

Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh



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Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh

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Message



I am delighted to know that International Cooperation Division of Bangladesh Tariff Commission has successfully completed the study on **Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh**. It is really a very good job to conduct a study on such a globally important issue.

This study is an outcome of a concerted effort of some fresh but talented officials of Bangladesh Tariff Commission who are eager for exploring issues regarding Bangladesh's interest in the international trade. With this research bent, they have tried to examine some relevant issues in connection with 'IT and IT Enabled Services Outsourcing' by way of contributing insightful recommendations.

Presently, international trade in services is assuming greater importance with regard to the country's global business and commercial interests. Due to growing international market, there is an urgent need for enhancing awareness and understanding among major stakeholders which relates to the key issues of trade in services and development. I believe this study will contribute a lot for the enhancement of awareness of the stakeholders. The researchers, the policymakers as well as relevant service traders are expected to be benefited from this study.

I also believe that this report will be of use for evidence-based decision making and for the negotiation between Bangladesh and its global trade partners regarding IT related services outsourcing and thus help to foster the economic growth of the country materializing "Vision 2021" of the present Government.

Special thanks to Mr. Sheikh Abdul Mannan, Member, Bangladesh Tariff Commission, for coordinating the overall study programme.

My thanks are due for the research team leader Mr. Mamun-Ur-Rashid Askari, Assistant Chief and members Mrs. Sumya Jabeen and Kazi Monir Uddin, Research Officer of Bangladesh Tariff Commission for their splendid work and great enthusiasm to conduct such an important study in right earnest.

I appreciate this noble initiative and thank all who were associated with this study.

Dr. Md. Azizur Rahman (Secretary to Govt.) Chairman Bangladesh Tariff Commission Govt. of the People's Republic of Bangladesh

Foreward

Bangladesh Tariff Commission, along with its mandatory responsibilities, use to undertake different research study at own initiative on trade related issues and put recommendations to the government for further development of the concerned sector. In this connection Commission has just completed a study titled "**Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh**".

During our recent past, service export has added a new dimension for diversifying our export basket. But our service sector is not yet well organized and there is paucity of necessary data and information for taking strategic decision. This study is a new kind of research work in the arena of trade in services and discovered much about the problems and potential of IT enabled services outsourcing in future. The rationale and objective of the study has been stated in the introductory part.

A lot of work has been done including data collection, consultation with stakeholders at different stages through conducting workshop, seminar and discussion for the development of this study. Existing policy of the government has been reviewed and analyzed to observe its commendability for the growth of the sector. In this report you will find an array of works, representing some of the variety of BTC's recommendation on domestic trade policy formulation.

We are living in an intensely competitive globalize world. Business in general and trade in service in particular, has been becoming increasingly complex which is subjected to WTO provisions on GATS and resultant emergence of ever changing international economic order. Both GATS and domestic policy has been taken into consideration during policy recommendation.

I would like to take the opportunity to express my heartfelt thanks and gratitude to the Chairman of Bangladesh Tariff Commission, Dr. Md. Azizur Rahman, Research Advisor for his all out cooperation and mentoring.

I would like to extend my thanks to research team consisting of Mr. Md. Mamun-Ur-Rashid Askari, Assistant Chief, S.M. Sumaiya Zabeen and Kazi Monir Uddin, Research Officer of Bangladesh Tariff Commission for undertaking much trouble to successfully complete this study and all other stakeholders for their valuable contribution to enrich it .

I believe that, in spite of having some limitations, the information, analysis, findings and recommendations of the study would be useful to the researchers for further research as well as to the policymakers and other stakeholders for visualizing the prospects and shaping their future action plan in order to materialize the *VISION-2021* of our Government.

Bo ananas

Sheikh Abdul Mannan (Study Coordinator) Member (Additional Secretary) Bangladesh Tariff Commission

Preface

The World has witnessed phenomenal growth in the Information Technology (IT) over the last few decades, and the countries which made a conscious decision to take advantage of such growth, have made unprecedented progress. Examples are in abundance; India, Sri Lanka, Thailand, Malaysia, the Philippines are sources of the successful countries in our region.

The vision "Digital Bangladesh" encompasses the whole arena of a knowledge based Digital Economy. It is an integral part of the government's Vision 2021which has a promise to make a prosperous and equitable middle-income Bangladesh. Recent recognition by International organizations like International Telecommunication Union (ITU) for Bangladesh's innovative approaches towards introducing ICT-backed reforms in public service delivery (ITU, 2014), the WSIS/ITU award for grassroots service delivery kiosks (WSIS Award 2014). A recent report prepared by KPMG also echoes the progress made during the period as it observes that the "Digital Bangladesh' initiative of the government is helping setup infrastructure for enhanced connectivity, ICT based citizen service delivery and ICT based education system. ICT may contribute 1% to GDP If action oriented Policy is taken to boost this sector.

IT Enabled Services (ITES) is a sector of Information Technology (IT) Industry which means production and delivery of services involving IT. Bangladesh is an emerging destination for IT and ITES services outsourcing as recognized by different renowned international bodies like Goldman Sachs, JP Morgan, Gartner.

In this context Bangladesh Tariff Commission conducted a comprehensive study on **Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh** keeping in mind the importance of its impact in the socio-economic development of Bangladesh.

This study grew out of a team effort of some inquisitive officials of Bangladesh Tariff Commission who are always eager to explore the unexplored issues regarding international trade. In this report it was tried to explore the potential and difficulties faced by this sector and relevant other issues in connection with IT and IT Enabled Services Outsourcing.

We have prepared questionnaire for primary data collection at industry and individual level, interviewed the experts and reviewed various published articles, journals to conduct this study. In this study it has also been used data from Bangladesh Bank and BASIS. We have made a comprehensive report in light with the analysis from those data and information.

It is indeed my great satisfaction that with the help of some tireless officials finally this study report has been published.

I would like to convey my sincere gratitude to Dr. Md. Azizur Rahman (Secretary to Govt.), Chairman, Bangladesh Tariff Commission for his kind observations on the initial draft and subsequent advice and instructions towards completion of the report as the advisor of the study. I also like to express my gratitude to Mr. Sheikh Abdul Mannan, Member (Additional Secretary) of Bangladesh Tariff Commission for his valuable advice and unconditional support as the Coordinator of the study.

My thanks are due for all members of the study team, especially my colleague S.M. Sumaiya Zabeen (Research Officer) and Kazi Monir Uddin(Research Officer) for their support and cooperation throughout the course of the work. Their innovative and creative thinking was of immense help.

I must mention my special thanks to the data collectors for undertaking much trouble to collect data for conducting this study.

Finally, I express my heartiest gratitude to the stakeholders who besides their cooperation were a constant source of inspiration to me.

andrang

Md. Mamu-Ur-Rashid Askari (Principal Researcher) Assistant Chief, Bangladesh Tariff Commission

Acknowledgement

We take this opportunity to express our profound gratitude and deep regards to all whose support, guidance, monitoring, encouragement and cooperation throughout the course of this study make this a successfully accomplished one. We would like to express our deepest appreciation to all those who provided us the support to complete this report.

We feel deeply honored in expressing our sincere thanks to all those who represents office of different stakeholders in our workshops and seminars and contributed to enrich our report. We express our gratitude to the representatives from Bangladesh Bank, Ministry of Commerce, Ministry of Industry, National Board of Revenue, Bangladesh Bureau of Statistics, Export Promotion Bureau, Bangladesh Computer Council, Center for Policy Dialogue, Bangladesh High Tech Park Authority, Small & Medium Enterprise Foundation, Dhaka Chamber of Commerce and Industries, Metropolitan Chamber of Commerce and Industry, Federation of Bangladesh Chambers of Commerce and Industry, Bangladesh Association of Software and Information Services whose valuable insights helped to enrich our report. This report would not have been possible without the collective, coordinated cooperation from their part.

We would like to convey heartiest thanks to the executives of IT and ITeS enterprises and freelancer's business chambers & associations and government officials who gave their invaluable time to speak to us and shared their experience and perspective, including those who appear in this report as case studies. We also take this opportunity to express a deep sense of gratitude to our colleagues Dr. Md. Neyamat Ullah Bhuiyan (Joint Chief), Mohd. Khalid Abu Naser (Joint Chief), Mr. Md. Abu Musa (Joint Chief), Mr. Md. Iqbal Hussain (Secretary), Mr. Md.Abdus Sattar (Deputy Chief), Fouzia Khan (Deputy Chief), Mr. Md. Moshiul Alam (Deputy Chief), Mr. Md. Akram Hossain (System Analyst), Mr. Md. Raihan Ubaidullah (Assistant Chief), Mr. Md. Mayen Uddin Molla (Assistant Chief), Mr. Mirza Abul Fazal Md. Tawhidur Rahman (Research Officer), Mr. Mohinul Karim Khondker (Research Officer), Mr. H.M. Shariful Islam (Public Relation and Publication Officer) of Bangladesh Tariff Commission whose cordial support helped us in completing this task through various stages.

Dr Md Azizur Rahman, Chairman, Bangladesh Tariff Commission deserves our special thanks and gratitude who took the initiative to conduct this basic research and always encouraged us extending all out cooperation.

We would like to extend our thanks and gratitude to Sheikh Abdul Mannan, Member, Bangladesh Tariff Commission for continuous guidance and encouragement to accomplish this task as the coordinator of the study.

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Study Team Bangladesh Tariff Commission

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Abbreviations

7FYP	7th Five Year Plan				
A2I	Access to Information Program				
ADs	-				
BANBEIS	BANBEIS Bangladesh Bureau of Education Information and Statistics				
BASIS	Bangladesh Association of Software and Information Services				
BB	Bangladesh Bank				
BBS	Bangladesh Bureau of Statistics				
BCC	Bangladesh Computer Council				
BCS	Bangladesh Computer Samity				
BKITCE					
BPC	Business Promotion Council				
BPM	Business Process Management				
BPO	Business Process Outsourcing				
BWIT	Bangladesh Women in Technology				
CPC	Central Product Classification				
EPB	Export Promotion Bureau				
ERQ	Exporters Retention Quota				
FEP					
GATS General Agreement on Trade in Services					
GDP	•				
GPA	PA Grade Point Average				
HSC	Higher Secondary School Certificate				
ICT	Information and Communication Technology				
IMF	International Monetary Fund				
IT	Information Technology				
ITES	IT Enabled Services				
ITU	International Telecommunication Union				
KOICA	Korea International Cooperation Agency				
KPM	Knowledge Process Management				
KPO	Knowledge Process Outsourcing				
LPO	Legal Process Outsourcing				
MoI	Ministry of Information				
MoPTIT	Telecommunications and Information Technology				
MoSICT	Ministry of Science and Information & Communication Technology				
NACTAR National Academy for Computer Training And Research					
NBR National Board of Revenue					
	OPGSPs Online Payment Gateway Service Providers				
PMO	Prime Minister's Office				
SFYP	Sixth Five Year Plan				
SMEF	Small and Medium Enterprise Foundation				
SSC	Secondary School Certificate				
USA	United States of America				
VAT	Value Added Tax				
WSIS	World Summit on Information Society				

Executive Summary

IT and IT Enabled Services Outsourcing in Bangladesh is a comparatively new 1. business sector in Bangladesh. IT Enabled Services (ITES) is a sector of Information Technology (IT) Industry. ITES means production and delivery of services involving IT. In broad category, Major IT Enabled Services include Web, Mobile & Software Development, IT & Networking, Data Science & Analytics, Engineering & Architecture, Design & Creative, Writing, Translation, Legal, Admin Support, Customer Services, Sales & Marketing, Accounting & Consulting etc. The term "outsourcing" dates back to at least 1981. Outsourcing means a practice to reduce costs by transferring portions of work to outside suppliers. Sometimes outsourcing involves transferring employees and assets from one firm to another. In Bangladesh, Graphics design, Website development, Product development, Mobile application development, Software development, Back office administrative work, 2D/3D animation, Desktop publications, Call centers are prominent IT/ITES services outsourced from Bangladesh to many foreign countries. The term "outsourcing" dates back to at least 1981. Outsourcing means a practice to reduce costs by transferring portions of work to outside suppliers. Sometimes outsourcing involves transferring employees and assets from one firm to another. The core strength of Bangladesh in outsourcing these services is the people or workforce. The educated, trainable and young workforce creates Bangladesh as lucrative places through acquiring the necessary skill sets to compete in the global scenario. On the other hand the government of Bangladesh has declared the ICT sector as 'thrust' sector. In this context, Bangladesh Tariff Commission has taken the study on "Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh".

2. The objectives of the study was to evaluate present status and trends, to analyze related Acts, Rules and Policies, to explore potentials and export opportunities, to assess possibility of employment generation, to identify constraints and opportunities and to prepare policy recommendations. The Study started with review of existing literature. Primary data was collected from 26 IT/ITES enterprises through structured questionnaire which was finalized by a workshop. Besides, Primary data was also collected from 15 freelancers by another questionnaire. (See annex 1 for details of two questionnaires). Interviews of 5 freelancers and 5 IT/ITES entrepreneurs were taken. Group Discussion meeting were constituted with BASIS, Bangladesh Bank, Bureau of Statistics and Dhaka Chamber of Commerce and Industries. Secondary Data was taken from published Articles, Journals, Legal & Policy Issues, Different sources database of BASIS, BBS, NBR, EPB etc Tabular, Graphical and Statistical analyses were made in order to reach the findings and make recommendations. The report is finalized by discussing the primary findings of the study in a seminar. However, the study has few limitation including unavailability of complete national statistics, limited Budget, time Constraint, unwillingness of providing financial statement by the enterprises.

3. As an emerging Information Technology (IT) and Information Technology Enabled Services (ITES) outsourcing destination, Bangladesh endorsed by international renowned bodies like Goldman Sachs, JP Morgan, Gartner etc. The main reason is that Bangladesh offers lower cost than that of India and the Philippines an additional advantage, is that a pool of 7 million human resources who are able to speak in English as a second language. According to Md. Mahfuzul Quader (2013) the major reasons to choose Bangladesh as a

prime exporter of outsourcing of IT and ITES are low labor cost and commercial rent. Most of the IT firms are based in the capital city Dhaka where rental cost is relatively higher than other parts of the country. But still the commercial rental in business zone, like Motijheel, Gulshan, Banani etc., is cheaper than that of Delhi by 20% and Manila by 40% (Crushman & Wakefield, 2011). As per KPMG Pay Scale Analysis report (2012), the entry level IT personnel average salary is over 50% cheaper than that of other Asia-Pacific countries like India, the Philippines, Malaysia, Sri Lanka, Thailand and Vietnam etc. Moreover, the salary is even cheaper by 75% to 80% than that of Eastern European countries like Poland, Hungary, Russia, Ukraine, Czech, Romania and Latin American countries like Brazil, Chile, Mexico etc. Most importantly, the average inflation rate in Bangladesh has been ranging from 6% to 8% for the last decade which is quite steady in nature. According to this report, there are still areas need proper considerations. Threats like negative perception about Bangladesh, inadequate/ absence of holistic approach towards promoting the IT/ITeS industry – including investment climate, taxation, remittances, legal framework and flexible working hours, challenging economic conditions need to be properly addressed.

4. The responsibilities for ICT activities are fragmented across three ministries: Ministry of Post, Telecommunications and Information Technology (MoPTIT), Ministry of Science and Information & Communication Technology (MoSICT) and Ministry of Information (MoI). MoPTIT is responsible for telecommunication infrastructure; MoSICT through its ICT Division (ICTD) is responsible for e-Government and IT/ITES business promotion while MoI is responsible for Broadcasting. ICTD conducts its activities through its 3 organizations: Bangladesh Computer Council (BCC), Office of the Controller of the Certifying Authority and High Tech Park Authority. The country's lone ICT Incubator is operating at Karwan Bazar and the 12 storied building Janata Tower is now being renovated to establish the IT/ITES Technology Park in Karwan Bazar. The ICT Division through High Tech Park Authority is in the process of appointing Park Operator for the Kaliakoir High Tech Park and has also initiated the process of acquiring lands outside Dhaka for the establishment of IT/ITES Technology Parks. Various e-governance implementations are now being implemented by Access to Information Program (A2I) under Prime Minister's Office and Bangladesh Computer Council (BCC) under ICT Division. Bangladesh Computer Council (BCC) is a statutory body under the Ministry of Information & Communication Technology, Government of Bangladesh for encouraging and providing support for ICT related activities in Bangladesh. It is established by Act No IX of 1990 passed by the Parliament. Though lack of coordination among various agencies in implementation of ICT project is one of the challenges but the situation is improving. The key Acts/Policy in these sectors includes ICT Act 2006 as well as ICT Act 2013(Amendment). National ICT Policy 2015, Sixth Five Year Plan (SFYP-2010-2015), Perspective Plan 2010-2021, Foreign exchange rules- policies and tax polices of Ministry of Finance.

