Volume-04, December, 2017

ISSN : 2073- 5448

BGC TRUST UNIVERSITY JOURNAL

BGC Trust University Bangladesh

BGC Trust University Journal

Volume : 04, December 2017

BGC Trust University Bangladesh

BGC Bidyanagar, Kanchannagar-4381, Chandanaish, Chittagong

BGC Trust University Journal
Volume : 04, December 2017
ISSN : 2073- 5448

Price : Tk. 300.00
US$ 40

Copyright:
BGC Trust University Bangladesh

Published by
A.F.M. Aktaruzzaman Kaisar
Registrar
BGC Trust University Bangladesh

BGC Bidyanagar, Kanchannagar-4381
Chandanaish, Chittagong, Bangladesh.
Tel: 03033-56192, 56193
E-mail: info-bgctub@bgctrustbd.org
Web: www.bgctub-edu.net

Printed by:
Fatema Printers
Anderkilla, Chittagong.
Cell: 01760-482559, 01819-349076

BGC Trust University Journal

Volume : 04, December 2017
ISSN : 2073- 5448

Chief Patron : **Engineer Afsar Uddin Ahmad**
Chairman, Board of Trustee, BGCTUB

Patron : **Barrister Imtiaz Uddin Ahmad Asif**
Member, Board of Trustee, BGCTUB

Executive Editor : **Prof. Dr. Saroj Kanti Singh Hazari**
Vice Chancellor, BGCTUB

Members of the Editorial Board:

Prof. Ajit Kumar Das	Treasurer, BGCTUB
Prof. Ranajit Kumar Dey	Dean, FBA, BGCTUB
Prof. Dr. Farid Uddin Ahamed	Dean, Faculty of Social Science, CU
Prof. ABM Abu Noman	Dean, Faculty of Law, CU
Prof. Dr. Deba Prasad Paul	Dept. of Physics, CU
Prof. Dr. Salamat Ullah Bhuiyan	Dept. of Marketing, CU
Prof. Dr. Debashis Palit	Dept. of Chemistry, CU
Prof. Chowdhury Mohammad Ali	Dept. of English, CU
Prof. Dr. Tayub Chowdhury	Dept. of Marketing, CU
Prof. Sagib Kumar Ghosh	Dept. of Marketing, CU
Prof. Dr. Hazrat Ali Miah	Dept. of Pharmacy, BGCTUB
Prof. Shaswati Das	Dept. of English, BGCTUB
Mr. Sudipta Deb	Associate Professor & Chairman, CSE, BGCTUB
Mr. Rana Karan	Associate Professor, FBA, BGCTUB
Dr. Md. Sarwar Uddin	Associate Professor, FBA, BGCTUB
Mr. Nurul Absar	Associate Professor, Dept. of CSE, BGCTUB
Mrs. Nazneen Akhter	Chairman, Dept. of Law, BGCTUB
Mr. Aninda Kumar Nath	Chairman, Dept. of Pharmacy, BGCTUB

The Journal is an official Publication of BGC Trust University Bangladesh. Opinions expressed in the articles, however, are those of the concerned authors and so don't necessarily reflect the views of the authority or of the editorial board.

EDITORIAL

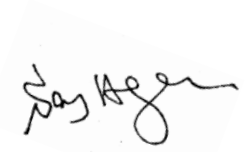
I am exceedingly happy to write a few words on the eve of publication of BGC Trust University Journal, volume 4. It is a fact that a journal is the mirror of research performance of academicians of ours and others. Research work is an integral part of any academic institutions like university. It is a place that provides opportunity and avenue for researchers. A journal is a tool for disseminating research findings derived from the studies conducted by the academicians.

The quality of papers determines the standard of the Journal and we are committed to maintain the standard of the journal. Hence the guidelines formed for the selection of articles and publication of Journal have strictly been followed. The editorial board primarily screened the articles after the plagiarism test and then the executive editor selected the reviewers for their valuable comments. Each article was reviewed by two well-known academicians in the relevant area of research. Following the comments of two reviewers, the concerned paper was either selected or rejected. The respective authors were asked to revise the scripts keeping pace with the recommendations of the concerned reviewers. In case of difference of opinion between the two academicians, a third reviewer was selected for the purpose.

The Journal has been sponsored and financed by BGCTUB. I would like to thank all the members of the editorial board for their hearty and sincere cooperation to make this venture a success. I would also like to express my gratitude to Dr. Md. Sarwar Uddin, Coordinator, FBA for his sincere co-operation in respect of publication of the Journal during my stay in abroad.

I would also like to express my gratitude to the authors for undertaking ventures of preparing articles with utmost care and sincerity in the teeth of many limitations.

Despite my utmost efforts, the Journal may not be free from errors and if so I will not hesitate to shoulder the responsibility.



Prof. Dr. Saroj kanti Singh Hazari
Executive Editor
BGC Trust University Journal

BGC Trust University Journal
Volume-04, December, 2017
ISSN 2073-5448

Contents

01. **Adoption of Green Banking in Bangladesh: Bankers' Perception** 7-20
Dr. Md. Sarwar Uddin
Dhiman Barua

02. **Medium of instruction in private universities of Bangladesh: An urban-rural divide** 21-34
Md. Khaled Bin Chowdhury
Mahamuda Akter

03. **Comparative Views of Male and Female Executives on Herzberg's Hygiene Factors: An Empirical Study on Private Commercial Banks of Bangladesh** 35-56
Mohd. Kamal Uddin

04. **Impacts of Managerial Skills on Job Performance and Service Quality: An Empirical Study on Women Bankers** 57-74
Soman Chakraborty
Mir Misnad Sultana

05. **Real Estate and Housing Market in Chittagong: An Overview** 75-94
Sujan Kanti Biswas
Moslehuddin Chowdhury Khaled

06. **Micro-Credit Program of Grameen Bank and Poverty Reduction: A Study on Select Borrowers** 95-110
Md. Siraz Meah
Dhiman Barua

07. **Need for Quality Childcare Centers in Chittagong, Bangladesh: A Potential Approach for the Development of Working Mothers and Children** 111-132
Fahmida Zaman
Rownuk Jahan

08. **Ethnic Cleansing in Myanmar's Rakhine State and Challenges for Bangladesh** 133-150
Mohammad Moniruzzaman

09. **Rampant Juvenile Delinquency and Ways of Emancipation: An Appraisal of Bangladesh** 151-166
Mohammad Abdul Hannan

10. **Effect of Ethical Behavior on Organizational Performance: An Evaluation with Organizational Commitment and Job Satisfaction in Bangladesh** 167-186
Sanjida Nusrat Lovely
Amanul Hoque

11. **Role of Emotional Intelligence in Transformational Leadership and Leadership Outcomes** 187-206
Mohona Biswas
Prof. Dr. Md. Sahidur Rahman

12. **Synthesis, characterization, electrolytic behavior and antibacterial activities of zinc(II) complexes of an isomeric macrocyclic ligand** 207-222
Foni Bushon Biswas
Md. Masudur Rahaman
Babul Chandra Nath
Saswata Rabi
Tapashi Ghosh Roy

13. **Examining the Relationship between the Components of Emotional Intelligence and Job Stress Management: A Study on Listed Commercial Banks in Bangladesh** 223-244
Rashed Mahmud Shakil
Md. Siraz Meah

14. **Effect of Aluminum Sulphate on Sodium Alginate based Amoxicillin Trihydrate Beads** 245-262
Jewel Mallick
Irin Ferdous

15. **The Determinants Influencing the Extent of Corporate Social Responsibility Disclosure of Pharmaceutical and Chemical Companies in Bangladesh** 263-284
Soma Dey

Adoption of Green Banking in Bangladesh: Bankers' Perception

Dr. Md. Sarwar Uddin *
Dhiman Barua **

Abstract

Green banking is certainly a new initiative in the banking industry. It is an important weapon through which environmentally conscious green activities could be satisfied. This type of banking could reduce cost to a considerable extent and may also contribute to sustainable ethical banking. Green banks not only improve their own standards but also affect socially responsible behavior of other businesses. This paper is mainly attempted to understand bankers' perception regarding green banking, reasons for and complexities of adopting green banking and ways of meeting the challenges to adopt green banking. To conduct the study, a total number of 107 respondents were taken as sample from 21 branches of 7 scheduled commercial banks located in Chittagong and data were collected by using a structured questionnaire. Garret's ranking technique was used to rank the qualitative data of bankers' perception. The analysis reveals that bankers perceived green banking as environmental and ethical banking. Bankers also perceived that saving environment and providing quick, accurate service are the major reasons and high cost of adoption is the supreme challenge for adopting green banking in Bangladesh. The study also reveals that commitment of top management of bank and greater supervision of Bangladesh Bank are the most important ways to overcome the barriers to green banking adoption.

Key Words: Green banking, bankers' perception, Bangladesh.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 7 - 20
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Associate Professor & Coordinator, Faculty of Business Administration, BGC Trust University Bangladesh, E-mail: sarwaredu@gmail.com, Cell: +88-01815-506083*

*** Lecturer, Faculty of Business Administration, BGC Trust University Bangladesh*

1.0 Introduction

Environmental pollution and management of scarce natural resources have become a major issues across the world in recent times. Environmental pollution and climate change mostly caused by human activities are affecting not only our economy, but also our survival. Because of the emission of dense carbon and due to the green house effect, the temperature of the world is increasing day by day. As a result, every year we are facing cyclone, flood, drought and many other natural disasters. Now society is demanding that businesses take responsibility to safeguard the planet. As a vital component of economic system, banking sector may play an important role between economic development and environment protection by supporting environmentally sustainable and socially responsible investment.

Green is a symbol of eco-consciousness in a broad sense of social, ethical and environmental dimensions in the world. Green banking is like just other banking but it considers social and environmental factors with a view to protecting the surrounding environment and natural resources (Bai, 2011). It can be understood as an operational improvement through better use of technology and changing clients' habit in banking operation as well as promotion of environment friendly practices and reduction of carbon footprint from banking activities by minimizing paper work and using electronic transfer (Singh and Singh, 2012).

Green banking offers many innovative green products and services that are not hazardous or injurious to the environment. Rather it should lead to protect and safeguard the environment from various environmental issues like unfavorable weather pattern, declining air quality, water pollution and so on. These banking products and services include green credit card, green saving account, green checking account, green mortgage, remote deposit, green loan, mobile banking, online banking etc. (Vafeeque & Unnipulan, 2015). Green banking activities have two different aspects affecting the environment. First, 'in-house green banking' which focuses on the green transformation of internal operations of bank by utilizing renewable energy, minimizing paper work, using natural resources etc. Second, 'green financing' which focuses on environmental risk assessment of projects before investment decision and provides support for the promotion of green initiatives and projects. Banks also need to monitor post transaction for the ideal environment risk management program during the project implementation and operation. There should be physical inspections of production, resources, training and support, environmental liability and programs etc (Sudhalakshmi and Chinnadorai, 2014).

There are several internal initiatives for environmentally responsible investment by banking sector. In 2011, Bangladesh Bank issued a three-phased guidelines to ensure environmental friendly business practices by banks and financial institutions, to incorporate environmental risk into Core Risk Management (CRM) for promoting sustainable economic development. In phase I, banks are to develop green banking policies, introduce in-house environment management, create climate risk fund, introduce green finance and green marketing. In phase II, banks need to formulate sector specific environmental policies for different environmental sensitive sectors. Under phase III, banks are expected to address the whole eco-system through environment friendly initiatives, introduce innovative products and publish independent green annual report. To expedite the ongoing initiatives of banks and NBFIs at a faster pace for sustaining the environment compatible to climate change risk, a minimum target of direct green finance has been set at 5 percent of the total loan disbursement from January 2016. Banks and NBFIs are required to allocate at least 10 percent of their corporate social responsibility budget for climate risk fund and this funding can be done either by providing grants or by financing at a reduced rate of interest or both to ensure the movement towards sustainability against the climate change (BB, 2016). But overall initiatives and performance of state owned commercial banks and specialized development banks are comparatively weaker than the private commercial banks and foreign commercial banks (Shakil et al. 2014).

This paper presents bankers' perception regarding adoption of green banking in our country including their understanding, reasons for and challenges of adopting green banking. Ways of meeting the challenges of adoption are also explained in this paper.

2.0 Literature Review

Green banking can be understood as an attempt of the banking sector considering social, environmental factors for maintaining ecological balance, protecting environment and utilizing natural resources. The main objective of green banking is to ensure the use of organizational resources in favor of the environment and society (Thombre- 2011). Lalon (2015) mentioned that a green bank must be concerned about ethical issues and as a social and sustainable organization, banks should focus on the social and environmental impact of their financing and other operations. Green banks abide by ethical obligations which require an objective way to determine ethical values by exploring their responsibilities towards mankind. Papastergious and Blanas (2011) viewed green banking as sustainable

banking and explained the connection among the various organizational functions including HR, marketing, internal resource management to achieve sustainability in the banking services.

Most of the banks are adopting green initiatives and showing the concern for the environment which gives win-win situation for bank, saves cost and supports better operational efficiency (Hoque 2015). Islam et al. (2014) studied green banking adoption by commercial banks in Bangladesh and found that directives of central bank are the fundamental motive for adopting green banking. They also observed that revenue generation by cost minimization, morality of the business encourage the adoption of green banking. Ahmad et. al (2013) examined the adoption of green banking by Bangladeshi commercial banks and detected six factors, i.e., economic factor, policy guideline, loan demand, stakeholders pressure, environmental interest and legal pressure being the major influencers. The study also observed that banks are adopting green banking to improve its brand image to the market, avoid legal pressure, satisfy stake holders, generate profit and protect the brand value. Chen (2010) observed that banks use green concept to get competitive advantage, capture new market opportunity, improve brand image and meet environmental pressure. Bhardway and Malhotra (2014) found positive relationship between adoption of green banking and bank profitability.

Masukujjaman et. al (2016) found that bankers consider green banking as an environmental banking and high cost of adoption is the major perceived complexity to execute green banking. The study also connected between green banking and Islamic banking and observed that both support social responsibility, cleanliness, reduction of resource wastage and ethical issues. Verma (2012) identified lack of awareness among the bank staff and the customers as the major challenge in adopting green banking. Chowdhury, et al. (2013) selected some important stakeholders to understand their influence in developing green banking products and recommended that bank should be green and consider environmental aspects in operational improvements and changing clients' habits in banking business. Rahman et. al (2013) identified lack of awareness as the supreme reason for the poor performance in implementing green banking. They observed that most of the bankers of different banks do not have clear understanding about green banking, its importance and implication. Zhelyazkoza et. al. (2015) studied on green banking system and proposed a business model examining that banks should emphasize on internal efforts to resource consumption within the organization and place energy into coming up with innovative ways of stimulating the environment protection as part of their core business.

Syedul Islam (2014) stated that green banking emphasizes on economic, social and environmental benefits where traditional banking focuses on economic benefits. He suggested that positive attitude towards green banking, strong coordination among stakeholders, automation of banks, uniform reporting of banks, viable production technology, environmental awareness among employees and clients, developing environmental governance are important for promoting green banking in Bangladesh. Rahman and Barua (2016) recommended that commitment of top management is very vital for proper application of green banking policy. They observed that bankers generally neglect green banking concept as they emphasize on regular banking operation in both investment and internal function. Islam and Das (2013) emphasized on increasing supervision of government and Bangladesh bank in implementing green banking strategies of commercial banks. Habib (2012) argued that different stakeholders like NGO and civil society organizations should come forward to develop awareness, promote research activities and monitor business operations. The study also mentioned that collective efforts of government, media, and NGOs are needed for a rapid change among customers and businesses.

The above literatures reveal that no comprehensive study has yet been conducted to understand the bankers' perception regarding green banking, reasons for and complexities of adopting green banking and ways of meeting the challenges to adopt green banking. This study focuses to fulfill the gap.

3.0 Objective of the Study

The objectives of the study are:

1. To understand green banking system.
2. To assess major reasons for and challenges of adopting of green banking from bankers' perception.
3. To detect some major ways of meeting the challenges.

4.0 Research Methodology

4.1 Sampling design

To conduct this study, seven scheduled commercial banks have been chosen as sample banks using purposive sampling technique, namely AB Bank Ltd., Standard Chartered Bank, Eastern Bank Ltd., Brac Bank Ltd., Bank Asia Ltd., IFIC Bank Ltd. and Exim Bank Ltd. which have significant green banking activities. Data were collected from a sample of 107 respondents from 21 branches of selected banks located in

Chittagong. Respondents were individual employees who work in bank as officers or in upper level positions. A simple judgmental sampling technique was used to find the concerned officers.

4.2 Data collection

A face to face interview method was followed by using a structured questionnaire to conduct the survey. Various related research articles were studied to construct the questionnaire. The questionnaire consisted of bankers' perception of adoption of green banking. In the questionnaire, Garret table rating scale was used to rank qualitative data in a higher priority entitling 1 to lowest priority.

4.3 Mode of data analysis

Garret's ranking technique (Ahmad 2012, Masukujjamam et al. 2016) was used to find the most significant issues for understanding bankers perception about green banking, reasons for adopting green banking, challenges regarding the adoption and ways of recovering the barriers to adopt green banking. It was calculated as percentage score and the scale value was obtained by employing Scale Conversion Table given by Henry Garrett. The percentage score was calculated as follows

Percentage score = 100(Rij-0.5)/ Nij)

Where Rij is the rank given for ith item jth individual

Nij is the number of items ranked by jth individual.

Using Scale Conversion Table of Henry Garrett, the percentage score was obtained for all ranks. The score value (fx) was calculated for each factor by multiplying number of respondents (f) with respective scale value (x). The total scores were computed by adding the score value (fx) of each rank for every factor. The mean score was then calculated to know the order of perception given by the respondents.

5.0 Data Analysis and Findings

5.1 Understanding of green banking

Green banking is a form of banking that benefits environment through ensuring sustainable economic growth. Most of the bankers of commercial banks perceived green banking as environmental banking with the highest mean score 61.21 (table 1).

Table1: Bankers' perception of green banking

Understanding of green banking		1	2	3	4	5	Total	Total Garrett Score	Mean Score	Rank
Ethical and moral banking	f	39	15	36	8	9	107	6170	57.66	2
	fx	2925	900	1800	320	225				
Sustainable banking	f	6	22	15	39	25	107	4705	43.97	4
	fx	450	1320	750	1560	625				
Social responsible banking	f	20	21	26	15	25	107	5285	49.39	3
	fx	1500	1260	1300	600	625				
Profitable banking	f	2	12	11	38	44	107	4040	37.76	5
	fx	150	720	550	1520	1100				
Environmental banking	f	40	37	19	7	4	107	6550	61.21	1
	fx	3000	2220	950	280	100				
		75	60	50	40	25				

Source: Field survey

Bankers also perceived green banking as ethical and moral banking (mean score 57.66) and placed at second position followed by socially responsible banking. Bankers realized that green banking is related to environmental protection. As a unit of the society, banks should be more morally responsible for saving environment and keeping nature green and livable. Bankers also considered green banking as sustainable and profitable banking and placed at fourth and fifth position at the ranking table respectively.

The result is consistent with previous study by Habib (2010). He mentioned green banking as environmentally and socially responsible banking and expected to consider ethical issues in banking operation.

5.2 Reasons of adopting green banking

There are several reasons that influence bankers to adopt green banking. Green banking saves environment by reducing carbon footprint and investing in environment friendly projects. It reduces paper work and promotes online banking for accelerating service delivery to customers. Green banking not only ensures the

greening of industry but also helps to improve the asset quality. As per table 2, bankers of commercial banks realized that saving environment is the first reason with highest mean value (54.71) for adopting green banking in Bangladesh

Table 2: Reasons of adopting green banking

Reasons for adopting green banking		1	2	3	4	5	6	7	Total	Total Garret Score	Mean Score	Rank
Reduce operating cost	f	14	9	17	24	10	20	13	107	5252	49.08	4
	fx	1106	594	969	1200	430	680	273				
Maintain CSR	f	10	12	17	21	18	17	12	107	5205	48.64	5
	fx	790	792	969	1050	774	578	252				
Pressure from Bangladesh bank	f	21	22	15	11	10	19	9	107	5599	52.33	3
	fx	1659	1452	855	550	430	646	189				
Saving environment	f	27	16	18	11	9	12	14	107	5854	54.71	1
	fx	2133	1056	1026	550	387	408	294				
Pressure from environmental group	f	6	13	9	20	15	19	25	107	4661	43.56	7
	fx	474	858	513	1000	645	646	525				
Quick and accurate service delivery	f	17	21	23	9	18	6	13	107	5741	53.65	2
	fx	1343	1386	1311	450	774	204	273				
Increase image of bank	f	12	14	8	11	27	14	21	107	4956	46.32	6
	fx	948	924	456	550	1161	476	441				
		79	66	57	50	43	34	21				

Source: Field survey

Bankers perceived quick and accurate service delivery as the second reason with mean score 53.65 for adopting green banking. Pressure from Bangladesh Bank (mean score 52.33) is placed at third position in the ranking by the bankers. By adopting green banking, banks can ensure better use of natural resources and participate in social welfare activities. Thus, bankers identified reduction of operating cost and maintaining CSR as important factor for adopting green banking and placed them at fourth and fifth rank respectively on the table. Bankers marked increasing image of bank and pressure from environmental group as the least important reason for adopting green banking. The result is consistent with the previous studies by Ahmad et al. (2013), Islam et al.(2014).

5.3 Challenges of adopting green banking

Adoption of green banking faces a number of challenges in Bangladesh. Using renewable energy sources and developing green office reduce operational cost of bank. But this in-house green banking is expensive to install. Many bankers do not have clear idea about green banking, in-house green activities, green financing. Due to lack of awareness among the customers, they don't feel interested in green banking initiative of commercial banks. The challenges of adopting green banking from the realization of bankers are shown in table 3.

Table 3: Challenges of adopting green banking

Challenges of adopting green banking		1	2	3	4	5	Total	Total Garrett Score	Mean Score	Rank
High cost of adoption	f	41	27	15	19	5	107	6330	59.16	1
	fx	3075	1620	750	760	125				
Improper understanding of bankers	f	10	18	42	19	18	107	5140	48.04	3
	fx	750	1080	2100	760	450				
Lack of interest of customers	f	28	24	27	9	19	107	5725	53.50	2
	fx	2100	1440	1350	360	475				
Risk of losing major customers	f	18	15	13	33	28	107	4920	45.98	4
	fx	1350	900	650	1320	700				
Insufficient budget	f	10	23	10	27	37	107	4635	43.32	5
	fx	750	1380	500	1080	925				
		75	60	50	40	25				

Source: Field survey

Bankers perceived the high cost of adoption as the first challenge (mean score 59.16) to adopt green banking. Lack of interest of customers (mean value 53.50) is placed at the second position in the table followed by lack of interest of customers. Bankers also realized that risk of losing major customers and insufficient budget are key challenges to adopting green banking.

The result is consistent with the previous study by Rahman and Barua (2016). They conducted a study on the design and adoption of green banking framework for environment protection and identified that lack of awareness and high implementation cost are the main reasons with highest percentage for poor performance in green banking implementation which is consistent with the result of this study.

5.4 Recovery of barriers

Overall green banking practices in Bangladesh is still not at a satisfactory level. Bangladesh Bank should focus on the all the key benefits of green banking to the commercial banks in order to fully implement green banking. Banks should develop different strategies in both in-house green banking and green financing for promoting green banking system. Table 4, represents some ways to recover the barriers to adopt green banking. Bankers perceived that commitment of top management is the most significant issue (mean score 56.26) for meeting the challenges of green banking adoption and placed it at the first position in the ranking.

