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Bangladesh's Readiness for the International Call Center Industry

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Abstract

Recent trends in the global outsourcing industry have identified an opportunity for Bangladesh to enter the offshore Call Center Industry. A major challenge for Bangladesh is to create a pool of workers who would find employment as call center agents. This paper focuses on four important dimensions of the skills required of these workers: English proficiency, enlightening proficiency (skills related to computer handling, communication, and cultural adaptation), psychological orientation, and willingness to work. Our findings reveal that potential Bangladeshi workers for the global Call Center Industry are less skilled by international standards in several areas: English language, listening, speaking, comprehension, and communication. However, their competencies are high in cultural compatibility and computer handling. For Bangladesh to succeed in this international global business, the country must invest in improving the English proficiency of potential employees. There must also be additional emphasis on interactive teaching and extracurricular activities to improve the listening and communication skills of graduates.

1 Introduction

A Call Center for business process outsourcing (BPO[1]) is a business, where interested customers call in for support. Trained agents handle these incoming inquiries using a variety of technologies such as the phone, fax, e-mail, web, and kiosk. The services provided by the call center agents include customer service, inbound/outbound marketing, direct sales, sales support, reservations, and market research, technical help, inside support, order/billing processing, credit/collections, fundraising, and appointment setting, among others. These businesses serve as the "first line of defense" for an organization. They serve businesses across different sectors. The Call Centers have emerged as a strategic response by large businesses to improve their customer services, and to reduce costs. These centers manage customer relationships, drive revenues, and increase profits (Carmel & Tjia, 2005; John, 2000).

Setting up a Call Center is a sizeable investment. The terms of the initial decision, service agreements, location and facilities, all affect the success of the business. The highest quality of efficient service and strategic planning to hire the best employees is critical for the success of a well-organized Call Center (Houlihan, 2002). It is imperative to make good decisions in assessing technologies, hiring, staffing logistics, certification, orientation, strategic support skills and technical training.

[1]BPO is contracting of non-primary business activities and functions to a third-party provider, e.g., payroll, human resources (HR), accounting and customer/Call Center relations. BPO - also known as Information Technology Enabled Services (ITES) performs a process or part of a process for another organization; while a Call Center performs that part of a client's business, which involves handling customer service telephone calls. Thus, a Call Center can be considered a BPO organization; because there are BPO organizations (e.g., medical transcription agencies) which handle their business through websites, not telephonic calls.

Call Centers have evolved from companies that used to provide customer service via primarily low-tech, single-facility environments to those, which support full-service multi-channel centers located strategically across time zones and broad geographic areas. To meet the growing global demand for lucrative, customer-interaction centers, many organizations worldwide are outsourcing these services to countries like India, the Philippines, the Bahamas, and other developing countries for lower cost. The core competency offered by these host nations includes a large pool of technically competent workers. For example, India graduates about 100,000 engineers each year, many of whom find employment in Call Centers providing tech support (Haq, 2008).

In a typical Call Center, labor accounts for 55 to 60 percent of the total cost (Anton and David, 2000). The cost of recruiting, and hiring and training "agents" is high and getting higher in the developed countries. Thus, companies are willing to outsource Call Centers to the Indian subcontinent to reduce their labor cost (Srinivasan, et al., 2004). The competitive pressures from the emergence of "boundary-less" global economy, have spurred outsourcing - for providing significant cost savings, flexibility, and improved operational performance. Therefore, offshoring of Call Centers is not a short-term tool for cost-savings – rather a long-term strategic move, which has become an integral part of many multinational corporations (PwC, 2005).

But there remain considerable challenges in controlling projects remotely, since there are differences in culture, language, business methods, politics, etc. across nations (Carmel and Tija, 2005). The business model of focusing on core competencies and leveraging benefits of outsourcing has become a key strategy pursued by large corporations across the world (Hollman et al., 2007). BPO providers provide a wide spectrum of services to their customers, from expertise in the outsourced processes, lower costs achieved through economies of scale, scalability, and the ability to absorb cyclicality of demand (PwC, 2005).

Wage arbitrage, improved quality and higher productivity of Call Center agents is the basis for decisions on the destination of Call Centers across the globe (Freeman, 2008). Labor competitiveness comprises of components such as labor availability, education, skills, English fluency, cultural compatibility to western markets and attrition rates. Other factors consist of a nation's specific business and political risks, geographic location and time difference, tax regime and regulatory considerations. Overall, the main attributes of workforce readiness are psychological readiness, English proficiency, technical proficiency, and work ethics.

1.1 Bangladesh's Preparedness for Call Centers

Bangladesh has the potential to become the next emerging destination for offshore Call Centers. There has been a recent push for Bangladesh to enter the Call Center market to take advantage of the spillover from India. Strategically located near India, hosting a significant number of educated and skilled workers, Bangladesh can develop a cost-effective outsourcing industry, especially for smaller companies. Experts forecast that nearly 10,000-20,000 Call Center jobs will be generated in Bangladesh in the next 2 to 5 years (Haq, 2008; Rahman et al., 2015).

The Labor Force Survey (2013) found that Bangladesh has nearly 50 million people in the labor force, of which 75% are male and 25% are female (BBS, 2017). The survey revealed that the labor force is growing at nearly twice the rate of growth in population. This relationship is likely to persist over the next few decades. To meet the country's employment needs by the year 2020, Bangladesh must create 2.25 million new jobs annually (World Bank, 2000). The education system is producing graduates whose skills are not in demand resulting in joblessness among the educated youth (Chowdhury et al., 2016). The expectations generated among the graduates by the content curricula, educational environment, labor market incentive structure and the whole system, in general, further aggravate the problem. Even though the students and graduates have realistic perceptions about their employment prospects, they continue to aspire for certain white-collar jobs.