5. According to BASIS survey, there are over 800 registered software and ITES (IT Enabled Service) companies in Bangladesh. The total industry size is estimated to be around Tk. 1,800 crore (US\$ 250 million). Approximately 30,000 professionals, majority IT and other graduates, are employed in the industry. There is no national level data available in these services. Yet, Bangladesh Bank processes some data generated through banking channel. Bangladesh Bank processes data as per International Monetary Fund (IMF) 6th Manual of Balance of Payments. A discussion meeting was constituted at Statistics division of Bangladesh Bank where it was agreed that BB statistics may be understated if the payments are not made through proper banking channel, especially through International Credit Cards. Yet since most of the enterprises uses banking channels, it could be safely

argued that receipts earned from exports by enterprises are covered service BB statistics in most part. Under Heading of Computer Services, total receipt of foreign currency (equivalent to Bangladesh's expert) was US\$ 125.54 Million in FY 2013-14 out of which computer software was US\$ 69.41 Million while Computer data processing and computer consultancy services were exported by US\$ 47.56 million and US\$ 8.57 million respectively. Bangladesh has maintained an excellent growth rate in this sector.

6. Besides, firm or enterprise level, IT & ITES services are outsourced by freelancers. It is difficult to find the exact number. Odesk recently merged with Elance is probably the largest freelancing online market place popular to Bangladeshi freelancers. It could be expected that all freelancers in Bangladesh are registered user of Odesk. The hypothesis is logical, since getting outsourcing job is competitive one and one freelancer has to register with many online market places. In June 2014, total number of registered freelancers in Odex was about 1.47 million from all countries, out of which 41 thousand were registered from Bangladesh. Among all of these 41 thousand freelancers have not taken freelancing as a profession.

7. Primary data Analysis on 26 Enterprises reveals that IT & ITES services sectors in Bangladesh are facing many problems. Electricity Load shedding ranked as topmost obstacle. As high electricity load shedding force enterprises to use alternative power supply like generators which increases costs. Foreign Exchange Policy (FEP) is another major problem. FEP hinders business when it is required to make payment for import of software, books etc. Enterprises also worry about the cost of internet. Many entrepreneurs feel that the cost of internet is much higher than other competitor countries. Although Govt. is gradually reducing the cost of internet it is still a problem for the end users especially at the district level. Different districts of Bangladesh are not getting access to the internet at the same price as Dhaka. Lack of Promotion of Country Image or Branding is one of the major problems that many entrepreneurs feel to be fixed out. It is important to note that the slogan of "Digital Bangladesh" has promoted the country image in IT sector by a great deal. Now some more Branding Campaign needed. Access to finance is another significant problem. As a service sector, the output is not as visible as goods sector which is a real problem. Besides, Enterprises also lack proper financial reporting which further discourages bankers to provide loan. Lack of Skilled Manpower is another problem especially for services that require advanced skills. Many enterprises think that they could not make expansion for lack of capital. One of the Key challenges of the IT/ITES sectors in Bangladesh is the fact that employee turnover is high especially in high skilled sectors like to software development. There is also lack of proper infrastructure. Although government is making high-tech park and other facilities, enterprises needs to get proper incentives and support socio economic environment around such parks so that experts may lead sound and healthy livelihood around the park. Lack of Capital as initial investment, It is needless to mention that the IT is a sector for entrepreneurship by predominantly IT professionals, not by traditional millionaires. So initial investment, IT professionals lack capital needed and in the absence of knowledge by Banks, the problem is vital. Business related rules and regulations also hinder to some extent the business, licensing procedure, import procedure needs to be much easier. However, other obstacles listed in the table above are minor. The IT & ITES enterprises so far have progressed by self entrepreneurship. Data on 18 enterprises shows that 77.62% of total initial investment made by 18 firms came from self financing while only 2.53% came from banks. Among these 18 enterprises, only one could get loans from Banks.

8. Information on 15 freelancers showed that the cost of obtaining internet bandwidth, smooth transaction of payments, Lack of proper infrastructure, Foreign Exchange Policy, Electricity load shedding, Internet bandwidth (speed), Business related rules and regulations of government, Access to Finance are founded as key problems. As the government is working with internet bandwidth, the major concern for freelancers is the smooth transaction of payments, that is the delay or hassles traditional banking system makes in receipt of payment which discourages both market places and freelancers. Introduction of PayPal is the key solution as the freelancers thought.

9. In this study it is tried to explore the potential and difficulties faced by this sector and make some recommendations accordingly. It has been recommended to ensure the cost of internet at reduced price and available to all districts at the user level especially for the real online professionals. Another recommendation is to include more hands on ICT related topics like success stories of the freelancers in the children's books to realize the importance of IT and ITES. To get benefit for Bangladesh from outsourcing of IT/ITES services in large scale, it is necessary to bring upcoming young educated human resources into the coverage area of outsourcing. In this context it has been recommended to include hands on exercise at the secondary and higher secondary syllabus with a view to providing some practical knowledge on Outsourcing. Regarding Hi-Tech Park it is recommended to address the absence of socio economic infrastructure of High-Tec Park and. It has also been recommended eliminating 4% VAT on e-commerce which is really an obstacle to the growth of e-commerce as well as other IT business. Another important recommendation is to build awareness among the stakeholders regarding the internationally recognized terminologies of ITES like BPO, BPM, KPO, KPM etc. Online money transfer appeared to be the most significant problem for the freelancers in Bangladesh. PayPal, now available in 56 countries might be the solution for smoother online transaction and hence Govt. may take steps to attract Pay Pal in Bangladesh. For the identification of the real freelancers among different Banks Officials, they should be trained about the basic concept of freelancing, outsourcing, marketplaces, online payment gateways, blogging, affiliate channels to identify the real freelancers to ensure a smooth transaction. BASIS, BCS, BCC or similar concerns including Government may organize such awareness building programs. In order to provide incentive to the IT/ITES enterprises and encourage new entrepreneurship, 9% VAT on house rent for IT/ITES enterprises might be rebated.

10. In addition to that, there are some other recommendations regarding advanced science and technology institute, domain knowledge building, investment in research and development, knowledge management, friendly govt. policies, professional training, highly qualified talent pool of technical graduates and freelancers, recognition for the freelancers, image building and branding with a view to help solve those problems as identified in this study. The future of the IT and ITES outsourcing industry is very bright provided it overcomes the challenges, weaknesses and threats cited in this study. To make all these plans, policies and initiatives to be a successful, government needs a collaborative action plan to prioritize the impediments faced by this sector as identified in this study and various others study and undertake concrete follow up actions.

Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh

Chapter One

Introduction

Background

11. The term "outsourcing" dates back to at least 1981. Outsourcing means a practice to reduce costs by transferring portions of work to outside suppliers. Sometimes outsourcing involves transferring employees and assets from one firm to another. IT Enabled Services (ITES) is a sector of Information Technology (IT) Industry. ITES means production and delivery of services involving IT. In broad category, Major IT Enabled Services include Web, Mobile & Software Development, IT & Networking, Data Science & Analytics, Engineering & Architecture, Design & Creative, Writing, Translation, Legal, Admin Support, Customer Services, Sales & Marketing, and Accounting & Consulting etc. Graphics design, Website development, Product development, Mobile application development, Software development, Back office administrative work, 2D/3D animation, Desktop publications, Call centers are prominent IT/ITES services have been outsourced from Bangladesh to many foreign countries.

12. IT and IT Enabled Services Outsourcing in Bangladesh is a comparatively new business sectors in Bangladesh. A rapid growth in this sector has been witnessed over the last few years. This happens due to the result of the steady growth of global IT outsourcing industry. The global economic crisis has led to shrinking IT budgets for corporate industries. Though there has been a continual growth in demand for global sourcing of IT services, with cost optimization being the primary driver for such urge. The increasing cost pressures, with new service delivery paradigms like cloud computing and multiple sourcing, is set to transform the outsourcing industry globally. In this circumstance the ICT sector, as a whole, shows a gradual growth in Bangladesh where the hardware segment dominates the market share (65 per cent) while the relatively late entrant, software segments command about 15 per cent of the total market. The ITES segment (15 per cent) and Internet and Network Services (5 percent) make up the remaining part of the market. According to Bangladesh Bank sources, export earnings from Software and ITES was USD 27.01 million in 2005-06, registering a growth of 113 per cent from the previous year. Software companies in Bangladesh concentrate on the IT/ITES needs of the local leading sectors like Garments, Banks and Government. At the same time, leveraging the global nature of the IT business the local entrepreneurs are always looking for international opportunities. In this circumstances Bangladesh now has become one of the most potential outsourcing destinations in the world.

13. The core strength of Bangladesh in outsourcing these services is the people or workforce. The educated, trainable and young workforce creates Bangladesh as lucrative places through acquiring the necessary skill sets to compete in the global scenario. On the other hand the government of Bangladesh has declared the ICT sector as 'thrust' sector. The creation of a separate Ministry for ICT (Ministry of Science and Information & Communication Technology), formulating favorable laws and initiating government IT projects are encouraging steps for the local/international investors in the Bangladesh ICT industry. In addition to the policy development, the government is keeping close interactions with various industry associations like BASIS, BCS, BCC and ISPAB are some of the apex bodies working for the improvement of the ICT industry in Bangladesh. No doubt all these initiatives in together generate and develop a more friendly environment to explore the existing potential of IT and IT Enabled Services Outsourcing in Bangladesh.

14. In this context Bangladesh Tariff Commission has decided to conduct a comprehensive study on "Problems and Prospects of IT and IT Enabled Services Outsourcing in Bangladesh" keeping in mind the importance of its impact in the socio-economic development of Bangladesh.

Objectives of the Study

15. Considering the existing scenario described above, the present study is concentrated on the following objectives:

- To evaluate present status and trends
- To analysis related Acts, Rules and Policies
- To explore potentials and export opportunities
- To assess possibility of employment generation
- To identify constraints and opportunities
- To prepare policy recommendations

Methodology

16. The Study started with review of existing literature. Primary data was collected from 25 IT/ITES firms through structured questionnaire which was finalized by a workshop. Besides, Primary data was collected from 15 freelancers by another questionnaire. (See annex 1 and annex 2 for details of two questionnaires). Interviews of 5 freelancers and 5 IT/ITES entrepreneurs were taken. Discussion meetings were constituted with BASIS, Bangladesh Bank, Bureau of Statistics, Dhaka Chamber of Commerce and Industries and some other firms. Secondary Data were taken from published articles, journals, legal & policy related papers, different sources database of BASIS, BBS, NBR, EPB etc. Tabular and Graphical analyses were made in order to reach the findings and make recommendations accordingly.

Limitation of the Study

17. During the whole period of the study the researchers had to face a few challenges. The most important limitation is the unavailability of complete national statistics. It has been found that different statistics are available from different sources. There is also dissimilarity in those statistics due to the use of different methodology of collecting data. Needless to say that there is no single source for collecting those statistics. Several attempts were made to collect those data from different sources but all attempts were in vain. To overcome this limitation, different sources are used. Therefore, there may be some discrepancy in those statistics. Another important limitation was limited budget for the study. Due to budget constraint the study team had to recruit only three data collectors. It was not possible for them to cover all the districts of Bangladesh for collecting data. Within three months the team had to reduce the sample size of data collection. Reluctance of providing financial statement from the entrepreneurs was also a limitation.

Chapter Two

Review of Literature

18. There are different types of studies, reports and analysis about IT and ITES services as well as outsourcing in Bangladesh. These studies with different agenda and perspective revealed outsourcing as a potential area for Bangladesh to explore. These studies cover issues like global trend of outsourcing, position of Bangladesh in this market, existing potential and threats for Bangladesh etc. These papers basically provide with a strong background to understand this sector for an in depth analysis for policy recommendation to government.

Outsourcing at a Glance

19. The back office business service evolved over the passage of time which is deeply integrated with three basic trends: off shoring, outsourcing and automation. Outsourcing refers to back office operation performed by a third country under a contractual arrangement. Geographical difference and distance is minimized through the development of technology and communication. There are different terminological explanations of outsourcing. "Outsourcing can be described as the contracting out of the company's major functions and activities to an external service or goods provider."¹ Besides outsourcing can also be defined as "transferring various operations to outside suppliers rather than completing them internally. Outsourcing can be done in both domestic and foreign markets and always involves a third party."² When it comes to the term of IT and ITES outsourcing it basically indicates to outsourcing of processes that can be enabled with information technology and covers diverse areas like finance, Human Resources, administration, health care, telecommunication, manufacturing etc. With the support of technology and manpower, these services are provided from e-enabled locations. This radically reduces costs and improves service standards. According to Gartner "IT outsourcing (as a part of an outsourcing definition) is the use of external service providers to effectively deliver IT-enabled business process, application service and infrastructure solutions for business outcomes. Outsourcing, also includes utility services, software as a service and cloud-enabled outsourcing, helps clients to develop the right sourcing strategies and vision, select the right IT service providers, structure the best possible contracts, and govern deals for sustainable win-win relationships with external providers. Outsourcing can enable enterprises to reduce costs, accelerate time to market, and take advantage of external expertise, assets and/or intellectual property."³

http://www.researchgate.net/publication/228234326 Global Hub IT and ITES Outsourcing

² "ICT Sector Study Bangladesh: Bridging the Gap between Dutch and Bangladeshi ICT Sector" available at <u>http://www.basis.org.bd/resource/ICT%20Sector%20Study%20Bangladesh.pdf</u>

¹ Pankaj M.Madhani, "Global Hub: IT and ITES Outsourcing",

³ Gartner IT Glossary at http://www.gartner.com/it-glossary/it-outsourcing

Global Trend of IT outsourcing industry

20. Global IT outsourcing industry shows a steady and sharp growth in the last decade. The mostly mentioned reason in existing and available literature is the technological development, cost optimization as well as strong base of young people. As mentioned by the International Trade Center "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 off shoring services. The increasing cost pressures, with new service delivery paradigms like cloud computing and multiple sourcing, is set to transform the outsourcing industry globally."⁴ The similar growth trend is found in the report of Gartner. According to Gartner "the IT outsourcing market is forecast to grow by 5.2% (5.5% in constant currency) in 2014. We forecast spending to grow by a 5.9% compound annual growth rate from 2013 through 2018". ⁵

Status of Bangladesh

- Different types of outsourcing services have been provided worldwide in IT and IT Enabled services category. According to Business Promotion Council, among those different categories "Bangladesh exports and provides the services mentioned below:
- Multimedia products development
- Digital Brochure & Digital Magazine
- 2D/3D Presentation and Animation
- Audio and Video Editing
- Cartoon Animation
- Customized Database Application
- Enterprise Resource Solutions
- Legacy Application development
- Banking and Financial Solutions
- Device Driver development
- Smart Card Solutions
- Web Programming
- Web Content Writing
- Web update & related services
- Pre-press Graphics Design
- CAD/GIS Services
- Architectural Design
- Data Entry services
- Medical transcription processing (All types)
- Bank Officer Services or Call centre services "⁶

21. Bangladesh has the prospect and potential of becoming a leading outsourcing destination due to cost competitiveness and scope for capacity development. There are

^{4 &}quot;Bangladesh Beckons-An Emerging Destination For IT/ITeS Outsourcing";2012; at: http://www.intracen.org/news/New-report-Bangladesh-beckons---an-emerging-destination-for-ITITeS-outsourcing/

^{5 &}quot;Forecast Analysis: IT Outsourcing, Worldwide, 1Q14 Update" at

https://www.gartner.com/doc/2707918/forecast-analysis-it-outsourcing-worldwide

[&]quot;Why Bangladesh", Business Promotion Council at http://bpc.org.bd/ibpc_whybd.php

different reports and studies regarding the status of Bangladesh in the existing outsourcing market where IT and ITES is considered as a potential sector for Bangladesh to be explored.

22. In Crain's New York Business, a front page article titled "Outsourcing Moves to Bangladesh" discusses how Bangladesh is a rising star in the international economy with industrial analysts from Goldman Sachs to Cisco Systems predicting that it has high potential to follow in the successful economic steps of the giant next door- India. According to this article "as wages and other costs in India continue to escalate at rates as high as 15% a year, more New York companies are going next door to Bangladesh."⁷ The reasons behind it were identified as: relatively high number of educated, skilled workers who speak English, work long hours and can design a lucrative web page.

23. Over recent years, Bangladesh has made major pace in laying the groundwork for a successful and potential outsourcing market. The IT services industry within Bangladesh has been growing serving international clients and domestic clients in the banking and telecom sectors. The industry "now employs over 20,000 people, and is exporting services to European, North American and East Asian clients. Bangladesh's emerging outsourcing players already have strong credentials."⁸ For outsourcing purpose oDesk and eLance remains as the mostly used work location in Bangladesh. According to the KPMG report (2012):

- Bangladesh offers a group of young, skilled and English speaking human resources at a comparatively lower cost. Considering the existing global outsourcing market Bangladesh is a lucrative option to be chosen as it offers a group of human resources at costs almost 40% lower than established destinations like India and Philippines.
- Government has demonstrated and expressed a determination to promote IT services industry in the country. Different initiatives like –cheaper bandwidth and alternate international cables, establishing Technology parks and providing tax holidays for export oriented industries- are taken to encourage this sector.
- The "Digital Bangladesh" initiative of the government is helping setup infrastructure for enhanced connectivity, ICT based citizen service delivery and ICT based education system.
- Different prominent global players like Samsung, AMD, VizRT, WorldBridge Global starting to operate in Bangladesh which create opportunity for the young human resources to be familiar with the international standard.

