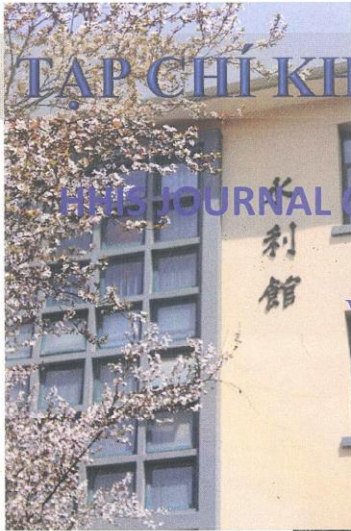
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The Rise of Offshore IT Outsourcing Industry:
An Attempt to Assess Bangladesh's Competitive Advantages

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Abstract

In light of the developments in global offshoring and Bangladesh's rise in IT/ITeS services the study explores the IT/ITeS sector in Bangladesh. The study included benchmarking the Bangladeshi IT/ITeS industry with the other leading offshore services destinations to ascertain the opportunity in Bangladesh as a global offshoring center. The paper presented here is the output of reports of national and international IT/ITeS industry players, government functionaries, trade associations and global IT services buyer community, and supported by extensive secondary research. The paper evaluates that Bangladesh has the competitive advantages to become the future IT outsourcing destination and she has been leveraging her strength to the fullest to become a larger player in the offshoring industry; also there are a number of factors that need to be considered for the further success of this industry of Bangladesh.

Key words: Business Process Outsourcing (BPO), IT enables services (ITeS), IT industry, Bangladesh, Competitive advantage

1. Introduction

Global IT outsourcing industry has been growing steadily in the last decade. The current global economic crisis has led to shrinking IT budgets for corporate, but there has been a continual growth in demand for global sourcing of IT services, with cost optimization being the primary driver for offshoring services. The increasing cost pressures, with new service delivery paradigms like cloud computing and multiple sourcing, is set to transform the outsourcing industry globally [1]. Over recent years, Bangladesh has made major strides in laying the groundwork for a diverse and successful outsourcing market. The IT services industry within Bangladesh has been growing serving international clients and domestic clients in banking and telecom sectors. The industry now employs over 20000 people, and is exporting services to European, North American and East Asian clients [3]. Bangladesh's emerging outsourcing players already have strong credentials [4]. Bangladeshi freelancer community has further supplemented the IT exports by close to US$7 million in 2010 with Bangladesh appearing consistently in top freelance work locations on sites like oDesk, eLance and the likes [5]. Bangladesh offers a vast pool of young, trained and English speaking resources available at costs almost 40% lower than established destinations like India and Philippines [6]. Government authorities have demonstrated a determination to promote IT services industry in the country providing cheaper bandwidth and alternate international cables, setting up Technology parks and providing tax holidays for export oriented industries.

The "Digital Bangladesh" initiative of the government is helping setup infrastructure for enhanced connectivity, ICT based citizen service delivery and ICT based Education system [2]. There is evidence of many global players, like Samsung, AMD, VizRT, World Bridge Global setting up operations in Bangladesh. For all the progress that has been made, this paper illustrates some of the key challenges that still lie ahead [9, 13]. Many domestic business leaders recognize that Bangladeshi outsourcing industry could better market its strengths to the international community. Negative perception about Bangladesh needs to be countered. Government needs to take a holistic approach towards promoting the IT/ITeS industry including investment climate, taxation, remittances, legal framework and flexible working hours [10]. With today's challenging economic conditions, more companies are looking at effective use of external providers to help them support and expand their operations [12]. Bangladesh has positioned itself as a key location for consideration by enhancing delivery capability and skill availability, lower costs of operations, making focused investments in telecom and IT infrastructure, and highlighting success stories [14].

Our present study is carried out to purse the following objectives:

- To access the current situation of IT Outsourcing Industry of Bangladesh.
- To find out the competitive advantages of Bangladesh to keep up the growth of offshore IT outsourcing industry.

This study is a theoretical approach based on secondary data and information, review of related literature and existing stock of knowledge, reports of government, international organizations and related private organizations of IT Outsourcing industry. The study will assist the entrepreneurs, policymakers, IT professionals', experts, researchers and individuals to evaluate the competitive advantage of Bangladeshi IT Outsourcing industry.