Table 4: Recovery of barrier to adopt green banking

Recovery of barrier		1	2	3	4	5	6	Total	Total Garrett Score	Mean Score	Rank
Ensuring green financing	f	9	12	10	28	21	27	107	4675	43.69	6
	fx	693	756	540	1288	777	621				
Training employees	f	16	18	30	9	18	16	107	5434	50.79	3
	fx	1232	1134	1620	414	666	368				
Commitment of top management	f	34	22	10	11	20	10	107	6020	56.26	1
	fx	2618	1386	540	506	740	230				
Greater supervision of BB	f	29	15	21	19	11	12	107	5869	54.85	2
	fx	2233	945	1134	874	407	276				
Coordination among stakeholders	f	8	12	19	18	25	25	107	4726	44.17	5
	fx	616	756	1026	828	925	575				
Creating awareness to customers	f	11	28	17	22	12	17	107	5376	50.25	4
	fx	847	1764	918	1012	444	391				
		77	63	54	46	37	23				

Source: Field survey

Greater supervision of Bangladesh Bank (mean score 54.85) and employee training (50.79) are identified as the second and third most important ways respectively to overcome the barrier to green banking adoption. Employees should be properly trained in green investment and internal green environment so that they can understand it better and motivate customers regarding green banking. Bankers felt that banks should arrange several seminars and symposium to make the clients conscious about green banking, green products and services and encourage them about green banking activities. Thus, creating awareness is located at the fourth position in the table followed by coordination among stakeholders. Coordination among different stakeholders like Bangladesh Bank, environmentalist group and civil society is needed and pressure from such stakeholders can force banks to execute green policies. Banks should make investment decision after assessing environmental risk of particular project and investment should be increased for projects installing solar energy plant, bio gas, bio fertilizer plants, effluent treatment plant etc. Hence, bankers marked it sixth position in the table. The result is consistent with the previous studies by Islam and Das (2013), Habib (2012).

6.0 Conclusion

This paper is mainly focused on the bankers' perception on green banking adoption and it is found that bankers treated green banking as environmental and ethical banking. Saving environment and delivering quick and accurate service are the major reasons for adopting green banking as perceived by bankers. It is also found that high cost of adoption is the major challenge in this regard. Besides, bankers feel that commitment of top management is the supreme way of removing all the barriers to meet the challenges of adopting green banking in Bangladesh. Bankers also focus on greater supervision by Bangladesh Bank, employees training, customers' awareness of proper adoption of green banking. Therefore, Bangladesh Bank and commercial banks need to arrange training and awareness program for employees and customers. Furthermore, Bangladesh Bank should arrange separate dialogue sessions with the top management of commercial banks to instruct them for placing best priority on green banking practices. Bangladesh Bank should also improve their monitoring on the policy implementation, resource allocation, green investment of commercial banks.

7.0 Limitations and Future Research

This study indicates a number of limitations and potential specific directions for future research. The most significant limitation is the sample size which was small. The research would have been more reliable if a greater size of the sample had been

used. The respondents were selected from 21 branches of 7 scheduled commercial banks located in Chittagong city. It would have been more reliable and realistic if the respondents had been selected from some other cities including Dhaka. This study focused on the perception of bankers regarding adoption of green banking. But the perception of other stakeholders is not considered. It is recommended that future research may be conducted to study the perception of customers and other stakeholders regarding the adoption of green banking in Bangladesh.

8.0 Reference

Ahmad, F., Zayed,N.M. and Harun,M.A. (2013), "Factors Behind the Adoption of Green Banking by Bangladeshi Commercial Banks", ASA University Review, Vol. 7, No. 2, pp. 241-255.

Bangladesh Bank (April-June,2016), Quarterly Review Report on green Banking Activities of Banks and Financial Institutions and Green Refinance Activities of BB.

Bhai, Y. (2011). " Financing a green future", MS thesis, Lund, Sweden, IIIEE Thesis 2011:02, viewed: September 15, 2012.

Bhal,S. (2012), "Green Banking- The New Strategic Imperative", International Journal Marketing, Financial Services and Management Research, Vol. 2. No. 2.

Bhardwaj,B.R. and Malhotra,A. (2014), "Green Banking Strategy: Sustainability through Corporate Entrepreneurship", Greener Journal of Business and Management studies, Vol. 4, No. 4, pp. 180-191.

Chen, Y. (2010), "The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction and Green Trust", Journal of Business Ethics, Vol. 93, No. 2, pp. 307-319.

Choudhury, T.T., Salim,M.M.A and Saha,P. (2013), "Influence of Stakeholders in Developing Green Banking Products in Bangladesh", Research Journal of Finance and Accounting, Vol. 4, No. 3, pp. 67-77.

Habib, SMA. (2010). " Green Banking: A Multi-Stakeholders Endeavour", The Daily Star, 07 August.

Habib et al. (2012), "An Impact Evaluation of Green Banking Initiatives in Bangladesh", Banking Review Series, BIBM.

Hoque,M.M., Bakar,R. and Talukder,A.A. (2015), "Green Banking Initiatives of Some Selected PCBs in Bangladesh: A Special Focus on Islami Bank Bangladesh Limited.", International Journal of Ethics in Social Science, Vol. 3, No. 1, pp. 65-76.

Islam, M.S. (2013), "Green Banking in Bangladesh: How Much Implemented by the Practitioners?" Abasyn Journal of Social Science, Vol. 7, Issue 2, pp. 189-210.

Islam,M.S. and Das, P.C. (2013), "Green Banking practices in Bangladesh", IOSR Journal of Business and Management, Vol. 8, No.3, pp. 39-44.

Islam,T., Sharmeen. K. and Rahman,S. (2014), "Adopting Green: from the Perspective of Private Commercial Banks in Bangladesh", Proceedings of Annual Shanghai Business, Economics and Finance Conference, Shanghai, China.

Lalon, R.M. (2015), "Green Banking: Going Green", International Journal of Economics, Finance and Management Sciences, Vol. 3. No. 1, pp. 34-42.

Masukujjaman, M. et.al. (2016), "Bankers Perception of Green Banking: Learning from the experience of Islamic Banks in Bangladesh", Malaysian Journal of Society and Space, Vol. 12, No.2, pp. 144-153.

Papastergiou, A. and Blanas, G. (2011), "Sustainable Green banking: The Case of Greece", MIBES, available at: http://mibes.teilar.gr/proceedings/2011/0ral/16.pdf, retrieved 10 May,2015.

Rahman et al. (2013), "Green Banking Prospects in Bangladesh", Asian Business Review, Vol. 2, No. 2, Issue 4, pp. 59-63.

Rahman, S.M.M. and Barua,S. (2016), "The Design and Adoption of Green Banking Framework for Environment Protection: Lessons from Bangladesh", Australian Journal of Sustainable Business and Society, Vol. 2, No. 1, pp. 1-19.

Shakil, M.H., Azam, M.K.G. and Raju,M.S.H. (2014), "An Evaluation of Green Banking Practices in Bangladesh", European Journal of Business and Management, Vol. 6, No. 31, pp. 8-16.

Singh, H and Singh, BP. (2012). " An effective and resourceful contribution of green banking towards sustainability", international journal of advances in engineering science and technology, vol. 1, no. 2, pp. 41-45.

Sudhalakhmai, K. and Chinnadorai, K.M. (2014), "Green Banking Practices in Indian Banks", International Journal of Management and Commerce Innovation, Vol. 2, Issue 1, pp. 232-235.

Thombre, K.A. (2011), "The New Face of Banking", Green Banking. Research Paper-Commerce, Vol. 1, No. 2, pp. 1-4.

Vafeeque, V. and Unnipulan , H. (2015), "The role of green banking in sustainable growth", EPRA international journal of economic and business review, vol. 3, issue- 10, pp. 161-164.

Verma,M.K. (2012), "Green Banking: A Unique Corporate Social Responsibility of Indian Banks", International Journal of Research in Commerce and Management, Vol. 3, Issue 1.

Zhelyazkova,V. and Kitanov, Y. (2015), "Green Banking- Definition, Scope and Proposed Business Model", Journal of International Scientific Publications, Vol. 9, pp.

Medium of instruction in private universities of Bangladesh: An urban-rural divide

Md. Khaled Bin Chowdhury *
Mahamuda Akter **

Abstract

The use of English as a Medium of Instruction in higher education has become a common phenomenon recently across the country. A perception is underway that suggests that public universities use Bangla as an MOI whereas private universities use English for that purpose. But, the reality is that all private universities do not regularly and usually use English as an MOI. There are socio-economic and geographical factors that determine the use of English as an MOI in the private universities of Bangladesh. This article shows that private universities located in rural areas do not necessarily use English as an MOI. Bangla is used side by side and sometimes predominantly as an MOI in these private universities, which reflects the age-old urban rural divide in the use of English as an MOI in EFL contexts. The findings from our study of the university suggest that majority teachers use Bangla as an MOI and for other interactions with the students in classroom. This study suggests giving more importance to the use of English as an MOI for the greater benefits of the graduates.

Key Words: public universities, private universities, medium of instruction, urban-rural divide, public-private divide.

Abbreviations: MOI-Medium of Instruction, EFL- English as a Foreign Language, EMI- English Medium Instruction.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 21 - 34
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Associate Professor, Department of English, BGC Trust University Bangladesh*
*** Lecturer, Department of English, BGC Trust University Bangladesh*

Introduction

During the British Colonial rule, the language of instruction was English and hence it was elitist in nature because its beneficiaries were the upper section of people across the world. After the end of the Colonial period, the national languages started to be used as a unifying force. Accordingly, Urdu was used as a national language for communication between the two parts of Pakistan.(Hamid et al,2013, p.145). After the Independence of Bangladesh, the nationalistic feelings motivated the successive governments to adopt Bangla as the MOI at all levels of education, including the higher one. But, later on, the widespread use of English as a global language and the practical benefits of using and learning English were the prime motivators for adopting English as an MOI in higher education. Despite this fact, the use of English has not become widespread in the whole country for many reasons. The socio-economic status of the population has become a powerful determiner in the success or failure of learning and the use of English by the populace. The poor-rich, rural-urban divide of the population determines who will learn English for it requires a lot of investment. With the marketisation of education and English as well as a powerful tool for self- improvement, customers' capability for investment in these two areas underpin the supply and the quality of the product , i.e. education where the use of English as an MOI is deemed to be an important criterion of quality education.

In Bangladesh English is compulsory from the primary level. Students studying in the mainstream education have to study English compulsorily for twelve academic years. The quality of English education in our country is undoubtedly open to question. The situation is worse in the rural areas. So, students are to go for extra tuition in English in addition to classes in school, college and madrasha. The quality of that extra tuition available in rural areas is also not up to the mark though the economically insolvent people cannot afford extra English tuition for their kids. So, the students of rural areas cannot acquire the desired competence in English which has a long- standing impact on their life-long academic performance and career. The poor English proficiency that they acquire in primary, secondary and higher secondary levels cannot be overcome during their higher education. They finish their higher education with low proficiency in English and consequently cannot obtain good jobs.

Literature Review

Researches on the MOI in education around the world are substantial in number.

These studies show that governments are spending huge amount of money for the expansion of English education and particularly for the use of English as an MOI. Increasingly, states are giving more importance to English as an MOI in view of human resource development, expansion of global economy and internationalization of education (Hamid, 2013; Ali, 2013; Rasool, 2007).

Though huge importance is being given to an inclusive English education policy, still access to English education is confined to a limited number of privileged population. (Hamid, 2011b, Hamid and Baldauf, 2011). English that opens door to opportunities is still not accessible to most people, who are in the lower strata of society. In the same vein, there has been little research on the comparative achievements of English as a second/foreign language by students belonging to different social standings.

Lin (1999) conducted a qualitative study on four different classrooms located in different socio-economic contexts in Hongkong. He shows how learners' 'social class backgrounds' had impact on their learning activities. Cook's (2006, 2008) studies on immigrants in the UK shows that familial, social, political and institutional factors limited the scope of their English learning. Palfreyman's (2006) studies on female university students of UAE manifest the importance of material and social resources beyond formal learning scenario. Hamid (2011, p. 31) conducted a study on the relation between socio-economic factors and performance in the SSC English by the rural students of Bangladesh. In that study he investigated, among other issues, links between secondary school students' family socio-economic characteristics and their academic attainment in English in a rural sub-district of Bangladesh. The data indicate that the rural students had both lower scores in an arranged proficiency test for that study and in their SSC English. There were patterned relationships between the students' family income and parental education and their academic achievement in English. The study demonstrates that students who had higher levels of parental education and family income were more likely to obtain higher grades,.

Hamid in another study (2016) reveals how factors related to students' school, family and the community influence the level of higher proficiency of Bangladeshi students in rural areas. This important study manifests that the poor condition of English teaching at schools and the insufficient family and social resources hugely affected the intended learning outcomes of the students. (pp.50-51). Hamid (2016) also indicates that schools that charge higher fees from the parents can invest more money in English teaching than the public and the MPO -receiving private schools

in rural areas. (p.51). That huge volume of investment contributes strongly to making 'educational distinction' for the elite schools of cities.(p.51)

Research on MOI in Higher Education

There is a very little research on the link between English proficiency and the socio-cultural and economic background of the learners' family.

In Mexico, González, Lima and Castillo (2004), as reported by Davies (2009), shows links between students' socio-economic status, institutions of higher education (public versus private) that they selected for study and their levels of English proficiency. The researchers also indicate the difference between students' English proficiency at private and public institutions. That contrast reveals how English is more quickly and effectively acquired by the upper socio-economic sections of the Mexican population [mostly going to private schools at the pre-university level], and correspondingly more slowly in the much larger, lower socioeconomic sections of the population, e.g., in the public university (2009, p.6).

In Bangladesh, there is similarly very limited research on the use of MOI in public and private universities of Bangladesh. Hamid et al (2016) conducted a study on MOI among the teachers and students of a private university in Dhaka. In that study they assert, "While the government maintains the post-independence nationalist and modernist policies and does not permit the exclusive use of EMI in state funded universities, private universities have been using English exclusively as an MOI since their inception in the early 1990s"(2016, p. 145). They also suggest that only the use of an MOI creates the greatest divide between the public and private universities. In that study they strongly suggest that private universities as a whole use English as an MOI. Our study aims at critiquing the afore-mentioned viewpoint through empirical research. Our teaching experiences with the University under our investigation present a different scenario. So, on the basis of that experience, we have devised the following research questions:

1. Do all private universities use English as an MOI?

2. What hinders teachers from using English as an MOI in rural private universities?

MOI and Higher education

There has been a trend to use both Bangla and English in higher education for the past several decades. Bangla has so long been used in Humanities and Social Sciences and English in sciences, Technology, Engineering and Medicine (Hamid, 2006b). An aimless, unsystematic, ineffective mixture of Bangla and English in

classroom interaction in higher education institutions in public sector is also common. (ibid). But, the MOI scenario in private sector higher education is different from the public sector. The introduction of the Private University Act, 1992 aimed at starting international standard higher education. Though there was no mention of an MOI in the Act, all the private universities opted for English as an MOI by default because it was expected that the use of English as a medium of instruction would play a significant role in improving the quality of higher education and the employability of graduates. Hence it has become a practice to use English not only in academic but also in administrative functions of these universities. All the websites of these private universities are in English. Academic programs are conducted in English and students are required to write their assignments and examination answers in English. (Hamid et al, 2013,pp.150-151).

Similarly, the university under our investigation follows the same footsteps. It has website in English. Its correspondences and administrative functions are performed in English. Syllabuses and curriculums are all written in English. But, how much of its teaching and other classroom interactions are done in English? So, in this study we have tried to critique the discourse that states that 'higher education in Bangladesh is divided by entrepreneurial initiatives (public versus private ownership) and this divide is marked by MOI -Bangla +English in the public sector and English only in the private sector'. (Hamid et al, 2013, p.145). Our investigation shows that the divide is not between public and private sectors, rather it is between rural and urban, privileged and unprivileged.

Context

The University under our investigation is a second generation private university which was established in 2003 in a rural area. It is situated 35 kilometers away from a metropolitan city. It offers undergraduate programs in Business, English, Computer Science, Pharmacy and Law and graduate programs in English, Law and Business. It has 3668 students enrolled in the undergraduate and graduate programs on the date of writing this article. Of the total students, 80 percent are rural and only 20 percent are urban. The Founder of the University established it with a philanthropic objective in his mind. He envisioned it to be a modern and dynamic place for higher education at the forefront of academic innovation. The vision of the University is described as, "It is a truly multi-faceted experience offering outstanding learning opportunity, with a fascinating cultural mix (Rural and Urban) of students from various parts of the country, studying different programs". The University officially uses English for academic and other non-academic activities. Its

graduates are working both in public and private sectors of the country with efficiency.

Participants

The survey was conducted among 33 teachers and 50 students of five departments of the University. The departments are Business Administration, English, Computer Science and Engineering, Pharmacy and Law. The data collected were then tabulated manually in percentage. We took interview of five students from five departments after the survey. The findings from the data analysis are as follows:

Description of Teachers' Responses

Out of 33 teachers, only 4 teachers say that they always deliver lecture in English, 10 do it sometimes, 18 do rarely and only 1 never does it. 28 teachers use both English and Bangla always, 4 teachers do it sometimes, and only 1 teacher does it rarely. Only 1 teacher does other interactions in English always, 3 sometimes, 28 rarely and only 1 never does it in English. On the other hand, 5 teachers have interaction in English and Bangla always, 2 do sometimes, and only 1 rarely and 25 never. In reply to the question, what prohibits them from using English as an MOI and for other interactions, most of the teachers agree with more than one or two options. 22 teachers identify students' low proficiency, 14 as students' unwillingness to use English, 13 identify as no directives from the university, 24 as location of the university in rural area and 24 identify students' socio-economic and cultural background as potent reasons. 6 teachers identify the teachers' lack of proficiency as reasons. 22 teachers rate students' proficiency in English as poor, 8 as average, 2 as good 1 as very good. 22 teachers agree, 3 neither agree nor disagree, 4 strongly agree, 2 disagree and 2 strongly disagree to the proposition that the situation would be different if the university were located in city.

Description of Students' Responses

Among the students, 16 were from the city and 34 from village. In response to the question, if they had any extra tuition in English, 33 students said that they had 2 to 3 years of extra tuition in their academic life. The economic condition of the majority students is also not good enough. 30 students said that their parents' monthly income was in between 20 and 30 thousand taka. 11 say their parents' income is less than 20 thousand. 7 students' parents income range is between 41 and 50 thousand and only 2 are in the 51- 60 thousand bracket. Only 14 students' fathers are graduates and 8 students' are post graduates. Only 4 students' mothers are graduates and only 1 student's mother is post graduates. In response to the

question No. 10, only 3 students said that their teachers always deliver lecture in English, 12 say sometimes, 20 said rarely and 15 said never. 29 students said that their teachers always deliver lecture in both English and Bangla, 16 said sometimes and 5 said rarely. 5 students said that their teachers always interact with them in English, 5 said rarely and 40 students said never. 5 students said their teachers interact with them in class in Bangla and English always 3 said sometimes and 42 said never. In response to the question, how many of their course teachers conduct the whole class in English, 43 students said none, 5 students said 1 and 02 students said 2.

Interview with the students

Three students from three departments told us in private that they thought all five of their course teachers they have classes with, are not competent enough to deliver lecture and have other interactions in English. Two students from other two departments told us that their teachers are competent to deliver lecture and other activities in English though they use both English and Bangla in the classroom. One of them also said that initially their two teachers did not deliver lecture in English but they are now doing it though it was expected of them because of the department they belong to usually demands so.

Discussion

The urban-rural divide that has been a key feature of education system of Bangladesh is evident in this case too. Better educational achievement including English proficiency is noticed more often in urban educational institutions than in the rural ones. In our study we saw that 22 teachers rate students' proficiency in English as poor, 8 as average, 2 as good 1 as very good. As stated earlier in this article, 80% of the students of this University are from rural area. The rural students are usually the under-achievers in our educational performance competition.

The demarcation of achievement and under-achievement in English is the direct outcome of the 'hierarchy of linguistic markets of English'. This market is influenced by factors like 'family social, economic and cultural capital'-which is differentially allocated to different social groups (Hamid,2009,p.50; Lin,1999). These social class issues cannot be underestimated in investigating English learning and its scenario of progress (Hamid, 2011b; Hamid and Baldauf, 2011). Investment for education which depends on economic and social capital, determines the students' level of success. What Deabnath (2008) says with reference to school is worth quoting here:

Educationists are of the opinion that capitalism has engulfed the country's education system where students supported by solvent families achieve brilliant

results, while rural students from poor families struggle to obtain even pass marks as their schools cannot provide quality education (cited in Hamid, 2016, p.50).

From our study it came out that, the economic condition of the majority students' parents is not good enough to afford extra tuition for their kids. 30 students said that their parents' monthly income is between 20 and 30 thousand taka. 11 say their parents' income is less than 20 thousand. 7 students' parents' income range is between 41 and 50 thousand and only 2 are in the 51- 60 thousand. Arikan (2011) explains that students with 'higher socio-economic status' exhibit better academic success and enroll in elite universities more than their lower economic friends. As we can see, people with handsome salaries can afford educational expenses both for them and the kids. Arikan (2011) also shows that 'social class, housing, and access to resources' yield greater results in acquisition of both value systems and academic achievement. This claim can be substantiated from the teachers' responses in our study. We see that regarding teachers' abstention from using English as an MOI, 24 teachers mention both location of the university in rural area and students' socio-economic and cultural background as potent reasons.

If we consider education as a component of culture, the qualifications of the parents of these students can be an indicator of judging academic achievement. We find from the students' responses that only 14 students' fathers are graduates and 8 students' are post graduates. Only 4 students' mothers are graduate and only 1 student's mother is post graduate. Students having parents with higher qualifications become greater achievers in academic performance. DuBois (2001) explains how parental education influenced children's self-confidence and academic goals. He says that, in spite of all the parents' encouragement to their children, those with no formal education or only low levels of education cannot make informed decisions about the academic and career goals of their children. (p. 161).

Implications of the Study

This study is not intended to undermine any university. Many higher educational institutions located in the rural areas are doing tremendously well and hence have earned good reputation. Our objective is to help the university realize its weakness and assess its position in comparison with other private universities of the country. From this study, the university will have scope to reevaluate its current condition and find out ways for improvement and achieve a prestigious position among the private universities in this age of globalization. As most of the students of this University have poor level of proficiency in English, extra courses in English may be offered to them.

Conclusion

The general assumption that private universities of Bangladesh use English as an MOI and public universities Bangla and English for the same purpose is not correct as a whole. The use of English or Bangla as an MOI depends largely on factors like geographic, socio-economic and cultural stratification of the population. The rural-urban, rich-poor demarcation still plays the decisive role in the use of English or Bangla as an MOI in higher education. It is evident from this study that all private universities do not use English as an MOI. Teachers choose an MOI depending on a variety of factors. These factors have a great impact on the overall quality of higher education including the choice of MOI. The quality of student intake in conjunction with the affordability of the education has direct connection with the standard of the education provided by the educational institutions in the market-driven economy. So, the English proficiency level of the students enrolled in these universities directly influence the quality of education and vice versa.