24. As an emerging Information Technology (IT) and Information Technology Enabled Services (ITES) outsourcing destination, Bangladesh endorsed by international renowned bodies like Goldman Sachs, JP Morgan, Gartner etc. The main reason is that Bangladesh

 ⁷ Samantha Marshall ,"Outsourcing moves to Bangladesh" ;December 16, 2007 available at <u>http://www.crainsnewyork.com/article/20071216/SUB/312160001/outsourcing-moves-to-bangladesh</u>
 ⁸"Bangladesh Beckons - An Emerging Destination For IT/ITeS Outsourcing" (2012); at: <u>http://www.intracen.org/news/New-report-Bangladesh-beckons---an-emerging-destination-for-ITITeS-outsourcing/</u>

offers lower cost than that of India and the Philippines an additional advantage, is that a pool of 7 million human resources who are able to speak in English as a second language. According to Md. Mahfuzul Quader (2013) the major reasons to choose Bangladesh as a prime exporter of outsourcing of IT and ITES are low labor cost and commercial rent. "Bangladesh has a competitive advantage compared to some of the leading outsourcing countries like the Philippines, India, Brazil, China, Russia etc. As per KPMG Pay Scale Analysis report, the entry level IT personnel average salary is over 50% cheaper than that of other Asia-Pacific countries like India, the Philippines, Malaysia, Sri Lanka, Thailand and Vietnam etc. Moreover, the salary is even cheaper by 75% to 80% than that of Eastern European countries like Poland, Hungary, Russia, Ukraine, Czech, Romania and Latin American countries like Brazil, Chile, Mexico etc. Most importantly, the average inflation rate in Bangladesh has been ranging from 6% to 8% for the last decade which is quite steady in nature"⁹. Besides "the infrastructure cost which is an important factor prior to setting up any business also gives Bangladesh an advantage. Most of the IT firms are based in the capital city Dhaka where rental cost is relatively higher than other parts of the country. But still the commercial rental in business zone, like Motijheel, Gulshan, Banani etc., is cheaper than that of Delhi by 20% and Manila by 40% (Source: Crushman & Wakefield Research, 2011). It is reported that some IT firms already decentralized their setup at surroundings of Dhaka city to optimize their operation cost even more".¹⁰

25. The Business Promotion Council (BPC), Bangladesh depicts the situation in a little bit different way. According to BPC Bangladesh is on the course to prove itself in the growing IT sectors all over the world. A large part of IT graduates prove them in different multinational workplace. Over 10,000 IT professional from Bangladesh are working successfully in various IT companies in USA including Microsoft, Intel, IBM, Sun, Oracle, Texas Instruments, Cisco, Nortel and Lucent-to name a few. A large part of these IT graduates also possess global IT vendor certifications (e.g. from Microsoft, Cisco Oracle, Sun) on top of their academic degrees. In this situation the large pool of younger people with productive age group between 16 to 35 years create demographic dividend for Bangladesh. Because:

- These people "traditionally have higher mathematical aptitude and superior logical & analytical abilities."¹¹
- This group of people has opportunities to develop expertise and knowledge in IT related field through universities, colleges, institutes and training centers providing IT related education. Different educational institutions in Bangladesh now provide specialized IT education at the graduation and post graduation levels. Beside there are about 300 training/education centers that provide IT technology and technique, which contribute to develop human resources for software and ITES industries in Bangladesh. "Bangladesh now confers academic degrees including postgraduate and doctoral degrees in the ICT subjects in more than 100 institutions

⁹ Md Mahfuzul Quader ,"Why Bangladesh is right choice for IT outsourcing"; Financial Express; 31 October 2013 ¹⁰ ibid

¹¹ "Why Bangladesh", Business Promotion Council at <u>http://bpc.org.bd/ibpc_whybd.php</u>

including universities, colleges and institutes. According to the Ministry of Education, there are 73 universities in Bangladesh and more than 60 universities offer IT-related courses. These universities, colleges and institutes yearly produce more than 6,000 graduates major in IT related fields. About 2,500 among them are students who majored in computer science or software engineering.¹²

• These people have the option to better utilize the Government initiatives of building an ICTdriven nation and knowledge-based society.

26. Internet speed, cost of internet connection, inadequate talent pool or skilled manpower compared to other market competitors(India, Phillipines), problem of money transaction, infrastructural problem, inadequate language skill etc are the in generel impediments in this sector as observed from the available literatures. According to the Netherlands Trust Fund Phase II team "For all the progress that has been made, this report illustrates some of the key challenges that still lie ahead. Many domestic business leaders recognize that the Bangladeshi outsourcing industry could better market its strengths to the international community."¹³According to this report there are still areas need proper considerations. Threats like negative perception about Bangladesh, inadequate/ absence of holistic approach towards promoting the IT/ITES industry – including investment climate, taxation, remittances, legal framework and flexible working hours, challenging economic conditions need to be addressed properly.

27. The study of Miller and Atkinson (2014) identified high tax as a major challenge for this sector. "Of the 125 countries examined in this report, over 10 percent have raised ICT taxes and tariffs to very high levels. Bangladesh has drastically inflated the price of ICT goods and services, adding close to 60 percent to their cost above the basic price. Turkey and the Congo add around 25 percent to the price."¹⁴

28. According to BASIS survey, there are over 800 registered software and ITES (IT Enabled Service) companies in Bangladesh. There are another few hundred of unregistered small and home-based software and IT ventures doing business for both local and international markets.

¹² ibid

¹³ "Bangladesh Beckons - An Emerging Destination For IT/Ites Outsourcing" by Netherlands Trust Fund Phase II team at: <u>http://www.intracen.org/news/New-report-Bangladesh-beckons---an-emergingdestination-for-ITITeS-outsourcing/</u>
¹⁴ Ben Miller And Pohert D. Atkingen : "Disited Data Bandard Data Bandard

¹⁴ Ben Miller And Robert D. Atkinson ; "Digital Drag: Ranking 125 Nations by Taxes and Tariffs on ICT Goods and Services", October , 2014 at <u>http://www2.itif.org/2014-ict-taxes-tariffs.pdf</u>

Chapter Three

Institutional and Regulatory Framework

GATS Perspective

29. Trade in Services refers to the sale and delivery of an intangible product, called a service, between a producer and consumer. Trade in services takes place between a producer and consumer that are, in legal terms, based in different countries, or economies, this is called International Trade in Services. Since 90s trade in services came under the auspices of WTO as a tradable area like goods. The General Agreement on Trade in Services (GATS) came into effect as an outcome of the Uruguay Round of trade negotiations from 1986 to 1993. The major objective was to ensure transparency of relevant rules and regulations as well as to secure and promote a progressive liberalization of this sector. In the way to do so the WTO members have identified 12 core service sectors which are further subdivided into a total of 160 sub sectors. The sectoral coverage of the IT-ITES industry maintains a major coverage under Other professional, technical and business service (CPC 83).

Regulatory Bodies in Bangladesh

30. The responsibilities for ICT activities are fragmented across three ministries: Ministry of Post and Telecommunications (MoPT), Ministry of Science and Information & Communication Technology (MoSICT) and Ministry of Information (MoI). MoPT is responsible for telecommunication infrastructure; MoSICT through its ICT Division (ICTD) is responsible for e-Government and IT/ITES business promotion while MoI is responsible for Broadcasting. ICTD conducts its activities through its 3 organizations: Bangladesh Computer Council (BCC), Office of the Controller of the Certifying Authority and High Tech Park Authority. The country's lone ICT Incubator is operating at Karwan Bazar and the 12 storied building Janata Tower is now being renovated to establish the IT/ITES Technology Park in Karwan Bazar. The ICT Division through High Tech Park Authority is in the process of appointing Park Operator for the Kaliakoir High Tech Park and has also initiated the process of acquiring lands outside Dhaka for the establishment of IT/ITES Technology Parks. Various e-governance implementations are now being implemented by Access to Information Program (A2I) under Prime Minister's Office and Bangladesh Computer Council (BCC) under ICT Division. Bangladesh Computer Council (BCC) is a statutory body under the Ministry of Information & Communication Technology, Government of Bangladesh for encouraging and providing support for ICT related activities in Bangladesh. It is established by Act No IX of 1990 passed by the Parliament. Though lack of coordination among various agencies in implementation of ICT project is one of the challenges but the situation is

improving. Ministry of Local Government and Rural Development, Bangladesh Computer Council and A2I Program have successfully implemented 4501 Union Information Service Centers and more collaboration at various levels is taking place. Another ICT village is being planned to be implemented, at Mohakhali of the Capital City of Dhaka with the publicprivate partnership. More ICT villages and Special Economic Zones are also planned. One of the proposed ICT villages is to be located at Khulna, which is a divisional city in the western part of the country.

Government Initiatives, Policies, Acts and Programs

Strategic Priorities of Digital Bangladesh

31. **Digital Bangladesh** is a concept which refers to the use of Information Technology for management, administration and governance to ensure transparency, accountability and answerability at all levels of society and state. It is an integral part of the government's Vision 2021 promising a prosperous and equitable middle-income Bangladesh. In the Background paper for the 7th Five Year Plan (7FYP) it is mentioned "The Digital Bangladesh vision, arguably, runs parallel to the Information Society vision advocated by the World Summit on Information Society (WSIS). The Honorable Finance Minister of Bangladesh elaborated on the concept in his budget 2009-10 speech as a socio-economic transformation process, enabled by information and communication technologies (ICTs). In the same year, the Honorable Prime Minister outlined the Digital Bangladesh having four key priorities -(a) developing human resources ready for the 21st century; (b) connecting citizens in ways most meaningful to them; (c) taking services to citizens' doorsteps; and, (d) making the private sector and market more productive and competitive through the use of digital technology. Hence, it was only natural that the 6th Five Year Plan (6FYP) places an equal importance to Digital Bangladesh as part of the nation's development strategy."¹⁵

32. In this connection Govt. has taken important strides in utilizing technology to bring in tangible transformation in all four areas mentioned by the Prime Minister. There has already been made some progress in bringing government services to the doorsteps of citizen. Several acts, policies and guidelines are in place, some are more robust than the others, which is guiding the nation towards the realization of Digital Bangladesh (see box 1). Two of the documents, the ICT Policy 2009 and the 'Strategic Priorities for Digital Bangladesh' (A2I, 2011) also contain elaborate work plans. Because of the cross-cutting nature of the vision, these work plans encompass priorities in almost all development sectors. Hence, the 7th Five Year Plan (7FYP) needs to consult and align with those—at the same time, it also needs to identify scope for revising those documents in light of changes in the national priorities set in the 6FYP as stated in that report.

¹⁵ ACHIEVING DIGITAL BANGLADESH BY 2021 AND BEYOND, Background paper for the 7th Five Year Plan (7FYP)

Box 1: Digital Bangladesh Policies and Regulatory Framework

•	ICT Policy 2009
•	Right to Information Act 2009
•	Perspective Plan
•	ICT Act 2013 (amended)
•	Strategic Priorities of Digital Bangladesh
•	Cyber Security Policy 2010
•	Rural Connectivity Policy Guideline 2010
•	Broadband Policy
•	Mobile Keypad Standardization Policy
•	Guidelines for Utility Bill Payment
•	e-Krishi Policy
•	National e-Governance Architecture
•	Mobile Banking Policy Guideline
•	National Telecom Policy 2010
•	Guidelines on Mobile Financial Services (MFS) for the Bank
•	Secretariat Instructions 2014 (amended)
•	Proactive Information Disclosure Guidelines 2014
•	Innovation Team gazette
•	National Portal management gazette

33. This report recognizes the potential of Bangladesh in outsourcing through mentioning about the outsourcing index by AT Kearney. According to this report though AT Kearney ranked Bangladesh between 60-70 and it has the potential to be within 20-30. It needs to develop the confidence of client and investor as Bangladesh has untapped human capital to capture. Business process outsourcing has the potential to generate and create new job opportunities for educated youth. It recognized that the export market is critical through mentioning as follows:

"For success in export, market access is very critical. There are number of competent and capable companies in the country who have not been so far achieved to their potential because of the lack in market linkage. Since Bangladesh is still not regarded as a major software/IT service exporting countries (like India), the buyers worldwide are still not pro-actively looking (like in the Garments Industry where buyers find out suppliers from Bangladesh) for competent service providers from Bangladesh. It is interesting to note that none of the globally reputed outsourcing/off-shoring index/ranking list Bangladesh as a potential IT outsourcing countries while some countries which have much less favorable conditions (in HR, Infrastructure, or business climate etc.) are listed......However, in the coming years, if Bangladesh can rightly brand itself and arrange target market specific business linkage programs, there are possibilities that buyers will seriously look at Bangladesh as an outsourcing option. This is because the costs in other major outsourcing destinations (India and China) are getting very high. Also, there are not many countries in the world today that have the demographic and functional advantage of having a large pool of educated and trainable youth who, if groomed properly, can offer the unique combination of IT skill and English Language skill at a very competitive rate. For North American and a number of European countries (where English is either first or second language), this is quite an attractive proposition."

34. In this situation to capture the market of outsourcing through potential utilization of resources it demands government initiatives and measures to develop and increase country branding. To increase the country branding of Bangladesh different types of initiatives are

suggested. It includes policy initiative like the plan for a 10 year master plan by the Ministry of Commerce/ Ministry of Science and ICT in collaboration with all ICT-related business associations. Besides action plan for brand image creation includes consciousness generation through road shows, and targeted marketing efforts.

ICT Act 2006 as well as ICT Act 2013(Amendment)

35. The summery of the Bangladesh Information and Communication Technology Act 2006 can be seen in the following box:

Box 2: Summary of ICT Act, 2006

The ICT Law of Bangladesh styled "Information and Communication Technology Act, 2006" provides or Digital Certificates to be used for signing of Documents. The law provided setting up of the Controller of Certifying Authorities and the licensing of the Certifying Authorities. The procedures to be followed by Certifying Authorities are provided for in the ICT Law. The legal enforcement and the appropriate jurisdiction is given in the Act. There is provision for constitution of special tribunal for handling litigation in this domain.

The validity of the Digital Certificates is apportioned by this law. The Rules under the Act pertaining to Certifying Authorities have been framed and are known as "Information Technology(Certifying Authorities) Rules, 2010". This provides guidelines, advice and information about the factors which the CCA will take into account in its operation and the functioning of the Certifying Authorities. The ICT law provides legal recognition to electronic documents and a framework to support e-filing, e-commerce and m-commerce transactions and also provides a legal framework to mitigate, check cyber-crimes.

The Trust Chain for the public key infrastructure is facilitated by the ICT Act. The Law allows for the setting up of digital certificate infrastructure and its control by the Controller of Certifying Authorities (CCA) including conducting audits.

The ICT law has been formulated to support the development of information and communication technologies in Bangladesh. It is intended to facilitate the application of information and communication technologies for building information society.

Where the information contained in a document is declared by law to be confidential, confidentiality must be protected by means appropriate to the mode of transmission, including on a communication network. Documentation explaining the agreed mode of transmission, including the means used to protect the confidentiality of the transmitted document as evidence.

The Act was enacted to establish a legal validity and security for information and communication technology and for formulation of Rules in this regard.

The purpose of this Act is to guarantee the legal security of documentary communications between persons, partnerships and the State, regardless of the medium used ; the consistency of legal rules and their application to documentary communications using media based on information technology, whether electronic, magnetic, optical, wireless or other, or based on a combination of technologies; the functional equivalence and legal value of documents, regardless of the medium used, and the interchangeability of media and technologies; the linking of a person, a partnership or the State with a technology-based document, by allowing them to be identified by certification; and for the harmonization of the technical systems, norms and standards involved by means of technology-based documents and interoperability between different media and information technologies.

The Ministry of Information and Communication Technology, Government of the People's Republic of Bangladesh is charged with the administration of this Act. There have been two amendments to the Information and Communication Technology Act, 2006 namely ICT ACT 2008 (amendment) and ICT ACT 2009 (amendment).

Source: http://www.dohatec-ca.com.bd/DohatecCA/ICTAct.jsp

Usage of ICT in e-transactions, e-commerce and e-procurement have been made possible through the amended ICT Act 2009 (amendment) which has applied the provision for digital signature certificate through appointing the 6 certified Controller of Certifying Authority, (CCAP) organizations. 3 CAs have developed the capacity to provide digital signature certificates to government and private organizations and individuals. Nothing specific about outsourcing is mentioned in this act.

National ICT Policy 2009

36. There are ten Strategic Themes mentioned under the National ICT Policy 2009. These are: social equity; productivity; integrity; education and research; employment generation; strengthening export; healthcare; universal access; environment, climate and disaster management; support to ICTs. It is well recognized that Bangladesh has potential to explore the outsourcing of ICT. In this context the issue of image generation as well as branding of Bangladesh remains one of the priorities. Considering all these for strengthening export the strategies are:

- Strong and well planned initiatives for marketing and branding of ICT products and services from Bangladesh;
- Ensure secure source of finance for potential software and IT companies;
- Develop and secure ICT infrastructure;
- Develop industry friendly policies and facilitate necessary environment as well as securing special facilities to increase export;
- Facilitate inventiveness through research and development regarding the development of the quality of information technology, process, technology, workplace, value chain and niche market;

37. The cabinet on February 2015 approved the draft of the 'National Information and Communication Technology (ICT) Policy-2015'. This policy has been updated in line with the ICT Policy-2009 and has been revised in consultation with the stakeholders. It was aimed to develope and promote ICT sector to ensure its effective use to achieve development goals. The policy covers ten special objectives, 56 strategic themes and 306 action programmes which will be implemented by different organizations under short, medium and long term timeframe by 2016, 2018 and 2021. It can be expected that this policy would be a guideline for ICT sector to ensure comprehensive and effective use of ICT, transparency, accountability, human resources development through materializing national development goals by 2021.