2. The Scenario of Global Offshore IT Outsourcing Industry

2.1. Current Phenomenon

The global sourcing market has been growing at 16% over the last 5 years reaching a size of 1.06 trillion dollars in 20101. This growth, however, tapered down last year compared to previous years owing to adverse global conditions such as slow world GDP growth, rising inflation, declining corporate profits and the near bankruptcy of a number of European countries.
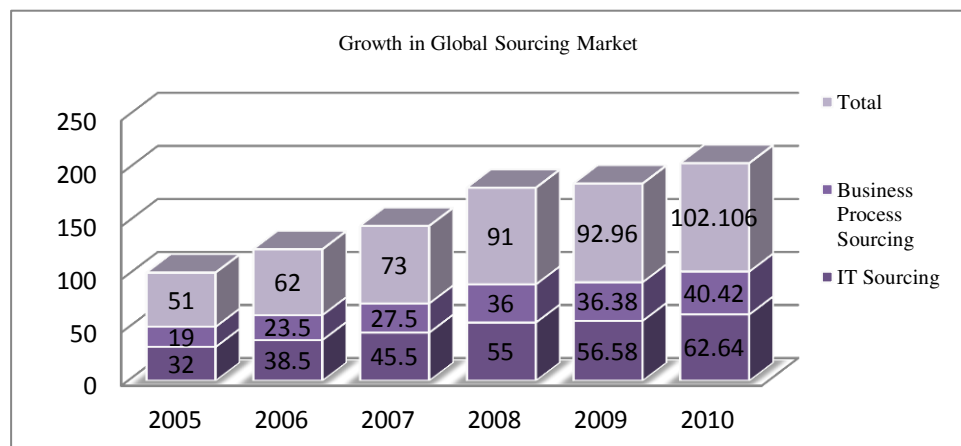

Figure 1 Growth in Global Sourcing Market

Source: NASSCOM, Everest Research, (billion USD), complied by the author in 2012
Global IT spend increased by a mere 5.9 per cent in 2010, with spending on IT services growing by just around 3 per cent. Despite expectations of a recovery in 2011, client spending remained tepid in the first half of the year [3]. Transaction volumes in the IT outsourcing market fell for both the IT and business process outsourcing (BPO) markets, by seven percent and 12 percent respectively during the third quarter of this year, its first substantial decline in twelve months. According to Gartner, global spending for IT outsourcing services will reach $315.8 billion in 2011, a growth of 7.7% over 20104. Despite the worrying economic situation, the technology research firm does not expect dramatic cuts to enterprise IT budgets in 2011 and 2012 [6].

2.2. Future Outlook

With the current economic conditions, organizations are expected to draft their offshoring strategies proactively. As the economy stabilizes, adoption of offshoring is bound to increase. In addition to the established offshoring locations like India and Philippines, companies would look to expand to newer locations which would give them further cost advantage, efficiency and address their country risk issues [3, 6]. Buyers will continue to favor offshore outsourcing as a preferred service delivery model. The adoption would be spear-headed by US and APAC markets while the growth is expected to be slower in Europe. Also, Tier-II/III cities would attract a higher share of new centers especially in India and Eastern Europe, and newer geographies take deeper roots in offshoring business.

2.3. Moving Towards Multiple Sourcing Locations

With the rise in attractive offshore locations, a new paradigm is emerging in which large buyers are assessing several attractive locations. A single destination may not offer all the advantages. Hence, companies are strategically evaluating the outsourcing options and combining the complementary strengths of several locations resulting in a more robust and flexible services delivery model [3, 6]. Strategic decisions on choosing the right mix of outsourcing destinations require a complex series of evaluations and trade-offs. These decisions are based on a host of criteria which include overall business environment, cost and quality of services, government support and initiatives, data and intellectual property security and privacy legislations [11]. The advent of clout computing as a delivery model has further strengthened this by reducing the cost of incremental infrastructure required at every location. Today, Bangladesh is quietly evolving from being a beginner to a serious contender in the global outsourcing market. Bangladesh's outsourcing industry has been shaped by different factors to those of India and Philippines. Its growth has been founded on the domestic market as well as overseas markets accessed by its Diasporas the Non-resident Bangladeshis [6].

3. The Current Scenario of Offshore IT Outsourcing Industry in Bangladesh
3.1. The Bangladesh Story

The last 5 years have been a watershed in Bangladesh IT/ITeS industry. During this time, the internet connectivity has been enhanced vastly over the country. The successive governments have made IT as a focus area, and have extended favorable policies for the growth of the sector [1]. Subsidies towards technology imports and tax breaks were provided to the industry. With global outsourcing industry witnessing an upward trend, and sourcing enterprises