The medium of instruction in Bangladesh was predominantly English until the 1960s when Bengali was introduced at the secondary and post-secondary level as a medium of instruction, along with English. Since Bangladesh's independence in 1971, the government phased out English and implemented Bangla as the only medium of instruction in public schools (Selim et al., 2001). This has resulted in a decline in the standards of teaching of English in public schools (Miller, 2002), with the teaching in English confined to elite private schools, leaving public school graduates with poor English skills (Zaman, 2003). In the last decade, the situation has somewhat improved with an increase in the number of English medium educational institutions in the secondary and tertiary level (Ahmad, 2006).

Recent graduates are more likely to acquire a business degree, which has higher employment prospect. Despite this, business graduates are frustrated given the high levels of unemployment. The dilemma of employability appears since there are imbalances between the skills of

the graduates and skills the employers need (Islam, 1980). Thus, it is important to focus on technical skills and personal aptitudes, in addition to the degree, certificate, and diploma. Also, the corporate bodies in Bangladesh put greater emphasis on exposure to the corporate culture, work experience, and analytical competence (Chisty et al., 2007).

The depressed levels of employment opportunities, job insecurity and displacement, growing risk of exclusion from employment for those without expertise, all underline the urgency of developing workers' skills through continuous training and education. The changes in employment in an increasingly complex and uncertain labor market warrants adjustments in job content, skill requirements and knowledge (Titumir and Hossain, 2003). Graduates with some specialization are clearly more employable with a lower rate of unemployment.

According to experts, with appropriate government and private sector support, Bangladesh can be an excellent destination for the outsourcing industry in terms of manpower, location, expertise and cost (BACCO, 2015). The fiber optics internet backbone has provided a strong technological infrastructure support for BPO operations in Bangladesh (Karmakar, 2007). Another major advantage is that the English pronunciation of potential employees of Call Centers is not heavily affected by the local accents, as is the case for workers in India and the Philippines.

Substantial investments in private universities and vocational training institutes recently have created strong prospects in the BPO space for Bangladesh including Call Center business. There has been a creation of ample supply of relevant human capital both at undergraduate and graduate levels due to a sustained growth in the number of private universities. According to an industry study, even though Bangladesh produces 200,000 graduates every year, only 10-20% of these are BPO ready given the rigorous needs of global commerce. The country has yet to have the capability, credibility and cultural understanding of this high growth industry.

The global BPO industry has grown to a hundred-billion-dollar industry, with an annual growth rate of 10% in recent years. Globally, the total number of available positions in this industry is estimated to be 1.24 million (BACCO, 2015). In anticipation of the growth and potential of this industry, the government of Bangladesh has identified the Information Technology (IT) and IT Enabled Services (ITES) sectors as "thrust" sectors and have introduced major regulatory reforms for this industry. The private sector has shown overwhelming response to set up Call Centers (Islam, 1980). However, considerable ambiguity exists among entrepreneurs regarding the most fundamental resource required for success in this business - the workforce.

Countries like India ($80 billion), the Philippines ($16b), Sri Lanka ($2b) and Malaysia ($1.4b) have dominated the Call Center industry due to their efficient and cheap labor force (BACCO, 2015). However, with the cost arbitrage weakening, the stage is set for a relocation of this industry to Bangladesh. To capture this opportunity, Bangladesh must have a skilled workforce. Given this, it is important to investigate, the state of readiness of the workforce in terms of compatibility and efficiency regarding the international Call Center Industry. This study will help the industry grow by identifying the strengths and weaknesses of the labor force with potential for working in the Call Center Industry. This research will provide insights into the readiness and availability of the potential workforce for interested Call Center entrepreneurs.

2 Objectives

The broad objective of the study is to measure the workforce readiness for the international Call Center Industry (not BPO) in Bangladesh compared to that of a major global player, the Philippines[2]. This study looks at the workforce readiness in Bangladesh based on factors such as English proficiency, enlightening (technical) proficiency, psychological orientation, and the willingness to work.

3 Methodology

3.1 Data

This research is exploratory. The study made use of both primary and secondary data and pertinent literature review. The primary data was collected through questionnaire given to two independent populations (Bangladesh and the Philippines). In Bangladesh, the survey was conducted among university students. For the Philippines, an online survey was conducted through social media (e.g., Skype and MIRC) among agents

[2]Call Center performs that part of a client's business, which involves handling customer service telephone calls. Thus, a Call Center can be considered a BPO organization; because there are BPO organizations (e.g., medical transcription agencies) which handle their business through websites, not telephonic calls.

employed in Call Centers. The secondary data came from journal articles, academic publications, books, others. Statistical tools like index analysis, t-test, ANOVA, and Factor Analysis were used for analyzing the data.

3.2 Population, Sample Size and Sampling Technique

For Bangladesh, the sample was taken from students enrolled in the bachelor and master programs in public and private universities in Dhaka. These students will be part of the workforce in the next few years. For the international survey, the sample was drawn from Call Center agents working in the Philippines. Due to the absence of an exhaustive list of agents working in Call Centers in the Philippines and in Bangladesh, and their accessibility and convenience, the study could not reach the required number of respondents. Finally, the total number of Bangladeshi respondents was 120 compared to 30 for the international population. In the local sample, 62 were from public and 58 from private universities. The ratio of male to female respondents was 63:37. In the international sample, the ratio of male to female respondents was 1:1. The small sample of 30 has increased the importance of maintaining a fair representation of genders to reduce any bias. The study employed convenience sampling for the survey.

3.3 Questionnaire Development

A structured survey instrument was used to collect the data. Except for an additional section included for the Bangladeshi respondents, the questionnaire was identical for both populations. The survey was classified into five sections: i) leisure activity, ii) English proficiency (listening, speaking, and comprehension), iii) technical proficiency (computer handling skills, communication skills, and cultural compatibility), iv) psychological orientation (Big Five personality traits - agreeableness, extraversion, conscientiousness, emotional stability, and intellect), and v) work willingness (job-specific fit and economic fit).