Sixth Five Year Plan (SFYP-2010-2015)

38. Government recognized the high export potential of software and ICT products. ICT is mentioned as thrust sector based o its performance and potential. The major targets of the ICT sector in the Sixth Five Year Plan will be broadly as follows:

- I. Expansion of infrastructure facilities for development of ICT sector for transforming the country into Digital Bangladesh.
- II. Development of ICT skills in public and private sectors for ensuring productivity and efficiency of the economy and using ICT for good governance.
- III. Ensure women participation in all professional trainings.
- IV. Development of national network for establishing connectivity in all government offices and public key infrastructure for electronic transactions.
- v. Encouragement of IT enabled services and establishment of ICT incubator, Software Technology Park and IT Village in suitable locations of the country.

39. The main policies and actions to be taken for achieving the ICT targets in SFYP will be as follows:

- I. Increasing public sector allocation for the advancement of ICT in Bangladesh.
- II. Developing ICT infrastructure facilities and expansion of connectivity even to the remote places of Bangladesh.
- III. Transforming traditional file-based administrative work in the public sector into egovernment/ digital government for better and efficient services to the people.
- IV. Expanding education in ICT to cover at least 80 percent of enrolment at secondary and higher secondary levels and 60 percent at graduate levels.
- V. Training would be women friendly and less expensive.
- VI. Training of ICT personnel in selected fields at post graduate levels on a massive scale.
- VII. Effectively linking entrepreneurs within the country with the available ICT both at home and abroad through a national network.
- VIII. Exposing the country as a whole to the process of change and progress at the frontiers of production, development, knowledge and the market through ICT.
- IX. Establishment of IT incubator, Software Park, IT village and community e-centre at suitable locations of the country.
- X. Assessing the need for focusing research in computer software development in the public and private sectors.

Perspective Plan 2010-2021

40. In keeping with the aspirations and with the spirit of the liberation war, the Government of Bangladesh prepared Vision 2021 where this nation needs to be in 2021 the year which marks the 50th anniversary of Bangladesh's independence. This "Perspective Plan of Bangladesh (2010-2021): Marking vision 2021 a Reality" is a strategic articulation of the development vision, mission, and goals of the Bangladesh Government in achieving a prosperous Sonar Bangla, a dream of the Father of the nation, Bangabandhu Sheikh Mujibur Rahman grounded in political and economic freedoms a reality in 2021. The Perspective Plan provides the road map for accelerated growth and lays down broad approaches for eradication

of poverty, inequality, and human deprivation. Specific strategies and the task of implementation will be articulated through the two five-year plan: Sixth Five Year Plan (2011-2015) and the Seventh Five Year Plan (2016-2020). The expectation is that by 2021, the war against poverty will have been won, the country will have crossed the middle income threshold, with the basic needs of the population ensured, and their basic rights respected, when everyone is adequately fed, clothed and housed, and have access to health care. And all this is achieved on a sustainable basis without damaging the environment. Furthermore, this progress will be ensured in an environment where every citizen has the opportunity fully and positively to contribute to the economy and society and equitably share the benefits from progresses achieved.

Foreign Exchange Rules and Regulations of IT/IT Based outsourcing in Bangladesh

41. Bangladesh Bank (BB) has made available an online payment service by the Online Payment Gateway Service Providers (OPGSPs) to facilitate receiving of small value service exporters' overseas payments, via the Bangladesh Bank online payment service. To do so Bangladesh Bank allows the Authorized Dealers to offer the facility of repatriation of remittances through standing arrangements with internationally recognized Online Payment Gateway Service Providers (OPGSPs). The OPGSPs such as Paypal, Money bookers, Best Payment Gateway and Virtual Pay act as online platforms through which the exporters will be able to receive their overseas payments. According to FE Circular No. 15 Date: August 07, 2011(Repatriation of Export Proceeds Through Online Payment Gateway Service Providers) the online payment capability will be available only for service export in non-physical form which does not exceed USD 500. Therefore, the authorized dealers (ADs) will be able to offer the facility of repatriation of remittances against small value service exports in nonphysical form such as data entry, data process, off-shore IT service, business process outsourcing through the OPGSPs. Through another circular titled FE Circular No .08, date August 07, 2012 the limit has been extended from USD 500 to USD 2,000. According to FE Circular No .08, date August 07, 2012 ".....to facilitate inward remittance against service export, it has been decided to raise the maximum limit per transaction from USD 500 to USD 2,000 for service export related payments received through OPGSPs."

42. Bangladesh Bank has circular related to foreign exchange transaction for IT/Software firms. It has a limitation in financial transaction regarding utilization of balances held in Exporters Retention Quota (ERQ) accounts without prior approval of Bangladesh Bank. It allows the ADs to remit up to USD 10,000 on behalf of IT/ Software firms in a calendar year for bonafide business purposes such as business visits abroad, participation in export fairs and seminars, establishment and maintenance of offices abroad, import of raw materials, machineries and spares etc. without reference to Bangladesh Bank.

Tax Structure

43. National Board of Revenue has it's own service codes to impose tax. The tax structure comprises of Value Added Tax (VAT) and Supplementary duty as the Income Tax is exempted up to 2024. The details of tax structure is shown in the table below:

Service Code	Service	VAT	SD	Comments
S012.10	Telephone	15.0%	5.0%	Service provided Only through Mobile RIM & SIM Card
S012.20	SIM Card Provider	15.0%	35.0%	
S099.10	Information Technology Enabled Services	4.5%	0.0%	VAT- 4.5% of 30% of total receipt by service provider
S099.50	Online product & Service	4.0%	0.0%	4.0 of 26.67% of total receipt by service and provider
S074.00	Rent of Place & Establishment	9.0%	0.0%	Exemption Withdrawn

Table1: Tax structure in Bangladesh

Source: National Board of Revenue, June 2015

44. It is mentioned in the literature review that the study of Miller and Atkinson (2014) identified high tax as a major challenge for this sector in some Asian countries including Bangladesh. In his study he has claimed that Bangladesh has drastically inflated the price of ICT goods and services, adding close to 60 percent to their cost above the basic price. He has examined 125 countries in his report and showed that over 10 percent have raised ICT taxes and tariffs to

Bangladesh records the highest tax rate in the South Asia region in ICT Goods and Services.

very high levels. The following figure shows the comparison of tax structure in the Asia. Sadiq Ahmed, Vice Chairman of the Policy Research Institute of Bangladesh has also shown in his report **Strengthening the ICT Revolution in Bangladesh** "China imposes the lowest taxation (3%) while Bangladesh the highest (an astounding 58%). The second highest taxation is in Turkey, at 26%. Taxes in 40 of the countries in the study are in the low range of 3-5% and taxes in the remaining others are mostly in the 5-20% range. In the global context, Bangladesh is clearly an outlier in the matter of high ICT taxation."¹⁶ Figure1: Comparison of Tax Structure in Asia

¹⁶ Strengthening the ICT Revolution in Bangladesh, Sadiq Ahmed, Vice Chairman, the Policy Research Institute, Bangladesh.



Chapter Four

Outsourcing and Freelancing

45. Outsourcing is practice used by different companies to reduce costs by transferring portions of work to outside suppliers rather than completing it internally. It is an effective cost-saving strategy when used properly. It is sometimes more affordable to purchase a good from companies with comparative advantages than it is to produce the good internally. An example of a manufacturing company outsourcing would be Dell buying some of its computer components from another manufacturer in order to save on production costs. Alternatively, businesses may decide to outsource book-keeping duties to independent accounting firms, as it may be cheaper than retaining an in-house accountant.

46. According to business dictionary freelance means working on a contract basis for a variety of companies, as opposed to working as an employee for a single company.¹⁷ On the other hand a **freelancer** or **freelance** worker is a term commonly used for a person who is self-employed and is not necessarily committed to a particular employer long-term.¹⁸ So a freelancer works as self-employed from anywhere using Internet. A freelancer works whenever she/he wishes without a long-term commitment. In this case clients are the whole world of freelancing. It is the best opportunity to utilize one's talent. Robert Benchley rightly commented "A freelance gets paid per word, per piece or perhaps."

47. Now-a-days many young Bangladeshis especially students from colleges and universities are earning from freelancing. According to the people engaged IT related industries freelancers might earn about \$100 million a year by 2020 working as a freelancer which is five times what the freelancers now earn from jobs outsourced by companies abroad. A young population base, coupled with advances in technology and good pay, is said to be the reason for more and more Bangladeshis taking the freelance route, and the flexible working hours is a bonus.

48. Due to high income and flexible working hours many people are interested in freelance work in the country. Inadequate opportunity for quality jobs, especially for young graduates, is another reason for the increasing popularity of freelance jobs. Freelance jobs includes software development, customer service, data entry, writing, editing, blogging, accounting, mobile apps development, web development, search engine optimization, graphic design and translations.

¹⁷ <u>http://www.businessdictionary.com/definition/freelance.html#ixzz3gPlobuZX</u>

¹⁸ https://en.wikipedia.org/wiki/Freelancer

49. According to the data from Elance-oDesk, businesses spent around \$930 million on hiring remote independent workers around the globe in 2014, up from \$750 million of 2013 which amount is expected to reach \$10 billion by 2020. In terms of earnings, Bangladesh is ranked 7th among 186 countries from where online jobs are outsourced. Currently, the country has around 5.5 lakh freelancers registered with different freelance marketplaces. Elance-oDesk has 4.5 lakh registered users in Bangladesh.

50. Recent statistics show that the number of registered users in the outsourcing market place freelancer.com is 16,087,399 and the number of projects is 8,106,884. It can be seen from the website (https://www.freelancer.com/freelancers/) that number of freelancers from all countries are 79,710 of them Bangladesh has 3802 while India 18004 and Philippines has - 2196 freelancers. Another most popular marketplace oDESK which has started new journey with Elance (https://www.elance.com/) shows that 102,016 Jobs has been posted in last 30 days \$1,541,623,177 earned through Elance to date. They have 325,400 Programmers, 44,500 Mobile Developers, 236,500 Designers, 368,600 Writers and 74,300 Marketers and the number is increasing tremendously in every seconds. According to their data it can be seen that they have 1,479,314 numbers of Freelancers of which Bangladesh 41,560, India 280,783 and Philippines 71,914.

Outsourcing Marketplaces

51. "Freelance marketplaces (crowdsourcing or outsourcing marketplaces) are websites that match buyers and sellers of services provided via the internet. Service providers, or sellers, create a profile where they include a description of the services which they offer, examples of their work and in some cases information about their rates. Buyers register and complete a basic profile, they then post projects outlining their requirements. Buyers will then bid for these projects on a fixed price or hourly basis."¹⁹ There are different popular online earning market places in the world of which Odesk is the best for Bangladesh. Following box shows some popular market places:

Box3: Outsourcing Marketplacesodesk.com

- freelancer.com
- elance.com
- guru.com
- vworker.com
- scriptlance.com
- getacoder.com
- 99designs.com
- joomlancers.com

¹⁹ https://en.wikipedia.org/wiki/Freelance_marketplace

Following box shows a snapshot of some of the popular freelancing marketplaces.



Box4: Snapshot of the freelancing marketplaces

Available Project Types

The following box shows some available projects:

Box5: Available projects types

- IT & Programming
- Design & Multimedia
- Writing & Translation
- Sales & Marketing
- Admin & Data Entry
- Engineering & Manufacture
- Finance & Management
- Legal

Payment Methods

Millions of dollars in e-Commerce transactions are happening every day through various online transaction platforms. PayPal is one of the oldest online payment providers which have a major share in the online payment industry. It is the preferred payment mode for millions of

people all over the world. There are some other popularly used payment services that are used as PayPal alternatives for the freelancers.

• Selz Payments Solutions

Selz is an user friendly online service ideal for bloggers, freelancer and anyone else looking to sell digital products or services on the internet. It does not require any prior contracts or merchant accounts and can be set up very easily in just a few minutes.

Google Wallet

Google Wallet is a digital payment service of Google used to make online purchases through Smartphone. Primarily used by US bank account holders, Google Wallet can be used to make purchases in over 160 countries.

• Payoneer online payments

Payoneer is a global payment service used in place of PayPal for sending and receiving payments internationally. A major advantage of Payoneer is its US payment service that comes particularly handy for sending and receiving payments in countries where PayPal and some other major US payment services are not available.

• Stripe

Stripe is another service that can accept Payments from all across the globe. It currently supports businesses from US, Canada, UK, and Ireland. One can integrate Stripe APIs in the website to receive payments.

• E-Junkie shopping cart

E-Junkie is one of the oldest online payment platforms that can be integrated with PayPal, Google Checkout, 2CheckOut and many other payment services. Unlike most modern payment services, it does not charge you any set up or transaction fees and instead requires a flat monthly payment depending upon the number of products you're selling and the storage that you need.

Moneybookers Skrill

Moneybookers Skrill is an e-wallet newly rebranded as Skrill. It offers its customers a safe and instant way to transfer money online. It has over 25 million customers and is regulated by the United Kingdom Financial Services Authority (FSA). It's worldwide payment network offers businesses access to over 100 payment options in over 200 countries including Bangladesh and territories through just one account. More than 120,000 merchants use Moneybookers Skrill and it is growing quickly.

In addition to that freelancers can use Bank to Bank Wire Transfer. The following ox shows PAYPAL transactions at a glance.

Box 6: PAYPAL at a glance

Paypal, owned by eBay, is a global online payment system. As a global e-commerce business it allows payments and money transfers through the Internet. Online money transfers serve as electronic alternatives to
paying with traditional paper methods, such as cheque's and money orders. As a non financial institution it remains as the most prominent provider of Person to Person (P2P) online payment services. Established in 1999, PayPal's network builds on the existing financial infrastructure of bank accounts and credit cards. In so doing, PayPal enables consumers to make payments to one another and to businesses, by using a Visa, MasterCard, Discover, or American Express card, a debit card, a checking account, or funds held in a PayPal stored value account. PayPal is an acquirer, performing payment processing for online vendors, auction sites, and other commercial users, for which it charges a fee. It may also charge a fee for receiving money, proportional to the amount received. The fees depend on the currency used, the payment option used, the country of the sender, the country of the recipient, the amount sent and the recipient's account type. In addition, eBay purchases made by credit card through PayPal may incur extra fees if the buyer and seller use different currencies. On October 3, 2002, PayPal became a wholly owned subsidiary of eBay. Its corporate headquarters are in San Jose, California, United States at eBay's North First Street satellite office campus. The company also has significant operations in Omaha, Scottsdale, Charlotte and Austin in the United States; Chennai in India; Dublin in Ireland; Berlin in Germany; and Tel Aviv in Israel. From July 2007, PayPal has operated across the European Union as a Luxembourg-based bank.



Chapter Five

Findings

Present Status and Trend of IT& ITES Industry in Bangladesh

52. The study team was facing difficulties in assessing the size of the international market, due to non-availability of primary data, and hence it had to depend heavily on the secondary sources.

Bangladesh Software and ITES Industry

53. According to BASIS survey, there are over 800 registered software and ITES (IT Enabled Service) companies in Bangladesh. There are another few hundred of unregistered small and home-based software and IT ventures doing business for both local and international markets. Figure 2 shows number of enterprise, revenue, total human resource employed in the industry and industry revenue proportion of Bangladeshi Software and ITES Industry.

Figure 2: Bangladesh Software and ITES Industry



54. The total industry size is estimated to be around Tk. 1,800 crore (US\$ 250 million). Approximately 30,000 professionals, majority IT and other graduates, are employed in the industry. Though, compared to other traditional mainstream industry, the contribution for overall employment creation is not significantly high, but if considered in terms of creating high quality employment (average monthly compensation over Tk. 15,000 per month), software and IT service industry is surely one of the top graduate employment sectors in the country.

55. According to a recent survey carried out by BASIS on three hundred of its member companies. Analysis has been done on business nature, business volume and size of companies. Over 70% of the companies (Figure 5) are found to be involved in development and maintenance of software for their clients. A number of those are simultaneously engaged in providing different IT enabled services for their clients as well. In total, almost half of the surveyed companies are involved in providing range of IT enabled services (data/form processing, graphic/web design, content management etc.).

56. Interestingly, a significant number of companies (18%) have developed software products or productized services; most of those have been developed over time after repeated installations for multiple clients. A number of companies are in digital content development and delivery business, mainly providing content services through mobile platform.

57. Though from existing literature it is observed that services like Multimedia products development, Digital Brochure & Digital Magazine, 2D/3D Presentation and Animation, Audio and Video Editing. Cartoon Animation, Customized Database Application., Enterprise Resource Solutions, Legacy Application development, Banking and Financial Solutions., Device Driver development, Smart Card Solutions., Web Programming., Web Content Writing., Web update & Related services, Pre-press Graphics Design, CAD/GIS Services., Architectural Design, Data Entry services, Medical transcription processing (All types), Bank, Call centre services are outsourced from Bangladesh to foreign countries, there is no national level data available in these services. Yet, Bangladesh Bank processes some data generated through banking channel. Bangladesh Bank processes data as per International Monetary Fund (IMF) 6th Manual of Balance of Payments. A discussion meeting was constituted at Statistics division of Bangladesh Bank where it was agreed that BB statistics may be understated if the payments are not made through proper banking channel, especially through International Credit Cards. Yet since most of the enterprises uses banking channels, it could be safely argued that receipts earned from exports by enterprises are covered service BB statistics in most part.