It can be inferred from our study that investment of capital in education ultimately influences the students' overall academic excellence including English proficiency. Now English skill gives a better competitive edge to a graduate in the job market. The students of private universities located in the rural areas are falling behind in the pursuit of becoming competent graduates for the market. The management and the academia of these private universities should think seriously on this issue for the overall development of their graduates. The establishment of private universities in rural areas is no doubt a good step to the expansion of higher education in Bangladesh. But, at the same time, the authority should be vigilant about the quality of the education they provide to the students. It is true that English proficiency is not the only criterion of quality education. In spite of that, in this age of globalization, skill in English is a prerequisite for outcome-based higher education. So, the authorities should take initiatives to ensure the use of English as an MOI in their universities.

References

Ali, L. H. (2013a). A changing paradigm in language planning: English-medium instruction policy at the tertiary level in Malaysia. *Current Issues in Language Planning,* 14(1), 73–92.

Ali, L. H. (2013b). *Language policy and planning in Malaysia: Managing English-medium instruction at tertiary level* (PhD dissertation). The University of Queensland, Brisbane, Australia.

Arikan, A. (2011). Prospective English Language Teacher´s Perceptions of the Target Language and Culture in Relation to their Socioeconomic Status. Published by *Canadian Center of Science and Education,* 4(3). Retrieved on September 2012, from: www.ccsenet.org/elt

Cooke, M. (2006) When I wake up I dream of electricity: the lives, aspirations and 'needs' of adult ESOL learners. *Linguistics and Education* 17(1) 56–73.

Cooke, M. (2008) What we might become: the lives, aspirations, and education of young migrants in the London area. *Journal of Language, Identity and Education* 7(1) 22–40.

Davies, P. (2009) Strategic Management of ELT in Public Educational Systems: Trying to Reduce Failure, Increase Success. *TESL-EJ 13*: 1-22.

DuBois, D. L. (2001) Family Disadvantage, the Self, and Academic Achievement. In Bruce J. Biddle (ed), *Social Class, Poverty and Education: Policy and Practice,* 133-173. London: Routledge Falmer.

Deabnath,, (2008, June 30). Superb SSC results: Rural, urban gap in education widens. *The Daily Star*. Retrieved from http://archive.thedailystar.net/newDesign/story.php?nid=43503

Hamid, M. O. (2016) The linguistic market for English in Bangladesh, *Current Issues in Language Planning,* 17(1) 36-55, DOI: 10.1080/14664208.2016.1105909

Hamid, O., Jahan, I. and Islam, M. (2013) Medium of instruction policies and language practices, ideologies and institutional divides: voices of teachers and students in a private university in Bangladesh. *Current Issues in Language Planning,* 14(1), 144-163.

Hamid, M. O. (2011a). Planning for failure: English and language policy and planning in Bangladesh. In J. A. Fishman & O. Garcia (Eds.), *Handbook of language and ethnic identity: The success– failure continuum in language and ethnic identity efforts* 2,192–203. New York, NY: Oxford University Press.

Hamid, M. O. (2011b). Socio-economic characteristics and English language achievement in rural Bangladesh. *Bangladesh e Journal of Sociology,* 8(20), 31–50

Hamid, M. O., & Baldauf, R. B. Jr. (2011). English and socio-economic disadvantage: Learner voices from rural Bangladesh. *Language Learning Journal,* 39(2), 201-217.

Hamid, M.O. (2009) *Sociology of language learning: social biographies and school English achievement in rural Bangladesh.* PhD. dissertation, The University of Queensland, Australia.

Hamid, M.O.(2006b). English teachers' choice of language for publication: Qualitative insights from Bangladesh. *Current Issues in Language Planning,* 7(1), 126–140.

Lin, A.M.Y. (1999). Doing-English-lessons in the reproduction or transformation of social worlds. *TESOL Quarterly* 23(3)392–412.

Palfreyman, D. (2006). Social context and resources for language learning. *System 34:* 352–370.

Rassool, N. (2007). *Global issues in language, education and development: Perspectives from postcolonial countries.* Clevedon: Multilingual Matters.

Questionnaire for Teachers

(Please tick the one you agree with)

1. I deliver my lecture in English

   Always/ sometimes/ rarely/ never.
2. I use both Bangla and English in classroom

   Always/ sometimes/ rarely/ never
3. I interact with my students in the classroom in English

   Always/ sometimes/ rarely/ never
4. I interact with my students in the classroom in English and Bangla

   Always/ sometimes/ rarely/ never
5. Rate the importance of English in students' academic and professional life.

   Very important/ important/ not sure/ not much important/ not important
6. What hinders you from using English as a medium of instruction in classroom and for other interactions?

   a. students' low proficiency in English

   b. students' unwillingness to use English

   c. no directives from the university authority

   d. location of the university in rural area

   e. students' socio-economic and cultural background

   others-
7. Rate the English proficiency of your students-

   Excellent/ very good/ good/average/ poor
8. The situation would be different if the university were located in city. Tick one that you deem appropriate.

   Strongly agree/agree/neither agree nor disagree/disagree/ strongly disagree

(Thanks for your cooperation)

Questionnaire for Students

(Please tick the one you agree with)

1 . The school/madrasa you went to is in- city/ village
2. The college/madrasa you went to is in- city/ village
3. Did you have any extra tutoring in English in school and college? -Yes/no
4. If yes, for how many years did you have it?
   Less than 1 year/ 1-2 years/ 3-4 years/ 5-6 years/ 7-8 years.
5. What is the monthly income of your parents in TK-?
   Less than 20 thousand/20-30 thousand/ 31-40 thousand/ 41-50 thousand/ 51-60 thousand/61-70 thousand/ more
6. The educational qualifications of your father is-
   SSC/ HSC/ graduate/ post graduate
7. The educational qualification of your mother is- SSC/ HSC/ graduate/ post graduate
8. Your course teacher delivers lecture in English
   always/ sometimes/ rarely/ never
9. Your course teacher delivers lecture both in English and Bangla
   always/ sometimes/ rarely/ never
10. Your teacher interacts with you in English in the classroom
    always/ sometimes/ rarely/ never
11. Your teacher interacts with you in English and Bangla in the classroom
    always/ sometimes/ rarely/ never
12. From among the four course teachers, how many of them conduct classes in English?
    1/2/3/4

(Thanks for your cooperation)

Comparative Views of Male and Female Executives on Herzberg's Hygiene Factors: An Empirical Study on Private Commercial Banks of Bangladesh

Mohd. Kamal Uddin *

Abstract

In Bangladesh, with new banks coming up every year owing to privatization, the banking sector indeed facilitates employment opportunities for a number of male and female graduates passed each year. Females are now viewed as equal partners in economic growth and development of a country. Banks, being a sign of a state economy in capital formation, constantly requires appraising both the male and female executives' performance, to enhance quality banking services. This study examines the diverse views of bank executives towards the hygiene factors of Herzberg's theory considering sex differences for evaluating an effective comparison. A sample of 130 executives (male - 78 and female - 52) is selected purposively for author's convenience from different levels of 5 private sector banks. A self administered questionnaire covering Herzberg's hygiene factors ranged in a 5-point Likert scale has been framed in gathering primary data. This study used independent samples T test and the t-value was calculated for testing whether the study hypotheses for concluding any significant differences were found between the two counter sex groups and portrays mean difference along with standard deviation and standard error of the opposite gender groups thereof. The study findings bring forth the fact that the opinions of the two opposite gender respondents significantly differ in the context of only two hygiene factors in influencing perceptions toward job contentment while other factors stand insignificant. The study finally concludes by practical implications for the policy makers in exploring the issues in the context of service rendering organizations like banking sector.

Key Words: Herzberg's Hygiene Factors, Male and Female Bank Executives, Private Commercial Banks.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 35 - 56
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Associate Professor, Faculty of Business Administration, BGC Trust University Bangladesh*
Cell: 01819-171753, E-mail: mkubgc@gmail.com

1. Introduction

Although women belong to about half of the population in Bangladesh, they share very lower part in the employment / workforce in total and most of them do not grossly hold the top level positions of decision making authority. Women have been assigned a secondary status in all religion and culture (Hussain & Jahed, 2000). In the prevailing male dominated society, job place informally undergoes in a male-interfered atmosphere. In Bangladesh, with new banks coming up every year owing to privatization, the banking sector indeed facilitates adequate employment opportunities for a number of male and female graduates passed each year. Females are not now under-viewed rather considered as equal contributors in economic growth and development of a state economy. Women's participation in total human resources has doubled in the last decades in the country. Unique feminine characteristics like patience, politeness, gentleness and convincing capabilities etc. add a new appeal in the service sector like banking. In regard to this, comparative perceptions held by both the opposite gender groups of bankers toward work facets become contemporary matter for the concerned authority. Banks, being a sign of a healthy economy in capital formation, constantly requires appraising both the male and female executives' performance, to enhance quality banking services.

Herzberg et al (1957) observes comparison of job attitudes between male and female is of less interest than a study of the effects of their societal roles on their attitudes towards job. In the Herzberg's motivation-hygiene concept, the dissatisfiers (hygiene factors) being sensitive, would be evaluated to the view point of different levels of perception the counter gender groups hold as the factors need careful attention of the bank owners and policy makers. The author considers the matter is of great interest, suitable for research and possessing managerial implications in forming motivational policies to enhance the executives' efforts to render banking services and the present paper serves the purpose.

2. Literature Review

Herzberg's motivation-hygiene concept – as a practical exposure in enhancing employee motivation - gained wide acceptability and popularity. Herzberg along with his associates (Herzberg, 1966; Herzberg, Mausner, & Snyderman, 1959) opined that employee contentment and discontentment are separate and distinguishable state of mind identifying as motivators and hygiene work dimensions. Schemerhorn (1993) found Herzberg's theory as the basis for picking up two

significant dimensions of organizational jobs: what workers do (job content), and the organizational setting in which they do (job context). Motivating factors (job content) included achievement, recognition, work itself and job responsibility. Hygiene factors (job context) are identifies as organizational ongoing policy, supervision, remuneration, interpersonal relationships at workplace, and working environment. Herzberg's view is different from traditional view. According to traditional view, satisfaction is opposite to dissatisfaction but Herzberg viewed that satisfaction is not the antonym of dissatisfaction but instead, of no satisfaction, the antonym of dissatisfaction is no dissatisfaction. The theory also states that the existence of hygiene dimensions does not create employee satisfaction, rather their absence results in job discontentment.

Particularly, sex identity had often been researched as a biographical issue in the employee motivation and job satisfaction studies (Crossman & Harris, 2006; Hagerdorn, 1996; Ma & MacMillan, 1999; Poole, 1992). The gender/job satisfaction paradox (Kaiser, 2002) or the paradox of the contented female worker (Bender, Donohue & Heywood, 2005) refers to the fact that female employees possess greater job satisfaction than male although they hold disadvantaged position in the job market in terms of earnings, career prospects etc. in some countries of the world. Clark (1997) found that women are happier than men and the reason he showed is that women have lower expectation from job. Similar findings are shown by Long (2005). In the contrary to it, some research findings concluded in favor of male employees deserving greater job satisfaction (Crossman & Harris, 2006; Hill, 1994), others have findings in favor of female workers resulting gender paradox (Bedeian et al, 1992; Klecker, 1997; Koustelious, 2001).

But some studies found no valid evidence in favor of it and found no gender effects on job satisfaction. (Scott, Cox & Dinham, 1998; Ma & MacMillan, 1999; McCann, 2002, Newby, 1999)

American studies on gender aspects showed that females are less likely than males in exercising authority in the work place (Hopcroft, 1996). Ford (1985, cited in Hofstede, 1998) found that there was a significant negative correlation between the masculinity dimension and female representation in management. That means, male domination is enhanced by less female participation in management. Female executives tend to emphasize cooperation versus competition in their management style (Tung, 1995). Moreover, Female executives tend to have a preference for indirectness in communication (Tannen, 1990).

According to the study of El Semary H (2012) on female news reporters, the factors

accelerating female contentment were promotion and career advancement opportunity, work supervision and ultimate growth. On the other hand, earnings / pay, job safety, organizational policy and ownership structure were identified in this study as the most discontentment generating factors among the female reporters. This study validates the Herzberg's approach on the distinguished employee motivators and work hygiene components. In addition to these, expectation for decision making positions appeared to be a motivating factor among females in male dominated job place like TV News. This well discussed factor might be included in the prevailing list of motivators stated by Herzberg.

Several studies utilizing Herzberg's concept are now being done incorporating more sample respondents from diverse working sectors including education offering organizations like studies of faculty academicians in North America (Francoisa, 2012), medical teachers in Iran (Hoseyni et al., 2014) and business studies school teachers in Botswana (Sithole & Solomon, 2014).

Herzberg's theory tested by different researchers varied in study findings. The causes of different results on same theory are that those researches are accomplished in different environment or in different work groups or in different times. The differences are due to the intensity of the labor requirement and the duration of employment (Nave, 1968). The notable matter is that Herzberg's 'two-factor model' is still valued as the yard scale for studying employee motivation and considered as the basis for further researches concerning human resource management.

3. Statement of the Problem

Herzberg's 'Motivation-Hygiene' theory was developed over half a century ago, but it is still being frequently studied and remains an influential topic for HRM. Previous researches refer the theory as widely studied and applicable irrespective of types of professions, incorporating service sectors like education, banking and so on. But very few studies have been conducted on the theory considering gender differences in the context of banking sector of Bangladesh. Hence the author explores the research gap and feels interested in it. In this perspective, it is a study to explore whether gender varies in their perceptions related to hygiene issues as these were explained in Herzberg's theory as most dissatisfaction generating forces. The study will surely enrich the knowledge base in employee motivation in commercial banking sector of Bangladesh through validation of Herzberg's two factor model.

In Bangladesh, some studies have been done in the banking sector on motivating bank employees, but those are lacking the inclusion of application and conceptualization of early motivation theories, let alone Herzberg's theory. Using Herzberg's theory on motivation, this paper takes an initiative to identify hygiene issues in the eyes of male and female executives and measure gender varied perceptions toward them in the commercial private banks of Bangladesh. The current initiative would create an urge to the bank owners and policy makers to identify the vital reasons of perception variance and bring them into consideration positively.

4. Rationale of the Study

In the modern time, societal trend and outlook have been changing mainly due to the globalization and easy access to information resources. Today's women are coming out of kitchen and taking responsibilities together with male colleagues in managing organizations mainly service sectors and in some cases they prove their worth. In addition, the state favors them through facilitating women education, framing legal procedure to protect them and expanding the scope for female in the employment sector. Based on that, the female are encouraged to actively participate in all activities and lead the various dimensions of work. In the recent decades, the female involves the work and tries to prove their potentials levels. Hence a comparative study among the two opposite gender groups to the view point of different job facets, the author feels, may generate affirmative attitude favoring individual and organizational performance. Female executives can make significant contribution if their distinguished features are properly nurtured through effective training. The rationality behind choosing banking sector employees as population for the study is that banking profession is service oriented that female prefers as their career platform. Private banking sector is chosen because it has made a notable progress in extending the frontiers of banking both geographically and functionally and, consequently, covers a wider area and much larger segment of population than ever before.

5. Study Objectives

The current study aims to examine bank executives' comparative perceptions towards the hygiene factors of Herzberg's theory considering sex differences for evaluating an effective comparison. The general objectives are:

a) To discuss the Frederick Herzberg's theory of motivation as found in the literature.

b) To illustrate a brief literature on the hygiene factors in the context of executives' perceptions from diverse working sectors.

c) To test whether there exist any significant difference in opinions of the opposite gender executives toward each of the hygiene factors.

d) To put forward some recommendations for mitigating gender-varied perceptions of bank employees on those hygiene factors found significant in this study.

e) To provide practical implications for the policy makers and indications for future researches in order to form satisfied and happy workforce in service sector.

6. Methodology

Both the male and female executives working in the private commercial banks (PCBs) of Bangladesh are treated as the population for the study. A sample of 130 executives (male - 78 and female - 52) is selected purposively from different levels of 5 private sector banks located preferably in the Chittagong urban areas as all banking services are concentrated in urban areas. Non-probability sampling method is used to select respondents for author's convenience. A self administered questionnaire covering Herzberg's hygiene factors ranged in a 5-point Likert scale has been framed in gathering primary data. While preparing survey questions pertaining to hygiene determinants, the author searches some studies in the literature as Klassen, Usher, and Bong (2010), Graen (1966), Sergiovanni (1966), House and Wigdor (1967), Ewen, Smith, and Hulin (1966), and Tang et al. (2004). In the measurement scale, respondents' strongly agreeableness on the statement is quantified by '5' and strongly disagreeableness is quantified by '1'. A self-administered questionnaire in a 5-point scale is considered as the best suited tool for collecting peoples' opinions on its different ranges (Morgan et al., 1995). For data analysis, this study used independent sample t-test and the t-value was calculated to verify the formulated hypotheses i.e., whether significant differences were found between the two counter sex groups and portrayed mean difference of the group along with standard deviation and standard error. The primary and secondary data collected from different sources have been interpreted meaningfully.

7. Hypothesis Development

Frederick Herzberg, in his book *The Motivation to Work* (1959), based on empirical study on 200 engineers and accountants with respect to twelve investigations in

similar organizations classified the work dimensions into motivators and hygiene factors. He pointed the factors primarily disruptions in the external work context as hygiene factors. For the sake of attaining the objectives, the author set the following hypotheses:

$H_0$1: There is no significant difference in the views of the male and female executives of private commercial banks towards *Company Policy and Administration,* the first hygiene factor

$H_0$2: There is no significant difference in the views of the male and female executives of private commercial banks towards *Supervision*

$H_0$3: There is no significant difference in the views of the male and female executives of private commercial banks towards *Remuneration*

$H_0$4: There is no significant difference in the views of the male and female executives of private commercial banks towards *Relationship with co-workers*

$H_0$5: There is no significant difference in the views of the male and female executives of private commercial banks towards *Personal life*

$H_0$6: There is no significant difference in the views of the male and female executives of private commercial banks towards *Relationship with Subordinates*

$H_0$7: There is no significant difference in the views of the male and female executives of private commercial banks towards *Work conditions*

$H_0$8: There is no significant difference in the views of the male and female executives of private commercial banks towards *Personal and Job Security*.

8. Analysis and Discussion of Findings

The reliability value of the surveyed data stands for 0.7109 for the variables of the study. If the calculated reliability value is compared with the standard value of 0.6 as recommended Bagozzi and Yi's (1988), the scales applied in this study are adequately reliable for the analysis of data.

Table-1: Group Statistics showing mean, standard deviation and standard error

Hygiene Variables*	Sex differences	Size of Respondents (N)	Mean	Standard Deviation	Standard Error Mean
Company Policy & Administration	Male	78	2.648	.571	.013
	Female	52	2.651	.594	.029
Supervision	Male	78	3.118	.896	.078
	Female	52	3.115	.753	.067
Remuneration	Male	78	2.488	.759	.081
	Female	52	4.578	.428	.027
Relationship with co-workers	Male	78	4.481	.887	.150
	Female	52	4.493	.997	.143
Personal life	Male	78	2.082	.819	.052
	Female	52	3.867	.725	.065
Relationship with Subordinates	Male	78	3.453	.679	.061
	Female	52	3.449	.699	.077
Work conditions	Male	78	2.128	.781	.084
	Female	52	2.114	.810	.091
Personal and Job Security	Male	78	2.014	.841	.067
	Female	52	2.036	.695	.051

Source: Author's own study, 2017

*Hygiene variables are identified based on Herzberg's work on 'Two factor theory'

8.1 Company Policy and Administration

$H_0$1: There is no significant difference in the views of the male and female executives of private commercial banks towards the hygiene factor – 'Company Policy and Administration'.

For the purpose of testing the above item, independent sample t-test has been done with the help of SPSS software. Before it, Levene's test for equality of variances has been done in order to be sure of the homogeneity of variances of the comparing groups. The computed findings showed that variances were equal as it appeared from the Levene's test for equality of variances. Moreover, independent samples t-test portrayed that the difference between the male and female executives' views in relation to 'Company Policy and Administration' was statistically insignificant. There exists a moderate level of satisfaction with 'Company Policy and Administration' having almost closer mean value (Male - 2.648, Female - 2.651) as shown in the table 2:

Table 2: Independent sample T test for Company Policy & Administration

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Company Policy & Administration	Equal variances assumed	.000	.772	.481	128	.341
	Equal variances not assumed			.477	107.832	.338

8.2 Supervision

$H_0$2: There is no significant difference in the perceptions of the male and female executives of private commercial banks on the hygiene factor – 'Supervision'

The resulting value of Levene's test indicates that there remains no difference between the variances in the said groups. The table-3 indicates that male and female bank executives have expressed similar level of opinion with Supervision having almost same mean value. Based on the observations, the hypothesis holds true. Hence, the difference between male and female bank executives with respect to the Herzberg's hygiene dimension - supervision - stands statistically insignificant.

Table 3: Independent sample T test for Supervision

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Supervision	Equal variances assumed	.000	.974	.492	128	.691
	Equal variances not assumed			.494	117.021	.691

8.3 Remuneration

$H_0$3: There is no significant difference between the male and female executives' perceptions on the hygiene factor – 'Remuneration'

The statistics analysis of this study found a significant mean difference between the two opposite sex groups regarding this hygiene factor – Remuneration. Again Levene's test was used to certain the equality of variance in the varied samples. The computed p-value is less than the critical value (i.e., .01) and equals to 0.000, which is highly significant. It refers to the most significant difference between the variances in the groups of sample drawn. Results in table-4 above indicate that female employees have expressed more satisfaction (M = 4.578) than the male executives (M = 2.488) with respect to the 'Remuneration' variable.

Table 4: Independent sample T test for Remuneration

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Remuneration	Equal variances assumed	69.086	.000	29.955	128	.000
	Equal variances not assumed			24.987	121.624	.000

8.4 Relationship with Co-workers

$H_0$4: There is no significant difference in the level of opinions of the two opposite gender executives of private commercial banks regarding the hygiene factor – 'Relationship with co-workers'

From the Levene's test, the variances are found equal and independent samples t-test refers the difference in male and females' perceptions regarding 'relationship with colleagues' was statistically insignificant. A moderate level of satisfaction with 'relationship with colleagues' having almost same mean value (Male -4.481, Female – 4.493) is shown in the table-5:

Table 5: Independent sample T test for 'Relationship with Co-workers'

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Relationship with Co-workers	Equal variances assumed	1.189	.315	.774	128	.329
	Equal variances not assumed			.759	117.069	.451

8.5 Personal Life

$H_0$5: There is no significant difference in the views of the male and female executives of private commercial banks with respect to the hygiene factor – 'Personal life'

Equal variances were found for the factor – Personal life. The t-test indicates the significant difference between the male and female bank employees' views regarding the factor 'personal life' ($t = -15.811$, $p < .01$). Hence, inference can be drawn that female respondents ($M = 3.867$) assumed 'personal life' more significant than their male counterpart ($M = 2.082$).

Table 6: Independent sample T test for 'Personal life'

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
personal life	Equal variances assumed	2.167	.142	- 15.811	128	.000
	Equal variances not assumed			- 17.376	112.687	.000

8.6 Relationship with Subordinates

$H_0$6: There is no significant difference between in the views of the male and female executives of private commercial banks on the hygiene factor – 'Relationship with Subordinates'

The resulting value of Levene's test indicates no difference in the variances of the said groups. Table-7 states that both the opposite gender groups have expressed similar level of perceptions toward the hygiene factor 'Relationship with subordinates' having almost same mean value. Based on the observations, the hypothesis holds true. Hence, the difference between the counter groups regarding the hygiene factor - relationship with subordinates - stands statistically insignificant.