3.4 Measuring Workforce Readiness

Workforce readiness assessment is a 14-step process (O'Neil et al., 1992). It requires a comprehensive analysis of the task, required competencies, and psychological orientation. Statistical analysis must be conducted on various proxies assigned to measure these readiness indicators (O'Neil et al., 1992). The psychological orientation of the workforce can be measured using a Myers Briggs type tool. This will help identify whether the workforce possesses the required personality traits (Mustapha et al., 2003).

On average, a Call Center agent handles roughly two thousand calls per month. The agent must demonstrate a range of psychological and technical skills to build stronger customer relations. The personality profile of Call Center agents should include traits such as empathy, adaptability, and the ability to perform. The agent must exhibit clear thinking and calm demeanor with irate clients. Acting decisively and sticking to stock answers is important since a wavering personality does not go well with an inquisitive customer (Skyrme, 2008). Strong interpersonal skills go a long way in this profession. Displaying a positive attitude towards developing a strong rapport with the customer is a vital skill for Call Center agents. An agent should possess the temperament to handle stress since the phone lines will be busy with calls (John, 2000).

The agent/employee must possess basic computer skills. Technical skills include good verbal and written communication, keyboard accuracy, a pleasant voice, call handling skills, etc. The staff should be adept in using search tools, browsers and other email features such as attaching files to outgoing emails, employing tracking and other relevant features, etc. Good verbal and written communication skills are pivotal since the job requires fast and correct typing, ability to create grammatically correct responses without spelling errors. The agent should also know how to write online, promptly recognize signals of a disgruntled customer and respond to deescalate (Bhide et al., 2009).

The mini marker is an effective tool for measuring personality attributes crucial for any front-line employee of an organization. Therefore, it is equally important that Call Center staff possess these attributes (Carmel & Tjia, 2005). The five attributes based on a total set of forty factors are: extraversion, agreeableness, conscientiousness, emotional stability, and intellect (Appendix 1). Each attribute is scored on a 40-factor scale, assigned standard weights to reflect appropriateness (Appendix 2). Each scale constitutes eight items and these highest factor loadings are the factors with the highest weights. The items that have negative loadings are scored negatively and are subtracted from the total sum of positive-loading items. Each scale is divided by 8 to arrive at the mean response for items on the given scale (Gerard, 1994).

4 Research Findings

4.1 Leisure Activity Behavior

4.1.1 Based on "Mean Index"

The leisure activity of the respondents includes five specific actions: i) Reading, ii) Listening/watching music/movies, iii) Co-curricular activities (CCA), iv) Watching television, and v) Computer/Internet surfing. The respondents were asked to rank the activities according to the time spent on each activity on an average day on a scale of 1-5 (1= Least time spent, 5= Most time spent). The results show that they spend maximum time in computer/internet surfing (μ=3.73), followed by listening/watching music/movies (3.63), reading (2.74), watching TV (2.74), and CCA (2.29) (Table 1).

For Bangladeshi respondents, the core leisure activity is computer/internet surfing (μ=3.82), followed by listening/watching music/movies (3.61), watching TV (2.87), reading (2.63), and CCA (2.26). Whereas, for international respondents the main leisure activity is listening/watching music/movies (3.70), followed by computer/internet surfing (3.40), reading (3.20), CCA (2.43), and watching TV (2.23). It is further noted that the mean values for listening/watching music/movies, CCA and computer/internet surfing are not significantly different (α=5%) of the two populations. Hence, there is little difference in the leisure time activities of the Bangladeshi and international respondents.

Table 1: Leisure activity of the respondents (by country)

Activity	Country	Mean	Std. Deviation	Sig (2 tailed)
Reading	BD (n=120)	2.63 (4) ***	1.30	**
	INT (n=30)	3.20 (3)	1.10	
	All (n=150)	2.74 (3)	1.28	***
Listening/watching music/movies	BD (n=120)	3.61 (2) ***	1.18	*
	INT (n=30)	3.70 (1) ***	1.02	
	All (n=150)	3.63 (2)	1.14	***
Co-curricular activities (CCA)	BD (n=120)	2.26 (5) ***	1.16	*
	INT (n=30)	2.43 (4) ***	1.50	
	All (n=150)	2.29 (4)	1.23	***
Watching television (TV)	BD (n=120)	2.87 (3)	1.37	**
	INT (n=30)	2.23 (5) ***	0.97	
	All (n=150)	2.74 (3)	1.32	***
Computer/Internet surfing	BD (n=120)	3.82 (1) ***	1.20	*
	INT (n=30)	3.40 (2)	1.52	
	All (n=150)	3.73 (1)	1.27	***
N. B.: Figures in parenthesis in the mean column gives the ranking in respective categories, *Means not different at α=5%, **Means different at α=5%, ***Means different from 3 at α=5%.				

4.1.2 Based on Paired Comparison Method

Here the ranking of the leisure activity is made by the Paired Comparison Method (PCM). In PCM we count, in pairs, how many responses are above an activity. For example (Table 2), 29 respondents scored reading over music and movie, whereas 79 respondents scored music and movie over reading. For Bangladesh, since Computer/Internet surfing has relatively less total (90) frequency of activities above, it is ranked as the most frequent activity (1: least frequent, 5: most frequent); followed by, music movie, TV, CCA and reading.

Table 2: Leisure Activity Ranking of Bangladeshi Respondents (n=150)

Leisure Activity	Leisure Activity				
	1) Reading	2) Music & movie	3) CCA	4) TV watching	5) Computer/ Internet
1) Reading	-	29	61	47	28
2) Music & movie	79	-	93	73	38
3) CCA	44	19	-	36	18
4) TV watching	59	33	67	-	34
5) Computer/internet	83	57	93	75	-
Total Counts Above	265	109	253	184	90
Ranking (1: least frequent, 5: most frequent)	1	4	2	3	5

Using the same-paired comparison activity method for international respondents, Music/movie is found to be the most frequent activity followed by Computer/Internet, Reading, CCA, and TV (Table 3). The findings from the Paired Comparison Method support the findings obtained in the ranking based on mean indices. The analysis shows that there is a lot of similarity in responses of the two groups.