Global Trade of Bangladesh

58. Following table shows the total export of IT/ITES Services under the heading of Computer Services which includes total receipt of foreign currency (equivalent to Bangladesh's expert) was US\$ 125.54 Million in FY 2013-14 out of which computer software was US\$ 69.41 Million while Computer data processing and computer consultancy services were exported US\$ 47.56 million and US\$ 8.57 million respectively. Bangladesh has maintained an excellent growth rate in this sector.

_	2009 - 2010	2010 - 2011	2011 - 2012	2012 - 2013	2013 - 2014
Computer	35.35	45.31	70.33	101.63	125.54
services					
Growth		28.16%	55.23%	44.50%	23.53%
1. Export of computer software	25.66	31.38	43.51	63.24	69.41
2 Computer data processing	6.54	8.81	21.97	32.89	47.56
3. Computer consultancy services	3.15	5.12	4.85	5.50	8.57

Table2: Total Export of IT/ITES Services

Source: Bangladesh Bank

59. Following table shows the country wise export of IT/ITES Services from FY 2009-10 to FY 2013-14. Under the heading of Computer software which includes total receipt of foreign currency (equivalent to Bangladesh's expert) was US\$ 69.409 Million in FY 2013-14 out of which US\$ 20.069 Million received from United States of America (USA), US\$ 15.746 Million from Hong Kong and US\$ 15.746 million from Republic of Korea. Moreover Bangladesh also exports to Singapore, Germany, Norway, Denmark, Canada, United Kingdom (UK), Ireland and some other countries. It can be observed from the table that Bangladesh has maintained an excellent growth in those countries. In case of Computer data processing Bangladesh's total export amounted US\$ 47.564 Million in FY 2013-14 and top four destinations are USA(US\$ 22.930 Million), Singapore(US\$ 6.747 Million), UK(US\$ 4.746 Million) and Denmark (US\$ 2.699 Million). Total export under the heading Computer consultancy services amounted US\$ 8.571 Million and the main export destination is the USA.

				(Values in	n Million US\$)
	2009-10	2010-11	2011-12	2012-13	2013-14
Export of computer software	25.664	31.379	43.506	63.241	69.409
UNITED STATES OF AMERICA (USA)	14.242	21.180	27.089	36.515	20.069
HONG KONG	0.509	1.050	5.143	11.406	15.746
KOREA, REPUBLIC OF	0.011	0.000	0.000	0.116	9.493
SINGAPORE	1.774	2.272	0.930	1.298	4.796
GERMANY	1.458	0.661	0.968	1.820	3.391
NORWAY	0.074	0.064	1.174	1.174 2.006	
DENMARK	1.721	1.410	1.473	1.531	2.281
CANADA	0.355	0.779	1.161	0.975	1.742
UNITED KINGDOM (UK)	1.013	1.216	1.931	3.232	1.544
IRELAND	0.061	0.091	0.405	0.030	1.242
Other Countries	4.445	2.655	3.233	4.311	6.014

Table3: Country wise Export of IT/ITES Services

Computer data processing	6.535	8.809	21.973	32.889	47.564
United States of America (USA)	4.005	5.219	10.265	15.332	22.930
Singapore	0.182	0.406	3.767	3.923	6.747
United Kingdom (UK)	0.704	0.384	1.726	4.690	4.746
Denmark	0.327	0.384	1.922	1.925	2.699
Canada	0.114	0.199	0.273	0.647	1.388
Netherlands	0.272	0.388	0.492	0.608	1.266
Australia	0.022	0.027	0.701	0.573	1.030
Malaysia	0.026	0.031	0.764	1.062	0.885
Germany	0.240	0.243	0.321	0.572	0.865
Hong Kong	0.003	0.114	0.097	0.244	0.572
Other Countries	0.641	1.414	1.645	3.313	4.436
Computer consultancy services	3.154	5.121	4.852	5.498	8.571
United States of America (USA)	1.860	2.918	1.845	2.282	4.604
Singapore	0.035	0.161	0.352	0.193	0.821
Canada	0.072	0.086	0.100	0.382	0.688
Germany	0.218	0.133	0.100	0.083	0.569
United Kingdom (UK)	0.296	0.576	1.243	0.404	0.465
Korea, Republic of	0.001	0.005	0.022	0.003	0.339
Netherlands	0.034	0.037	0.046	0.090	0.186
France	0.003	0.069	0.159	0.181	0.172
China, Peoples' Republic of	0.003	0.000	0.048	0.315	0.126
India	0.003	0.055	0.034	0.187	0.101
Other Countries	0.627	1.081	0.903	1.375	0.501

Source: Bangladesh Bank

Performance of IT Enabled Services Outsourcing in Bangladesh

Following figure shows the recent trends in export of computer related services in Bangladesh from FY 2009-10 to FY 2013-14. In case of the export of computer services which include-Export of computer software, Computer data processing, Computer consultancy services, it can be observed that export of computer software has the highest growth during this period. Export of computer data processing has also witnessed higher growth next to export of computer software. Computer consultancy services' growth is also positive. Country wise data show that highest growth of Bangladesh export of computer software has witnessed in the USA. USA is also the main destination for export of Computer Data Processing and Computer Consultancy Services for Bangladesh during this period.



Figure 3: Recent Trends in Export of Computer Related Services in Bangladesh

Source: Bangladesh Bank

Following table shows the country wise payments made by Bangladesh (Import) for Computer Consultancy Services from FY 2009-10 to FY 2013-2014. It is evident from the table that the total import is US\$ 4.53 Million in FY 2013 – 2014 while it was US\$ 3.47 Million in FY 2009-2010. The main import destinations are India, Malaysia, UK, Singapore, USA but the imported amount is too small.

 Table 4: Country Wise Payments Made by Bangladesh for Computer Consultancy Services

	,	6	1	•	Aillion US\$)
	2009 - 2010	2010 - 2011	2011 - 2012	2012 - 2013	2013 - 2014
Computer Consultancy Services	3.47	4.18	2.90	0.77	4.53
India	1.09	1.54	0.74	0.24	1.01
Malaysia	0.48	0.51	0.07	0.04	0.93
United Kingdom (UK)	0.26	0.75	0.44	0.02	0.56
Singapore	0.26	0.16	0.23	0.18	0.48
United States of America (USA)	0.15	0.10	0.14	0.00	0.40

Switzerland	0.56	0.44	0.30	-	0.36	
South Africa	-	-	0.46	-	0.29	
Ukraine	0.13	0.22	0.16	0.01	0.12	
Sri lanka	0.19	0.11	0.02	0.26	0.12	
Hong Kong	0.00	-	0.04	0.02	0.09	
Other Countries	0.35	0.34	0.29	0.01	0.20	

Source: Statistics Division Bangladesh Bank

Following table shows the country wise payments made by Bangladesh (Import) for Computer Data Processing Services from FY 2009-10 to FY 2013-2014. It can be seen from the table that total import of Computer Data Processing services is US\$ 1.72 Million in FY 2013–2014 which is very small.

	(Milli							
	2009 - 2010	2010 - 2011	2011 - 2012	2012 - 2013	2013 - 2014			
Computer Data Processing	0.21	0.37	0.44	3.73	1.72			
Singapore	0.01	0.10	0.01	2.63	0.56			
India	0.00	0.09	0.03	0.17	0.55			
United States of America (USA)	0.08	0.13	0.10	0.14	0.20			
United Kingdom (UK)	0.03	0.03	0.02	0.16	0.14			
Denmark	-	-	-	0.00	0.06			
China, peoples' republic of	-	-	-	-	0.04			
United Arab Emirates (uae)	-			0.01	0.02			
Italy	-	-	-	-	0.02			
Hong Kong	0.01	-	0.01	0.00	0.00			
Canada	-	-	0.25	0.00	0.00			
Other Countries	0.08	0.01	0.02	0.62	0.14			

Table5: Country Wise Payments Made by Bangladesh for Computer Data Processing Services

Source: Statistics Division Bangladesh Bank

Following table shows the country wise payments made by Bangladesh (Import) for Import of Computer Software from FY 2009-10 to FY 2013-2014. From the table it is observed that Country wise total payments made by Bangladesh (Import) for Computer Software is US\$ 3.06 Million in FY 2013–2014 which is relatively higher that other services. The main import destinations are Singapore, Sweden and Switzerland but the amount is still not that much significant.

					(Million US\$)
	2009 - 2010	- 2010 2010 - 2011 2011 - 2012 2012		2012 - 2013	2013 - 2014
Import of	0.01	0.02	0.76	0.63	3.06
Computer Software					
Singapore	-	-	0.18	0.03	1.80
Sweden	-	-	-	-	0.58
United Kingdom (UK)	-	-	0.28	0.04	0.00
India	-	-	0.04	0.07	0.09
United States of America (USA)	-	0.00	0.09	0.00	0.00
Switzerland	-	-	-	-	0.26
Hong Kong	0.01	-	0.00	0.00	0.00
Germany	-	-	0.00	0.36	0.01
Sri Lanka	-	-	0.17	0.02	0.00
Other Countries	-	0.02	0.00	0.12	0.32

Table6: Country Wise Payments Made by Bangladesh for Computer Software

Source: Statistics Division Bangladesh Bank

Following figure shows the Recent Trends in Import of Computer Related Services in Bangladesh from FY 2009-10 to FY 2013-2014. It can be seen from the figure that in case of Import Payments of Computer Services the growth trend of Computer consultancy services' is significant with a decline in 2012-2013.



Figure4: Recent Trends in Import of Computer Related Services in Bangladesh



Source: Bangladesh Bank

Business Specialization of BASIS Member Companies

60. 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.





Source: BASIS Survey

61. A number of these ventures have done quite well in terms of popularity as well as financial viability. 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.

62. With regard to average size of enterprises within the industry, it is interesting to note that, the distribution is quite spread with respect to both revenue size and employment number. Majority of the companies are in the range between10 to 50 people in employee size.

Similar pattern can be found in revenue size of the companies. However, there are few product companies who have relatively less number of people for significant revenue.

IT related Associations in Bangladesh

BASIS

63. Bangladesh Association of Software and Information Services (BASIS) is the national trade body for Software & IT Enabled Service industry of Bangladesh. Established in 1997, the association has been working with a vision of developing vibrant software & IT service industry in the country. BASIS started its journey with only 17 charter members. Today the membership stands at more than 450. Members of BASIS account for the lion share of the total software & IT services revenue of the country.

Cyber Cafe Owners Association of Bangladesh

64. An association established for taking action for preservation of rights and interests of the members of the association and generally for the development of the business/services related to Information Technology of Bangladesh with special reference to Cyber Cafes

BCS

65. Bangladesh Computer Samity is the voice of ICT industry of Bangladesh. It is the national association of the ICT companies in Bangladesh. BCS was established in 1987 with eleven members. The ICT industries of Bangladesh comprises distributors, dealers, resellers of computer and allied products, locally assembled computer vendors, software developers and exporters, internet service providers, ICT based educational institutions and training houses, ICT embedded services providers etc. The total number of members stands 1028 at present. The body is run by a 7-number executive committee elected every two years.

Potential and Export Opportunities

Potential Sectors for Bangladesh

66. There are many sectors where Bangladesh can develop. Considering the resource endowment of raw unskilled but moderately educated population, Design and Creative sub sector is likely to be the most potential area for Bangladesh. More specifically, Prepress Graphic Design where minimum educational requirement is low, H.S.C. with moderate command in English is suitable and training is comparatively cheap and available. Besides, Animation, Illustration, Presentations etc are amongst the potential jobs in Design & Creative sub sector. Information on 15 freelancers suggests that 7 of them involve this sector. Admin

Support is another very potential sub sector, especially for freelancing. Six (6) enterprises out of twenty six (26) took this sector as their main line of business. Admin Support is very potential especially for freelancing. Web, Mobile & Software Development is another category where Bangladesh has higher potential as the number of IT experts is increasing. However, since this category, especially software development is highly a skill based category, low level of salary and other benefits may lead to create propensity among the experts to migrate abroad. Twelve (12) enterprises out of twenty six (26) use this sector as main Business area. So at intuitional level this sector has high importance. Besides, this sector has high promise for freelancing as well as 8 out of 15 freelancers performs this work along with other works. Desktop Software Development, Ecommerce Development, Game Development, Mobile Development, Product Management, QA & Testing Scripts & Utilities, Web Development, Web & Mobile Design are also some potential sub-sectors for Bangladesh. Besides, Admin Support such as data entry, Sales and Marketing like Search Engine Optimization, Writing, IT and Networking are amongst potential IT/ITeS outsourcing Services.

Potential Export Destinations

67. Findings from Enterprise level is consistent with the statistics shown earlier by Bangladesh Bank Information from 14 enterprises shows that 11 of them were engaged exporting in U.S.A, the major export destination of Bangladesh in IT/ITES sector. Australia, Canada and a few EU countries were the other potential export destinations by most firms among these 14 firms. Following figure shows the countries as export destinations by 14 enterprises of Bangladesh in 2014.



Figure 6: Countries as Export Destination by 14 Enterprizes of Bangladesh in 2014

Source: Own Analysis from Survey Data collected for this study

Prospects

Following figure shows the number of contacts made by 18 Enterprises over the last 5 years with foreign clients to work on regular basis. Information from 18 enterprises shows that they concluded 285 contacts with foreign clients to work on regular basis over the last 5 years. The most prominent countries are U.S.A. Australia, Canada, Denmark, Netherlands, Sweden, U.K. etc are. These countries are very potential for Bangladesh.



Figure 7: Number of contacts made by 18 Enterprises over the last 5 years

Potential of Employment Generation

68. The following table shows Information Technology Workforce in Bangladesh at a glance. According to the table, number of IT professionals working within the IT Industry is more than 20,000, number of IT professionals working outside IT Industry (including business enterprises, govt. telecom, NGOs etc.) is more than 35,000 and number of graduates produced yearly from IT related subjects is more than 5,500. In addition to the registered workforce, a large number of independent freelancers (both students and professionals) have been working in this sector. Moreover, annually on an average 5,500 students graduate from ICT related courses from more than 80 public and private universities. This number is increasing day by day.

Table7: Information Technology Workforce in Bangladesh

No. of IT professionals working within the IT Industry	20,000 +
No. of IT professionals working outside IT Industry (including business enterprises, govt. telecom, NGOs etc.)	35,000 +
Yearly no. of graduates from IT related subjects	5,500+

Source: BASIS

Following figure shows an analysis on HSC examination result with a view to exploring the potential for future employment generation for this sector. There is no denying the fact that higher secondary level is that stage of education where one decides his future career. For that reason the result of HSC examination for general education from 2005 to 2014 has been chosen for analysis. It was tried to compare the examination result of Business Studies, Science and Humanities group. It is observed that in 2005 the number of students passed from Humanities (1,05,843), Science(64,589), Business Studies (75,104). These number rapidly increased and becomes Humanities (3,21,770), Science(1,29,167), Business Studies (2,41,753) in 2014. These increasing trend shows that there is a huge scope for future employment generation for this sector. Unfortunately, the number of students passed from science group is comparatively less than those of Humanities and Business Studies group. In this connection, Govt. may take initiatives to attract students to study science because students passed from science group have more potential than other two groups to work for this sector as traditionally they have higher mathematical aptitude and superior logical & analytical abilities.





There are no perfect criteria to prepare statistics for meritorious students. Result could be one of the major indicators to select meritorious students. That why the criterion of having GPA 4 and above in the HSC examination result has been taken in consideration for a deeper analysis. Students having GPA 4 and above in the HSC examination result could be trained up for future employment for this sector. If 5% students passed HSC with GPA 4 or

If 5% students passed HSC with GPA 4 or above join in this sector and earn \$500 on an average per month then only new entrants in this sector might contribute at least 65-70 Million USD each year to GDP. above join in this sector and earn \$500 on an average per month then only new entrants in this sector might contribute at least 65-70 Million USD each year to GDP.



Figure 9: No. of Students Passed HSC Exam with GPA of 4.00 or more in a Scale of 5.00

Source: Own analysis from BANBEIS Statistics BANBEIS Statistics

The following boxes (Case Study 1 and Case Study 2) show case study on two successful freelancers who have developed themselves as entrepreneurs.

Box7: Case Study 1

Shamsul Anam Emon, Post Graduate in Economics from *Janahngir Nagar University* joined in a Leading Private commercial Bank as Management Trainee. The career was smooth and he performed well there. But in 2010 he lost a bulk amount of money in Stock Market, which was invested from different Credit cards and Bank Loan. It was a disaster!

He realized that he was overconfident in his investment and after a few days all the banks pressurized him to pay the installment of credit cards and personal loan. But it was simply impossible for him to meet all of their minimum needs from his salary. He started to find a substitute way of income besides banking and heard about freelancing from one of his clients (they are now good friend).

Emon build a profile on freelancer.com and started bid over the Research, Article Writing and Data Entry Projects. But, no one knocked him for first few months. He took the patience and keeps bidding. After 5 months of top level patience, study, research, dedication, consistency and dedication he was awarded a project in \$90. The Endless journey has started! Within next 2 years he had completed over 200 projects. Some projects were as big as around \$2000. It was not possible for him to complete all projects with him alone as he was a full time banker. So, he started to hire people from his surrounding area and trained them about different data entry, web search and research related works. Sometimes, he hired skilled writers from USA, UK also for his Content Development Projects.