looking at lower costs for improved service delivery, the Bangladeshi IT/ITeS industry has been able to take advantage of its vast resource pool and government support to make its presence felt in Global outsourcing market. The overall size of the IT/ITeS industry in Bangladesh stood at ~250 million USD in 2010 [1, 2]. The following table summarizes the growth experienced by export oriented Bangladesh IT/ITeS industry.
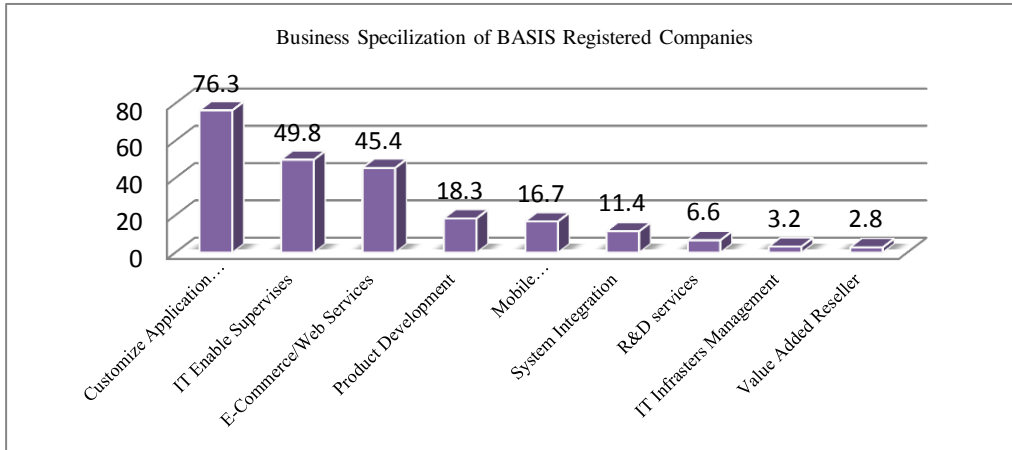
Figure-2 Business Specialization of BASIS Member Companies

Source: Bangladesh Association of Software and Information Services (BASIS)

It is no surprise then, that global Technology research house, Gartner has included Bangladesh in its list of top 30 outsourcing destination in its 2010 report. Even more spectacular is the growth of the freelancer community within Bangladesh. With no marketing or corporate backing, over 10,000 freelancers from Bangladesh have billed over USD 7 million over the last 1 year [1, 5]. This has led to Bangladesh being mentioned in top few destinations among freelance worker nations, and Dhaka- the capital city, to among the top 5 cities for freelance outsourcing work.
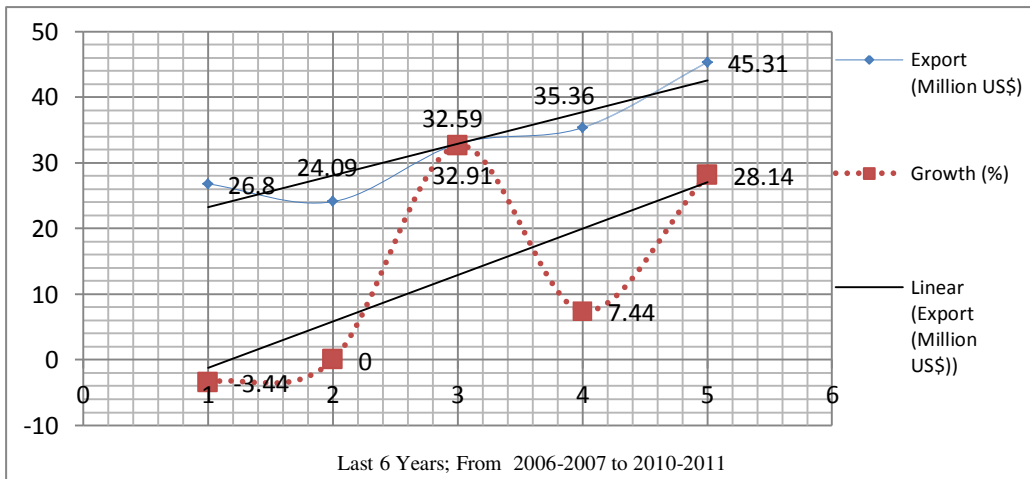
Figure-4 Export Trends and Growth Rate in Recent Years

Source: Bangladesh Association of Software and Information Services (BASIS)

One of the most encouraging recent trends in the industry is that, leveraging on recent positive changes like larger Internet user-base, better connectivity as well as introduction of new payment methods (online payment through credit card and mobile payment), a good number of companies (around 45%; some dedicatedly and some along with their core software or IT service business) are focusing or diversifying on different web based services

that include specialized portals, listing services, e-Commerce, e-Learning, payment intermediary services etc. A number of these ventures have done quite well in terms of popularity as well as financial viability[7]. Off late, some companies are also developing web applications based on cloud/SaaS delivery model. These emerging new business and service delivery models might define the new wave in the coming years for Bangladesh IT industry. Figure Growth in IT/ITeS Export from Bangladesh in last 6 years