Table 7: Independent sample T test for 'Relationship with subordinates'

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Relationship with Subordinates	Equal variances assumed	.000	.980	.455	128	.639
	Equal variances not assumed			.451	102.028	.639

8.7 Work Conditions

$H_0$7: There is no significant difference in the perceptions of the male and female executives of private commercial banks with respect to the hygiene factor – 'Work conditions'

The resulting value of Levene's test indicates no difference in the variances of studied groups. Table-8 states both the sex different groups have expressed similar but low level of perceptions toward the hygiene factor 'Work conditions' having almost same mean value. Based on the observations, the hypothesis holds true. Hence, the difference between the counter groups regarding the dimension – work conditions - stands statistically insignificant.

Table 8: Independent sample T test for 'Work conditions'

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Work Conditions	Equal variances assumed	.000	.898	.478	128	.718
	Equal variances not assumed			.458	104.017	.723

8.8 Personal and Job Security

H08: There is no significant difference in the views of the male and female executives of private commercial banks on the hygiene factor – 'Personal and Job Security'

The resulting value of Levene's test indicates no difference in the variances of the two studied groups. The following table-9 states both the counter groups have expressed lower level of perceptions toward the hygiene factor 'Personal and job security'. Mean values for both the groups stand almost same, and the hypothesis is accepted. Hence, the difference between the counter groups regarding the dimension – personal and job security - stands statistically insignificant.

Table 9: Independent sample T test for 'Personal and job security'

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Personal and Job Security	Equal variances assumed	.000	.909	.551	128	.628
	Equal variances not assumed			.548	109.117	.613

Table No. 10 reveals the weighting of hygiene factors perceived by the male respondents where Relationship with co-workers is ranked at the top (4.481) followed by Relationship with Subordinates (3.453), Supervision (3.118), Company Policy & Administration (2.648), Remuneration (2.488), working conditions (2.128), personal life (2.082), Personal and Job Security (2.014).

Table 10: Ranking of hygiene factors perceived by Male Executives (N=78)

Sl. No.	Hygiene Variables	Mean	Rank
1	Company Policy & Administration	2.648	4
2	Supervision	3.118	3
3	Remuneration	2.488	5
4	Relationship with co-workers	4.481	1
5	Personal life	2.082	7
6	Relationship with Subordinates	3.453	2
7	Work conditions	2.128	6
8	Personal and Job Security	2.014	8

Table No. 11 reveals the chorological figures of hygiene factors perceived by female bank employees where Remuneration is ranked at the top (4.578) followed by Relationship with co-workers (4.493), Personal life (3.867), Relationship with Subordinates (3.449), Supervision (3.115), Company Policy & Administration (2.651, Work conditions (2.114), Personal and Job Security (2.036).

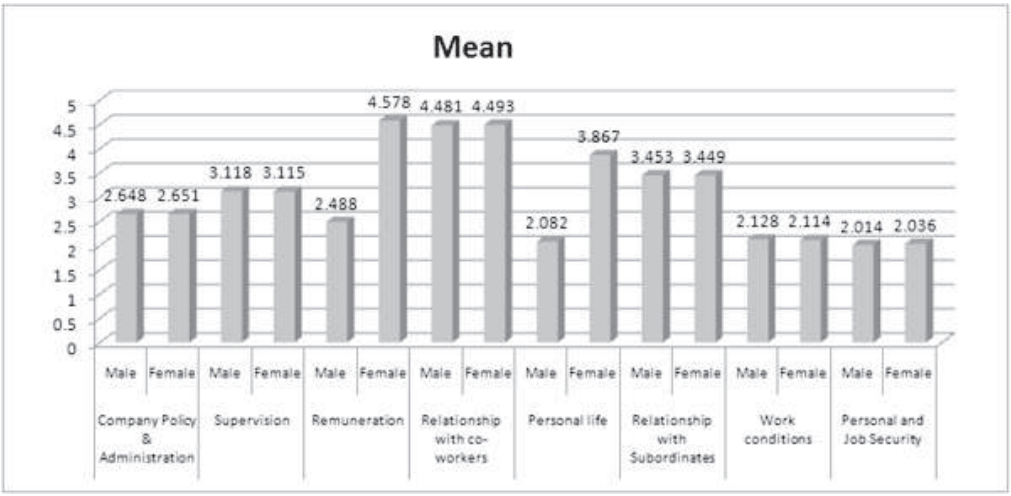
Table 11: Ranking of hygiene factors perceived by Female Executives (N=52)

Sl. No.	Hygiene Variables	Mean	Rank
1	Company Policy & Administration	2.651	6
2	Supervision	3.115	5
3	Remuneration	4.578	1
4	Relationship with co-workers	4.493	2
5	Personal life	3.867	3
6	Relationship with Subordinates	3.449	4
7	Work conditions	2.114	7
8	Personal and Job Security	2.036	8

Both the counter gender groups clearly differ in ranking the factors because male respondents prioritize 'co-workers' as the most influencing factors while female respondents choose 'Remuneration' and other hygiene factors are also dissimilar except 'personal and job security'.

The respondents' opinions on each of the hygiene elements to the view point of male and female executives' perspectives are summarized through mean differences and graphically presented in the following figure.

Figure: Graphical presentation of mean scores of each of the Variables showing gender differences



Source: Author's own study, 2017

9. Limitations and Future Research

The study is limited by low sample size because only 130 executives of five selected private commercial banks of Bangladesh are considered for the study. Thus, questions may arise on its generalizability. The low response rate is another drawback. The main reason is that the employees are reluctant to avail information as banks maintain confidentiality. Hence, the sample is too small to achieve the precision. Rather, the sample size taken in the study is not methodologically justified due to lower response rate as that would represent the total population under the study. The author assumed that sample executives irrespective of the gender replied truly and honestly. As the research being descriptive by nature, inferences made in the paper are held as those were stated exactly by them. Hence,

the statements are limited by the views and opinions of sample bank executives. The scope of this study is confined to private banking sector only and bounded within the Herzberg's hygiene factors only. Future research might include public sector considering both the motivating and hygiene factors whether they would vary due to gender differences. A combination of both the quantitative and qualitative research would be better for understanding of how male and female executives differ in their perceptions. Given the scarcity of gender based comparative perception studies on the banking sector in Bangladesh, there remains an urgency to take initiatives for more research incorporating the issues. The present research is conducted based on Herzberg's theory. Thus, It would be reasonable to propose that future research would focus on other theories of job employee motivation with larger sample size beyond the banking industry.

10. Study Implications and Recommendations

Herzberg's model has affirmative implications for human resource management practice. Management and policy makers may take required steps to mitigate gender varied hygiene effects. An employer expecting to deserve motivated manpower must emphasize first on hygiene issues rather offering the employees' psychological development factors (Katt & Condly, 2009). The study findings will be of utmost beneficial for the authority in understanding factors having similar and dissimilar perceptions among the male and female bank executives that lead to impart quality service.

The absence of hygiene factors is responsible for work dissatisfaction. Presence of those factors does not enhance satisfaction which is contradictory to motivational factors. Hence the hygiene factors should be dealt carefully. The components of an organizational reward system, such as money, fringe benefits, and promotion, must be desired by the employees; that is, they must be positively valiant in the employees' ranking of preferences. Moreover, job security has naturally been treated most hygiene factors for private bank job holders, this factor should be handled in such a way that would establish an affirmative appeal among the employees. As the remuneration is found significant in holding gender-varied perceptions, banking industries require offering or modifying pension scheme plan, gratuity schemes and other benefits to strengthen executives' sense of job security. The decision making authority is highly hereby recommended to ensure a fair balance between personal life and working life of the two opposite genders as it is found as significant differing factor. In view of the limited number of females in the banking profession, the authorities and government should increase their efforts in employing more female executives so that there will be a balance.

11. Conclusion

It is observed in the study that only two hygiene factors of Herzberg's theory – Remuneration offered by employers and Personal life of the executives – have been found to be significant in differing perceptions between the men and women executives of the private banking sector of Bangladesh. The rest of the six factors do not differ significantly in the views of the two opposite sex groups. Though there were no significant sex difference in organizational policy, supervision, job security and work conditions, both the groups treated these factors below the average. Relationship with co-workers is given higher rank by both the groups. The study has highlighted the hygiene factors to the views perceived by the opposite genders for concern and has shown the need for further study of how these issues will be handled in accelerating male and female executives' quality performance.

References

Bagozzi, R. P. and Yi. Y (1988). On the evaluation of Structural Equation Models, *Journal of the Academy of Marketing Science,* 16 (1): 74-95

Bedeian, A.G., Ferris, G.R. & Kacmar, K.M. (1992). Age, tenure, job satisfaction: A tale of two perspectives. *Journal of Vocational Behaviour,* 40, 33-48.

Bender, K., Donohue, S. & Heywood, J. (2005). Job satisfaction and gender segregation. *Oxford Economic Papers,* 57 (3), 479-496.

Clark, A. E. (1997). Job Satisfaction and Gender: Why Are Women so Happy in Work?, *Labor Economics.* 4: 341-372

Crossman, A. & Harris, P. (2006). Job satisfaction of secondary school teachers. *Educational Management Administration & Leadership,* 34, 29 – 46.

El Semary H (2012) Perceptions of Job Satisfaction Among Arab Female Reporters in Governmental and Non-Governmental TV Stations. J Mass Commun Journalism 2:135.

Ewen, R. B., Smith, P. C., & Hulin, C. L. (1966). An empirical test of the Herzberg two-factor theory. *Journal of Applied Psychology,* 50(6), 544–550.

Francoisa, E. J. (2012). Development of a scale to assess faculty motivation for internationalizing their curriculum. *Journal of Further and Higher Educational Evaluation and Policy Analysis,* 38(5), 641–655.

Graen, G. B. (1966). Motivator and hygiene dimensions for research and development engineers. *Journal of Applied Psychology,* 50(6), 563–566.

Hagedorn, L. S. (1996). Wage equity and female job satisfaction: The role of wage differentials in a job satisfaction causal model. *Research in Higher Education,* 37(5), 569-598

Herzberg, F. (1966). *Work and the nature of man.* Cleveland, OH: World Publishing.

Herzberg, F., Mausner, B., Peterson, R. O., & Capwell, D. F. (1957). *Job Attitudes: Review of Research and Opinion,* Pittsburgh, Pa.: Psychological Service Pittsburgh.

Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work* (2nd ed.). New Jersey, NY: John Wiley & Sons.

Hill, T. (1994). Primary Head Teachers: Their job satisfaction and future career aspirations. *Educational Research,* 36 (3), 223-235.

Hofstede, G . (1980) Culture's Consequences. Newbury Park, CA : Sage .

Hofstede, G . (1998) `The Cultural Construction of Gender' . In Hofstede, G. (ed .) Masculinity and Femininity: The Taboo Dimension of National Cultures . Newbury Park, CA: Sage .

Hopcroft, R .L. (1996) `The Authority Attainment of Women: Competitive Sector Effects', American Journal of Economics and Sociology, 55: 163-84 .

Hoseyni, S. N., Mirzaei, M., Faryabi, R., Ardekan, A. M. M., Ardekani, M. S., & Alavijeh, M. M. (2014). Effective factors in job motivation of faculty members in Shahid Sadoughi University of Medical Sciences: An application of Herzberg's motivation theory. *Iranian Journal of Medical Education,* 13(12), 1040-1050.

House, R. J., & Wigdor, L. A. (1967). Herzberg's dual factor theory of job satisfaction and motivation: A review of the evidence and a criticism. *Journal of Personnel Psychology,* 20, 369–390.

Hussain Md. Moazzam and Jahed Md. Abu (2000). Women Bank Officers' Perception: A Study on Nationalized Commercial Banks in Chittagong. *The Chittagong University Journal of Commerce,* Vol. 15 pp. 103-114

Kaiser, L.C. (2002). *Job satisfaction: A comparison of standard, non-standard, and self-employment patterns across Europe with a special note to the gender/job satisfaction paradox.* EPAG Working Paper 27, Colchester, University of Essex. Available at http://www.iser.essex.ac.uk/epag/pubs/workpaps/pdf/2002-27.pdf

Katt, J. A., & Condly, S. J. (2009). A preliminary study of classroom motivators and demotivators from a motivation-hygiene perspective. *Communication Education,* 58(2), 213-234.

Klassen, R. M., Usher, E. L., & Bong, M. (2010). Teachers' collective efficacy, job satisfaction, and job stress in cross-cultural context. *The Journal of Experimental Education,* 78, 464–486.

Klecker, B. (1997). *Male elementary school teachers' ratings of job satisfaction by years of teaching experience.* Paper presented at the annual meeting of the Mid-South Educational Research Association, Memphis, November, 12.

Koustelios, A.D. (2001). Personal characteristics and job satisfaction of Greek teachers. *The International Journal of Educational Management,* 15 (7), 354 – 538.

Long, A. (2005). Happily Ever After? A Study of Job Satisfaction in Australia, *The Economic Record*. 81: 303-321

Ma, X. & Macmillan, R.B. (1999). Influence of workplace conditions on teachers job satisfaction. *The Journal of Educational Research,* 93 (1), 39 – 47.

McCann, D.R. (2002). A study of job satisfaction among directors of classified personnel in merit (civil service) systems in California Public School Districts, county offices of education, and community college districts. Dissertation.Com. (ISBN: 1-58112-144-X)

Morgan, R., McDonagh, P. & Ryan, T. (1995) „Employee Job Satisfaction: an Empirical Assessment of Marketing Managers as an Occupationally Homogeneous Group, *Journal of Managerial Psychology,* 10(2): 10–17.

Newby, J.E. (1999). *Job satisfaction of middle school principals in Virginia.* Unpublished doctoral dissertation, Virginia Tech University, Blackburg.

Poole, B.W. (1992). *A study of the relationship between gender and job satisfaction/ dissatisfaction.* Unpublished Doctoral Dissertation, the University of San Francisco, San Francisco, CA.

Schermerhorn, J.R. (1993). Management for productivity (4th ed.). Canada: John Wiley & Sons, Inc.

Scott, C., Cox, S. & Dinham, S. (1998). *An English Study of Teacher Satisfaction, Motivation and Health.* Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, April 13 – 17.

Sergiovanni, T. J. (1966). Investigation of factors which affect job satisfaction and job dissatisfaction of teachers, *Journal of Management,* 28, 23–25.

Sithole, B. M., & Solomon, G. E. (2014). Business studies teachers' satisfaction with their work: An application of Herzberg's two factor theory. *International Journal of Educational Sciences,* 6(3), 435-444.

Tang, T. L. P., Luna-Arocas, R., Sutarso, T., & Tang, D. S. H. (2004). Does the love of money moderate and mediate the income-pay satisfaction relationship? *Journal of Managerial Psychology,* 2, 111–135.

Tannen, D. (1990) You Just Don't Understand: Men and Women in Conversation . New York: Ballatine Books.

Tung, R.L . (1995) `Women in a Changing Global Economy' In J .L . Farr (Chair) Myths and Realities of Foreign Assignments: Human resource Practices in Multinational Corporations .Symposium conducted at the meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.

Appendix Section

Survey Instrument (Questionnaire)

Instructions

This questionnaire comprises two sections that are to do with the research titled as **"Comparative Views of Male and Female Executives on Herzberg's Hygiene Factors: An Empirical Study on Private Commercial Banks of Bangladesh"**. Please answer all the questions as honestly as possible to enable me to compile a complete picture of perceptions on hygiene elements. Each section is prefaced by instructions for completion. Please read and follow these carefully.

Questionnaire for Data Collection

Sample No. : **Strictly Confidential**

(Section A: Personal profile of the Respondent)

1. Name of the Organization:
2. Type of Organization (Please tick):
   a) Public
   b) Private
3. Position and Rank of the Respondent:
   a) Designation:
   b) Rank (Please tick): Top level / Middle level / Junior level
4. Educational Qualification of the Respondent:
   a) Last degree (Please tick): SSC/HSC/Graduation/Masters/Doctorate/Post Doctorate
   b) Professional Qualification, if any (Please mention):
   c) Special Training, if any (Please mention):
5. Respondent's gender (Please tick):
   a) Male
   b) Female

(Section B: Information for Evaluating Employees' Perception on Hygiene Factors)

(For Bank Executives only)

Instruction: A series of statements are listed below. Researcher is interested in your opinion about them. Please indicate to what extent the following items related to your perception by putting a tick mark in the appropriate box.

Statement of Query on Hygiene elements	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Company Policy and Administration	5	4	3	2	1
1. I am fully aware of the mission and vision of my bank organization					
2. The policy and strategy of the administration are accommodative in compliance with my organization					
3. I feel the existing company policy is favorable to its executives overall.					
Supervision					
4. I feel there prevails strict supervision and my performance improves due to my trustworthy supervisor's support					
5. I feel satisfied at work because of my relationship with my supervisor					
Remuneration					
6. The company maintains a standard pay structure .					
7. My pay is optimum compared to that of my colleagues working inside or outside of the organization					
8. I am satisfied with my pay					
9. Pay reinforces me to work with more enthusiasm and vigor					
Relationship with co-workers					
10. I found my colleagues cooperative and friendly					
11. It is easy to get along with my colleagues					
12. I feel discomfort in the day when a peer remains absent whom I share something closely					
Personal life					
13. Personal and family matters hampers my official routine tasks					
14. I often fail to advance my career due to some of my personal and family pitfalls					
15. I agree that my present job may make happy me in my personal life					
Relationship with subordinates					
16. I find my subordinates motivated, supportive and empowered					
17. I possess capabilities to become trustworthy leader of my subordinates					
18. I feel satisfied at work because of my relationship with my subordinates					
Work conditions					
19. I am proud to work for my company because of the pleasant working conditions					
20. Flexible work arrangement allows me to devote heartily.					
Personal and job security					
21. I believe my job is secure					
22. My workplace is located in an area where I feel comfortable					
23. I personally have an overall good feeling about my future career as long I continue my job with the present organization					

Impacts of Managerial Skills on Job Performance and Service Quality: An Empirical Study on Women Bankers

Soman Chakraborty *
Mir Misnad Sultana **

Abstract

Banking sector is a spine for the economic development of a country where growth and sustainability are mostly determined by its customers. This paper aims at investigating the impacts of managerial skills on job performance and service quality of women bankers. By using convenience sampling technique, data were collected from 150 customers who were asked to rate managerial skills, job performance and service quality of women bankers working at different private banks in Chittagong. Collected data were analyzed using descriptive statistics, bivariate correlation, and regression analysis. Results indicated a positive correlation of the managerial skills with job performance and service quality of women bankers in private banks. An important implication of the study is that top management should realize and utilize women bankers' skill and improve their performance to meet their customers' expectation through quality service. The most important limitation was small sample size. Future research directions are discussed as well.

Key Words: Managerial Skills, Job Performance, Service Quality, and Banking Industry.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 57 - 74
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Assistant Professor, Faculty of Business Administration, BGC Trust University Bangladesh*
*** Lecturer, Faculty of Business Administration, BGC Trust University Bangladesh*

Introduction

In the changing banking scenario of the 21st century, the banks have to have a vital identity to provide excellent services. Banking is a financial entity which is an invaluable and powerful tool for driving development, supporting growth, promoting innovation and enhancing competitive advantage. Banks these days must be of world-class standard, focused on magnificence in clients' fulfillment, and to assume a noteworthy part in developing and enhancing financial division (Balachandran, 2005). Bangladesh is a home of 162.9 million (World Bank data 2016) people where more than 50% are female which means a vast resource to be utilized for economic development. Consequently, with the emergence of these banking sectors, the new door of opportunity for women's employment has increased. That means we can use this potential resources for developing banking sector. Because it is a reality that when women engage in this sector, it works as a strong tool for ensuring social and economic emancipation of women and also reduces gender inequities in all levels of society in the country. In present perspective point of view, a big number of women are interested in working at banking sector. Women as Managers Scale (WAMS) reported that ladies scored better-quality than men (Hackbarth, Dow, Wang, & Johnson, 2010). The economic growth of Bangladesh and the success of Millennium Development Goals and different development agenda will depend on the ability and self-esteem of the majority female part. So, it is easily assumed that without the serious involvement of women, social and economic development processes of Bangladesh will not be accelerated. Women must be provided with equal scope beside male in education, employment and economic activities, and then only this resource can be utilized properly. Articles 28(1) and 28(2) of Bangladesh constitution grant equal rights to women and men in all spheres of public life. In response to international concerns and constitutional commitments, the Government of Bangladesh has initiated some institutional measures for the enhancement of women's economic position and status in society.

Customer is the key factor for measuring the performance of service organization like banking sector. Consumer satisfaction is considered as the quintessence of accomplishment in the banking industry. The role and importance of the customer in banks due to impact on the growth and survival of the banks in the competitive market and also for its benefits for them, has led to be accepted that understanding customer satisfaction is a necessity and all banking units having the customer orientation and all of their action be on the attracting customers and satisfying him (Ardikhani, 2012).

Good management is basic to the achievement of a business venture especially the service oriented one. Poor management adversely influences staff confidence, client benefit and the nature of the service. So, good management indicates towards managerial skills. Koontz & Heniz (2000), identified the skills of managers two broad categories, communication and personal skills. Effective and skillful management is an administration that prompts hierarchical goals or something more than these. Scholars believe that managers who need to accomplish objectives and play out their own particular obligations require increasing managerial skills. So, employee abilities and learning are critical resources that can upgrade efficiency and performance. Women bankers must have managerial skills to influence the job performance and service quality in banking industry. Beside this, job performance is one of the most studied contents among the employees' behavioral output. It is activity-related task and exercises including the representative's formal authoritative part. Because of the high intention of productivity, job performance is the most priority factor to organizations (Hunter & Hunter, 1984).

Almossawi(2001), expressed that service quality is especially fundamental in the saving money administration setting since it gives abnormal state of consumer loyalty, and thus it turns into a key to upper hand. These days, with the expanded rivalry, service quality has turned into a well known zone of scholastic research and has been recognized as a perceptive upper hand and supporting fulfilling associations with clients (Zeithmal, 2000).

Rationale of the study

A wide range of gap in the area of managerial skills, job performance and service quality in the banking industry of Bangladesh through various remarkable programs are undertaken by it. That's why it is an honest endeavor to draw a real picture to know the customer perception about women's managerial skills, their performance and level of service in banking sector through this study. Moreover, there are various books and articles on banking sector, women employment and women contribution to economy. But there is no specific study to measure the impact of women bankers' managerial skills on performance and service quality by customers' response. So, it is very rational to know the customers, view about managerial skills, job performance and service quality of women bankers.

Research Objectives

The main objectives of this research will focus on the impact of managerial skills on

job performance and service quality of women in banking sector from the view point of service receiver (customer). In the context of the main objectives, the specific objectives of the study will be as follows:

1. To examine relation between managerial skills and job performance of women bankers in private banks of Chittagong.
2. To investigate the relation between managerial skills and service quality of women bankers in private banks of Chittagong.
3. To find out the impact of managerial skills on job performance and service quality of women bankers.