Table 3: Leisure Activity Ranking of International Respondents

Leisure Activity	Leisure Activity				
	1) Reading	2) Music & movie	3) CCA	4) TV watching	5) Computer/ Internet
1) Reading	-	11	19	23	10
2) Music & movie	16	-	19	27	16
3) CCA	10	9	-	13	8
4) TV watching	6	1	14	-	12
5) Computer/internet	19	13	21	18	-
Total Counts Above	51	23	54	58	36
Ranking (1: least frequent, 5: most frequent)	3	5	2	1	4

4.2 Leisure Time (Language Usage-Leisure Index)

The language usage-leisure index is calculated by using the time spent by a respondent on leisure activities and the language in which s/he prefers to perform that activity. A weight of two (2) is assigned to English language usage (given this is the most important language for agents) and a weight of one (1) is attached for native language and other languages spoken (considering these are less important than English). The weighted score (maximum 50, minimum 5)[3] of the international respondents have a higher mean (26.63) compared to the Bangladeshi respondents (24.6), at α=5% (Table 4). On average the mean index for all the respondents are found to be 25.01 (σ=5.83). However, since this index is not standardized, the *median* value provides a better measure of central tendency. The close median values (25.0~26.5) indicates a similarity in the language used for leisure between these two groups.

Table 4: Language-Leisure Index (Country-wise)

Median		Mean		Standard Deviation		Skewness		Kurtosis	
BD	Int.	BD	Int.	BD	Int.	BD	Int.	BD	Int.
25.0	26.5	24.6	26.63	6.08	4.37	0.051	-1.11	0.22	1.97

[3] The Philippines Call Center industry is considered among the most successful in the world.

4.3 English Proficiency

English proficiency is one of the most important parameters for the prospective Call Center agents. In this parameter, eight simple variables are grouped in three complex variables (Table 5): (i) Listening ability (1, 2), (ii) Speaking ability (3, 4, and 5), and (iii) Comprehension ability (6, 7, and 8). A Likert-scale (1: least agreed; 5: most agreed) is used to analyze the responses. The mean values of the two groups are different at α=5% for all variables except variable 1 (No difficulty in understanding English class lectures).

Regarding listening ability, we note that the Bangladeshi respondents rank below international respondents in both the understanding of an English lecture (4.03 vs. 4.27), and in the understanding of an English movie without subtitle (3.58 vs. 4.70). Regarding speaking ability, the study found that the international agents are less interested in attending free-spoken English course (1.80 vs. 3.53). However, they are more comfortable giving a public speech in English compared to their Bangladeshi counterparts (4.23 vs. 3.01). Similarly, we find that the international agents communicate more frequently in English with their friends and family compared to their Bangladeshi counterparts (3.23 vs. 2.09).

Table 5: English Proficiency of the Respondents (by Country of Residence)

Complex Variables	Statements	Country of Residence (n)	Mean (μ)	Std. Deviation (σ)
a) Listening	1) Understanding English class lectures with ease*	BD (130)	4.03	1.13
		INT (30)	4.27	0.79
	2) Fully understanding English movies without subtitles	BD (130)	3.58	1.17
		INT (30)	4.70	0.47
b) Speaking	3) Willingness to attend free spoken courses	BD (130)	3.53	1.37
		INT (30)	1.80	1.13
	4) Comfortable giving public speech in English	BD (130)	3.01	1.16
		INT (30)	4.23	0.97
	5) Communication with friends and family mostly in English	BD (130)	2.09	1.15
		INT (30)	3.23	1.01
c) Comprehension	6) Preference for non-English movies (language preference)	BD (130)	3.74	1.25
		INT (30)	2.73	1.48
	7) Good translation ability	BD (130)	3.37	1.12
		INT (30)	4.20	1.16
	8) Comfortable reading in English	BD (130)	3.30	1.25
		INT (30)	4.30	0.99
* Means not different at α=5%				

Regarding English comprehension, the study noted that the Filipino agents have a lower preference for non-English movies compared to the Bangladeshi agents (2.73 vs. 3.74). In terms of translation ability, the Filipino agents are better than the Bangladeshi respondents (4.2 vs. 3.37). We see similar results for reading in English (4.30 vs. 3.30).

From this analysis, we can conclude that the international agents' English proficiency is better than that of the Bangladeshi agents. Hence, if the Bangladeshi agents wish to find employment in the market, they must improve their English proficiency (listening, reading and comprehension ability).

4.4 Enlightening (Technical) Proficiency

Under the parameter Enlightening Proficiency, there are nine simple variables grouped into three complex variables (Table 6)[4]: (i) Computer handling skills (1, 2), (ii) Communication skills (3, 4, 5, 6, 7), and (iii) Cultural compatibility (8, 9). A Likert-scale [1: least agreed; 5: most agreed] is used to analyze the responses. The mean

[4] The value is calculated by multiplying time spent [1 (least) to 5 (most)] with language use [2 (English) and 1 (other)] for five leisure activities.

values of the two groups are different at α=5% for all variables except 2, 5 and 8 (typing efficiently, selling ability to foreigners, support for coeducation, respectively)[5].

Regarding computer handling skills, we note that the Bangladeshi respondents are more stressed for long PC use (3.18 vs. 2.67) and their typing ability is lower than that of international respondents (3.13 vs. 3.57). Regarding five communication skills, some observed that the international agents communicate in English more than their counterparts (4.10 vs. 3.52). We note that international agents are more confident in selling products to locals (4.47 vs. 3.82), and to foreigners (3.93 vs. 3.48). The instructional ability of the international agents is better (4.53 vs. 3.72), and their questioning ability is more effective (4.70 vs. 3.63) compared to their Bangladeshi counterparts.