According to BASIS survey, there are over 160 BASIS member companies who have export in their portfolio. Around one third of those companies are 100% export based. In terms of export destinations, North America (mainly USA; a major part of business in US market is still done through NRB linkage) still dominates, while in Europe countries like UK, Denmark and Netherlands have emerged as major destinations during last few years[8]. A number of companies regularly export in Australia though the growth is limited by the number of NRB entrepreneurs located in that market. Japan, which is very sensitive to language skill, has been an important market for a while.
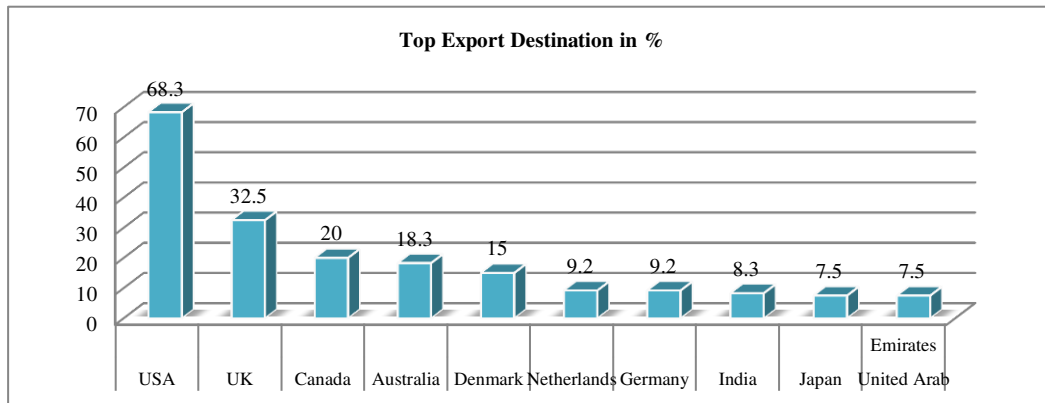

Figure -5 Top Export Destinations

Source: Bangladesh Association of Software and Information Services (BASIS)

However, in recent years much success has not been achieved in further penetration to this market. Off late, a number of companies (mainly in mobile related application and communication) have got considerable success in some Asian and African markets including Malaysia, Singapore, UEA, Saudi Arabia and South Africa where the sizable Bangladeshi expatriate communities has played important role in creating attractive market demand for communication based IT service (e.g. mobile Value added content service, VOIP dialer etc.)[9]. One of the most remarkable successes in recent times is to be able to penetrate (though in limited scale and for some niche product markets) to highly competitive Indian market. This surely demonstrates increasing maturity of Bangladesh industry in developing products or services with international standard. Owing to a huge domestic market in BFSI and telecom sectors, Bangladeshi vendors have also advanced to offering specific business knowledge in areas such as Core Banking solutions, Micro credit solutions, Islamic Banking and Mobile application development and deployment. Such insights create closer links between vendor and client, resulting in higher productivity and profitability for both. In addition, Bangladeshi companies are working extensively on Desktop Publishing, Graphic design and content development for web applications[10]. Bangladesh at present is more suited for less complex projects such as website development, mobile content development, back office software development, 2D/3D animation, desktop publications and call centers.

Bangladesh's Competitive Advantages to be an Outsourcing Destination

3.1.1. Attractive Demographics

Bangladesh has one of the most attractive population demography in the world –relatively high young population base as over 34% are in age group of 15-34 years; which is favorable for IT-BPO industry. Analyst projections reveal that this number is further slated to go up. This corresponds to a young working population of over 53 million people large enough to man the fledging IT/ITeS industry for years while keeping the costs low [1].
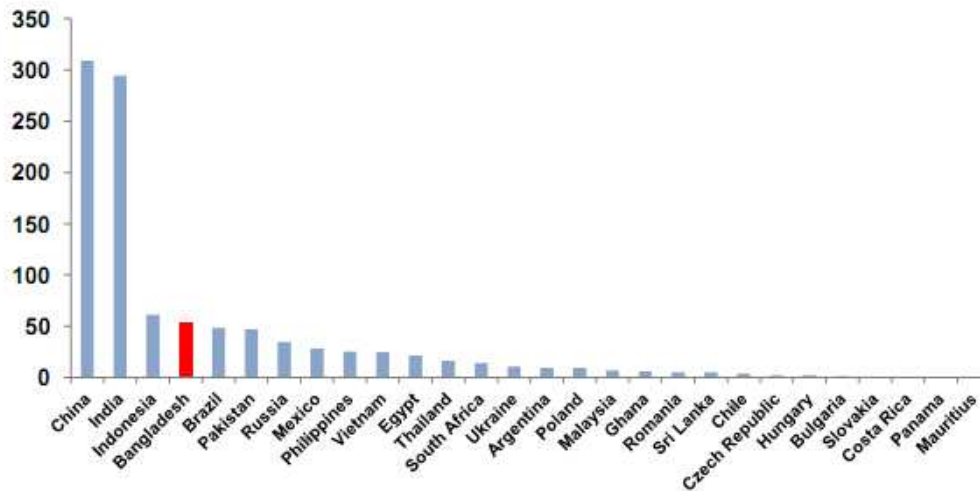
Figure -6 Population in the age group 16-34 in various countries
Source: UN Database, all numbers are in millions

3.1.2. Pool of Skilled Workforce

Bangladesh has over 80 universities that produce over 185,000 graduates a year including more than 14,500 graduates and post graduates in IT-related areas.2 Over 5,000 of these students specialize in software engineering. Bangladeshi Students have proved their potentials in the international competitions by winning a number of programming contests. Almost 5% of the population1 almost 7 million people in the country know English as the second language, and over 2.4 million graduates (1.5% of the population) this is a ready labor pool to supply quality resources to the industry [4].