Literature Review

Managerial skills

Many scholars define managerial skills from different perspectives. Simply speaking, managerial skills are a combination of skills or abilities which managers should posses to execute their duties effectively and efficiently. Latif (2002) defines managerial skills as a part of administration achievement. According to Analoui, Labbaf & Noorbakhsh (2000), managerial skills are viewed as being of fundamental elements for enhancing managerial performance and effectiveness of the organization. Luthans, Rosenkrantz & Hennessey (1985) examined 52 managers in three organizations. They mainly focused on those skills associated with the most effective managers compared to the least effective managers. Results revealed that significant differences in skill levels existed in the following areas: (i) building power and influence; (ii) communication with insiders and outsiders; (iii) goal setting; (iv) managing conflict; and (v) decision making.

Katz (2002) defined managerial skills as the manager's ability to transform information and knowledge into practice. Ivancevich and Matteson (1999) define skill as ability to executing a specific job and that it can be erudite and developed (p.51). Hellriegel and Slocum (1996) defined managerial skills as abilities related to performance that are not necessarily inborn and that for managers may be grouped as technical, interpersonal, conceptual, and communication. In Slovakia, Faculty of Management identified significant skills which managers should possessed: creativity, intuition, goal-oriented responsibility, self-confidence, initiative, independence, cautiousness, discipline. (Papula, 1995, p.28).

Job Performance

There is no universal definition of job performance. Different scholars define it in different ways. Hellriegel, Jackson, and Slocum (1999) define performance as the level of a person's work accomplishment in the wake of having applied exertion. Whetten, Cameron, and Woods (2000) stated that performance is eventually an individual wonder with natural factors affecting execution basically through their impact on the individual determinants of execution - capacity and inspiration. Laitinen (2002) suggests that performance can be defined as the ability of an object to produce results in a dimension determined a prior. However, according to Short, Ketchen, and Palmer (2002), "to date, researchers have not reached consensus about many of the factors that may influence performance". An effective performance measurement system ought to cover all aspects of performance that are relevant for the existence of an organization and the means by which it achieves success and growth (O'Regan, Ghobadian, & Sims, 2005).

Job performance refers to whether an employee performs his or her job well. A number of studies (e.g., Tsui, Pearce, Porter, & Tripoli, 1997; Heilman, Block, & Lucas, 1992; Pearce & Porter, 1986; Williams & Anderson, 1991) have suggested several factors to measure job performance. In addition, Campbell (1990) and his colleagues (Campbell, McCloy, Oppler, &Sager, 1993), identified, job performance is an individual level of variable. According to the preceding authors, it can be measured by quantity, quality, and accuracy of work; employee's efficiency and standard of work; employees' strive for higher quality work, achievement of work goals, and so on. Tsui et al.,'s (1997) job performance scale includes most of the factors, so it was chosen to use in the present study.

Service Quality:

The worldwide trend toward service quality was initiated in the 1880s, when businesses realized that maintaining competitive advantage is not guaranteed by a quality product, standing alone (Vanderwal, Pampallis & Bond 2002). From the customer satisfaction perspectives, service quality is the starting point for customer attraction and retention. Quality of services can be the difference between success and failure in both service and manufacturing firms (Gupta, McDaniel & Herath 2005).

According to Kotler (2003), "service as 'any behaviour or act, based on a contact between two parties: the provider and the receiver, and the essence of this reciprocal process is intangible". Service quality can be measured in terms of

customer perception, customer expectation, customer satisfaction, and customer attitude (Sachdev & Verma 2004).

Service is an arrangement of monetary exercises that give time, area, shape and psychological advantages. Beer (2003) defined service as a set of characteristics and overall properties of the service which aim to satisfy the clients and meet their needs. Service quality is characterized as the level of error between clients' standardizing desires for benefit and their impression of service execution (Parasuraman, Berry, & Zeithaml, 1985). Five dimensions of SERVQUAL have been developed for the service sectors: tangibility, reliability, assurance, responsiveness, and empathy (Van Iwaarden, Wiele, Ball, & Millen, 2003). Service quality as the contrast between client's desires for the administration experience and the view of the administration got (Munusamy, Chelliah & Mun, 2010). To measure the overall service quality perceived by customers of two major banks in India this SERVQUAL model (Parasuraman, Berry, & Zeithaml, 1988) was used. Service quality is in this manner diversely characterized relying upon the approach and beginning stages, where the client impression of administrations rendered, i.e. conveyed, is the inexorably show factor. In addition, consumers settle on benefit buy choices on the grounds that their conveyance gives them certain advantages, fulfilling their requirements, requests and desires.

Banking Industry

The word 'bank' was most likely gotten from the word 'bench' as amid antiquated time Jews used to do cash loaning business sitting on long seats. The bank was begun by a couple of people who were really cash loan specialists with a point of loaning cash at premium. To begin with current saving money was presented in 1668 in Stockholm. Bank is a financial institution which provides economic transaction, payments of utility bills, monetary facilities for trading goods and services. "Banking industry" is a new concept. It is also an industry because it produces services which are interchangeable. Banking and banker are closely interrelated with each other. For example, experience of farmer is very important for good cultivation of land like as good banker is essential for sound banking with banking knowledge. Banks are vital institutions in any economic development of a country. After the Liberation War, Bangladesh government put in a constant effort to create better commercial environment for our country's banking sector. In banking system framework, it involves nationalized, private and outside banks. Numerous endeavors have been made to clarify the execution of these banks. At present, there are 6 state-owned commercial banks, 4 specialiazed banks, 39 private commercial banks (31 conventional private commercial banks and 8 Islami shariah-based

commercial banks), 9 foreign commercial banks and 5 non-scheduled banks (Bangladesh Bank, 2016). The banking sector of Bangladesh employs more than 110,000 people (Bangladesh Bank, 2016). It has grown so extensively that it now plays a significant role in capital formation and stimulates the level of industrialization, poverty alleviation and human development.

Development of Research Hypotheses

Managerial Skills and Job Performance

Managerial skills may directly affect the results or job performance of a manager. The criteria for dividing the skills can vary but these are considered to be the basic managerial skills, which are needed for an effective managerial work (Piškanin, Rudy et al., 2006, p.11). It is found from different literatures that managerial skills influences mostly on the job performance of employees (Wong & Law, 2002; Carmeli, 2003; Cote, Cristopher, & Miners, 2006 Sy, Tram, & O'Hara, 2006; Dries & Pepermans, 2007). Experienced and skilled managers are influential on organizational outcomes (Voges, Tworoger and Bendixen, 2009: 33). So, this outcome is based on the individual job performance of the employees. In the context of human resource management performance evaluation is one of the prime functions of personnel development. Because, job performance is the best indicator of employees' quality, efficiency and work experience which are the set of managerial skills. Hence, the following hypothesis can be developed:

Hypothesis 1: There is a positive relationship between managerial skills and job performance perceived by the customers of private banks.

Managerial Skills and Service Quality

In today's dynamic business era high service quality is the prerequisite of creating value and competitive advantage in a business. In this connection, organizations train employees to develop their skill and develop how to deliver high service quality to the customer. Especially, in service sector it is important to maintain a standard service quality. Different empirical research (Budhwar, Saini, & Bhatnager, 2005; Mottaz, 1986) proved that several managerial skills of women bankers influenced the high level of service quality. There may be a close relationship between managerial skills and service quality of the employees in the banking sector. Previous researchers (Pearce & Porter, 1986; Ahmossawi, 2001; Vroom, 1964) proposed a relationship with the factors of managerial skills and service quality. Customers usually purchase at specific stores and from salesman, because they like their service and the ability or skills of salespeople stimulate bonding through trust

between them and customers, which affects the latter's perception of the store or brand (Lau, Chang, Moon & Liu. 2006; Leung & To, 2001). For example, efficiency is an important aspect of managerial skills as well as is a measuring factor of service quality. So, we assume that women bankers have the necessary managerial skills to provide quality service and chance of providing high service with male counterpart in the banking industry. Therefore, the following hypotheses can be developed:

Hypothesis 2: There is a positive relationship between managerial skills and service quality perceived by the customers of private banks.

To exhibit the relationships with managerial skills, job performance and service quality a hypothetical model can be developed:

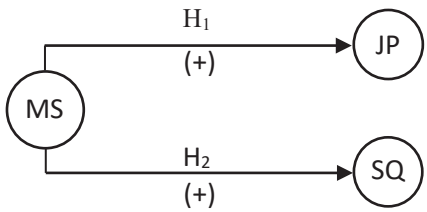


Figure 1: Hypothetical Model

Source: Authors' own contribution, 2017

Note: MS = Managerial Skills; JP = Job Performance; SQ = Service Quality

Research Methodology

In this part, an attempt has been made to use the suitable methodology to obtain desired ends. In the light of desired objectives of the study, the target is to obtain data and analyze them through an appropriate research method.

Participants

In order to get the answers for questions, 180 questionnaires were distributed to the different respondents (customers) of different private banks in Chittagong, who were asked to rate their opinion in respect of managerial skills, job performance and service quality of women banker. Among this 150 responses were received which rate is around 83.3% of the total sample. The respondents were also requested to provide some of their demographic information (i.e. profession, gender, educational background). There was a confirmatory statement that the information provided by the respondents for this survey would be kept confidential and used only for research purposes.

Table 1: Demographic information of the respondents

Part iculars	Frequency	Percentage
Profession		
Service	92	61.3
Business	24	16.0
Student	34	22.7
Total	**150**	**100**
Gender		
Male	122	81.3
Female	28	18.7
Total	**150**	**100**
Education		
Bachelor	31	20.7
Masters	100	66.7
Others	19	12.7
Total	**150**	**100**

Source: Authors' own research, 2017

Respondents came from different professions. Among them 92 (61.3%) engage in service, 24 (16%) engage in business and 34 (22.7%) were students of tertiary level. There were 122 (81.3%) and 28 (18.7%) representations by the male and female respectively. The respondents, educational levels are 31 (20.7%) had completed bachelor degrees (BCom / BBA / BBS / BSS / BA / BSc) while 100 (66.7%) of them had master (MCom / MBA / MBS / MSS / MSc) degrees and 19 (12.7%) had some other degrees.

Survey Instruments

In measuring managerial skills, job performance and service quality of women banker, printed questionnaires were used. The instruments used in this study were measured on 7-point Likert scale ranging from 7 (strongly agree) to 1 (strongly disagree). This study adopts the following measures to collect data from the customers.

Managerial Skills

To measure the managerial skills of the women bankers twenty items adapted from the Saha, Chowdhury, Huda, & Moral (1994) survey on 'Women in Banking' were used. Sample items were designed 'Women employees have objectivity to evaluate business situation properly; 'Women employees are likely to be instructed rather taking own initiatives' etc. The response scale ranged from 1, 'strongly disagree,' to 7, 'strongly agree'. The reliability score of the managerial skills scale for the current study was found. 0.83. In order to obtain the mean score of managerial skills, total of the twenty managerial skills item scores, was divided by the number of items (twenty).

Job Performance

Different research scholars (e.g., Tsui et al., 1997; Heilman, et al., 1992; Pearce & Porter, 1986; Williams & Anderson, 1991) have suggested several factors to measure job performance. Tsui et al.,'s (1997) job performance scale includes most of the factors, so it was chosen to use in the current study. Six items adapted from Tsui et al., (1997) were used to measure the job performance of women bankers. Sample items were 'Women efficiency is better than average', 'Women standard of service is better than formal standard of work' etc. The response scale ranged from 1, 'strongly disagree,' to 7, 'strongly agree'. However, the reliability of the job performance scale for the present study was 0.84.

Service Quality

To measure the service quality of the women bankers fifteen items adapted from the survey on "Women in Banking" (1994) by Saha et al., (1994) were used. Sample items were 'Women are efficient', 'Women are punctual' etc. The response scale ranged from 1, 'strongly disagree,' to 7, 'strongly agree'. The reliability score of service quality scale for the current study was found 0.90. In order to obtain the mean score of service quality, total of the fifteen service quality item scores, was divided by the number of items (fifteen).

Methods of Data collection

To fulfill the objectives of this study we collected data and information through various techniques. Both primary and secondary data were used in this research report. The primary data were collected through structured questionnaire from selected customers of private banks. Literature review also has been undertaken to strengthen secondary database for this study. For collecting the data, convenience

sampling technique was used. Collected data was analyzed using descriptive statistics, bivariate correlation, and regression analysis.

Reliability of Scales and Validity of Data

Reliability reflects the consistency of a set of item in measuring the variables/ concepts under study (Cooper & Schindler, 2001). At the time of formulating questions and shaping the questionnaires the validity and reliability of data regarding this study were kept in mind. Cronbach's alpha is most widely used method to measure the reliability of the scale (Cooper & Schinder, 2001; Malhotra, 2002). It may be mentioned that Cronbach's alpha value ranges from 0 to 1, but satisfactory value is required to be more than 0.60 for the scale to be reliable (Malhotra, 2002; Cronbach, 1951). Since the managerial skills, job performance and service quality scale Cronbach's alpha were 0.83, 0.84, 0.90 respectively, so, data collection by these instruments was highly reliable. On the other hand, content validity was not tested since established survey instruments were used in the present study.

Results and Analysis

The means, standard deviations, reliabilities, and correlations with managerial skills, job performance, and service quality are presented in Table 2.

Table: 2 Means, Standard Deviations, Reliabilities, and Correlations between Variables

Variables/ Components	M	SD	α	Correlations
				MS
1. MS	4.86	0.94	0.83	1
2. JP	5.01	1.04	0.84	.70**
3. SQ	4.89	0.88	0.90	.74**

Source: Authors' own research, 2017

** Significant at the 0.01 level; n = 150; MS = Managerial Skills;

JP = Job Performance, SQ = Service Quality

Table 2 shows that there were significant correlations with managerial skills, job performance, and service quality. Managerial skill was found to be related considerably with job performance ($r = 0.70$, $p < 0.01$). Moreover, a significantly positive correlation ($r = 0.74$, $p < 0.01$) was found between managerial skills and service quality. Thus, it indicates that two hypotheses were supported by the result.

Table 3: Summary of Regression Analysis regarding Managerial skills, Job Satisfaction, and Service Quality

Variables	Predictor: MS				
	Co-efficients (β)	S.E. (β)	Value of t-statistic	Value of R^2	Value of F –statistic
JP	0.77	0.07	11.61**	0.47	134.79**
SQ	0.70	0.05	13.56**	0.55	183.89**

Source: Authors' own research, 2017

** Significant at the 0.01 level; n = 150; MS = Managerial Skills; JP = Job Performance, SQ = Service Quality

An analysis of Table 3 indicates that about 0.47% and 0.55% of the variances in job performance and service quality were explained by the managerial skills respectively. All the t-values and F-values were also found significant. Although a proportion of variances in managerial skills are unexplained it has been suggested that managerial skills are responsible for improving women bankers' job performance and service quality.

Discussion

The current study intends to examine the relationships of women bankers' managerial skills with job performance, and service quality by the customers' perceptions.

The first purpose of this study was to explore the relationship between managerial skills and job performance. Hypothesis 1 stated that there would be a positive relationship between managerial skills and job performance measured by the respondents' perception. The result ($r = 0.70$, $p < 0.01$) of the present study supported this contention. So, it indicates that women bankers, who perceive good managerial skills demonstrate high performance in banking activities. This result of

the present study also propose a support for the theoretical argument that managerial skills may be an important prerequisite in improving women bankers' job performance.

The second purpose of the study was to investigate the relationship between managerial skills and service quality. The relationship between managerial skills and service quality was also found to be positive ($r = 0.74$, $p < 0.01$). According to the respondents, responses, women bankers who perceived sound managerial skills, were provided high level of service at work. This tentative understanding is made based on the theoretical assumption that high managerial skills may be a predecessor of higher service quality of women bankers.

The final purpose of the study was to trace out the impact of managerial skills on job performance and service rendered by women bankers. Table 3, mentions that managerial skills have a significant influence on job performance and service quality of women bankers. So, the customer perception, is a clear indicator of quality service rendered by women bankers. The result of the current study also supported this hypothesis. Since, skillful women bankers can provide better service and show high job performance. This tentative understanding is made based on the theoretical assumption that managerial skills have a great impact on women bankers' job performance and service quality.

Implication of the study

This study has identified the impact of managerial skills on job performance, and service quality in private banks. In this respect, this research can provide some valuable and pragmatic implication for banks and related agencies. An important implication is top level management, policy maker, and government agencies should give more focus on women bankers' managerial competencies and uncover it to appreciate their job performance not only in private banks but also other public and related institutes. If they consider managerial related factors bank should develop their strategic human resource policy and recruit an industrial psychologist to develop women bankers', service quality. Hence, the results of this study also offer considerable implications to HR practitioners, business leaders and certainly to factors in effective management practices in today's competitive business environment. This might be useful for Bangladesh Bank for policy implication and helpful guidelines for banking companies operating in Bangladesh. It would motivate a number of researchers considerately to broaden their research effort to an advanced evaluation of this field by undertaking similar studies in different cities.

Limitations

As like as other research, there are some limitations of this study. Firstly, this study was conducted with a small sample population. Secondly, the results of the study have been interpreted only with major private commercial banks and should not be generalized to other smaller banks, foreign banks and other financial business. In this research, presence of common method variance (CMV) in the measures may have caused inflated relationships between the independent and dependent variables.

Future Research

Future research might be expanding the research population to include more respondents from various regions in Bangladesh and people working in various financial industries can be studied separately. A further research can be conducted in the present contex by including public banks of our country. Further research is needed to clarify the findings of the study. Moreover, the result of this study can be used as a base for making comparison between male and women bankers', managerial skill, service quality and other outcome behaviours. Besides, this draws comparison between public and private women bankers, managerial skills in Bangladesh. At last, the relationship with managerial skills, job performance and service quality mediated by other factors, such as, job satisfaction, job involvement may produce interesting findings in future research.

References

Almossawi, M.(2001). Bank selection criteria employed by college students in Bahrain: An empirical analysis. *International Journal of Bank Marketing*.19 (3), 115-125.

Analoui, F., Labbaf, H., & Noorbakhsh, F. (2002). Identification of clusters of managerial skills for increased effectiveness: the case of the steel industry in Iran. *International Journal of Training and Development*, 4(3), 217– 234.

Ardikhani, E., (2012), Customer relationship management and the four elements of marketing, *International Journal of Management,*9(6),97-113.

Balachandran, M.(2005). Strategic model for re-positioning of public sector banks. *Indian Bank Association Bulletin*, 27(8), 5-8.,

Beer, M. (2003).Why Total Quality Management Programs Do not Persist The role of Management Quality and Implication for Leading a TQM Transformation. *Decision Science*,34(4),624-642.

Budhwar, P., Saini D., & Bhatnager J. (2005). Women in management in the new economic environment: the case of India. *Asia Pacific Business Review*, *77*(2), 179-193.

Campbell, J.(1990). Modeling the performance prediction problem in industrial and organizational psychology. *Handbook of industrial and organizational psycholog,*1(2), 687-732.

Campbell, J., McCloy, R., Oppler, S., & Sager, C. (1993). A theory of performance. *Personnel selection in organizations,* 35(70).

Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behavior and outcomes. *Journal of Managerial Psychology,* 18(8), 788-813.

Cooper, D., & Schindler, P. (2001). *Business Research Methods.* Sydney: McGraw-Hill.

Cote, S., Cristopher, T., & Miners. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly*, 1(28).

Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 6(3), 297-334.

Dries, N. & Pepermans, R. (2007). Using emotional intelligence to identify high potential: a metacompetency perspective. *Leadership and Organization Development*, 28(8),749-760.

Gupta, A., McDaniel, J.C., & Herath, S.K. (2005). Quality Management in Service Firms: Sustaining Structures of Total Quality Service. *Managing Service Quality, 15*(4), 389-402.

Hackbarth, G., Dow, K. E., Wang, H., & Johnson, W. R. (2010). Changing Attitudes Toward Women IT Managers. *International Journal of Information Systems and Social Change*, 1(3), 28-44.

Heilman, M., Block, C., & Lucas, J. (1992). Presumed incompetent? Stigmatization and affirmative action efforts. *Journal of Applied Psychology,* 77(4), 536-544.

Hellriegel, D., Jackson, S., & Slocum Jr, J. (1999). *Management.* New York: South Western College Publishing.

Hunter, J. E., & Hunter, R. F. (1984). Validity and utility of alternative predictors of job performance. *Psychological Bulletin, 96,* 72-98.

Ivancevich, J.M. & Matteson, M.T.(1999).*Organisational Behaviour and Management*,(5th ed.). Chicago: Irwin.

Katz, R.L.(2002). Skills of an effective administrator. *Harvard Business Review*. 52(7), 65-78.

Kotler, P.(2003). *Marketing Management*. New Jersey, United of America.

Koontz, H. & Heniz, W. (2000), *Management*. Mg Graww Hill,10th Edition.

Laitinen, E. (2002). A dynamic performance measurement system: evidence from small Finnish technology companies. *Scandinavian Journal of Management,* 18(1), 65-99.

Latif, D, A. winter (2002). Model for Teaching the Management Skills Component of Managerial Effectiveness to Pharmacy Students. *American Journal of Pharmaceutical Education,* 66,377-380.

Lau, M.M., Chang, M.T., Moon, K.L. & Liu, W.S. (2006). The brand loyalty of sportswear in Hong Kong. *Journal of Textile and Apparel, technology and management*, *5*(1), 1-13.

Leung, C.S. & To, C.K.M. (2001). Measuring perceived service quality of fashion stores: A test- retest reliability investigation. *Journal of Fashion Marketing and Management*, *5*(4), 324-329.

Luthans,F., Rosenkrantz, S.A., & Hennessey, H.W. (1985).What do successful managers really do? An observation study of managerial activities. *Journal of Applied Behavior Science,* 21, 255-270.

Malhotra, N.K. (2002). *Marketing Research: an applied orientation* (3rd ed.).New Delhi: Pearson Education Asia.

Mottaz, C. (1986). Gender Differences in Work Satisfaction, Work-Related Rewards and Values, and the Determinants of Work Satisfaction. *Human Relations*, *39* (4), 359-377.

Munusamy, J., Chelliah, S. and Mun, H.(2010). Service Quality Delivery and Its Impact on Customer Satisfaction in the Banking Sector in Malaysia. *International Journal of Innovation, Management and Technology*,1(4), 398-404.

O'Regan, N., Ghobadian, A., & Sims, M. (2005). The link between leadership, strategy, and performance in manufacturing SMEs. *Journal of Small Business Strategy,* 15(2), 45-57.

Parasuraman, A., Berry, L. L. & Zeithaml, V. A. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, *64*(1), 12-40.

Parasuraman, A., Berry, L.L. & Zeithaml, V.A. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing Research*, *49* (4), 41-48.

Pearce, J., & Porter, L. (1986). Employee responses to formal performance appraisal feedback. *Journal of Applied Psychology,* 71(2), 211-218.

Piškanin, A. Rudy, J. et al. (2006): *Introduction to management* [Slovak version]. Bratislava: Comenius University.

Sachdev, S. B., & Verma, H. V. (2004). Relative importance of service quality. *Journal of Services Research 4*(1), 93-116.

Saha, B., Chowdhury, T. A., Huda, R., & Moral, H.L. (1994). A Study on Women in Banking, Bangladesh institute of Bank Management.

Short, J., Ketchen Jr, D., & Palmer, T. (2002). The role of sampling in strategic management research on performance: A two-study analysis. *Journal of Management,* 28(3), 363.

Sy, T., Tram, S., & O'Hara, L. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of Vocational Behavior,* 68(3), 461-473.

Tsui, A., Pearce, J., Porter, L., & Tripoli, A. (1997). Alternative approaches to the employee- organization relationship: does investment in employees pay off? *Academy of Management Journal,* 40(5), 1089-1121.