Regarding cultural compatibility, the results show that both groups support coeducational schools (4.13 vs. 4.13), but Bangladeshi respondents have a greater preference for non-English movies (3.74 vs. 2.73) than their international counterparts do.

Table 6: Enlightening Proficiency of the Respondents (by Country of Residence)

Complex Variables	Statements	Country of Residence (n)	Mean (μ)	Std. Deviation (σ)
a) Computer handling skills	1) Stressed for long hour PC use	BD (130)	3.18	1.26
		INT (30)	2.67	1.09
	2) Typing efficiently without looking at the keyboard*	BD (130)	3.13	1.34
		INT (30)	3.57	1.33
b) Communication skills	3) Communicate more in English	BD (130)	3.52	1.14
		INT (30)	4.10	1.19
	4) Confidence in selling ability to locals	BD (130)	3.82	1.08
		INT (30)	4.47	0.68
	5) Confidence in selling ability to foreigners*	BD (130)	3.48	1.08
		INT (30)	3.93	1.14
	6) Good instructional ability	BD (130)	3.72	0.93
		INT (30)	4.53	0.68
	7) Effective questioning ability	BD (130)	3.63	1.00
		INT (30)	4.70	0.54
c) Cultural compatibility	8) Support for co-education*	BD (130)	4.13	1.25
		INT (30)	4.13	1.17
	9) Preference for Bollywood movies	BD (130)	3.74	1.25
		INT (30)	2.73	1.48
* Means not different at α=5%				

4.4.1 University type-wise mean difference for Bangladeshi respondents

The study includes respondents from two universities in Bangladesh - public and private. The mean indices of the responses of each group are tabulated in Table 7. A Likert-scale (1: least agreed; 5: most agreed) is used to analyze these responses. The mean value of the response for the groups is not found different at 5% significance level. Indicating no significant mean difference between responses from students in the two universities.

[5] We note that three complex variables in the study capture over nine underlying variables. However, considering the exploratory nature of the study, the view of experts, and basic characteristics of Bangladeshi agents we have taken nine variables, which may not be an exhaustive list, but should explain a lot.

Table 7: Mean Difference for Bangladeshi Respondents by University

Statements	University type	N	Mean	Std. Deviation	Sig (2-tailed) $\mu_{male} = \mu_{female}$
1) Understand class lecture	Public	62	4.06	1.10	0.76
	Private	58	4.00	1.17	
2) Translation ability	Public	62	3.53	1.07	0.10
	Private	58	3.19	1.16	
3) Comfortable reading in English	Public	62	3.18	1.20	0.26
	Private	57	3.44	1.30	
4) Understanding English movies without subtitles	Public	62	3.48	1.21	0.34
	Private	58	3.69	1.13	
5) Willingness to attend free spoken courses	Public	62	3.55	1.46	0.85
	Private	58	3.50	1.27	
6) Comfortable giving public speech in English	Public	62	3.03	1.13	0.82
	Private	58	2.98	1.19	
7) Communication with friends & family	Public	62	1.98	1.05	0.29
	Private	57	2.21	1.25	
8) Communication with teachers	Public	62	3.35	1.09	0.11
	Private	58	3.69	1.17	
9) Selling ability to a Bangladeshi	Public	62	3.97	0.92	0.14
	Private	58	3.67	1.22	
10) Selling ability to a foreigner	Public	62	3.52	1.05	0.73
	Private	58	3.45	1.11	
11) Giving instructions	Public	62	3.74	0.89	0.84
	Private	58	3.71	0.97	
12) Questioning ability	Public	62	3.52	1.00	0.19
	Private	58	3.76	1.00	
13) Support for co-education	Public	62	4.08	1.22	0.68
	Private	57	4.18	1.30	
14) Preference for Bollywood movies	Public	62	3.94	1.21	0.08
	Private	58	3.53	1.27	
15) Stress level in front of PC	Public	62	3.18	1.34	0.86
	Private	58	3.19	1.19	
16) Typing ability	Public	62	3.24	1.39	0.36
	Private	58	3.02	1.29	

4.4.2 Gender-wise mean difference for Bangladeshi respondents

The study noted no major significant difference in responses (mean indices) of the Bangladeshi respondents by gender (Table 8). Out of 16 variables, only in three cases (Support for co-education, Preference for Bollywood movies, and Typing efficiency) the mean values are different.

Table 8: Gender-wise Mean Difference for Bangladeshi respondents

Statements	Gender	N	Mean (μ)	Std. Deviation	Sig (2-tailed) $\mu_{male} = \mu_{female}$
1) Understand class lecture	Female	44	4.18	1.04	0.26
	Male	76	3.95	1.18	
2) Translation ability	Female	44	3.16	1.06	0.12
	Male	76	3.49	1.15	
3) Comfortable reading in English	Female	43	3.30	1.34	1.00
	Male	76	3.30	1.20	
4) Understanding English movies without subtitles	Female	44	3.55	1.23	0.79
	Male	76	3.61	1.14	
5) Willingness to attend free spoken courses	Female	44	3.39	1.39	0.40
	Male	76	3.61	1.36	
6) Comfortable giving public speech in English	Female	44	2.91	1.14	0.47
	Male	76	3.07	1.17	
7) Communication with friends & family	Female	44	2.07	1.25	0.87
	Male	75	2.11	1.10	
8) Communication with teachers	Female	44	3.41	1.26	0.46
	Male	76	3.58	1.06	
9) Selling ability to a Bangladeshi	Female	44	3.75	1.12	0.57
	Male	76	3.87	1.06	
10) Selling ability to a foreigner	Female	44	3.43	1.25	0.71
	Male	76	3.51	0.97	
11) Giving instructions	Female	44	3.66	1.08	0.58
	Male	76	3.76	0.83	
12) Questioning ability	Female	44	3.75	1.18	0.37
	Male	76	3.57	0.88	
13) Support for co-education	Female	44	4.43	1.04	0.03
	Male	75	3.95	1.34	
14) Preference for Bollywood movies	Female	44	3.36	1.31	0.02
	Male	76	3.96	1.17	
15) Stress level in front of PC	Female	44	3.27	1.40	0.58
	Male	76	3.13	1.18	
16) Typing ability	Female	44	2.73	1.28	0.01
	Male	76	3.37	1.33	