Figure -7 Population with English as the first or second language

Source: Cambridge Encyclopedia of English Language, KPMG Analysis

The quality of engineers and scientists produced by the Bangladeshi Universities is at par with most developing countries in fact some of the global publications rate Bangladeshi graduates better than many of the developing countries. According to BASIS and BACCO estimates, the coun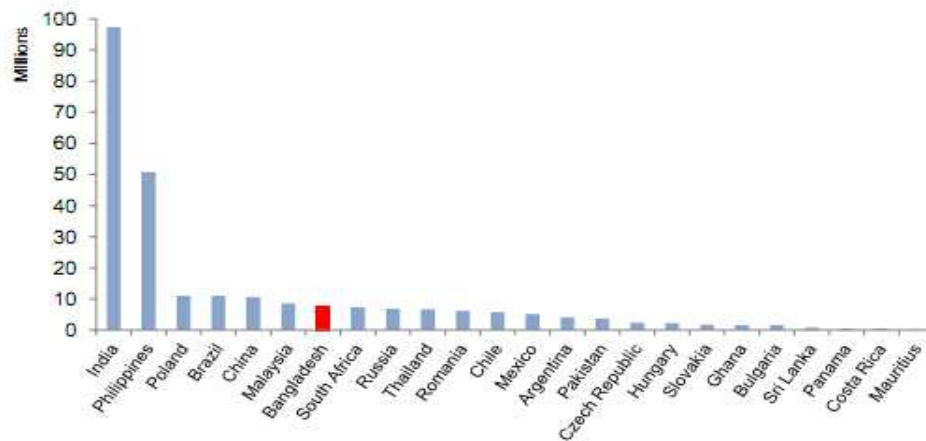try has close to 35,000 professionals working in the IT and BPO industry. In addition, there are over 5000 freelancers who together clock over USD 7 million in revenues the 4h highest among all countries in the world [5].

3.1.3. Language Capability

English is used as a second language primarily for business and education, though Bangla is the official language. A vast majority of the population, can read, write and speak in English owing to their Western-style education, a legacy of the British rule. Bangladesh currently has nearly 7 million English speaking residents, higher than its Latin America and East European counterparts.
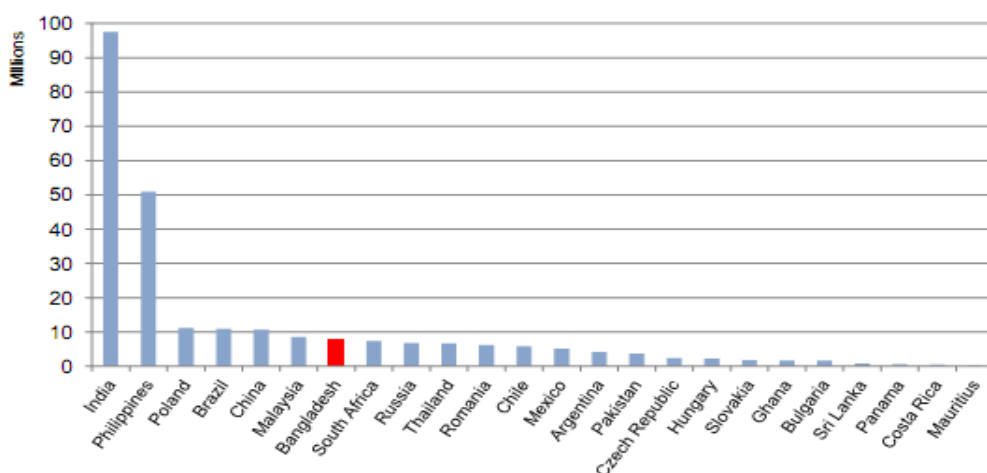

Figure -8 Quality of Education System in the country

Source: INSEAD WEF Global IT Report 2010-11 Represented as a perception index Out of a 1–7 (best) scale.

Also, most Bangladeshi private school students learn English from primary school level which enables them to produce almost all phonetics used in English, and reduces the time for accent neutralization [13].