2014 and 2015 are the turning point of his Online Career. He got some big projects and made a work agreement with a Leading Real Estate Company of Canada.

He has awarded by BASIS as Best Individual Freelancer under "Content Development" in 2014.

Now, besides the regular works he has started Apps Development, Affiliate Businesses and Blogging and planning to switch his career from banking to Full Time Online Entrepreneur.

According to Emon the key success factors are :

- Patience, Consistency and Passion
- Lots of Study

- Try to find the solution of any problem from Google not from other freelancers
- Never run after the money, rather try to deliver Quality work
- Try to find the Business Opportunity of the work that you have done for your employer
- Regular contact gets business; knock your previous clients regularly. Wish them in special occasion
- Again! Study, study and study.

Box 8: Case Study 2

G M TasnimAlam, a 26 year young entrepreneur, graduated from BUET in CSE, started his career at a local software firm as iOS App Developer back in 2011. While working there he was curious about outsourcing works and how it works. He tried to apply several jobs in oDesk and in 2011 he got his first job in oDesk. After completing the job that worth 600\$ (42,000 BDT) successfully the client was so happy that *Alam* was awarded 1000\$ (BDT 70,000) bonus for doing the job efficiently and in time. This was really pumped *Alam* and he earned 3 times than his salary in just a one month. Then he got few quick offers from oDesk from different clients and got very busy with the works in oDesk that he couldn't continue the day job and left the job. Then he became full time freelancer from 2012. Over the last 4 years he has worked on more than **130+ projects** with **4.99 STAR** feedback in oDesk. Apart from that he gained so much experience working with the foreign clients and dealing with them and producing successful products, he started believing in having his own software firm. And that came true in February 2014. He founded his startup named "Encrypto Mobile **Apps**" with few other developers and employees. Now he has a team of 3 developers 2 designers and an assistant. He is now CEO at that firm. *G M TasnimAlam* was also awarded **Outsourcing Award** by **BASIS** in 2014 in Mobile Application Category.

What started as a quest for extra money and gaining work experience, freelancing by students and professionals has turned into a fledgling industry in Dhaka and elsewhere in Bangladesh. In the absence of any large software companies in Bangladesh, skilled young professionals are seeking out alternative methods to leverage their proficiency in order to make some money. This has led to a thriving software freelancing community in Bangladesh. Even without any marketing or corporate backing, nearly 10,000 freelancers from Bangladesh billed over USD 7 million in 2010, catapulting the country to the seventh position among freelance worker nations, and Dhaka- the capital city, to the top 5 cities for freelance outsourcing work.

The rapid growth in Bangladesh's freelancing community can be attributed to ease of setting up operations – limited infrastructure needs and an internet connection. A combination of good English skills and low labour costs has made Dhaka a top destination for freelance outsourcing jobs, which typically include editing, proof reading, translation, data entry, web research, virtual assistance, web design and software programming. Many of the workers are students of Engineering and Technology Universities supplementing their allowances. Many non-engineering students are employed in data entry projects, earning close to USD1000 per month depending on the complexity of the assignment and experience levels. Although the contribution from freelancers may seem small in isolation, their aggregated contribution in employment generation and export income are not insignificant.

Despite the stronghold of freelancing in Bangladesh, challenges remain in terms of *high-speed internet* facilities, cheap bandwidth, newly introduced taxation and online payment facilities. Paypal, for instance, is

not supported in Bangladesh. In addition, these young IT professionals/entrepreneurs need to be guided in terms of business development, investment planning and organizational capability to contribute more meaningfully to the country's software industry. But despite these challenges, in a world grappling with global recession, freelancing is increasingly being considered a viable alternative to traditional modes of outsourcing by clients keen on cutting costs. If the recent reports from oDesk and eLance are any indication -Bangladesh seems well poised to make the best of this opportunity.

Status of ITES Training in Bangladesh

A variety of ICT training institutions are available at present in Bangladesh. They are providing with various issues covering ICT. In 2005 Bangladesh Bureau of Education Information and Statistics (BANBEIS) of the Ministry of Education in collaboration with Korea International Cooperation Agency (KOICA) initiated a project titled 'Establishment of Bangladesh-Korea ICT Training Center for Education (BKITCE)' with a view to improving the capacity of Bangladesh ICT human resources through providing ICT application training to citizens. Government also established "National Academy for Computer Training And Research" (NACTAR) by the act 12 of 2005. NACTAR has been providing practical and pragmatic training of ICT since its inception.

The Small and Medium Enterprise Foundation (SMEF) started a training programme for developing 3,000 women across the country as grassroots ICT entrepreneurs and freelancers. The SMEF, the Access to Information (a2i) Programme of Prime Minister's Office (PMO) and Bangladesh Women in Technology (BWIT) jointly took up the initiative titled 'Female ICT Freelancer and Entrepreneur Development Programme'. In addition to that government recently launched a training program to develop 30,000 IT professionals for the IT and ITES sectors within the next three years. Bangladesh Association of Software and Information Services (BASIS), Access to Information (A2I) Programme jointly and individually also organizes different national and international level training programmes through different projects. Moreover ICT short courses at different universities, institutions and training centers are frequently offered.

Some freelancers expressed their disappointment regarding training facilities offered by different institutions and training centers. New freelancers also fail to receive proper training. Freelancers, especially those who live outside of Dhaka city, suffer badly due to this problem. Although there are many training institutions but a few of them are the need based and specialized. Very few quality institutions offer ITES outsourcing related training.

Following table shows training programs arranged and attended by 18 enterprises. Information on 18 Enterprises shows that over the last 5 years, total number of training arranged by enterprises was 869. These enterprises arrange training jointly with the government or others was only 5. So, there is scope to work on this ground. However participation in training programs organized by government is also likely to be low.

	2	1
Organizer	No. of Training Arranged by Enterprises	No. of Training Organized by Others but attended by
	Enterprises	enterprises
By the enterprise itself	869	
Arranged by Government		23
Jointly	5	
Others		160
Grand Total	874	183

Table 8 : Training Programs arranged and attended by 18 enterprises

Challenges faced by Bangladesh

Challenges at Firm Level

69. In order to find out the degree of different issues that hiders the progress of IT/ITES enterprises. Likert type scaling technique is used and obstacles are arranged on the basis of ranking of average scores. A 5 (five) scale Likert scale is used where score 1 is assigned for if the respondent feels that there is no obstacles, 2 for moderate obstacle, 3 for moderate obstacle, 4 for major obstacle, 5 for severe obstacle. It is important to note that many issues may not be respondent for many reasons, for example lack availability of time of the respondent, individual idiosyncrasies to skim through the questionnaire etc In these cases, missing value on some issues may lead to underestimate by the actual total score. To avoid such problem average score for any particular issue is calculated by replacing the missing values by the mean value of scores of respondents for that particular issue. Thus the average score is calculated using the following formula

Average Score =
$$\frac{\sum_{i=1}^{5} L_i f_i + M \frac{\sum_{i=1}^{5} L_i f_i}{n}}{N}$$

where

 $\begin{array}{l} L_i = \mbox{Scale point (i=1,2,.....5)} \\ f_i = \mbox{Frequency for particular scale point i} \\ M = \mbox{Number of missing value(s)} \\ n = \mbox{Total number of actual respondent for particular issue} \\ N = \mbox{Total Number of Observations (In this study N=26) for all issue} \end{array}$

Obstacle Issues		Scale Points***				No. of Non	Actual	Projected	Average
	1	2	3	4	5	Respondent	Score [*]	Score ^{**}	Projected
		Frequency			(M)			Score	
Electricity load	1	0	9	11	5	0	97	97.00	3.73
shedding									

Table 9: Likert scale analysis

Foreign Exchange	0	6	5	9	4	3	83	93.83	3.61
Policy	Ű	Ŭ	U	_	•	5	00	20100	5.01
Cost of obtaining	2	4	6	10	4	1	88	91.52	3.52
internet bandwidth									
Country Image or	2	0	5	6	2	11	51	88.40	3.40
Branding									
Access to Finance	1	7	8	7	3	1	82	85.28	3.28
Shortage of Skilled	5	2	7	10	2	1	80	83.20	3.20
Manpower									
Lack of proper	5	3	6	9	1	3	70	79.13	3.04
infrastructure									
Lack of capital	4	5	7	7	3	0	78	78.00	3.00
Obtaining permits	5	5	7	3	3	4	63	74.45	2.86
(if any)									
Smooth transaction	5	4	8	8	1	0	74	74.00	2.85
of payments									
Rules and	3	7	10	3	3	0	74	74.00	2.85
regulations of									
government									
Internet bandwidth	2	12	5	4	3	0	72	72.00	2.77
(speed)									
Access to market	7	7	4	7	1	0	66	66.00	2.54
information									
Tax Policy	12	2	5	4	3	1	62	64.48	2.48
Enforcing contract	8	6	7	5	0	1	61	63.44	2.44
with the client									
Loyalty of staffs	7	8	6	4	1	0	62	62.00	2.38
Obtaining quality	7	8	6	5	0	0	61	61.00	2.35
certification									
Obtaining work	8	8	7	2	1	0	58	58.00	2.23
order									
Obtaining	11	8	6	1	0	0	49	49.00	1.88
recognition from the									
clients									
Communication	12	9	2	3	0	0	48	48.00	1.85
(language)									

*Actual Scores, **Sum of Actual Scores plus replacement scores for missing value

Note: N/A means non response ***Scale Points: 1= No Obstacle 2= Minor Obstacle 3= Moderate Obstacle 4= Major Obstacle 5= Severe Obstacle

70. Electricity Load shedding ranked as topmost obstacle. As the sector is highly computer oriented, the operation of business requires uninterrupted supply of electricity. Electricity load shedding is a common constraint for all industries. However, high electricity load shedding force enterprises to use alternative power supply like generators which increases costs.

71. Foreign Exchange policy is another major problem. This policy hinders business when it is required to make payment for import of software, books etc. Enterprises also worry

about the cost of internet. Many entrepreneurs feel that the cost of internet is much higher than other competing countries.

72. Lack of Promotion of Country Image or Branding is one of the major problems that many entrepreneurs feel to be fixed out. The issue is not responded by many entrepreneurs, the problems ranked highly if picked by the respondent. As our average score compensates the missing values or by the mean score of respondents and the mean of respondents is high, the averages score gets high. It is important to note that the slogan of "Digital Bangladesh" has promoted the country image in IT sector by a great deal. Now some more Branding Campaign needed.

73. Access to finance is another significant problem. It is hard to get loans from banks. Information on 17 enterprises shows that only one of them took bank loan at the beginning of business. As a service sector, the output is not as visible as goods sector which is a real

problem. Besides, Enterprises also lack proper financial reporting which further discourages bankers to provide loan. Information of yearly investment flow from 11 enterprises shows that there is great disparity in investment though total investment accounted for 14.25 Crore in FY 2013-14. Only two of them invested in more than 4 Crore in 2013-14 while the others are making very small amount of investment not exceeding BDT 90 lacs Even few others did not invested more than BDT 10 lacs. However, total investment of these 11 firms grew by 68.36% compared to preveous year which is a pleasing sign. Hardly any firm made business expansion from Bank loans.

- Enterprises also worry about the cost of internet. Many entrepreneurs feel that the cost of internet is much higher than other competing countries.
- As a service sector, the output is not as visible as goods sector which is a real problem.
- One of the Key challenges of the IT/ITES sectors in Bangladesh is the employee turnover which is high especially in high skilled sectors like software development.

74. Skilled Manpower is another problem especially for services that require advanced skills. Many enterprises think that they could not make expansion for lack of capital. One of the Key challenges of the IT/ITES sectors in Bangladesh is the employee turnover which is high especially in high skilled sectors like software development. There is increased and consistent demand for IT/ITES experts in developed countries. The visa requirements in countries like Canada, USA, UK etc is much easier. So, experts are migrating from Bangladesh to developed countries for higher education, better earnings as well as standards of living. Interviews with many entrepreneurs revealed that each year such migration is up to 5% of total employees. This is a constant threat for the development of this sector. Government and Private sector should work together to fix the problem. Government may provide few incentives for export oriented IT Professionals. For example, government may rebate income tax up to some percentage point. Government can afford this as the number of IT/ITES professionals is relatively low.

75. Private sector also needs to play their role to retain their skilled employees by better working environment. Introduction of post retirement benefits like provident funds, standard salaries and other compensation packages like profit bonus, lunch, medical allowance etc.

76. There is also lack of proper infrastructure. Although government is making high-tech park and other facilities, enterprises needs to get proper incentives and support socio economic environment around such parks so that experts may lead sound and healthy livelihood around the park.

77. Needless to mention that the IT is a sector for entrepreneurship predominantly by IT professionals, not by traditional millionaires. So initial investment, IT professionals lack capital needed and in the absence of knowledge by Banks, the problem is vital.

78. Business related rules and regulations also hinder to some extent the business, licensing procedure, import procedure needs to be much easier. However, other obstacles listed in the table above are minor. While opening a business key licenses/permits required by an entrepreneur include Trade License, Certificate of incorporation, Memorandum of Association, VAT Registration Certificate, Tax Identification Number which different departments of the government. Besides, Export registration certificate is required for export purpose and perdition from Board of investment is required from Board of Investment for forming joint venture companies. Enterprises require simplification of procedures in obtaining those certificates and procedure.

79. Lack of capital at initial level is barrier for new entrepreneurs. The IT & ITES enterprises so far have progressed by self entrepreneurship. Data on 18 enterprises shows that 77.62% of total initial investment made by 18 firms came from self financing while only 2.53% came from banks. Among these 18 enterprises, only one could get loans from Banks. Though the sample size is small, yet it could be assessed from the following figure that the institution funding is very low which is against the smooth progress of this sector.





Source: Information provided by 18 IT& ITES enterprises

Reasons for Entrepreneurs for Choosing this Sector for Investment

80. Information from 25 entrepreneurs showed that most of the entrepreneurs chosen this sector for investment for having a prior experience in this sector (32%) and passion (24%). The other reasons were High rate of return (16%). Market Access of the industry (16%), low capital requirement (8%) and low risk (4%). Following figure shows the reasons for entrepreneurs for choosing this sector for Investment.



Figure 11: Reasons for Entrepreneurs for Choosing this Sector for Investment

Source: Information provided by 25 IT& ITES enterprises

81. Following table shows the source of initial investment funds by type of 18 enterprises. It is observed from the table that Self Financing is higher (1,535.24 Lac Taka) than other source of initial investment. This sector needs to attract more domestic and Foreign Direct Investment.

				(Lac Taka)
Row Labels	Partnership	Private Limited	Sole	Total
			Proprietorship	
Banks	-	50.00	-	50.00
Friends & Relatives	-	250.00	12.00	262.00
Non Bank Financial	-	-	30.00	30.00
Institutions				
Other	-	100.00	-	100.00
Self Financing	50.80	1,453.25	31.19	1,535.24
Total	50.80	1,853.25	73.19	1,977.24

Source: Own Calculation from Survey Data(18 Enterprises)

Challenges for Freelancing

82. Information on 15 freelancers showed that the cost of obtaining internet bandwidth, smooth transaction of payments, Lack of proper infrastructure, Foreign Exchange Policy, Electricity load shedding, Internet bandwidth (speed), Business related rules and regulations of government, Access to Finance are founded as key problems. As the government is working with internet bandwidth, the major concern for freelancers is the smooth transaction of payments, that is the delay or hassles traditional banking system makes in receipt of payment which discourages both market places and freelancers. Introduction of PayPal is the key solution as the freelancers thought. Another important problem for the freelancers is the proper recognition. Freelancers also are now getting industry recognition in Bangladesh. Bangladesh Association of Software & Information Services (BASIS), has introduced Best Freelancer Award from 2011(Now BASIS Outsourcing Award 2015). This award is recognized by the Govt. so that they feel more encouraged to work for the betterment of this sector.