4.4.3 Mean difference for Bangladeshi respondents by Academic Year

The Bangladeshi respondents were divided into six groups: i) First year Bachelor, ii) Second year Bachelor, iii) Third year Bachelor, iv) Fourth year Bachelor, v) First year Master, and vi) Second year Master. An ANOVA test was conducted to see if there are differences in their responses. Except for two variables (Understand class lecture and Translation ability), the mean values across the groups are found similar by academic year.

4.5 Psychological Orientation

One of the most important parameters of the study is psychological orientation of the respondents. This section delves into the psychological orientation of the prospective Bangladeshi respondents for the Call Center industry using a standardized psychometric test of the Big Five Personality traits (John & Srivastava, 1999). These traits are:

1) Extraversion (talkative, assertive, energetic)
2) Agreeableness (good-natured, cooperative, trustful)
3) Conscientiousness (orderly, responsible, dependable)
4) Emotional Stability versus Neuroticism (calm, not neurotic, not easily upset)
5) Culture (intellectual, polished, independent-minded)

This research used the methodology first used by Saucier (1994), which can drive the Big Five Personality traits from 40 personality variables (Section 3.4). Each variable can be captured by one of five traits (Appendix 2). Specific weights identified by Saucier (1994) are assigned to each of the 40 variables to derive the orientation of the respondents on the Big Five Traits (Appendix 3). The higher the mean aggregate, the more accurate are the traits. Reliability analysis of the dataset for the 40-personality variable reveals the Cronbach's Alpha coefficient is 0.651, which is an adequate value (Netemeyer, 2003).

We find the mean indexes for each of the Big Five Traits are higher for the international respondents, except for Emotional Stability (Table 9). It can be concluded that in terms of extraversion, agreeableness, conscientiousness, and culture, the Bangladeshi respondents are behind their international counterparts. However, for emotional stability, the Bangladeshi respondents score higher.

Table 9: Descriptive Statistics for the Dataset on Big Five Traits

	Extraversion**		Agreeableness**		Conscientiousness**		Emotional Stability*		Culture**	
	BD	INT	BD	INT	BD	INT	BD	INT	BD	INT
N	108	30	108	30	108	30	108	30	108	30
Mean	3.80	6.58	9.18	14.00	7.70	15.08	2.55	0.89	5.41	12.48
Std. Dev	6.46	6.06	6.53	4.99	8.78	5.70	5.72	5.15	5.63	5.94
Skewness	-0.01	0.09	-0.84	-0.54	-0.42	-0.86	0.25	-0.49	-0.83	-0.89
Kurtosis	-0.51	-1.31	1.65	-0.98	-0.58	0.00	0.39	-0.36	0.51	-0.01
* Means are not significantly different at α=5%, ** Means are significantly different at α=5%										

To compare the differences between the two samples, an independent t-test was conducted. The hypotheses assumed that a replication of the traits of the Bangladeshi sample with that of the international sample is necessary (the t-values assumed of unequal population variances). The results show that the means are significantly different at α = 5%, except for one variable - emotional stability.

4.5.1 Mean difference of Big Five Traits for Bangladeshi respondents by gender

To test if there is a gender-specific difference, an independent samples test is conducted for all the Big Five Traits for the Bangladeshi respondents (Table 10). The findings based on gender of Bangladeshi respondents suggest that only one variable (Emotional Stability) is significantly different at α = 5%.

Table 10: Gender-wise Mean Difference of Big Five Traits

Big Five Personality Traits	Gender	N	Mean	Std. Deviation	Sig (2-tailed) $\mu_{male} = \mu_{female}$
Extraversion Index	Female	40	3.77	6.02	0.97
	Male	68	3.82	6.76	
Agreeableness Index	Female	40	10.75	6.53	0.06
	Male	68	8.26	6.40	
Conscientiousness Index	Female	40	9.03	8.87	0.23
	Male	68	6.92	8.69	
Emotional Stability	Female	40	1.06	4.87	0.04
	Male	68	3.42	6.04	
Intellect/Openness Index	Female	40	6.05	5.34	0.36
	Male	68	5.04	5.80	

4.5.2 University type-wise mean difference of Big Five Traits for Bangladeshi respondents

To test if there is difference by university type, an independent sample test is conducted for all the Big Five Traits for only the Bangladeshi respondents (Table 11). The findings suggest that none of the traits have a significant difference in means, at $\alpha = 5\%$ level.

Table 11: University Type - Mean Difference on Big Five Traits

Big Five Personality Traits	University type	N	Mean	Std. Deviation	Sig (2-tailed) $\mu_{male} = \mu_{female}$
Extraversion Index	Public	58	4.63	5.87	0.16
	Private	50	2.84	7.03	
Agreeableness Index	Public	58	8.62	6.95	0.34
	Private	50	9.82	6.01	
Conscientiousness Index	Public	58	6.93	8.78	0.33
	Private	50	8.59	8.78	
Emotional Stability	Public	58	2.53	6.24	0.98
	Private	50	2.56	5.12	
Intellect/Openness Index	Public	58	5.13	6.11	0.57
	Private	50	5.74	5.06	

4.5.3 Mean difference of Big Five Traits for Bangladeshi respondents by academic year

An ANOVA test was conducted to see if there are differences in responses based on academic year (Appendix 3). Except for emotional stability, the mean values across the groups are found similar.