3.1.4. Quality of Education

More than 1.3 million students enroll every year in the 80 private and public universities in Bangladesh. Education Policy 2010 has provision for introducing ICT studies in primary and secondary levels and setting up of technical education institutions. The government proposes to enhance the use of IT enabled pedagogy in school education, and has already trained over 40000 teachers as a part of this initiative. Presence of technology education institutes such as those run by BASIS and NIIT provide training in IT and IT related skills necessary for the industry. In the Global Competitiveness Report 2011-12 published by World Economic forum, Bangladesh ranks 85, 90 and 108 respectively for Quality of the higher education system, Quality of Management Education and Quality of Science & Math Education, higher than most of the other competing offshoring locations [2].
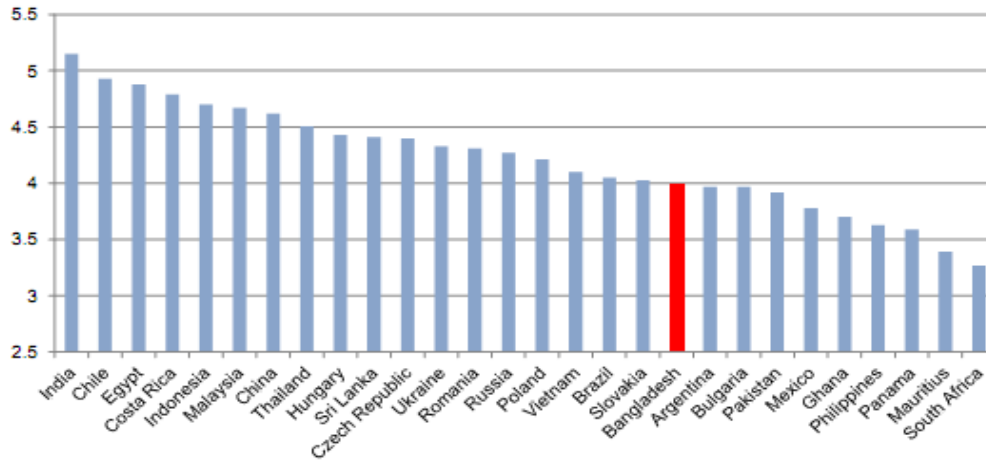
Figure -9 Availability of Scientists and Engineers in the country

Source: INSEAD WEF Global IT Report 2010-11; Represented as a perception index Out of a 1–7 (best) scale

3.1.5. *Labor Cost Attractiveness*

The ability to operate at low cost is one of the prime value propositions for outsourcing, a major advantage possessed by Bangladesh. The country scores high in both labour and infrastructure costs, edging out comfortably over other Asian countries. The significant pool of young and entrepreneurial work force is available at a much lower wage other major outsourcing countries. Entry level wages in Bangladesh's IT industry, are over 50% cheaper than other countries in Asia-Pacific like India, Philippines, Malaysia, Sri Lanka, Thailand and Vietnam. When compared to Eastern European countries like Poland, Hungary, Russia, Ukraine, Czech, Romania and Latin American countries like Brazil, Chile, Mexico, it is significantly cheaper by over 75-80% [5].
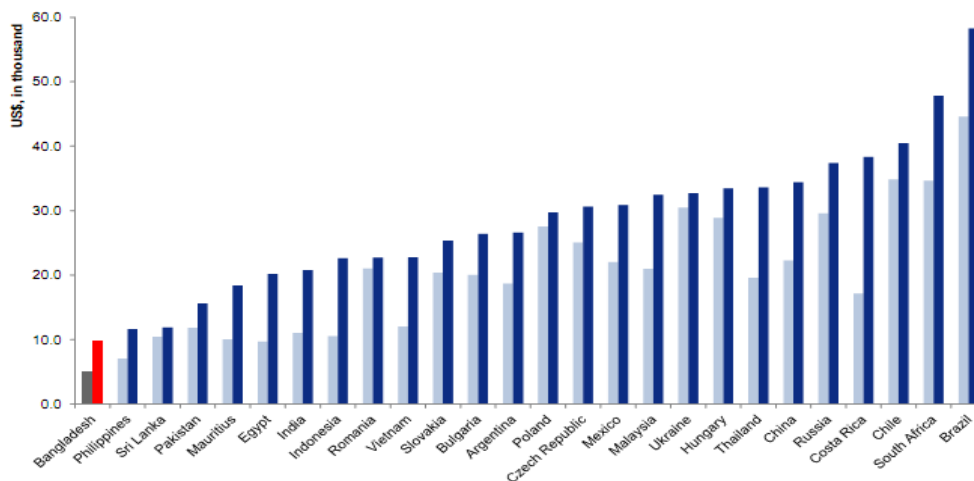
Figure -10 Average salary cost of IT resources at entry level and 5 year experience

Source: Pay scale database, Sourcing Line, KPMG Analysis All values in '000 USD

3.1.6. *Infrastructure Cost Attractiveness*

In addition to the low wages, costs in Bangladesh are fairly low compared to destinations in Asia, particularly in terms of office spaces. The Rental for office space in Central Business Districts (CBD) of Dhaka – Gulshan and Motijheel is less than 20% of that in Delhi CBD and

40% of Manila CBD. In addition, there are plans develop dedicated technology parks, where the total cost of business would reduce further, as most IT infrastructure would be readily available [6].

Figure -11 Average office rental cost in CBD; all values in USD/sq ft per annum

Internet bandwidth costs have come down significantly in Bangladesh. From over 75000 BDT per MBPS in 2007 (over USD1000), the costs are down to around BDT 6000 per MBPS now (under USD 80).