	Total	Average	Scale Points*				
		Score	1	2	3	4	5
				Fr	equency	r (f)	
Cost of obtaining internet	61	4.07	0	2	0	8	5
bandwidth							
Smooth transaction of	60	4.00	0	2	3	3	7
payments							
Lack of proper infrastructure	59	3.93	1	0	2	8	4
Foreign Exchange Policy7_	58	3.87	1	1	3	4	6
Electricity load shedding	57	3.80	0	4	2	2	7
Internet bandwidth (speed)	57	3.80	1	3	0	5	6
Business related rules and	53	3.53	1	3	4	1	6
regulations of government							
Access to Finance	46	3.07	2	2	5	5	1
Tax Policy	39	2.60	1	8	3	2	1
Obtaining permits (if any)	38	2.53	3	3	4	3	1
Regularity of work order	35	2.33	3	4	4	3	0
Loyalty of clients	33	2.20	4	7	2	1	1
Obtaining quality certification	33	2.20	4	6	3	2	0
Communication (language)	32	2.13	6	4	2	3	0
Access to market information	32	2.13	4	7	2	2	0
Country Image or Branding	31	2.07	1	6	2	3	0
Obtaining work order	29	1.93	5	8	0	2	0
Obtaining recognition from the	27	1.80	7	6	1	0	1
clients							

 Table 11: Obstacles Faced by Freelancers

*Scale Points: 1= No Obstacle 2= Minor Obstacle 3= Moderate Obstacle 4= Major Obstacle 5= Severe Obstacle

SWOT Analysis of the IT and ITES Services Outsourcing

SWOT analysis is a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities and Threats involved in a study or project. It involves specifying the objectives of the study identifying the external as well as internal factors that are in favorable and unfavorable to achieve those objectives. A SWOT analysis helps elucidate strategic advantages. SWOT Analysis of the IT and ITES Services Outsourcing sector shows the following Strengths, Weaknesses, Opportunities and Threats that should be considered for future policy reforms:

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Box 9: SWOT Analysis

Weakness

- Demographic Dividend
 - Lower cost of doing business compared to other competing countries
 - Availability of Skilled workforce
- Time zone advantage
- Incentives taken by Government in terms of Tax and other benefits

Strengths

- Bangladeshi students studying overseas in IT related subjects
- Bangladeshi skilled professionals working abroad.
- Increasing number of Bangladeshi university graduates in IT related subjects
- Cost value proposition
- English efficiency compared to other similar outsourcing destination
- Bangladeshi participant do well in all global IT programming, competition, fast learner and adopter of new technologies
- Friendly Govt. Policy

Opportunities

- Govt. initiatives
- Low wage level
- Political stability
- Exploring Foreign Market
- Sufficient Workforce
- Growth of matching outsourcing market
- Huge number of Educational Institutions offering IT related courses
- Time gap advantage
- Identified as Thrust Sector by govt.
- Capitalizing NRB's who work in overseas High Tech industry
- Internet and telecommunication user growing very fast
- Stable growth local and regional market
- Market segment of outsourcing left by India etc. as they are moving towards higher segments

- Absence of comprehensive laws and legislations
- Lack of proper exposure to international markets
- Image Branding
- Local Infrastructure for IT and ITES
- Untapped market in terms of supply perspective
- Cultural difference
- Inadequate Government incentives for IT industry growth
- Lack of fluency in languages other than English like French, Spanish, Italian etc.
- Limited Domestic Market

Threats

- Rise of neighbor nations in this field leading to their IT industry achieving a higher international market share of the outsourced services
- With communication being enhanced to such a level, location is now no longer an issue. Hence competition base is much more widened.
- With the IT services moving up the value chain ladder there are every possibility that our skill personnel base may become redundant owing to obsolete technology.
- Other ITES destinations such as China, Philippines and South Africa could have some competitive advantages on the cost factor.
- Slowdown of international demand
- ٠

Chapter Six

Recommendations

i. Within the framework of Digital Bangladesh, access to internet should be citizen right as it is the main communication medium. In Bangladesh, the cost of internet is high enough for the mass people. The number of broadband internet users is still low as the cost of internet is high. The majority of internet users in Bangladesh have access to internet through modem. Freelancing is not possible with limited mobile internet connections as stated by a freelancer "Mostly I face problem with bad and expensive internet connection. You know broadband internet connection is not available to all district or Upazilla level. There are one mobile internet available which actually very expensive and limited. Freelancing is not possible with those limited mobile internet connections. I think, it is the only way to expand freelancing profession to everywhere in Bangladesh is to make mobile internet unlimited and lower cost with minimum 2mbps speed". Enterprises as well as the freelancers of this sector are also worry about the cost of internet. Many entrepreneurs and freelancers feel that the cost of internet is much higher than other competitor countries like India and Philippines. Although Govt. is gradually reducing the cost of internet still it is a big issue for the end users especially at the district level. Different districts of Bangladesh are not getting access to the internet at the same price as Dhaka. To protect this sector Govt. should ensure the cost of internet at reduced price and available to all districts. Govt. may take initiative to ensure high speed internet at lesser cost at the user level. Besides, BASIS or similar concerns may identify the real Online Professionals and recommend to the Government to provide them with high speed internet at a lower price.

ii. The course curriculum in Bangladesh has already been providing due importance to ICT sector. Such curriculum should be much more practical than theoretical. For example, it is necessary to know the history of computer, but it is more important to know how to use it, where and how to get skills necessary to use computer to manage self employment. In this context Govt. may take necessary steps to include more hands on ICT related topics like success stories of the freelancers in the children's books so that the students from the very beginning realize the importance of IT and ITES in professional life.

iii. To get benefit for Bangladesh from outsourcing of IT/ITES services in large scale, it is necessary to bring upcoming young educated human resources into the coverage area of outsourcing. To do that it is necessary to classify the services as per the skill and educational qualification of the students. Some hands on exercise could be included at the secondary and higher secondary syllabus with a view to providing some practical knowledge on Outsourcing. Young age is the best time to learn and produce novel ideas. However, as IT/ITES outsourcing is more skill oriented than other jobs, professional training is more

important than general education. However, much online training is free and course curriculum may preclude information on such trainings. Free e-learning resources of outsourcing and freelancing should be available for all so that the interested persons can be get easy access to those information and motivate themselves for working in this sector.

iv. To fasten up the economic development of the country, Bangladesh Hi-Tech Park Authority (BHTPA) was established in 2010. As ICT has been considered as a thrust sector, the Government has taken various initiatives to achieve the target. Among them conducive business environment for Hi-Tech industries is mentionable. Information and Technology

(IT) Village/Software Technology Park (STP) in divisional level would be one of the important and priority projects which would be the milestone for the development of IT sector as well as industrialization in Bangladesh. But it needs to be addressed properly that the absence of socio economic infrastructure may put the initiatives of High-Tec Park questionable. No IT and ITES farm would be interested to shift in such a location where it would be quite difficult to afford all these.

v. IT sector shows a gradual growth in recent years. But the imposition of 4% VAT on e-commerce is really an obstacle to the growth of e-commerce as well as other IT business. Imposition of 4% value added tax on e-commerce for the fiscal year 2015-16 may hinder the growth of the this sector. Exemption from this would facilitate the continuous growth of this sector.

i. Govt. may consider exempting this 4% VAT from ecommerce.

ii. The jargons like BPO, BPM, KPO, KPM, LPO etc. needs to be introduced to make the nature of service more visible to the foreign clients.

iii. Govt. may take necessary steps to include more hands on ICT related topics like success stories of the freelancers in the children's books.

iv. Initiatives taken by Govt. to attract Pay Pal in Bangladesh.

v. VAT on house rent for IT/ITES enterprises might be rebated.

vi. Different countries use different terms to mean IT/ITES outsourcing services. Business Process Outsourcing involves the contracting of the operations and responsibilities of a specific business process to a third-party service provider. BPO is typically categorized into back office outsourcing, which includes internal business functions such as human resources or finance and accounting, and front office outsourcing, which includes customerrelated services such as contact centre services. On the other hand Business Process Management is a subset of infrastructure management, where maintaining and optimizing an organization's equipment are to be managed. The goal of BPM is to reduce the errors which are made by humans and focus on stakeholders. Knowledge process outsourcing refers to outsourcing of core information-related business activities which are competitively important or form an integral part of a company's value chain. Knowledge Process Outsourcing requires advanced analytical and technical skills as well as a high degree of specialist expertise. Legal Process Outsourcing which is also familiar as legal outsourcing under which the most commonly offered services are agency work, document review, legal research and writing, drafting of pleadings and briefs, and patent services. In this context, the jargons like Business Process Outsourcing (BPO), Business Process Management (BPM), Knowledge Process Outsourcing (KPO), Knowledge Process Management (KPM), Legal Process Outsourcing (LPO) etc. needs to be introduced in addition to ITES to make the nature of service more visible to the foreign clients. These terminologies are internationally recognized to understand the nature of the services provided world-wide. In this connection, Govt. as well as business associations may take initiatives for building awareness among the stakeholders.

vii. PayPal is a worldwide online payments system through which Online money transfers appeared as electronic alternatives to traditional paper methods like cheques and money orders. PayPal is now available in 56 countries and allows sending and receiving funds in 6 currencies. It would make the payment system smoother and outsourcers from Bangladesh would get rid of the problems associated with online transaction through initiatives taken by Govt. to attract Pay Pal in Bangladesh.

viii. For the identification of the real freelancers among different Banks Officials, they should be trained about the basic concept of freelancing, outsourcing, marketplaces, online payment gateways (payoneer, skrill etc), blogging, affiliate channels (Amazon, clickbank, Commission Junctions etc) to identify the real freelancers to ensure a smooth transaction. BASIS, BCS, BCC or similar concerns including Government may organize such awareness building programs.

ix. Most of the IT/ITeS enterprises use rented office premises. Information on 26 IT/ITeS firms finds that only 3 of them the owner uses own office building. Now, if on an average each of 800 IT/ITES firms BDT 5 to 7 lac per year and provides 9% VAT on house rent, then the government will get BDT 3.60 Crore to BDT 5.04 Crore. At national Perspective, the value is negligible. In order to provide incentive to the IT/ITES enterprises and encourage new entrepreneurship, VAT on house rent for IT/ITES enterprises might be rebated.

x. Many Bangladeshi skilled professionals are working abroad. They can be encouraged to return Bangladesh or collaborate with Bangladeshi entrepreneurs. Govt. may take initiatives to provide proper environment for them.

xi. Bangladeshi university graduates in IT related subjects have been increasing every year, although the number is much less than the requirement. On the other hand the number of HSC passed students having GPA 4 and above has been increasing. These students may be encouraged to work for this sector. In this connection Govt. may reform education policy to attract more students to study science as they have the potential to be the future workforce for this sector. Almost all the Bangladeshi universities and institutes are traditional which conduct IT related courses. Moreover at present Bangladesh does not have any advanced

Science and Technology Institute adopt the new science and technology. So, Govt. may take initiative to establish some advanced Science and Technology Institute which would guide the nation for adopting such technology and make more workforces for this sector.

xii. Domain Knowledge Building is another important initiative for this sector. If the enterprises in the industry have to move up the value chain, then the first pre requisite should e building up domain knowledge. Only this can help them in satisfying their customers and in turn winning their confidence. Once this is achieved, they will become 'repeat customers' for them.

xiii. Investing in Research and Development is very crucial for this sector to be emerged. This may help in innovating new services and new export destinations by way of diversification in services and diversification in destinations which could help in the growth of the industry as well as economy as a whole. Govt. may invest more for Research and Development in this sector and conduct studies time to time in collaboration with other associations and research organizations for policy reforms and new policy recommendations.

xiv. Knowledge management is a technique which helps in retaining the knowledge in the company, even when these knowledgeable persons leave the organization. This is an import factor for this sector to survive in this competitive edge. The industry faces a high attrition rate which deprives the company of its talents. It is a technique of assembly, preservation, transfer and management of data and knowledge in companies. Our companies and associations may take initiatives regarding Knowledge management.

xv. A boost in the domestic sales can occur with more favourable government policies and also improvement in the infrastructure which is a pre requisite for the growth of IT industry as a whole. Friendly policies are also good for attracting FDI. In this context Govt. should consult with all the stakeholders before recommending new or reforming existing acts, rules and policies.

xvi. Govt. should focus on professional training as it is more important than traditional education. So, Govt. may establish need based specialized training centers and institutes to generate more workforces for this sector.

xvii. Highly qualified talent pool of technical graduates and freelancers are the future workforces as well as future entrepreneurs for high end service providers which has high demand in the foreign IT and ITES outsourcing market. Highly qualified talent pool of technical graduates and freelancers should be constructed and trained for working with this sector.

83. Freelancers' success stories have been discussed in this study and various other studies. They are the pioneers for this sector. They must be attracted for becoming as an entrepreneur. All kind of facilities should be provided for them so that they are attracted to be a successful entrepreneur. Entrepreneurship should be encouraged for future employment generation. Freelancers are now getting recognizion (**Best Freelancer Award**) declared by BASIS. They should also be recognized by the Govt. as well as other associated organization's awards so that they feel more encouraged to work for the betterment of this sector.

xviii. Image building and branding is a continuous process. To increase the country image and branding of Bangladesh different types of initiatives have been taken which includes policy initiatives, master plan, and action plan etc. As lack of promotion of the country image or branding is one of the major challenges for this sector that many entrepreneurs feel to be fixed out, Govt. may take more initiatives together with the business IT related organizations for creating image and branding. The slogan of "Digital Bangladesh" has promoted the country image in IT sector by a great deal. In this connection some more Branding Campaign needed. In this case Govt. may utilize the Bangladesh's foreign mission abroad. In consultation with the Bangladesh's foreign mission abroad BASIS may start taking such initiatives for creating image and branding.

Summary of Recommendations

This study paper has made an insight analysis on IT and IT Enabled Services Outsourcing sector of Bangladesh focusing the potential and difficulties faced by this sector and accordingly made some recommendations as mentioned above which can be summarized as follows:

- Govt. should ensure the cost of internet at reduced price at the user level and make available to all districts. Besides, BASIS or similar concerns may identify the real Online Professionals and recommend to the Government to provide them with high speed internet at a lower price.
- ii. Necessary step needs to be taken to include more hands on ICT related topics to attract the students from the very beginning with a view to realizing the importance of IT and ITES in future professional life.
- iii. Free e-learning resources of outsourcing and freelancing should be available for all so that the interested persons can get easy access to that information and motivate themselves for working in this sector.
- iv. Priority should be given to establish Information and Technology (IT)
 Village/Software Technology Park (STP) in divisional level ensuring socio economic

infrastructure which could be the milestone for the development of IT sector as well as industrialization in Bangladesh.

- v. To facilitate the continuous growth of this sector VAT on e-commerce (4%) needs to be exempted.
- vi. Govt. as well as business associations may take initiatives for building awareness among the stakeholders regarding the internationally recognized jargons like Business Process Outsourcing (BPO), Business Process Management (BPM), Knowledge Process Outsourcing (KPO), Knowledge Process Management (KPM), Legal Process Outsourcing (LPO) etc. needs to be introduced in addition to ITES to make the nature of service more visible to the foreign clients.
- vii. Initiatives to be taken by Govt. to attract Pay Pal in Bangladesh for ensuring the international online transaction smoother especially for the freelancers of Bangladesh.
- viii. BASIS, BCS, BCC or similar concerns including Government may organize awareness building programs among different Banks Officials about the basic concept of freelancing so that they can identify the real freelancers.
 - ix. VAT on house rent for IT/ITES enterprises might be rebated as an incentive with a view to encouraging the IT/ITES enterprises as well as new entrepreneurship.
 - Govt. may take initiative to provide proper environment for the Bangladeshi skilled professionals who are working abroad who should be encouraged to return Bangladesh or to collaborate with Bangladeshi entrepreneurs.
 - Initiative to be taken to establish some advanced Science and Technology Institute which would guide the nation for adopting new technology and make more workforces for this sector.
- xii. Govt. may invest more for Research and Development in this sector and conduct studies time to time in collaboration with other associations and research organizations for policy reforms and new policy recommendations.
- xiii. Our companies and associations may take initiatives regarding knowledge management which will help retaining the knowledge in the company, even when these knowledgeable persons leave the organization.

- xiv. Govt. should consult with all the stakeholders before recommending new or reforming existing acts, rules and policies.
- xv. Govt. should focus on professional training as it is more important than traditional education. So, Govt. may establish need based specialized training centers and institutes to generate more workforces for this sector.
- xvi. Highly qualified talent pool of technical graduates and freelancers should be constructed and trained for working with this sector.
- xvii. Freelancers as well as entrepreneurs should also be recognized by the Govt. as well as by the other associated organizations to make them feel more encouraged to work for the betterment of this sector.
- xviii. Govt. may utilize the Bangladesh's foreign mission abroad regarding Image building and branding. In consultation with the Bangladesh's foreign mission abroad BASIS may start taking such initiatives for creating image and branding.
 - xix. Above all, Government needs to prioritize the impediments faced by this sector and undertake concrete follow up actions.

Concluding Remarks

As an emerging source for IT and ITES outsourcing destination and as a developing market, Bangladesh has a fair set of weaknesses. Most of them come from lack of skills, know-how and adequate investment in the country. Keeping these weaknesses in mind Government has taken different plans, strategies, and projects to facilitate IT sectors. Government's "thrust sector" initiatives for ICT include exemption of income tax, value-added tax, and customs duty for ICT industry establishment of national ICT policy, organizing the ICT National Taskforce (the chair is the Prime Minister) establishment of ICT incubation center, long-term equity fund and short term working capital financing, enactment & Copyright Law etc. Several pilot initiatives are being formulated and implemented under intense supervision o respective Government agencies. Special Hi-Tech and Software Technology Parks are being built by the government to facilitate all the infrastructural supports needed by outsourcing companies. The future of the IT and ITES outsourcing industry is very bright provided it overcomes the challenges, weaknesses and threats cited above. To make all these plans, policies and initiatives to be a successful one, government needs a collaborative action plan to prioritize the impediments faced by this sector as identified in this study and various others study and undertake concrete follow up actions.

Annex 1

EN

T. No.			
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Government of The People's Republic of Bangladesh Bangladesh Tariff Commission 1st 12 Storied Gov't Office Building Segunbagicha, Dhaka-1000. www.btc.gov.bd



Questionnaire for the study on IT & IT Enabled Services Outsourcing in Bangladesh

The purpose of this questionnaire is to gather information and opinions about the problems and prospects of IT & IT Enabled Services (ITES) Outsourcing in Bangladesh. Bangladesh Tariff Commission emphasizes that information gathered here will help advise government in developing new policies and initiatives that enhance employment, trade in services and economic growth. The information obtained here will be kept confidential. Neither your name nor the name of your business enterprise will be used in any report to be prepared based on this study.