4.6 Job Suitability of Bangladeshi Respondents

Regarding job suitability, the Bangladeshi respondents were asked to respond to six job related statements (Table 12) in a 5-point scale (1 = least agreed, 5 = most agreed). The study found that the respondents are unsure of the suitability of the job for future career development. They are not prepared to work casually (part-time) even though they lack better options. They have reservations regarding night shifts. Further, only 44.2% of the Bangladeshi respondents show a willingness to work as agents in a Call Centre, while 35% were unwilling to work, and 20.8% are indecisive. A lack of knowledge of this relatively new industry could have been the reason for the lackluster results.

Table 12: Responses to Job Related Statements

Job Statements	Sample (N)	Mean (μ)	Std. Deviation	Sig (two-tailed) $\mu = 3$
a) Suit my personality	120	3.18	1.17	0.09
b) Help me in career development	120	3.02	1.25	0.88
c) Work as a part-timer only	120	2.10	1.24	0.00
d) Capable of getting better jobs	120	1.82	0.94	0.00
e) Willing to pay for training to get this job	115	2.31	1.17	0.00
f) No problem working at nightshifts	117	2.82	1.44	0.18

5 Conclusions

This paper analyzed the readiness of the Bangladeshi workforce to participate in the International Call Center industry in terms of English proficiency, Enlightening (Technical) proficiency, Psychological orientation, and Work willingness. This research is exploratory and uses both primary and secondary data. The primary data was collected through survey questionnaire for respondents from Bangladesh and the Philippines. The survey was conducted among 130 university students in Bangladesh

and 30 Call Center agents in the Philippines. The study found little difference in the leisure activities of Bangladeshi and international respondents. We note that the respondents spend the maximum time in computer/internet surfing, followed by listening/watching music/movies, reading, watching TV, and co-curricular activities.

Regarding technical skills, the mean values for the two groups are different for all variables except typing efficiently, selling ability to foreigners, and support for co-education. The study found that the Bangladeshi respondents are more stressed from long hours of PC use, and their typing ability in English is less than that of the international respondents. The study noted that the international agents communicate in English more than their counterparts in Bangladesh. Also, the international agents are more confident in selling products. The "instructional ability" of the international agents is better and their "questioning ability" is more effective. Regarding cultural compatibility, we find both groups support co-education, but Bangladeshi respondents have a greater preference for watching movies.

The study found no major significant difference in responses of the Bangladeshi students by university type (private and public), academic year, or gender (male and female). Out of 16 variables, in three cases only (Support for co-education, Preference for Bollywood movies, and Typing efficiency) the mean values are significantly different. The responses show that except for two variables (Understand class lecture and Translation ability), the mean values do not depend on the academic year. Regarding the psychological traits, the Bangladeshi respondents are far behind their international counterparts in terms of extraversion, agreeableness, conscientiousness and culture. However, emotionally they are more stable. For Bangladeshi respondents, the answers are similar across gender, institutions, and academic year, except for emotional stability.

This research showed that the workforce in Bangladesh has adequate computer handling skills, English speaking skills as well as cultural compatibility to be competitive for jobs as international Call Center agents. However, the workforce lacks good communication skills in English listening and comprehension. Therefore, proper policy changes must be made to upgrade the skills and competencies of the workers in these dimensions. With a growing market for Call Center outsourcing and diminishing cost advantages of the traditional providers, there are substantial opportunities for Bangladesh to tap into this market. This study discovers the existence of an adequate workforce for the Call Center Industry in Bangladesh. Thus, Bangladesh can capture a significant market share in the global Call Center Industry if the necessary focused investments are made to train the workforce.

6 Recommendations

To upgrade the competencies of Bangladeshi workforce, long-term and short-term strategies must be considered. Keeping the long-term vision of making Bangladesh a desired BPO location, steps must be taken at every level of the education system. In the primary level (up to grade 5), English courses must be restructured with designing books with illustrated figures and cartoons to make it easier and fun for children to learn English. The classroom should be more interactive with teachers speaking in English with their students to help groom students to take up the challenges of a global workforce. The higher secondary level is a vital stage to equip students with the adequate communication skills necessary to be globally competitive. Debate clubs, drama clubs, and other activities in English should be designed with active student participation to gain valuable experience and language skills.

Universities and training institutes must enhance the standards in language and communication recognized by international customers. Providing English language orientation courses and introducing a few English language courses will address the problem associated with learning the language mainly from books. While designing academic programs, institutions must expand disciplines and stress business communication and English language courses. Training institutions and English language proficiency centers must be established to improve the interpersonal skills of the workforce in Bangladesh. These centers, developed in tandem with English-speaking classes, can also impart special training to the prospective Call Center employees. With focused training, the knowledge gap can be closed, and communication skills substantially improved.

A close relationship between the private sector and educational institutions is important. It is vital that the private sector makes known its demand for workforce with diverse skills. It will then fall to the training and educational institutions to respond with the right curriculum. Awareness about the attractiveness of working in Call Centers must be disseminated among undergraduate students, so that they actively prepare themselves to take up jobs as Call Center agents. Joint ventures can be developed with global players in outsourcing industry for quick and appropriate knowledge transfer. Such partnerships will diversify risks for the joint venture partners and provide much-needed credibility for the local partners. It is important to increase public funding for education at all levels.