3.2. The Government Initiatives

In response to the initiative, Information technology usage for governmental reform and citizen centric service delivery in Bangladesh Government has been taking the following initiatives:

3.2.1. IT Infrastructures Development

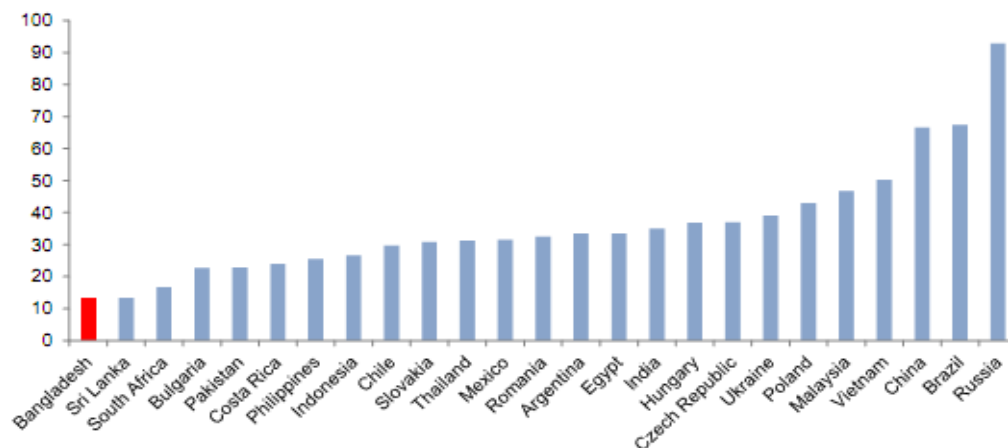The government has established an ICT incubator in Dhaka to patronize activities of the software and ICT based industries. In addition, the government has a plan to establish High-Tech Park at Kaliakoir, Gazipur a short distance away from capital Dhaka for establishing ICT, engineering, electronics, telecommunication, biotechnology and other related knowledge based industry. As an initiative to develop human resource in ICT sector, the government was undertaken a programme name National ICT Internship which is still continuing. Also steps have been taken to impart extensive training to government officials, teachers and others in 6 divisional regional training centers of Bangladesh Computer Council[1, 2].

3.2.2. Enhanced Connectivity

As connectivity is the single most important facility among all the infrastructures needed for ICT development, the government has taken a range of actions to achieve certain specific objectives. The internet has grown quickly in Bangladesh in the last few years. Broadband internet is in its infancy, but the country has started moving into WiMAX services in a significant fashion and all the upazillas are now under mobile internet coverage. To promote ICT usage in everyday service delivery the government is looking at providing banking services and micro insurance solutions through mobile phones. Broadband internet costs have come down by over 70% in the past 3 years. Over 4000 km of OFC network has been laid to create the 'National Transmission Network'. At present, Bangladesh only has a single

submarine cable. In view of the future bandwidth demand and uninterrupted international communication, steps have been taken to connect Bangladesh to the second submarine cable, and 3-6 terrestrial links through neighboring countries, the first of which would be commercially available during first half of 2012 [1, 2, 8].

3.2.3. Taxation Support

Bangladesh offers one of the most liberal tax policy regimes for IT/ITeS exporters. Currently, all income from IT/ITeS is tax exempted. For tax exemption purpose ITeS means Digital Content Development & Management, GIS, IT Support & Software Maintenance Services, Web Site Services, BPO, Data Entry, Data   Processing, Call Centre, Graphics Design, Search Engine Optimization, Web Listing, E-Commerce & Online Shopping and Document Conversion, Imaging & Archiving [1, 2].

3.2.4. Legal Framework for ICT Development

The IT Act in Bangladesh was modified to accommodate more stringent recourse for IPR protection and curbing software piracy. The government has taken several initiatives on e-Commerce to create an environment for ICT based trade and commerce. Controller of Certifying Authority (CCA) has started functioning for the purpose of introducing digital signature with a view to introducing e-Transaction, e-Commerce and e-Procurement. So far six organizations have been authorized for this purpose. Automated Clearing House has been introduced in Bangladesh Bank- resulting in quick clearing of the checks. Bangladesh Bank has given permission for mobile banking and making credit card based online transactions [1, 2].

3.2.5. ICT Enabled Citizen Service Delivery

The government has also taken several initiatives on e-Citizen process so that majority of the people can obtain information and services related to their lives and livelihood by using technology. With a view to ensuring delivery of e-services at the Union level, as many as 4501 Union Information and Service Centres (UISC) have started functioning in coordination with Local Government Division. UISC is able to bring various types of information to the doorstep of citizens in rural areas. It helps service providers and users to save time, cost and has made operations hassle free. Recently, the government has also introduced District e-Service Centre (DESC) to improve the accessibility and transparency of public service delivery system at the district (administrative unit) level. The government is attempting to provide the right institutional and development support to make the Bangladesh IT/ITeS industry more competitive, and the incumbent players in the IT industry in Bangladesh are poised to build upon this in the coming times [1, 2, 12].