Vaniwaarden, J., Vander Wiele, T., Ball, L. & Millen, R. (2003). Applying SERVQUAL to Web sites: An exploratory study. *International Journal of Quality and Reliability Management*,*20*(8), 919-935.

Vanderwal, R.W.E., Pampallis, A., & Bond, C. (2002). Service Quality in a Cellular Telecommunications Company: a South African Experience. *Managing Service Quality, 12*(5), 233-236

Voges, K.E., Tworoger, L.C., & Bendixen, M. (2009).The role of organizational template in radical change, *The Journal of Applied Management and Entrepreneurship*,14 (3): 27- 48.

Vroom, V. H. (1964). *Work and Motivation*. New York: Wiley, p.331. [Carnegie Institute of Technology, Pittsburgh. PAJ

Whetten, D., Cameron, K., & Woods, M. (2000). *Developing management skills for Europe*. London: Addison-Wesley.

Williams, L., & Anderson, S. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management,* 17(3), 601-617

Wong, C., & Law, K. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership,* 13(3), 243-274.

Zeithaml, V.(2000). Service quality, profitability and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, 28, 67- 85.

Real Estate and Housing Market in Chittagong: An Overview

Sujan Kanti Biswas *
Moslehuddin Chowdhury Khaled **

Abstract

Due to high price and insufficiency of land, high cost of land registration, and high price of building materials, real estate and housing industry has been booming in Bangladesh over the last two decades. The prime objective of the study is to understand the scenario of real estate market in the Chittagong city. To fulfill the objectives of the study primary data was taken through questionnaire and Convenience sampling technique used for selecting 15 samples for conducting the study. This study takes a view of the housing market – how many sellers, who are the sellers, what are the buyers looking for, how are the flats priced, what is the cost structure like etc. Geographically, this study focuses on the Chittagong, and can be considered as a considerable contribution to the understanding of the real estate industry, particularly in Chittagong. But the findings may be relevant for other cities too. The main findings of this study are that pricing of the flats and apartments is different due to location and nature of uses and that real estate industry needs to be studied in more details for better decision making and policy making also. The implication of the study is that policy makers of the respective company should emphasis more on low price land in beyond the urban areas and construction cost within the affordable limit for the middle-income class family. This exploratory and overview article, which is part of a larger research, can serve as a basis for further research.

Key Words: Bangladesh, Chittagong, Customer perception, Real Estate, Real estate market

BGC Trust University Journal
Vol. 04, December, 2017, pp. 75 - 94
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Assistant Professor, Department of Management, Premier University*
*** Assistant Professor, School of Business, Chittagong Independent University*

1.0 Introduction

1.1 Background and Rationale of the Study

According to the Bangladesh Statistical Bureau (2018) the population of Bangladesh is around 166.2 millions. It is one of the most populous countries of the world and day by day, population is increasing rapidly which tremendously created the housing problem. Land prices skyrocketed. Due to high price and insufficiency of land, high cost of land registration, and high price of building materials, people are now not interested in buying a piece of land for building their own houses. That is why, they turn to real estate companies who are providing flats or apartments. On the other hand, owners of vacant land or land with low building structure have been tempted to be millionaire or multimillionaires by inviting property developers to go for constructing high rise buildings over the landed properties on a sharing basis. In response, real estate business has enjoyed a boom over the years. All over Bangladesh, new companies are growing up like mushrooms. This trend signals the growth for economy and opportunities for people to have their own residential facilities within means in one hand and warms as well the possible disaster at micro and macro economic level if it doesn't match with the market demand. Most of the companies are situated in Dhaka and Chittagong but are also spreading throughout other divisional and district towns like Comilla, Sylhet, Cox's Bazar, Bogra, Rajshahi, Khulna, Mymensingh, Gazipur etc. Some studies on market demand for apartments are found in the literature basically based in Dhaka, but no such significant initiative is found regarding based in Chittagong market. This study is attempted to fill this gap by providing an exploratory insight into apartment market in Chittagong.

There are some secondary literature based articles like real estate financing by Sarker (2008). The real estate sector is one of the fastest growing and thrust sectors in Bangladesh. Infrastructural development is highly important for a country to rise as a developed nation and to ensure housing facilities for the citizens of the country. But in spite of serious importance of this sector, there have been studies which are far below the required number on this sector and its accessibility to financing. Islam and Hossain (2008) conducted an extensive study on the depth of the housing industry with focus on the supply chain. CPD(2003), Sarker and Siddiquee (2008), Islam and Arefin(2009), REHAB(2012), Ahmed, Sulatana and Faroque (2017) conducted similar studies on the real estate and housing sector. The later study focused on the availability of and accessibility to financing or the stakeholders of this sector and concluded with some important policy recommendations. Due to

less studies on this sector, it is necessary to have extensive studies to find out the future potentiality, problems and solutions of the real estate sector and the availability of financing in this respect. This study is exploratory in nature and may work as the basis of knowing the present scenario and indicating necessity of any future study. But there is little research, specifically primary data based one. The present study has been undertaken as exploratory one to have an overall picture of the real estate market in Chittagong.

1.2 Objectives of the study:

The broad objective of this study is to develop an understanding of apartment/flat market of Chittagong City. The specific objectives of the study consist in investigating to find answers to the following questions :

- How many real estate companies have been operating in Chittagong? How many of them are Dhaka based and how many Chittagong based? How many of them are REHAB members?
- What are the major factors affecting a customer's apartment purchase decision?
- What is the typical cost structure of the apartment construction?
- What risks are perceived by the customers?

1.3 Methodology

The topic has been selected for study as it is a very interesting one in current context of Bangladesh. Real estate market is booming, demand is soaring, and industry is shaping very fast in Bangladesh. Real estate has become a focus of citizen interest. Literature review was done by going through the available volumes of different universities and web search. The study was exploratory in nature and confined to examining the annual reports of the selected enterprises for secondary data as well as private interview with the responsible managerial resources of the respective organizations. Data collection was also done through browsing published journal articles, real estate directory, newspaper reports, editorials, working paper for secondary data and in-depth interviewing senior practitioners at three levels for collecting qualitative primary data. Also a random sample of 15 was taken to find out factors related to customers by using a semi-structured questionnaire. The output of the study is an exploratory report which can be used in further detail studies of the real estate sector and consumer attitude and preferences related to this sector. In selecting samples for this study the convenience sampling method was used. After scanning the annual reports and the

collected information from interview of the sample companies, a content analysis was done and various aspects of real estate business were identified. The annual reports and the collected data (through interview) of the companies were thoroughly examined.

1.4 Scope and Limitations of the Study:

This is an exploratory and cross sectional study which might not capture the trend or changes in the market. This field based study was done only in Chittagong. There are so many real estate developer companies in Dhaka and all over the country, with huge and growing customer base, different target customers, and with different business strategies. So it might not be possible to make generalization about the overall country scenario. The main field investigation was done two years ago. So the year-of-investigation and year-of-publication time gap is there as this market is changing over time.

1.5 Real Estate Industry in Bangladesh

REHAB (Real Estate and Housing Association of Bangladesh) was formed in 1991 with only 11 members. As on June, 2018 the number of REHAB members have risen to 1191 (REHAB, 2018). So it can be understood from this fact that this real estate sector is relatively a new sector but it developed with a tremendous speed.

National Housing Authority (NHA) (2016) website says,

"To ascertain shelter for all by 2026 the democratic government is now formulating National Housing policy 2016, considering the present need of the country. In the light of the National Housing policy, the national Assembly has adopted and approved the National Housing Authority (NHA) Act. 2000 (amended). in accordance with the act, Housing and settlement direction (HSD) and Deputy Commissioner Settlement (DCS) office have been abolished and a new organization NHA has been formed by merging these two organizations. The National Housing Authority Act 2000 has been implemented on the 15th July, 2001 through the government notification."

So, the website of National Housing Authority seems not to be updated with current demand and supply of housing units in Bangladesh.

National Housing Policy (draft) (2016) is a very good document itself. But we are not seeing any strategic implementation plan based on that. There are unplanned real estate developments all over the country and government is seen to take only ad hoc actions. Total population of Bangladesh are 61,62,294,663 (NSB June, 2018)

and 2.18% of world population acquiring the 8th position in the world population ranking (Independent, 2018). Chittagong is the second largest city, having most important sea port, and, at least in paper, the port city of Bangladesh. Just after Dhaka, Chittagong has experienced the real estate boom. Bangladesh Bureau of Statistics (2018) shows that there are around 0.63 millions municipality households in Chittagong city. REHAB (2018) website shows that there are 53 Chittagong based companies. In REHAB Fair (February, 2018) in Chittagong, we see that out of 59 participant companies, most of the companies are based in Chittagong.

2.0 Findings and Analysis:

Snapshots of Real Estate Industry in Chittagong City

This section will give an overall picture of the real estate and housing market of Chittagong from various perspectives.

2.1 Number of firms in Chittagong:

Our first objective is to identify the total number of Real Estate Company operating their business in Chittagong city. From the collected data it was found that there are around 52 real estate companies in Chittagong city. Some of the companies are Dhaka based and maximum companies are Chittagong based. During the survey it has been found that about 39 companies are the members of REHAB and 13 of local companies are not enlisted with of REHAB.

No. of companies operating in Chittagong	52
No. of companies based in Chittagong	34
No. of Chittagong based members of REHAB	21
No. of Chittagong based non-members of REHAB	13
No. of companies based in Dhaka	18

Source: Annual report of REHAB (2016)

According to the survey result it was found that there are 136 ongoing apartment projects and 16 land projects in Chittagong. These projects are located in various areas in Chittagong city, especially in well developed and prestigious areas like Khulshi Hills, Nasirabd H/S, GEC Circle, Mehadibagh, Lalkhanbazzar, Jamalkhan, Agrabad, Halishahar, Panchlaish etc. In Chittagong city, there are fewer land projects than apartment projects. Maximum real estate companies are interested in apartment projects because of two reasons: apartment project is more profitable than land project and land project requires undivided land at one place which is hardly available in Chittagong city.

2.2 Factors affecting customers' apartment purchase decision

2.2.1 Locations preferred by the customers

Location of the apartment is one of the most important factors of consumers' preference to choose an apartment. People try to move to those locations where communication facilities are good and security is high. Naturally price is also related with the good location. So it is important to find out the locations which the consumers prefer for buying apartments. As this was an exploration, no random sampling was taken. That can be taken in a detailed study. It is found that Khulshi hills area is a top preference. This is because the area is one of the prestigious areas in Chittagong city. There are other preferred places like Agrabad, Sugondha, Mehedibag, Nasirabad, Jamalkhan, O.R. Nizam Road, Lalkhan Bazaar, Love lane and Devpahar.

2.2.2 Facilities preferred by the customers

Facilities of apartment are important in deciding which apartment is to buy. Facilities are actually design and development related features which make one apartment project different from others and one company from the other. That is why it is important to know the types of facilities which are most preferable to the apartment purchasers. It is observed that the desired facilities are good communications (road access and nearness to the markets), availability of educational facilities, broad road, greenness, medical facilities, environment of the building, quality of other buyers of flats in the particular building, availability of common space, existence of community facilities, standard of management, quality of construction, goodwill of the developer, number of flat owners, fittings, security, interior design, car parking, generator, void space, ventilation, etc.

2.2.3 Mostly preferred size

This comes out as very important factor for apartment market. It is important to consider because consumers budget is related with the apartment size. The size is quoted as a unit of square foot. The larger the apartment size, the higher the price of apartment. In terms of size, majority of the consumers prefer between 1250 to 1550 Sft. Also, there seems to be a strong demand for even smaller flats by the middle and lower middle class buyers. But there are some buyers who prefer very large flats of sizes more than 2500 Sft.

2.2.4 Price of the apartment

Another objective is to find out the cost structure of a typical real estate company.

The cost structure is not only important for consumers,but it is also important for the developer company. There are three types of costs associated with apartment project development. There are:

1) Development Cost;

2) Construction Cost; and

3) Utility Cost.

2.3 Typical cost structure of apartment construction:

Now percentages of money developer company spends on abovementioned different cost categories are given below:

Table 1: Element wise Cost of Apartment Complex in Percentage (%)		
(a)Development Cost		
Sl. No	**Description of Cost**	**Percentage (%)**
1	Head office Expenditure	3.55%
2	Registration cost	0.02%
3	Power of Attorney registration	0.02%
4	Plan approval	0.33.%
5	Consultancy Fee	0.37.%
6	Pricing of Brochure for consumers	0.09%
	(b)Total development cost (%)	3.64%
b) Construction Cost		
1	Foundation	23.7%
2	Interior Design	10.9%
3	Electrical	5.2%
4	Sanitary	2.8%
5	Material Test	0.12%
6	Equipment & Maintenance	14.3%
7	Architecture & Engineer	36.5%
8	Labour	0.24%
9	Others	0.71%
	Total construction cost (%)	94.47%
c) Utility Cost		
1	Substation	0.95%
2	Gas Connection	0.38%
3	Water & Sewerage connection	0.24.%
4	Desa	0.66%
	Total construction cost (%)	1.99%
Total		**100 %**

Source: Field study

From the aforementioned table it can be seen that construction cost is the major portion of the total project cost (around 94%), followed by development cost (initial and preliminary costs and head office overheads), and utility setup cost.

The following table gives the cost data per square foot of overall apartment project.

Table 2: Per Square Foot Cost of Apartment Complex in Taka		
(a)Development Cost		
Sl. No.	**Description of Cost**	**Per Sft. Cost**
1	Head office Expenditure	75.00 Tk.
2	Registration cost	0.50 Tk.
3	Power of Attorney registration	0.50 Tk
4	Plan approval	7.00 Tk.
5	Consultancy Fee	8.00 Tk.
6	Pricing of Brochure for customers	2.00 Tk
	Total development cost	**93.00 taka**
(b)Construction Cost		
1	Foundation	500.00 Tk.
2	Gr. Fl. (Civil)	350.00 Tk.
3	Tropical Fl. (Civil)	400.00 Tk.
4	Roof	20.00 Tk.
5	Wood Works	50.00 Tk.
6	Mosaic / Tile on Floor	90.00 Tk
7	Tiles	50.00 Tk
8	Thai Aluminum	240.00 Tk.
9	Grill & Railling	60.00 Tk.
10	Paint	40.00 Tk.
11	Sanitary (Pipe)	30.00 Tk.
12	Sanitary (Fitting & Fixture)	30.00 Tk.
13	Electrical	45.00 Tk.
14	Generator	20.00 Tk.
15	Lift (1 No)	42.00 Tk.
16	Intercom	3.00 Tk
17	Elec. Wasa &Gas Bill	8.00 Tk
18	Material Test	0.25 Tk.
19	Equipments & Maintenance	1.00 Tk.
20	Mobilization	5.00 Tk.
21	Price Escalation & Contingency	15.00 Tk
	Total construction cost	**1999.25 Taka**
c) Utility Cost		
1	Substation	20.00 Tk.
2	Gas Connection	8.00 Tk

Source: Field study

The above mentioned apartment cost structure is applicable to the case of super first class construction of a residential building construted by a very reputed developer company. It is to be noted that price rates of different materials are variable. Also it may vary from company to company and is dependent on the quality commitments of the particular company.

3.0 Discussion

According to Ahmed, Sultan and Faroque (2017) Bangladesh is a developing country located between India and Myanmar and in the northeastern Asia with a land area of 147,570 sq. km. with huge population with growth rate of 1.05%(The World Fact Book, 2016), and the density of population, 1,222 people per sq. km.(The World Bank, 2014), five times than that of any other mega country, are both a challenge and opportunity for the real estate and housing industry of the country. High population density coupled with land scarcity and lack of social security enhanced the development of real estate and housing business in Bangladesh over the time (Islam & Arefin, 2009)

3.1 How the real estate companies are pricing the apartments

Apartment pricing differs basing on apartment type, location, category of company, quality and procurement of materials. In this exploration it is found that prices range from 3500 taka per sqft (totally new company having their own land) to 8500 taka per sqft (established reputed company) in the market (REHAB Fair, 2017)

Real estate companies follow different types of pricing strategy based on apartment project construction cost, number of floors approved by the local authority like Chittagong Development Authority(CDA) location of the project, share of the land owner, stages of construction (initial stage or finished stage, etc.), legal problem of the land, abandonment of the project by the developer, quality of the ingredients and materials (rods, cement, fittings, etc.), marketing cost, cost of capital and overall goodwill of the company.

- The overall construction cost is an important determinant of the cost. But more than that the demand drives the price upward. In Bangladesh, overall demand for flats is very high. So the companies can set the price much higher than construction cost.
- The total land area on which a building is constructed is appropriated among the number of flats or saleable units. Therefore, number of floors approved by

the local authority of the government is an important factor to influence the pricing of this product. This number is dependent upon the location of land, width of approach road and government rules. Normal rule is, the greater the number of floors the lower the price per square foot.

- In case of joint venture project the share of the property to be allocated to the land owner is a definite factor to influence the pricing policy. The normal rule is, the higher this share the higher the price.
- If the location is a sought after place, then the price is higher. If the location is an average one, the price is lower. This is true for a particular company running two projects at the same time, though their construction cost is the same.
- Price is also related to the stage of construction. If the project can sell before the construction begins, the price is lower. The more the work is finished, the price per Sft is higher.
- Another important finding is that pricing policies of the apartment, commercial space and land are totally different.
- Overall goodwill is also a factor in pricing. Developers like Equity and Sanmar will charge 1000 taka or more than other companies at the same place regardless of cost of construction. This is possible due to their first mover advantage and reputation.

3.2 What are the risks perceived by the customer

It means what factors are there that the consumers fear about in purchasing apartment from a real estate company. There is a widespread fear in the market related to the real estate or developer company along the following dimensions: timely handover of apartment, low quality of fittings and raw materials, proper apartment allotment according to the diagram, breach of commitment by the developer company, CDA approval, NOC of the Directorate of Environment, utilities approval (water, gas, electricity, city corporation etc.). Analyzing this section aligning with the perceived risk factors given in published researched literature: such as i) Functional risk ii) Service risk iii) Monetary risk etc. the customers make their assessment to buy a space of a developed property.

4.0 Implication of the Study

The housing sector plays vital role both in the context of the economy of Bangladesh and serving the fundamental human right of shelter which actually call for the awareness and analysis regarding various pertinent issues involving the

sector (REHAB,2012). This study mainly tries to know the scenario of real estate and housing market in the Chittagong city. The result of this study clearly reveals some significantly positive findings regarding this issue. The result of this study is relevant and informative for Government, policy makers, the REHAB management etc. Policy makers can consider the factors while making related regulatory policies and framework for the enhancement of the real estate and housing business in Chittagong city. On the other hand, the authorities of the business and other institutions can appraise the findings of this study while formulating their business strategies. Finally, this study will also help them understand the real estate and housing business in Chittagong city better by knowing the preferences of consumers in different dimensions.

5.0 Conclusion

Due to high price and insufficiency of land, rising share of the land owners high cost of land registration and high price of building materials, people are now less interested in buying a land for building their own houses. Geographically, this study focuses on Chittagong, and can be considered as a little contribution to the understanding of the real estate industry, particularly in Chittagong. But the findings may be relevant for other cities also. Real estate market is booming, demand is soaring, and industry is shaping very fast in Bangladesh.

6.0 Future Research Direction

Real estate has become a focus of citizen interest. This should be considered as one of the leading industries of Bangladesh and realistically promotes other affiliated business and industries like brick, cement, steel and re-rolling mills, stone chips, sand, manpower, engineering, furniture, banking, law profession, etc. This industry has created a big opportunity for employment, investment and government revenues. This exploratory study showed an overall picture of the real estate market. From here further study can be developed to understand company and customer perspectives. More in-depth studies can be undertaken to identify consumer opinions, attitudes, and preferences. For future studies this current study may have some preliminary insight and enhance the understanding of the sector to help the decision makers.

7.0 References:

Islam, T., Ahmed, J. U., Sultana, H. & Faroque, A. R.(2017).Eastern Housing Limited: Marketing Strategies of a Real Estate Company in Bangladesh, Sage Publication, 21(1), 86-92.

Brack Institute of Governance & Development (2018). The Political Economy of Urban Space: Land and Real Estate in Dhaka City.

REHAB(2012). A Comprehensive Study on the Real Estate Sector of Bangladesh.

CPD(2003). Strengthening the Role of Private Sector Housing in Bangladesh Economy: The Policy Challenges.

Aims of Bangladesh(1999). Real Estate Sector, AIMS Research Report.

Amin, S. A.(2002). Weber's Perspective on the City and Culture, Contemporary Urbanization and Bangladesh, Department of Sociology, University of Dhaka.

Amin, S.(2008). REHAB in the Development of Society, Paper Presented at the REHAB Week-2008 Seminar, Bangladesh China Friendship Conference Centre, Dhaka.

Bangladesh Bank, 2006-2016, Scheduled Banks Statistic.

Bangladesh Bureau of Statistics (2016),

Bhattacharya, D.(2003). Strengthening the Role of Private Sector Housing in Bangladesh Economy: The Policy Challenges, Center for Policy Dialogue (CPD).

CPD (Center for Policy Dialogue) (2003). Strengthening the Role of Private Sector Housing in Bangladesh Economy: The Policy Challenges, Report No. 64,

Fukuoka Conference (2000). Asian City Development Strategies.

Hoek & Smit M. C.(1998). Housing Finance in Bangladesh: Improving Access to Housing Finance by Middle and Lower Income Groups, Prepared for the Government of Bangladesh, Ministry of Local Government, Rural Development and Co-operatives and UNDP/UNCHS (Habitat).

Islam, M. S. & Hossain, A., (2008). Operations of Bangladesh Housing Industry: An Uncertain Supply Chain Model, The AIUB Journal of Business and Economics (AJBE). 7(2).

Karnad, R. S.(2004). Housing Finance and the Economy: Regional Trends, South Asia Perspectives, Brussels in 25thWorld Congress for International Union for Housing Finance.

Khaled, M. C., Biswas, S. K.,Sultana, T. & Karan, R. (2011). Real Estate Industry in Chittagong (Bangladesh): A Survey on Customer Perception and Expectation, European Journal Of Business Management (Developing Country Studies).

Khanam, S.(2004). Increasing Access to Housing for Low Income People in Bangladesh Through Income and Employment Generation, Access to Services Program of ITDG –Bangladesh, World Urban Forum, Barcelona, 12, 13, 17 September.

National Housing Authority (2010),

National Housing Policy draft (2008).

Oxford Policy Management(2004). Rural and Urban Development Case Study-Bangladesh,June.

Real Estate and Housing Association of Bangladesh (REHAB)(2004). Annual Report.

Real Estate and Housing Association of Bangladesh (REHAB)(2008). Quarterly Swapnil Abasan, Year-2, Issue: 8, REHAB, Dhaka.

REHAB (Real Estate & Housing Association of Bangladesh) website (2011), REHAB Fair (2011), Chittagong. Fair directory

Sarker, M. M. R. & Siddiquee, M. M. (2008). Real Estate Financing in Bangladesh: Problems, Programs, and Prospects, The AIUB Journal of Business and Economics (AJBE),7(2).

Sarker, M.M.R., Siddiquee, M.M. & Rahan, S.F. (2011). Real Estate Financing in Bangladesh: Problems, Programs, and Prospects.

Singha, D. (2001). Social Intermediation for the Urban Poor in Bangladesh, DFID Regional Livelihoods Workshop: Reaching the Poor in Asia, May 08-10.