Name of the enterprise _____

Address ______ Website_____

Name of the respondent ______

Designation _____ Contact No _____

Name of the Interviewer_____ Contact No._____

Bangladesh Tariff Commission is a statutory public advisory body that recommends government on the protection of domestic industry, promotes fair trade and negotiation under bilateral, multilateral and regional trade agreements.

Objectives of the Study

- To identify the potential IT & IT Enabled outsourcing services in Bangladesh
- To identify the export opportunities for selected IT & IT Enabled outsourcing services of Bangladesh
- To assess the potential of IT & IT Enabled outsourcing Services as a source of employment generation
- To diagnose the constraints working against exploring the opportunities of IT & IT Enabled Services in Bangladesh.
- To prepare a policy recommendation for the government to remove the obstacles identified in order to promote IT & IT Enabled Services of Bangladesh at home and abroad

Expected Outcome

Potential sub sectors of IT & ITES will be identified which will help negotiate at bilateral, multilateral and regional level. The publication of this study, arrangement of seminar and workshops will generate public awareness. The study will explore a suitable source of self employment. Above all the study will help expand the export market as well as reduce trade deficit of Bangladesh with other countries.

A: General Information

A1. K	ey Service delivered (In terms of turnover)	A2. O	ther Service(s) delivered
	Web & Mobile Development		Web & Mobile Development
	IT & Networking		IT & Networking
	Data Science & Analytics		Data Science & Analytics
	Engineering & Architecture		Engineering & Architecture
	Design & Creative		Design & Creative
	Writing		Writing
	Translation		Translation
	Legal		Legal
	Admin Support		Admin Support
	Customer Service		Customer Service
	Sales & Marketing		Sales & Marketing
	Accounting & Consulting		Accounting & Consulting
	Others		Others (please specify).
			Others (please specify).
A3. N	Number(s) of branch office/ work station in		Others (please specify).
	adesh-		Others (please specify).
-			Others (please specify).
			Others (please specify).
			Others (please specify).
			Others (please specify).

A4. Status of your firm-

- □ Sole proprietorship
- Dertnership
- Private Limited
- Public Limited
- Others (Please specify.....)

A5. Total Persons Engaged (TPE) at the beginning of the firm

a. IT	
b. ITES	

A6. Was this establishment formally registered at the beginning of the operation?

□ Yes	🗌 No
-------	------

A7. Year of establishment and registration:

	Year
Established	
Registered	
Not Yet Registered	

A8. Please mention the license/permits required before going into operation of your business and time spent for obtaining such permits/licenses

	Name of License/permits	Purpose	Authority	Time required (days)
1				
2				
3				
4				
5				
6				

B: Personal Inform	ation			
B1. Age of Entrepreneur:				
Below 30	30-39	40-49	50-59	above 59
B2. Gender of Entreprene	eur:			
	☐ Male	Female	☐ Others	
B3. Educational Qualifica	tion of Entrepreneu	ır:		
	 Below Sec Secondary Higher Sec Bachelor Masters Above Ma 	condary		
B4. Years of working e	xperience of Entr	epreneur:		
Below 5	5-9	10-14 🗌 15-1	9 🗌 20-2	Above 24
B5. Age of Top Manager	(CEO/MD)			
Below 30	30-39	40-49	50-59	above 59
B6. Gender of Top Mana	ger/ (CEO/MD)			
	☐ Male	Female	Others	

B7. Educational Qualification	on of Top Manage	er (CEO/M	D)		
	 Below Sec Secondary Higher Sec Bachelor Masters Above Ma 	condary			
B8. Years of working exp	perience of the C	CEO/MD			
\square Below 5 \square 5	5-9	10-14	15-19	20-24	Above 24
B9. What was/were the m	najor reason(s) f	for selectin	g this sector for	investment?	
 Low capital req Low risk High rate of rett Market Access 	urn		Passion Others (please	e of the entreprosent of the entreprosent specify)specify)	
C: Infrastructure					
C1. Status of your office	Building:				
		wn	Rented		
C2. Source(s) of power s	upply for your e	enterprise-			
	National Crid			Percent	
	National Grid Own generator				
	Shared generator	r			
	Other Source (sp				
	Total	,		100%	
l				10070	
C3. Over the last 5 years	has your enterp	orise applie	d for electricity	connection?	
	□ Y	es	🔲 No		
C3a. If Yes, mention th	1 6 1				

	Day(s)
Applied but haven't get yet	
Application denied	
Got the connection successfully	

C4. Please provide the means of internet connection used in your establishment and approximated share (percentage) of each means in total usage of internet

	Percent
Broad Band	
Modem	
Others (please specify)	

C5. In obtaining an electrical or internet connection, did you face any problem?

Electrical Connection	☐ Yes	🗌 No
Internet Connections	☐ Yes	🗌 No

C5a. If Yes, please mention the problem.

Electrical Connection	
Internet Connections	

D. Obstacles

D1. Degree of an obstacle to the current operations of this establishment-

1= No Obstacle 2= Minor Obstacle 3= Moderate O Obstacle	bstacle	4= Ma	jor Obsta	acle 5	= Severe
Internet bandwidth (speed)	1	2	3	4	5
Cost of obtaining internet bandwidth	1	2	3	4	5
Electricity load shedding	1	2	3	4	5
Communication (language)	1	2	3	4	5
Obtaining permits (if any)	1	2	3	4	5
Access to market information	1	2	3	4	5
Obtaining quality certification	1	2	3	4	5
Obtaining recognition from the clients	1	2	3	4	5
Smooth transaction of payments	1	2	3	4	5
Loyalty of staffs	1	2	3	4	5
Obtaining work order	1	2	3	4	5
Enforcing contract with the client	1	2	3	4	5
Shortage of Skilled Manpower	1	2	3	4	5
Lack of capital	1	2	3	4	5
Access to Finance		2	3	□ 4	5
Business related rules and regulations of government	1	2	3	4	□ 5

Tax Policy	1	2	3	4	5
Lack of proper infrastructure	1	2	3	4	□ 5
Foreign Exchange Policy	1	2	3	4	□ 5
Country Image or Branding)	1	2	3	4	5
Others (please specify)	1	2	3	4	□ 5
Others (please specify)	1	2	3	4	□ 5
Others (please specify)	1	2	3	4	5
Others (please specify)	1	2	3	4	5
Others (please specify)	1	2	3	4	□ 5

D2. Regarding the obstacles pointed above, please mention three obstacles that hinder your business mostly.

E. Finance

1.

2.

3.

E1. Please mention the amount of initial investment to your enterprise.

	Amount of Investment in BDT	Interest Rate (if applicable)
Self Financing		
Banks		
Non Bank Financial Institutions		
NGOs		
Friends & Relatives		
Other sources (please specify)		
E2. Have you expanded your enterprise?

☐ Yes ☐ No

E2a. If Yes, Please mention the nature of expansion.

E2b. If No, Please mention the reason(s) why it has not yet been possible for you to expand your enterprise.

E2c. What was/were the major reason(s) for expanding this sector for investment?

- Low capital requirement
- Low risk
- High rate of return
- Market Access of the industry
- Prior experience of the entrepreneur(s)
- Others (please specify)

E2d. Please mention the amount of investment for the expansion till date

	Amount of Investment in BDT	Interest Rate (if applicable)
Self Financing		
Banks		
Non Bank Financial Institutions		
NGOs		
Friends & Relatives		
Other sources (please specify)		

E3. Please provide following financial information about your enterprise. (In lac BDT)

_		2009-10	2010-11	2011-12	2012-13	2013-14
А	Investment					
В	Net book value of fixed assets.					
С	Working capital					

F. Human Resources

F1. Please provide following employment information of your enterprise.

	[N	umber
		Full	Contractual
		time	
Managerial Officers	Male		
(CEO, GM, and others	Female		
administrative officers/associates)	Other		
Outsourcing Related l Experts (Engineer, Programmer etc)	Male		
	Female		
	Other		
	Male		
Other support staffs	Female		
	Other		

F2. Please mention the range of monthly salaries and allowances paid to **Outsourcing Related Experts** offered by your enterprise.

	Fringe benefits.	Range of Salaries and allowances in BDT
	Basic Salary	to
	House Rent	to
	Lunch	to
	Overtime	to
Full time Employees	Medical	to
	Provident/pension fund	Tyes No
	Transportation	to
	Lunch Allowance	to
	Others (specify)	to

F3. Please mention the minimum requirement for an outsourcing related expert:

	Educational Qualification	Experience	Others (specify)
Web & Mobile Development			
IT & Networking			
Data Science & Analytics			
Engineering & Architecture			
Design & Creative			
Writing			
Translation			
Legal			
Admin Support			
Customer Service			
Sales & Marketing			
Accounting & Consulting			
Others			

F4. Please mention the minimum professional training(s) that outsourcing related experts need.

	Name of Training
Web & Mobile Development	
IT & Networking	
Data Science & Analytics	
Engineering & Architecture	
Design & Creative	
Writing	
Translation	
Legal	
Admin Support	
Customer Service	
Sales & Marketing	
Accounting & Consulting	
Others	

F5. Does your enterprise arrange training program for employees?

Yes No

F5a. If Yes, mention the number of training program(s) arranged/attended by your enterprise in the last 5 (five) years;

	Arranged	Attended
By the enterprise itself		
By Government		
Jointly		
Others		

F5b. How many training program(s) was/were conducted by local or foreign trainers in the last 5 (five) years?

	Number
Local Trainers	
Foreign Trainers	
Jointly by Local and Foreign Trainers	

G. Clients

G1. Number of work orders received in last 5 years:

	Number
Bidding from online circulars/tenders	
Work Orders from trusted Clients	
Other sources (please specify)	

G2. Do you have any agreements/contracts with any trusted clients to work on regular basis?

☐ Yes	🗌 No
-------	------

G2a. If Yes, mention the number of contracts you have with different Clients in last 5 years:

_		Number of Contracts
	Local Clients	
	Foreign Clients	

G2b. In case of foreign contracts, provide the name of country and number of such contracts (last 5 years):

Country	Number of Contracts

G3. Hoe important the following factors are to ensure that the work orders are not fake? 1= Not Important 2= Slightly Important 3= Fairly Important 4= Important 5= Very Important

The previous work experience with the client.	1	□ 2	3	4	□ 5
The goodwill of the client	1	2	3	□ 4	□ 5
Personal connection	1	2	□ 3	□ 4	□ 5
Advance payment	1	□ 2	□ 3	4	□ 5
Others (please specify)	1	□ 2	3	4	□ 5
Others (please specify	1	□ 2	3	4	□ 5

G4. How do you receive the payments from your foreign clients?

G5. In the last 5 years, was your enterprise involved any dispute with foreign clients

Yes	
-----	--

] No

G5a. If Yes, how the dispute was resolved?

H. Performance

H1. Please mention the information regarding the service delivery of your enterprise.

(In lac BDT)

			1	T	,	(III fac BDT)
		2009-10	2010-11	2011-12	2012-13	2013-14
1	Annual Gross Turnover					
1.1	Domestic					
1.2	Foreign					
	Export of Outsourcing Services					
2	Annual Cost of Services					
2.1	Materials					
	Local					
	Imported					
2.2	Salaries & allowances paid to administrative officials					
2.3	Salaries & allowances paid to outsourcing related experts					
2.4	Office rent					
2.5	Electricity bills					
2.6	Internet charges					
2.7	Other operating cost					
3	Taxes					
4	Payments made for subcontract (if any)					
5	No. of Outsourcing related experts					
6	Capacity Utilization					

H2. Major Export destination(s) of outsourcing services your enterprise:

5		1 I	(Lac BDT)
	Export in 2009-10	Export in 2013-14	
Country			

H3.Outsourcing services exported by your enterprise:

		Lac BDT
	2013-14	2009-10
Services		

H4. In the last 5 (five) years, had your enterprise experience any lock out or shut down?

			Number (If Yes)
Lockout	☐ Yes	D No	
Shut Down	☐ Yes	□ No	

H4a. If Yes, please mention the reason:

I. Role of the Government

(Extra pages can be used if needed)

I.1. Incentives you are enjoying from the government:

- I.2. Other facilities you recommend to be provided by the government:
- I.3 Initiatives to be taken by the government for overall development of the sector:
- I.4. Country specific request(s) (if any) that the government can put in negotiation agenda

Annex 2

Expert. No.



Government of The People's Republic of Bangladesh Bangladesh Tariff Commission 1st 12 Storied Gov't Office Building Segunbagicha, Dhaka-1000. www.btc.gov.bd



Questionnaire for the study on IT & IT Enabled Services Outsourcing in Bangladesh

Outsourcing Related Experts

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Name of the Respondent_____

Address _____

Occupation _____Email_____

Designation _____ Contact No _____

Name of the Interviewer_____ Contact No._____

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Expected Outcome

Potential sub sectors of IT & ITES will be identified which will help negotiate at bilateral, multilateral and regional level. The publication of this study, arrangement of seminar and workshops will generate public awareness. The study will explore a suitable source of self employment. Above all the study will help expand the export market as well as reduce trade deficit of Bangladesh with other countries.

[Please double click on the checkbox, then select 'checked' and click 'OK' wherever applicable]

1. Area of Expertise:

Web & Mobile Development Image: Constraint of the second seco	Customer Sales & M Accountin Others (p) Others (p)	Marketing ng & Cons lease spec lease spec	ify ify).
Writing Translation	Others (p) Others (p)				
Legal	Others (pl				
Admin Support	Others (p)	-	-		
2. Age:					
Below 30 30-39 40-49		50-59] above 5	9
3. Gender:					
Male Fe	male	0 []	thers		
4. Years of working experience:					
Below 5 5-9 10-14	15-19)	20-24	Ab	ove 24
5. Educational Qualification:					
 Below Secondary Secondary Higher Secondary Bachelor Masters Above Masters 					
6. Advantage of Employment over Free Lancing:					
1= Strongly Disagree 2= Disagree 3=Neutral 4=	Agree 5	= Strong	ly Agree		
Employment ensures professional identity	1	2	3	4	5
Employment assures regularity of works	1	2	3	4	5
Payment in Free Lancing is uncertain	1	2	3	4	5
Free lancing is too competitive to ensure work on regular basis	1	2	3	4	5
Free Lancers are susceptible to Fake work orders	1	2	3	4	5
Others (please specify)	1	2	3	4	5

Others (please specify)		1	2	3	4	5
7. Advantage of Free Lancing over Empl <i>1= Strongly Disagree</i> 2= Disagree 3=New	•		Strongh	1 9499		
1 – Strongly Disugree 2 – Disugree 5–Nei	шти	4-Agree J-	Sirongiy	Agree		
Earning is not limited to certain amount		1	2	3	4	5
Independence in working		1	2	3	4	5
Rate of return for each assignment is higher	er	1	2	3	4	5
Others (please specify)		1	2	3	<u></u> 4	5
Others (please specify		1	2	3	4	5
8. What was/were the major reason(s) for selecting this sector as a profession?						
Relevance with Educational Passion Background Passion						
Failure to get jobs in other Independence in Working sector						
High rate of return		Others (pleas	e specify	r)		
It's an Intellectual Sector		Others (pleas	e specify	r)		
9. Degree of obstacle in your business: 1= No Obstacle 2= Minor Obstacle 3= Obstacle	Mode	erate Obstacle	e 4= N	Iajor Ob	ostacle	5= Severe
Internet bandwidth (speed)		1	2	3	4	5
Cost of obtaining internet bandwidth			2	3	4	5
Electricity load shedding		1	2	3	4	5
Communication (language)			2	3	4	5
Obtaining permits (if any)		[]1	2	3	4	5
Access to market information			2	3	4	5
Obtaining quality certification			2	3	4	5
Obtaining recognition from the clients			2	3	4	5
Smooth transaction of payments			2	3	4	5
Loyalty of clients		1	2	3	4	5

Obtaining work order	1	2	3	4	5
Regularity of work order	1	2	3	4	5
Access to Finance	1	2	3	4	5
Business related rules and regulations of government	1	2	3	4	5
Tax Policy	1	2	3	4	5
Lack of proper infrastructure	<u>1</u>	2	3	4	5
Foreign Exchange Policy	1	2	3	4	5
Country Image or Branding)	1	2	3	4	5
Others (please specify)	1	2	3	4	5
Others (please specify)	1	2	3	4	5
Others (please specify)	1	2	3	4	5
Others (please specify)	1	2	3	4	5
Others (please specify)	1	2	3	4	5

10. Regarding the obstacles pointed above, please mention three obstacles that mostly hinder your business.

1.		
2.		
3.		

11. If Yes, mention the number of training program(s) attended by you in the last 5 (five) years;

	Local	Foreign
By the Employer		
By Government		
Jointly by Employer and the Government		
Others		

12. Annual income from IT/ITES Outsourcing (If actual data is not recorded, use the best approximation)

Services	2009-10	2010-11	2011-12	2012-13	2013-14

13. Major export destination (s) of your services

Services	Name of countries	

14. Do you face any difficulty receiving the payments from your foreign clients?

15. Facilities you recommend to be provided by the government:

16. Initiatives to be taken by the government for overall development of the sector:

17. Country specific request(s) (if any) that the government can put in negotiation agenda:

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