Appendices

Appendix 1: Big Five Personality Traits from 40 personality variables

I: Extraversion 8 (4+4)

Positive (4)	Negative (4)
ii. Bold (Extraversion)	i. Bashful/Reserved (Extraversion Reversed)
xi. Energetic (Extra)	xxiii. Quiet (Extra R)
xii. Extraverted (Extra)	xxvi. Shy (Extra R)
xxxiv. Talkative (Extra)	xviii. Withdrawn (Extra R)

II: Agreeableness 8 (3+5)

Positive (3)	Negative (5)
xviii. Kind (Agree)	iv. Cold (Agreeableness Reversed)
xxiii. Sympathetic (Agree)	xxv. Rude (Agree R)
xxxvii. Warm (Agree)	xxxvi. Unsympathetic (Agree R)
	xiv. Harsh (Agree R)
	xl. Un-empathetic (Agree R)

III: Conscientiousness 8 (4+4)

Positive (4)	Negative (4)
xx. Organized (Conscientiousness)	iii. Careless (Conscientiousness Reversed)
xxii. Practical (Consc.)	ix. Disorganized (Consc. R)
xxxii. Systematic (Consc.)	xvi. Inefficient (Consc R)
x. Efficient (Consc.)	xxvii. Sloppy (Consc. R)

IV: Emotional Stability 8 (2+6)

Positive	Negative
xxiv. Relaxed (EmStab)	vi. Envious (Emstab R)
xxx. Unenvious (EmStab)	xii. Fretful/Nervous (EmStab R)
	xvii. Jealous (EmStab R)
	xix. Moody (EmStab R)
	xxxv. Temperamental (EmStab R)
	xviii. Touchy (EmStab R)

V: Intellect or Openness 8 (6+2)

Positive	Negative
v. Complex (Openness)	xxix. Uncreative (Openness Reversed)
vii. Creative (Openness)	xxxi. Unintellectual (Open R)
viii. Deep (Openness)	
xv. Imaginative (Openness)	
xxxix. Intellectual (Openness)	
xxi. Philosophical (Openness)	

Appendix 2: Specific weights, identified by Saucier (1994), to each of the 40 variables on the Big Five Traits

	Extraversion	Agreeableness	Conscientious-ness	Emotional Stability	Intellect or Openness
1) Reserved	0.73	0.14	-0.12	-0.05	-0.05
2) Bold	0.51	-0.17	0	0.24	0.03
3) Careless	0.09	-0.1	-0.61	-0.05	-0.05
4) Cold	-0.21	-0.65	0.03	-0.05	-0.02
5) Complex	-0.09	0.01	-0.1	-0.13	0.51
6) Envious	-0.1	0.07	-0.03	-0.61	-0.15
7) Creative	0.05	0.01	0.01	0.15	0.69
8) Deep	-0.13	0.22	-0.09	0.03	0.44
9) Disorganized	0.01	0.02	-0.82	0.05	-0.02
10) Efficient	0.01	0.04	0.65	0.07	0.05
11) Energetic	0.44	0.18	0.18	0.18	0.02
12) Extraverted	0.7	0.07	-0.07	0.11	-0.01
13) Nervous	-0.17	0.09	-0.07	-0.54	-0.08
14) Harsh	0.1	-0.54	0	-0.14	-0.06
15) Imaginative	0.11	0.03	0.01	0.07	0.65
16) Inefficient	-0.16	-0.05	-0.62	-0.01	-0.05
17) Jealous	-0.04	-0.01	-0.03	-0.63	-0.15
18) Kind	0.02	0.66	0.14	-0.01	-0.01
19) Moody	-0.06	-0.12	-0.04	-0.64	0.12
20) Organized	-0.06	-0.01	0.83	-0.01	-0.02
21) Philosophical	-0.08	0.04	-0.03	0.07	0.56
22) Practical	-0.08	0.13	0.51	0.15	-0.1
23) Quiet	-0.76	0.15	0.04	-0.08	-0.03
24) Relaxed	0.11	0.16	0.07	0.49	-0.1
25) Rude	0.14	-0.55	-0.18	-0.03	-0.04
26) Shy	-0.79	0.15	0.04	-0.08	-0.03
27) Sloppy	-0.01	-0.1	-0.62	0.13	0.02
28) Touchy	-0.09	0.01	0.04	-0.59	-0.01
29) Uncreative	-0.13	0.06	-0.01	0	-0.66
30) Unenvious	-0.03	0	0	0.68	0.08
31) Unintellectual	-0.02	0.01	-0.09	0.09	-0.52
32) Systematic	-0.11	-0.02	0.63	0.13	0.02
33) Sympathetic	-0.05	0.67	0.08	0	-0.01
34) Talkative	0.73	0.14	-0.12	-0.05	-0.05
35) Temperamental	0.03	-0.17	-0.03	-0.62	0.03
36) Unsympathetic	-0.02	-0.64	0.03	0.07	-0.1
37) Warm	0.2	0.67	0.08	0	-0.01
38) Withdrawn	-0.71	-0.15	-0.07	-0.1	0.02
39) Intellectual	-0.03	-0.01	0.12	0.15	0.54
40) Un-empathetic	0.14	-0.55	-0.18	-0.03	-0.04

Appendix 3: ANOVA among Respondents from Different Academic Years

Big 5-Traits	Group Results	Sum of Squares	df	Mean Square	Sig.
Extraversion Index	Between Groups	129.57	5	25.91	0.69
	Within Groups	4341.72	102	42.57	
	Total	4471.29	107		
Agreeableness Index	Between Groups	63.75	5	12.75	0.92
	Within Groups	4502.34	102	44.14	
	Total	4566.10	107		
Conscientiousness Index	Between Groups	64.04	5	12.81	0.98
	Within Groups	8179.69	102	80.19	
	Total	8243.73	107		
Emotional Stability	Between Groups	395.11	5	79.02	0.03
	Within Groups	3108.64	102	30.48	
	Total	3503.74	107		
Intellect/Openness Index	Between Groups	141.69	5	28.34	0.49
	Within Groups	3249.29	102	31.86	
	Total	3390.98	107		
a. Country of Residence = Bangladesh * Significant difference between means					

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