Web references:

http://www.bbs.gov.bd/RptZillaProfile.aspx, date retrieved on Dec 6, 2011

http://ssrn.com/abstract=1083322, date retrieved on June 6, 2010

http://www.rehab-bd.org/about_us.php , date retrieved on Nov22, 2011

http://www.nha.gov.bd/pdf/national_housing_policy_ %28rough%29.pdf, date retrieved on Nov22, 2011.

http://www.nha.gov.bd/ modules.php?name=Content&pa= howpage&pid=19, date retrieved on Nov22, 2011

www.cpd-bangladesh.org/publications/dr/DR-64.pdf, date retrieved on Dec 5, 2011

Appendix

(All cost data is of 2008 when the field study was done,
Current price increased as much as 20% to 60% depending on the area)

Table: 1 – Real Estate Company (Chittagong)

Sl. No	Name of the Company	Address	Member of Rehab
1	Equity property management Ltd.	'Manashi' 1094/1196, O,R Nizam Road, Chittagong. Tel: 031-653340, 656727 E-mail: equity@spetctg.com	Yes
2	Sanmar Properties Ltd.	S. Alam Center, 58. agrabad C/A (5th floor) Chittagong, Tel: 031-716871-3, Web: www.mysanmar.com	Yes
3	C.A Property Development Ltd.	81. S.S Khaled Road, Chittagong, Tel: 031-2851443, E-mail: info@cpdlbd.com	Yes
4	Epic Properties Ltd.	1005/7, CDA Avenue, East Nasirabad Tel: 031-656603, Chittagong Web: www.epicl.com	Yes
5	H.B.S Associates Ltd.	VIP Tower (3rd floor), 125 Chatteshari Road, Chittagong, Tel: 031-618104, 285021	Yes
6	Moulana Development Co Ltd.	MDC Plaza, 980/A, Agrabad Access Road, Barapool, Ctg. Tel: 031-2511520-21, E-mail: moulanactg@yahoo.com	Yes
7	Alpha Real Estate Ltd.	360. CDA Avenue (1st floor), Tel: 031-636346, 638108, E-mail: areal@click-online.net	Yes
8	Rahat Properties & Developer Co Ltd.	Ameer Court (2nd floor), 1022 Agrabad, C/A, Sk. Muzib Road, Chittagong Tel: 031-726202, E-mail: rahatproperties@gmail.com	Yes
9	RF Properties Ltd.	Road 3, House 6, Nasirabad H/S, Panchlaish Chittagong. Tel: 031-2551303, 2441366, www.rfpropertiesltd.com	Yes
10	Mishmak Developments Ltd.	Forum Central (6th floor), M.M Ali Road, Goalpahar Circale, Chittagong, Tel: 031-639686, 840623-24, E-mail: mishmakdl@yahoo.com	Yes
11	Shah Amanat Properties Ltd.	54. Katalgonj (2nd floor), Panchlish, Chittagong. Tel: 031-650798, 2550371, E-mail: sapl@gononet.com	Yes
12	Subashati Properties Ltd.	Sunny Tower (2nd Floor) 251, CDA Avenue, Lalkhan Bazaar, Ctg – 4000 Tel: 031-624091	Yes
13	Eternal Design & Developments Ltd.	Rashid Mansion (2nd floor), 1299. O.R Nizam Road, Goal Pahar, Chittagong. Tel: 031-2552235, Web. www.eterna-bd.com	Yes
14	Knight Frank Development Ltd.	Modina Tower (5th floor), 508/A, CDA Aveneue, Near GEC Circle, Ctg. Tel:031-2851116-7	Yes
15	Bay Tech Properties Ltd.	Shakoor Manzil (2nd floor), 37, K.B Fazlul Kader Road, Ctg – 4203, Tel: 031-2550379	Yes
16	Central Builders Ltd	House # 32, M.M. Ali road, Lalkhan Bazar, Chittagong. Tel: 031-2851739	Yes
17	Ideal Home Builders	502 Highway Plaza, Lalkhan Bazar, Chittgong. Tel: 031-615687	Yes
18	ConCord Properties Ltd.	40, Chatteswari Road, Kotewali Ctg. Web: www.concordgroup.net	Yes
19	Zaman Property Development	189/203, Haji younusMarket (2nd floor) CDA Avenue, Muradpur, Chittagong. Tel: 031-656401, 658750, Web:www.zamandevelopments.com	No
20	Ambia Holdings Ltd.	07, Agrabad C/A, Chittagong Bangladesh. Tel: 031-716447, 713084	No
21	Al-Haj Mostafa Hakim Housing & Real Estate Ltd.	218. D.T Road, Dewan Hat, Chittagong, Tel: 031-710610, 720228, Web. www.tahergroupbd.com	Yes
22	Chowdhury Modern City Ltd.	House#8, Road#4 Nasirabad Housing Society, Solashahar, Chittagong. Tel: 031-2552307, 2551809	No
23	J.A.K Properties	House # 28, Road # 2, Sughanda R/A, Panchalish, Chittagong. Tel: 031-2551622	No
24	Metro Assets Ltd.	1-4 Abdul Latif Market (1st floor) Block – B, Jubliee Road, Chittagong.	Yes
25	Paramount Housing Ltd.	3536/A, Ali Mansion (1st floor), SK. Mujib road, Agrabad, Chittagong. Tel: 031-2512628	No
26	Uni Village Assets Ltd.	Standard City Plazza (2nd floor), 533, SK. Mujib Road, Dewanhat. Chittagong. Tel:031-2514243	No
27	Vision Housing Ltd.	Jahan Buildings # 3, (1st Floor), 79, Agrabad, Chittagong.	No
28	Mission Developers Ltd.	Hill View Road, East Nasirabad, Chittagong. Web: www.missiongroupbd.com	No
29	Seven Properties Ltd.	50, Jail Road, Asadgong, Chittagong	No
30	Chowdhury Assets Ltd	6 Jahan Building, 93 Agrabad R/A, Chittagong, Mob: 01712-215561	No
31	Jumayera Holdings Ltd.	815/A, Mehadibag Road, Chittagong	No
32	Al Noorani Foundation	5, Jubliee Road, 2nd floor, Chittagong, Tel: 031618927	No
33	Achiyn Rahman Property Developments Ltd.	91, Agrabad C/A (1st floor), Chittagong, Tel: 031-720709, 725631, E-maail: arproperties@online.net	Yes
34	Green Delta Housing	House # 04, Road # 02, Khulshi, Chittagong – 4000 Tel: 031-2550553-4, Web: www.greendeltahousing.com	No

Table: 2 – Real Estate Company in Chittagong (Dhaka based)

SL. No	Name of the Company	Address	Member of REHAB
1	Sahara City Housing Ltd.	932, Mehedibag, Chittagong – 4000 Tel: 031-2852632, Web:www.saharacityhousing.com	Yes
2	AirBell Development Technologies Ltd.	Pacific Tower (2nd Floor) 206/217, Jamal Khan road, Ctg – 4000, Tel: 031-622791, 628189, E-mail: akauiam@airbellbd.com	Yes
3	Megha Builders	Foram Central (7th Floor) 787/863, MM Ali Road Goalpahar, Chttagong.	Yes
4	Northern Foundation Ltd.	23/A, MM Ali Road (1st Floor) Mehadibag, Chittagong	Yes
5	Dwell Properties Ltd.	House#50, Road#4 O. R Nizam Road R/A, Chittagong – 4203 Tel: 031-2550994	Yes
6	Rangs Properties Ltd.	House#15, Road#1, O.R Nizam Road R/A, Chittagong.	Yes
7	Hyperion Builders Ltd.	MQ Plaza (3rd floor), Fakirhat Rood, Bandor, Chittagong.	Yes
8	Crown Housing ltd.	28, Panchlish R/A, (3rd floor), Chittagong. Tel:031-2551945	Yes
9	Prasad Nirman Ltd.	Plot#2, Road#3/A, North Khulshi	Yes
10	Navana Real Estate Ltd.	House#47/B2, Road – 1, Khulshi Hills, Chittagong.	Yes
11	ABC Properties	Avenue Center, 6th Floor, 787/A, CDA Avenue, East Nasirabad, Ctg-4100 Tel: 031-2852213	Yes
12	ANZ Properties	1182 Noor Ahamed Road, Love Lain Chittagong. Tel: 031-613004-5, Web: www.anzproperties.com	Yes
13	Amin Mohammed Foundation & Land Developments Ltd.	819/A, Mehadibag Road, Chittagong Tel:031-2851355-6, Web: www.amgbd.com	Yes
14	ASSET Developments Ltd.	------	Yes
15	Bti Ltd.	Lalkhan Bazar	Yes
16	KEARI Limited	KEARI Elysium, 01, Roshaik Hazari Lain, Parad Corner, College Road, Chittagong.	Yes
17	True Builders Ltd	Plot#1478, Road#01 (Hill view road), Panchlaish, Chittagong.	Yes
18	SAF Holdings Ltd.	Kashana E-Noorjahan, 537/A, Katalgonj, Chittagong Tel:031-725631, 720709	Yes

Table: 3 – Chittagong based Real Estate Company projects

Company Name	Ongoing Apartment projects	Size of flat	Ongoing Land Projects
1. Equity property management Ltd.	Khulshi R/A (1),Devpahar (2), Momin Road (2), Mehadibag (2), Enayet Bazar (2), Nasirabad H/S (1), CDA Avenue (1), S.S Road (1)	2530, 2105, 1805,1542,1631, 13871746, 1445,1697, 1420,1363, 1720 sft	Nil
2. Sanmar Properties Ltd.	Love Lain (1), JamalKhan (1), College Road (1). Nandan Kanon (1), Biazid Bostami (1), Dev pahar (1), Khulsi Hills (2), Sirazud dowela Road (1), Mehadibag (1),Nasirabad (1)	1550, 1260, 1350, 1420, 940, 980, 1530,1750, 2250, 3000 Sft	Vatiary (2)
3. C.A Property Development Ltd.	S.S Khaled Road (3), Muradpur (1)	1050, 1250, 1300, 1465 Sft	Nil
4. Epic Properties Ltd.	South Khulshi (1), Chat. Road (1), Patharghata (1), Mehadibag (1), Abedin Colony (1), Noor Ahamed Road (1)	1450, 1730, 1270, 1600,1005, 1300,1160 Sft.	Nil
5. H.B.S Associates Ltd.	Chatteswari Road (1)	1150, 1050, 1250, 1450 Sft	Nil
6. Moulana Development Co Ltd.	2 No Gate (1), Halishar (1), Wasa Cercal (1)	1005, 1265 1455 Sft	Nil
7. Alpha Real Estate Ltd.	Nil	Nil	Cornal Hut (1)
8. Rahat Properties & Developer Co Ltd.	Kodomtali (1), Mehadibag (1)	1065, 1150 Sft	Nil
9. RF Properties Ltd.	Siraj ud Dowla Road (1), 2 No Gate (1), Madarbari (1)	1065, 725, 915, 825 Sft.	Nil
10. Mishmak Developments Ltd.	Khulshi Hills (1), Ispahani Circle (1), Ham Sen Lane (1), O.R. Nizam Road (2)	1720, 1560,1204, 1500,750, 2275 Sft.	Nil
11. Shah Amanat Properties Ltd.	Katalgonj (1), New Market (1)	1050, 1265, 1360 Sft.	Vatiari (1)
12. Subashati Properties Ltd.	Love Lain (2), Shugondha (1), Panchalish (1), Kazir Dewari (1), South Khulshi (1)	1050, 1100, 1265, 1720, 1366 Sft.	Nil
13. Eternal Design & Developments Ltd.	Sirajuddola Road (1), Halishar (1), North Khulshi (1) D.C Road, Dwenbazzar (1)	764, 788,1043, 1201, 971, 1164, 1455 Sft.	Nil
14. Knight Frank Development Ltd.	Dewanhat (1), Mehadibag (1)	1250, 1150, 1005, 1455 Sft.	Nil
15. Bay Tech Properties Ltd.	Rahamotgonj (1)	1195, 1543 Sft.	Nil
16. Central Builders Ltd	Lalkhan Bazar(1), Chadgao R/A (1)	1365, 1450, 2200 Sft.	Nil
17. Ideal Home Builders	Lalkhan Bazzar (3), M.M. Ali Road (1)	860, 950, 1058, 1710, 1686, 1400, 1500, 2995 Sft.	Nil
18. ConCord Properties Ltd.	Chatteshari Road (1), Khulshi Hills (2)	888, 1890, 1260, 1365 Sft	Nil
19. Zaman Property Development	Bahaddarhat (1), Mohammadpur (2)	1050, 1150, 1265, 1360 Sft	Nil
20. Ambia Holdings Ltd.	Nil	Nil	Nil
21. Chowdhury Modern City Ltd.	Nasirabad R/A (1), Lalkhan Bazar (1), Mehadibag (1)	1150, 1265, 1360, 1455, 1765 Sft	Nil
22. J.A.K Properties	Nil	Nil	Nil
23. Metro Assets Ltd.	Shirazud dowlla Road (1)	1350, 1500 Sft.	Nil
24. Paramount Housing Ltd.	Halishar R/A (1), Lalkhan Bazar (1)	1150, 1265, 1355, 1865 Sft	Nil
25. Uni Village Assets Ltd.	Agrabad (5), Khulshi Hills (1), Nalapara (1), Lalkhan Bazar (1), Airport (1)	980, 1005, 1065, 1155, 1265, 1360, 1455, 1860, 2250 Sft	Kumira (4)
26. Vision Housing Ltd.	Mehadibagh (1)	1100, 1250, 1365 Sft	Nil
27. Mission Developers Ltd.	Halishahar (1), Kazir Dewri (1), Chadgoa R/A (1)	1065, 1155, 1265, 1360 Sft	Nil
28. Seven Properties Ltd.	Eid Gao Abasik Alaka (1)	980, 1005, 1065, 1155, 1265 Sft	Nil
29. Chowdhury Assets Ltd	Nil	Nil	Fojdarhat City Gate ,Sitakundo ,Kumira
30. Jumayera Holdings Ltd.	Mehadbagh (1)	1160, 1255, 1665 Sft	Nil
31. Al Noorani Foundations	Love Lain (1)	1150, 1265, 1365, 2250 Sft.	
32. Achiyn Rahman Property Developments Ltd.	Nil	Nil	Nil
33. Al-Haj Mostafa Hakim Housing & Real Estate Ltd.	New Market (1)	1100, 1250, 1350 Sft	City Gate (1)
34. Green Delta Housing	Agrabad R/A (5), Chanmari Road (2), Khulshi (1)	1300, 1560, 1660, 1775, 1882 Sft	Nil

Table: 4 – Dhaka Based Real Estate Company projects

SL. No	Company Name	On Going Company Project	Size of Apartment	On Going Land Project
1	Sahara City Housing Ltd.	Nil	Nil	Kornal Hut (1) Oxygen (1)
2	AirBell Development Technologies Ltd.	Chackbazar (1)	1362, 944, 1184 Sft.	Nil
3	Crowen Housing Ltd.	Lalkhanbazar (1)	1150, 1265, 1350 Sft.	Nil
4	Megha Builders	Muradpur (1)	1005, 1265 Sft	Nil
5	Northern Foundation Ltd.	Lalkhan Bazzar (1), Nandon Kanon (1)	1250, 1350, 1460 Sft.	Nil
6	Dwell Properties Ltd.	O.R Nizam Road (1)	1535, 2200 Sft.	Nil
7	RANGS Properties Ltd.	Nasirabad H/S (1)	1686, 1353 Sft	Nil
8	Hyperion Builders Ltd.	Nil	Nil	Nil
9	Prasad Nirman Ltd.	Khulshi Hills (1), Nasirabad (2)	1550, 1260, 1750,1350 Sft.	Nil
10	Navana Real Estate Ltd.	South Khulshi (1)	1350, 1460, 1760, 1850 Sft	Nil
11	ABC Properties	Khulshi Hills (1)	2100, 3000 Sft.	Nil
12	ANZ Properties	South Khulshi (1), Panchlaish R/A (1), Nasirabad R/A (5)	1265, 1360, 1550, 1665, 1860, 2265 Sft.	Nil
13	ASSET Developments Ltd.	O.R Nizam Road (1)	1250, 1460, 1765, 1860, 2165 Sft	Nil
14	Bti Ltd.	Khulshi Hills (2), Nasirabad (3)	1465, 1360, 1860, 2200 Sft	Nil
15	KEARI Limited	Halishar (1), Jamalkhan (1)	1160, 1250, 1365, 1765 Sft	Nil
16	Amin Mohammed Foundation & Land Developments Ltd.	Nasirabad H/S (1)	1165, 1260, 1455, 1765 Sft	Oxygen Wazidia (1)
17	SAF Holdings Ltd.	Katalgong (1), New Market (1)	1150, 1265 Sft.	Nil
18	True Builders Ltd	Panchalish (1)	1655, 1750 Sft.	Nil

Table: 5 – Location/Area based pricing in Chittagong

Name of the area	Price per Square Foot (1 Sqf = 0.0929 Sqm)
Khulshi Hills	4500 – 5500 Tk.
South Khulshi	3500 – 4000 Tk.
Nasirabad H/S	3500 – 4000 Tk.
East Nasirabad	2800 – 3200 Tk.
Paschlish	3500 – 3800 Tk.
O.R. Nizam Road	4500 – 5500 Tk.
Jamal Khan	2800 – 3500 Tk.
Mehadibagh	3200 – 3600 Tk.
S. S. Khaled Road	3000 – 3300 Tk.
Halishahar H/S	2500 – 2900 Tk.
Sirajuddullah Road	2200 – 2600 Tk.
Lalkhan Bazar	2600 – 3200 Tk.
Muradpur	2600 – 3000 Tk.
Enayet Bazar	2700 – 3000 Tk.
Nandan Kanon	2700 – 3200 Tk.
Rahamotgonj	2700 – 3200 Tk.
Agrabad CDA H/S	2800 – 3200 Tk.
Devpahar	3000 – 3200 Tk.
Collage Road	3000 – 3200 Tk.
Biazid Bostami	2200 – 2500 Tk.
Love Lane	3000 Tk.
Chatteswari Road	3000 Tk.
Pathargata	2700 Tk.
Noor Ahamed Colony	2700 – 2900 Tk.
Abedin Colony	2700 – 2900 Tk.
Sholoshaahar	2600 – 2900 Tk.
Wasa Cercal	2700 – 3000 Tk.
Kodomtali	2500 Tk.
Ham San Lane	2600 Tk.
Katalgonj	3000 – 3200 Tk.
New Market	2800 – 3200 Tk.
Shugondha	3500 – 4000 Tk.
Kazir Dewari	2900 – 3200 Tk.
D.C Road Dawanbazar	2200 – 2500 Tk.
Dewanhat	2600 – 2800 Tk.
M.M Ali Road	2800 – 3000 Tk.
Airport	2000 – 2500 Tk.
Chackbazar	2200 – 2600 Tk.
Mohammadpur	2500 – 2800 Tk.

Table: 6 – Apartment price in different Location/Area

Company Name	On Going Apartment Projects	Size of Apartment	Price of Apartment (Per Square Foot)	Company Name	On Going Apartment Projects	Size of Apartment	Price of Apartment (Per Square Foot)
Equity property management Ltd	Khulshi R/A (1)	2530, 2105 Sft	5000 Tk.	**Mishmak Developments Ltd.**	Ham Sen Lane (1)	750 – 1165 Sft	2600 Tk.
	Devpahar (2)	1542 – 1805 Sft	3000 – 3200 Tk.		O.R. Nizam Road (2)	1465 – 2275 Sft	5000 Tk.
	Momin Road (2)	1387 – 1866 Sft	2800 – 3000 Tk		Khulshi Hills (1)	1265 – 1720 Sft.	4500 Tk
	Mehadibag (2)	1633 – 2325 Sft	3000 – 3600 Tk		Ispahani Circale (1)	1150 – 1560 Sft	3000 Tk.
	Enayet Bazar (2)	1251 – 1381 Sft	2700 – 2900 Tk.	**Shah Amanat Properties Ltd.**	Katalgonj (1)	1050 – 1265 Sft	3000 Tk.
	Nasirabad H/S (1)	1720, 1790 Sft	3500 Tk		New Market (1)	1050 – 1360 Sft	2800 Tk.
	CDA Avenue (1)	1363, 1420 Sft	3200 Tk.	**Subashati Properties Ltd.**	Love Lain (2)	1050 – 1560 Sft	3000 Tk.
	S.S Road (1)	1265 – 1655 Sft	3300 Tk		Shugondha (1)	1165 – 1460 Sft	4000 Tk.
Sanmar Properties Ltd.	Love Lain (1)	1030 – 1530 Sft	3000 Tk.		Panchalish (1)	1065 – 1366 Sft	3500 Tk.
	Jamal Khan (1)	1550 – 1690 Sft	3500 Tk.		Kazir Dewari (1)	1050 – 1260 Sft	2900 Tk.
	Colleg Road (1)	940 – 1360 Sft	3200 Tk.		South Khulshi (1)	1160 – 1720 Sft	3800 Tk.
	Nandan Kanon (1)	1155 – 1765 Sft	2800 Tk.	**Eternal Design & Developments Ltd.**	Sirajuddowla Road (1)	971 – 1201 Sft	2600 Tk.
	Biazid Bostami (1)	1055 – 1565 Sft	2500 Tk.		Halishar (1)	1164 – 1455 Sft	2800 Tk.
	Devpahar (1)	1233 – 1677 Sft	3000 Tk.		North Khulshi (1)	1265 – 1665 Sft	4500 Tk.
	Siraz Ud Dowela (1)	1150 – 1365 Sft	2500 Tk.		D.C Road Dwenbazar (1)	764 – 1555 Sft	2200 Tk.
	Mehadibag (1)	1250 – 1465 Sft	3500 Tk.	**Knight Frank Development Ltd**	Dewanhat (1)	1005 – 1250 Sft	2800 Tk.
	Nasirabad (1)	1165 – 1465 Sft	3800 Tk.		Mehadibag (1)	1150 – 1455 Sft	3500 Tk.
C.A Property Development Ltd.	S.S Khaled Road (3)	1156 – 1565 Sft	3000 – 3300 Tk.	**Bay Tech Properties Ltd.**	Rahamotgonj (1)	1195 – 1543 Sft	2700 Tk.
	Muradpur (1)	1005 – 1250 Sft	2800 Tk.	**Central Builders Ltd**	Lalkhan Bazar (1)	1365 – 2200 Sft	3000 Tk.
Epic Properties Ltd.	South Khulshi (1)	1450 Sft	3500 Tk.		Chadgoa R/A (1)	1365 – 1675 Sft	2800 Tk.
	Chat. Road (1)	1270 – 1730 Sft	3000 Tk.	**ConCord Properties Ltd.**	Chatteshari Road (1)	888 – 1890 Sft	3000 Tk.
	Patharghata (1)	1000 – 1150 Sft	2700 Tk.		Khulshi Hills (2)	1260 – 1365 Sft	4500 – 5000 Tk.
	Mehadibag (1)	1160 – 1450 Sft	3300 Tk.	**Zaman Property Development**	Bahaddarhat (1)	1050 – 1365 Sft	2600 Tk.
	Abedin Colony (1)	1255 – 1565 Sft	2800 Tk.		Mohammadpur (2)	1165 – 1265 Sft	2700 – 3200 Tk.
	Noor Ahamed Road (1)	988 – 1265 Sft	2700 Tk.	**Metro Assets Ltd.**	Shirazudowlla Road (1)	1350 -1500 Sft.	2600 Tk.
H.B.S Associates Ltd.	Chatterswari Road (1)	1050 – 1450 Sft	3000 Tk.	**Paramount Housing Ltd.**	Halishar R/A (1)	1150 – 1265 Sft	2800 Tk.
Moulana Development Co. Ltd	2 No Gate (1)	1005 – 1455 Sft	2800 Tk.		Lalkhan Bazar (1)	1355 – 1865 Sft	3100 Tk.
	Halishar (1)	1265 – 1865 Sft	2600 Tk.	**Uni Village Assets Ltd.**	Agrabad (5)	980 – 1005 Sft	2700 – 2900 Tk.
	Wasa Cercal (1)	1155 – 1633 Sft	3000 Tk.		Khulshi Hills (1)	1265 – 2250 Sft	4500 Tk.
Rahat Properties & Developer Co Ltd.	Kodomtali (1)	1065 – 1150 Sft	2500 Tk.		Nalapara (1)	1065 – 1155 Sft	2300 Tk.
	Mehadibag (1)	1155 – 1555 Sft	3300 Tk.		Lalkhan Bazar (1)	1455 – 1860 Sft	3000 Tk.
RF Properties Ltd.	Sirazuddowala Road (1)	725 – 1065 Sft	2350 Tk.		Airport (1)	980 – 1455 Sft	2300 Tk.
	2 No Gate (1)	825 – 1265 Sft	2800 Tk.	**Vision Housing Ltd.**	Mehadibagh (1)	1100 -1365 Sft	3600 Tk.
	Madarbari (1)	915 – 1155 Sft	2600 Tk.	**Mission Developers Ltd.**	Halishahar (1)	1065 – 1155 Sft	2800 Tk.
Ideal Home Builders	Lalkhan Bazzar (3)	860 – 1710 Sft	2600 – 3200 Tk.		Kazir Dewri (1)	1265 – 1360 Sft	3000 tk.
Chowdhury Modern City Ltd.	Nasirabad R/A (1)	1150 – 1455 Sft	3800 Tk.		Chadgoa R/A (1)	1155 – 1465 Sft	2900 Tk.
	Lalkhan Bazar (1)	1155 – 1360 Sft	3000 Tk.	**Al-Haj Mostafa Hakim Housing & Real Estate Ltd.**	New Market (1)	1100 - 1350 Sft	2800 Tk.
	Mehadibag (1)	1260 – 1765 Sft	3500 Tk.	**Green Delta Housing Ltd.**	Agrabad R/A (5)	1300 – 1882 Sft	2700 – 2900 Tk.
Seven Properties Ltd.	EidGao R/A (1)	980 – 1265 Sft	2700 Tk.		Chanmari Road (2)	930 – 1010 Sft	2600 Tk.
Jumayera Holdings Ltd.	Mehadbagh (1)	1160 - 1665 Sft	3500 Tk.		Khulshi (1)	1775 Sft	4500 Tk.
Al Noorani foundations	Love Lain (1)	1150 - 2250 Sft.	3000 Tk.				