4. Suggestions to Improve the Competitive Advantage of Offshore IT Outsourcing Industry of Bangladesh

In order to improve the competitive advantage of Offshore IT Outsourcing Industry, Bangladeshi enterprises as well as government should take the following measures have been suggested based on the current scenarios and literature reviews:

Intellectual Property Rights - IPR protection is a particularly important issue in outsourcing where vendors have access to sensitive data. Vendors in Bangladesh have adopted strict security measures to prevent customers' intellectual property from falling into wrong hands. Due to numerous incidences of software piracy in Bangladesh, there is still a negative image of the treatment of IPR. It is also worth noticing that there have been no untoward data or

information breach incidents reported from Bangladeshi vendors in the last decade of working with global corporations [1, 3].

Scale of Offerings - For a client planning to test Bangladesh's capabilities, the task of identifying the right vendors could be daunting. Currently, the market is highly fragmented with hundreds of small vendors vying for market. Opportunities exist for these players to consolidate and gain economies of scale and service expertise to compete for larger contracts. The current market is geared towards small projects with niche offerings, which may not be enough to fulfill the government's vision for a services economy. There are multiple small to medium size companies offering services to global clients. These companies however need to scale up to compete for larger offshoring opportunities globally [1, 3, 13].

Infrcuture Enhancement - Dhaka has the perception of being a city not meant for business infrastructure is overburdened, and power and bandwidth outside of Dhaka is unreliable. Most of the existing companies have set up their own power backup units; this leaves a lot to be desired. The government should take up a slew of measures to decongest Dhaka city, including flyovers, Metro and Monorail projects. Additional power plants are also needed construction. In the meantime, the government should step towards dedicated IT Parks in and around Dhaka which would provide the necessary workspaces for the expanding IT/ITeS industry [1, 3, 11].

Lack of Marketing Prowess - One of the major reasons for the IT/ITeS vendors having limited growth is the lack of branding and marketing. Most vendors have grown in the existing client contracts, but have shown limited success in signing up new clients. It is thus difficult for a multinational sourcing manager to find many Bangladeshi vendors offering services readily. The marketing function of most Bangladeshi enterprises is handled by NRB (Nonresident Bangladeshis) or the parent company of the captive. Limited market presence has overshadowed the advantages that the Bangladeshi vendors have to offer in terms of skills and costs [1, 3, 14].

Management Issues - Bangladesh also has a gap in middle management knowledge which is perceived to be growing, and is also at the root of limited scale. Bangladesh would have to fill in this management skill gap by keeping management roles with European or North American partners or clients, or bringing in Specialist expertise from overseas including among the Diaspora. This has implications for cost; however these skills are required to make Bangladesh outsourcing industry a success [3, 14].

Negative Perception and the Role of the Government - Bangladesh suffers from a negative perception regarding poverty, corruption and being prone to natural disasters. While it is impossible to ignore the history of natural disasters, it may be noted that IT/ITeS industry in Bangladesh is clustered around the capital Dhaka, which is an inland city and where 'Business as usual' prevails. There are also doubts regarding the business climate and infrastructure in Bangladesh. The IT/ITeS industry may work towards alleviating these perceptions; however the government needs to step in here. Brand Bangladesh needs to be promoted. Bangladesh needs to look at simplifying the legal framework to complement an 'outsourced' industry right from investment climate, taxations, investments, remittances and flexible working hours [3, 10, 13].

5. Conclusions

As one of the most populous young nations, Bangladesh has made great strides in laying the ground work for a successful outsourcing market. However, there is still a perception in many overseas markets that Bangladesh remains a risky place to do business and that Bangladeshi companies may struggle with sophisticated offshoring tasks. It is important to recognize and understand the risks that accompany different outsourcing choices and put measures in place to mitigate the threats they pose. Though Bangladesh has abundant supply of qualified manpower at significantly low costs, the quality of physical infrastructure is poor compared to some other destinations but the significantly low cost of infrastructure makes it attractive for operations. As the scale of operations increases, Bangladesh's competitive cost advantage gets further enhanced. Bangladesh has been slowly marking its presence in global outsourcing marketplace. With focused investments from government in enabling business environment and developing an IT economy, Bangladesh would continue to emerge as a favorable destination for information technology and business process outsourcing. Bangladesh currently is digging its heels in the low value addition IT outsourcing space by serving companies in Europe, US and South East Asia. Bangladesh has positioned itself as a key location for consideration, by enhancing skill availability, investments in infrastructure development, making focused investments, attempting to address IPR concerns and creating success stories.

This paper outlines many of these risks, and also makes clear that a sustainable competitive advantage could be achieved by those who understand and manage those risks effectively. All of these factors combine to make Bangladesh an interesting place to watch in the global outsourcing market. Further research is needed to analyze the sustainability of this industry for the sustainable development of Bangladesh.

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