Micro-Credit Program of Grameen Bank and Poverty Reduction: A Study on Select Borrowers

Md. Siraz Meah *
Dhiman Barua **

Abstract

This paper attempts to assess the micro-credit program of Grameen Bank (GB) and its contribution to socio-economic status and poverty reduction for the poorest of poor people of Bangladesh. The methodology of the study is based on both primary and secondary data and relevant literature review. The data collected from 404 borrowers of Grameen Bank operating in Chittagong (study area).The data were analyzed both manually and by using computer (MS Excel). In this paper, it has been seen that there is a significant contributions of Grameen Bank's micro-credit in reducing poverty by increasing the level of children education, better housing condition, food security, ownership of household assets, employment opportunity and savings opportunity. The findings of the study show that the impacts of Grameen Bank's micro-credit programs are quite satisfactory as per the borrowers' opinions. However, Limitations and future research guidance are also discussed.

Key Words: Micro-credit program, Grameen Bank, Chittagong, poverty reduction.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 95 - 110
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Assistant Professor, Faculty of Business Administration, BGC Trust University Bangladesh*
*** Lecturer, Faculty of Business Administration, BGC Trust University Bangladesh*

1.0 Introduction

In the history of micro-credit, it has been grown out of experiments in Latin America and South Asia, but in Bangladesh, it was started as the best-known in 1976, following a widespread famine in 1974 and a hard-fought war of liberation in 1971 (Agion, et al., 2003). Its history can be traced back to Prof. Dr. Muhammad Yunus who launched the Grameen Bank in 1976 as a microcredit experiment to help the poorest people, highly indebted households in the district of Chittagong, Bangladesh. This experiment was emerged as the GB later. The starting of the today's microcredit movement has blossomed into a global phenomenon in the last few decades. These phenomenal successes of microcredit have attracted global attention from policy makers, global leaders, western governments, economists, sociologists, and thinkers-culminating in the award of the Nobel Peace Prize for Prof. Dr. Muhammad Yunus and the GB in 2006.

Microcredit refers to a financial innovation of small loans & financial services that impoverished borrowers who are planning businesses or want to start businesses or simply unemployed or financial services to improve their living standards. Those people are usually lack of collateral and vulnerable credit history that disqualify for formal bank loan. Thus, micro-credit has supported to create employment and empowerment of women, and so it can develop even whole society. The main purpose of microcredit is "to break the cycle of no income, no investment, & no profit and is to make small income, small investment, & small profit by increasing capital from outside into the economic life of poor people" (Nazmul, 2014).

Most people think micro-credit which lends small amounts of money to the poor. It is not only this, but it has a broader perspective, which also includes insurance, transactional services, and importantly savings (Barr, 2005). The Canadian International Development Agency (CIDA) defines microfinance as, "the provision of a broad range of financial services to poor, low income households and micro-enterprises usually lacking access to formal financial institutions" (CIDA and Microfinance, 2002).

Poverty is generally seen as scarcity or the state of one who lacks a certain amount of material possessions or money. It includes social, economic, and political elements as a multifaceted concept. Poverty seems to be severe condition of people and it is closely related to discrimination most of the time. As a dynamic concept, poverty is changing and adapting according to consumption patterns, social dynamics and technological change (www. poverty Wikipedia). According to

the World Bank's (1980) definition of poverty, "A condition of life so characterized by malnutrition, illiteracy, and disease as to be beneath any reasonable definition of human decency" (www.worldbank.org).

It is strange how the small amount of loan gives strength to the poor to start a business and assist to break out the vicious cycle of poverty. In other way, a financial innovation system derives from Grameen Banking system, which is based on trust and collateral-free, and opposite to formal banking system. People go to the formal bank in order to get loan but GB approaches rootless or landless people's door steps. It is unbelievable, how a bank can provide or sanction loan to the landless or vulnerable people without collateral. This loan giving approach placed GB in a unique position in the field of micro-credit.

2.0 Literature Review

Literature review in micro credit of the GB in poverty reduction is very large. Despite these various studies, the effectiveness and success of microcredit program of GB on poverty reduction is highly questionable in Bangladesh.

Begum et al., (2005) studied "the role of GB in enhancing the socio-economic conditions of women". The study revealed that GB helped women with financial support with a provision to pay back loans with interest. After taking micro credit, most of the women developed their living standard to such a level to ensure better food, cloths, shelter, drinking pure tube-well water, taking help of doctor, and ensuring other necessary facilities for a modest living. But, Kathrina (2012), the German Journalist, told about trapping in debt of a woman whom she met in 2012 at Kurigram district in Bangladesh.

Islam, et al., (2012) examined "The aspect of microfinance system of GB of Bangladesh". The paper discussed controversial (positive and negative) impact of GB with mathematical calculation. They showed that GB is a revolutionary tool to eradicate poverty through micro-credit to the rural people who are asset-less and landless. But, sometimes the loan are used even dowry which is crime against women's right and some of the borrowers lost lands and assets to pay the loan due to high interest rate.

Noreen et al., (2011) examined the role of micro credit in poverty alleviation. They used education of children, housing, food security, household expenditure and household assets as concept of micro credit. They proved that micro credit program has a positive and significant impact on children education and household expenditures whereas there was no significant impact on housing condition,

consumption of food and ownership of household assets. So, this is the contradictory study in which micro-credit can reduce poverty.

The study conducted by Shirazi and Khan (2009) showed two types of poor such as the poor and the extreme poor. The authors examined the impact of micro credit on poverty alleviation. Micro credit had reduced the overall poverty level by 3.07 percentages (from 6.61 percent to 3.54 percent) and the borrowers have shifted to higher income groups during the reported period. The poverty status of the extremely poor borrowers has been marginally increased (by 0.63 percentage), showing obviously no effect of micro credit on poverty status of these households.

Nabi, et al., (1997) worked "Grameen Bank and Socio-economic Change- A Study of Selected Loanees". In this study, the authors implied that Micro-finance institutions (MFIs) were less interested in the up liftmen of economic condition of the poor people. They were apparently seemed to be much concerned about the recovery of loan.

Azad et al., (2004), showed the impact of micro credit on poverty alleviation. They analyzed the three Micro-finance institutions (MFIs) like GB, BRAC, and ASA. They said that the organization of MFIs has growth tremendously but poverty situation was not improved substantially. Only few microfinance institutions have focused their role for poverty alleviation. They suggested only to change some polices and to include some policies of MFIs for reducing the poverty.

The role of micro-credit of GB in alleviating poverty cannot be ignored. In spite of some obstacles, it is recognized as an important anti poverty device. The above literature surveys regarding micro-credit of GB on poverty reduction have indicated that there is a need for detailed empirical studies. As there were controversial evidences in above literature surveys: some studies prove positive impacts, while other show negative impacts in reducing poverty. These call on for more studies in this area. The present study finds the gaps by studying the impact of micro-credit of GB in reducing poverty using concepts: like level of children education, housing condition, food security, ownership of household assets, employment opportunity, and savings opportunity.

3.0 Objectives of the study

The main objective of the study is to know micro-credit programs of GB and poverty reduction. To accomplish the main objective, the following specific objectives are covered:

i) To examine the impact of GB's micro-credit on the level of children education.
ii) To examine the impact of GB's micro-credit on better housing condition.
iii) To examine the impact of GB's micro-credit on food security.
iv) To examine the impact of GB's micro-credit on ownership of household assets.
v) To examine the impact of GB's micro-credit on employment opportunity.
vi) To examine the impact of GB's micro-credit on saving opportunity.

4.0 Materials and Methods

4.1 Population and sample size: The population of the study comprises the people who have been engaged in micro-credit activities for at least five years and live in Chittagong region, Bangladesh which is model district for micro-credit of GB. The authors chose the people with a long experience in micro-credit activities and they are well known, and understand much about the pros and cons about its activities. So they can reflect better to the questionnaire. The samples were selected randomly. The sample profiles of respondents are shown in detail in the following table 4.1. In the table, most of the respondents were conducted with female (90.33%) and aged group is 26 years to 40 years and mean value is 35.5 years. All most respondents (mean value 5.75) completed primary education. The mean value of family size (4.83) which indicates 4 to 5 family members i. e. respondents are married and they have more than one children.

Table 4.1: Sample profiles of respondents

Variables	Scoring unit	Obtained score	Measuring Group	Frequency	Percentage (%)	Mean	Standard deviation
Gender			Male	39	9.67		
			Female	365	90.33		
			Total	**404**	**100**		
Age (Years)	No. of years	20-60	Up to 25	6	1.48	35.5	14.41
			26-40	262	64.86		
			40 & above	136	33.66		
			Total	**404**	**100**		
Education	Years of schooling	0-12	Not at all (illiterate)	85	21.03	5.75	4.94
			1-5 years(up to primary)	166	41.09		
			6-10 year(up to secondary)	123	30.45		
			10 years &above (secondary)	30	7.43		
			Total	**404**	**100**		
Family size	No. of members	2-9	3 and less	54	13.36	4.83	2.52
			4-5	150	37.13		
			6 and above	200	49.51		
			Total	**404**	**100**		

Source: Authors' own research

In the study, according to Roscoe's rule of Thumb (Sekaran, 2003), the sample size is 404 borrowers which is taken out of 1,73,608 borrowers of 72 branches in Chittagong Zone. The data collection procedure was started from village of Chandanish where the author was born and has been living permanently, and continued to Anowara, Potiya, and Boalkhali in the month of September, October, November, and December, 2014.

4.2 Used in Instrumentation: In the study, the author develops (06) indicators of micro-credit as independent variables, which were found in the underlying literature review. The variables are as follows: i) Level of children education that was developed by Pitt and Khandker, (1998) and Todd (2001), ii) Better housing condition, which was developed by Copestake et. al., (2005), Henry et al.,(2000), Morris et al.,(2007), iii) Food security (food consumption) that was measured by Nelson (2000), iv) Household assets that is developed by Zaidi (2007), v) Employment opportunity that is measured by Khan and Rahman (2007), and vi) Savings opportunity that was developed by Durrani et. al., (2011).

4.3 Questionnaire design and Measurement Scaling: Based on the above literature review, a structural questionnaire which was comprised of two sections. Section "A" sought demographic information from the borrowers that included-name, gender, age, educational experiences, number of family members, etc. Section "B" comprised of six (06) factors of Grameen Bank's micro-credit activities for the borrowers in alleviating poverty. Except demographic information, all other questions were asked on a 5 points Likert-type scaling, which was developed by Rensis Likert widely used rating scale to measure the degree of agreement or disagreement with a series of statement (Malthotra, 2003). These points of the scale indicate the degree of satisfaction or agreement level of the household or a person after he or she has received loan from a micro-credit activities of Gameen Bank. Recording '5'and '4' represent (with'5'meaning strongly agree, and '4' meaning agree) agreement. Similarly, recording '2' and '1' represent (with '2' meaning disagree and '1' meaning highly disagree) disagreement. Remaining '3' represents undecided with the item.

4.4 Techniques for Data Analysis: Collected data has been analyzed both manually and by using computer (MS Excel). Simple table has been made manually as part of mathematical and statistical analysis: Like percentage, weighted average score, mean, standard deviation, standard error etc.

5.0 Findings and Discussions

This part deals with the presentation of data collected through various indicators of micro-credit program of GB. The findings are explained here under in simple tabular form.

5.1: Level of children education

The following table shows the weighted average score of some variables under "Level of children education" of the respondents. In the table, the level of children education includes three (1-3) indicators of micro-credit (MC). The weighted average score of these factors are 3.91, 4.07, and 3.98. All of them are very close to agreement level (4.00). Therefore, it can be said that all the respondents are agreed with the level of children education while most of the borrowers are agreed with "no. of children schooling increases after taking MC (4.07)".

Table 5.1: Degree of agreement/disagreement to the statement about Level of children education

S. N.	Statement	Response scale					Total respondents	Weighted average Score
		Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly disagree (1)		
1.	Awareness of children education through MC.	92	230	44	28	10	404	3.91
2.	no. of children schooling increases after taking MC.	133	190	56	25		404	4.07
3.	GB provides education loan	108	210	56	25	5	404	3.98

Source: Authors' own research

5.2: Better housing conditions of the respondents

The author makes the following table, which shows the weighted average score of some variables under "Better housing condition" of the respondents. In the following table, the Better housing condition includes four (4-7) indicators of MC. The weighted average score of these factors are 3.55, 3.72, 3.96, and 3.67. All of them are very close to average agreement level (3.00) out of 5.00-point scales while "access to pure clean water (3.96)" is closed to agreement level.

Table 5.2: Degree of agreement/disagreement to the statement about the better housing conditions

S. N.	Statement	Response scale					Total respondents	Weighted A.S.
		Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly disagree (1)		
4.	Status of accommodation (Tin shed to semi-pacca) has increase after taking MC	62	150	140	52		404	3.55
5.	Healthy environment (tree plantation) has increased by MC	88	166	100	50		404	3.72
6.	Access to pure clean water has increased by MC	50	298	50		6	404	3.96
7.	Housing condition(hygienic, ventilation etc) has improved by MC	48	246	50	50	10	404	3.67

Source: Authors' own research

5.3: Food security of the respondents

The author shows the following table that contents the weighted average score of some variables under "Food security" of the respondents. In the following table, the Food Security consists of five (8-12) indicators of micro-credit. The weighted average score of these factors are 3.77, 3.54, 3.66, 4.02, and 3.82. The weighted average score of "Know about calorie intake (4.02)" is between agreement level (4) and highly agreement (5) level, which indicates that most of the respondents are most agreed with it.

Table 5.3: Degree of agreement/disagreement to the statement about Food security

SN	Statement	Response scale					Total respondents	Weighted average Score
		Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	strongly disagree (1)		
8	MC helps to encourage crops cultivation	79	200	90	25	10	404	3.77
9	MC helps awareness about food quality	25	250	49	80		404	3.54
10	No. of crop cultivation has increased by MC.	48	200	131	20	5	404	3.66
11	MC helps to know about calorie intake	127	182	70	25		404	4.02
12	Food consumption (1 or 2 times to 3 time) has increased by MC	106	188	50	50	10	404	3.82

Source: Authors' own research

5.4: Ownership of household assets of the respondents

The following table shows the weighted average score of some variables under "Ownership of household assets" of the respondents.

Table 5.4: Degree of agreement/disagreement to the statement about Ownership of household assets

SN	Statement	Response scale					Total respondent	Weighted A. S
		Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly disagree(1)		
13	No. of ordinary household assets(chair, table etc) has increased by MC	64	164	120	56		404	3.58
14	No. of standard household assets (sofa, freeze, color TV etc) has increased by MC	12	179	186	25	2	404	3.43
15	No. of live stock (cow, goat, sheep etc) has increased by MC	68	221		75	40	404	3.50

Source: Authors' own research

In the table, the Ownership of household asset consists of three (13-15) indicators of micro-credit. The weighted average score of these factors are 3.58, 3.43, and 3.50. All of them are greater than average agreement level (3.00) out of 5.00 scales. Therefore, it can be said that all respondents are more agreed with "Ownership of Household Asset".

5.5: Employment opportunity of the respondents

The following table shows the weighted average score of some variables under "Employment opportunity" of the respondents.

Table 5.5: Degree of agreement/disagreement to the statement about Employment opportunity

SN	Statement	Response scale					Total respondents	Weighted A.S
		Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly disagree (1)		
16	Borrowers create self-employment through MC (start small business).	120	200	84			404	4.09
17	Borrowers may involve agro production through MC.	91	229	50	27	7	404	3.92
18	GB provides higher education loan & delay collection up to employment.	74	150	100	60	20	404	3.49

Source: Authors' own research

In the above table, the Employment opportunity includes three (16-18) indicators of micro-credit. The weighted average score of these factors are 4.09, 3.92, and 3.49. All of them are more than average agreement level (3.00) out of 5.00 scales while most of the respondents are agreed with the indicator "Borrowers create self-employment through MC (start small business) (4.09)". Therefore, most of the respondents are most satisfied with Employment opportunity.

5.6: Savings opportunity of the respondents

The following table shows the weighted average score of some variables under "Savings opportunity" of the respondents.

Table 5.6: Degree of Agreement/disagreement to the statement about Savings opportunity

SN	Statement	Response scale					Total respondents	Weighted average Score
		Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly disagree (1)		
19	Awareness of savings plan through MC	90	206	50	50	8	404	3.79
20	Borrowers deposit weekly through MC	110	244	50			404	4.15
21	Borrowers deposit monthly through MC	49	249	62	34	10	404	3.73

Source: Authors' own research

In the table, the Savings opportunity consists of three (19-21) indicators of MC. The weighted average score of these factors are 3.79, 4.15, and 3.73 while most of the respondents are near to highly agreement level (5.00) with the indicators "Deposit weekly through MC (4.15)".

In fine, the authors find that the respondents are closed to agree and near to agree with the above-mentioned six (06) indicators of MC. However, the most agreed indicators by most respondents are: "no. of children schooling increase (4.07)" under the Level of children education, "access to pure clean water (3.96)" under better housing conditions, "Know about calorie intake (4.02)" under the Food security, "Self-employment (4.09)" & "agro production (3.92)" under the Employment opportunity, and "Deposit weekly through micro-credit (4.15)" under the Savings opportunity.

In order to get clear result about the main six (06) indicators of Grameen Bank, the authors have summarized the agreement and disagreement level of the respondents. The summary has depicted in the following table:

Table 5.7: Summary of the study

Six (06) indicators of micro credit (GB)	Level of agreement (agree & highly agree)	Level of disagreement (disagree & highly disagree)	Undecided	Total respondents
Level of children education	321(79%)	31(8%)	52 (13%)	404 (100%)
Better housing condition	277(69%)	42(10%)	85 (21%)	404 (100%)
Food security	281(70%)	45(11%)	78(19%)	404 (100%)
Ownership of household assets	236(59%)	66(16%)	102(25%)	404 (100%)
Employment opportunity	288(71%)	38(9%)	78(20%)	404 (100%)
Savings opportunity	316(78%)	34(9%)	54(13%)	404 (100%)
Average	280(69%)	47(12%)	77(19%)	404 (100%)

Source: Authors' own research (Fraction is omitted)

The above table shows the overall contribution of GB's micro-credit program on poverty alleviation of the respondents. As percentage regard, the contribution of Grameen Bank's micro-credit are: i) 79% respondents are agreed with level of children education, ii) 69% respondents are agreed with better housing condition, iii) 70% respondents are agreed with Food security, iv) 59% respondents are agreed with ownership of household assets, v) 71% respondents are agreed with Employment opportunity, and vi) 78% respondents are agreed with Savings opportunity.

After all, average 69% respondents are agreed with GB's micro-credit program in alleviating their poverty. On the other hand, only 12% and 19% respondents are disagreed and undecided respectively.

Further, the Authors have extended the analysis to get better result in this regard. To do this, they measured general statistics of the respondents' agreement level. It is shown in the following table:

Table 5.8: General statistic of respondents' agreement level

Six (06) indicators of microcredit	N	Mean	Std. Deviation	Std. Error Mean
Level of Children Education	404	4.0792	0.75458	0.03754
Better housing conditions	404	3.7500	0.84793	0.04219
Food Security	404	3.8069	0.87556	0.04356
Ownership of household Assets	404	3.5149	0.96965	0.04824
Employment Opportunity	404	3.8317	0.94325	0.04693
Savings Opportunity	404	3.8886	0.85990	0.04278

Source: Authors' own research

The above table displays the mean, standard deviation and standard error mean for six (06) variables. It can be noticed that the mean value for the variables, level of children education (4.0792), better housing conditions (3.7500), food security (3.8069), ownership of household assets (3.5149), employment opportunity (3.8317), and savings opportunity (3.8886). All the variables show the mean value is greater than 3.00. In the measurement scale, 3.00 is considered as an average out of 5.00 point scale with 5.00 is highly agreement level and 1.00 is highly disagreement. Therefore, greater than average mean value (3.00) indicates that they show the agreement level to be more than average level of agreement (3.00). On the other hand, the mean value of level of children education is 4.0792 that is the highest score than others factors. In the study, highest mean value indicates the highest level of agreement. Hence, it can be said that the level of children education is more increased than other variables of micro credit.

6.0 Conclusion

The purpose of this study is to find out the impact of micro-credit program of GB in poverty reduction of poor people at Chittagong in Bangladesh. This study has a strong significance because it has large sample size (404) and the respondents (borrowers) are more experienced. So, the study has proved how Grameen Bank's micro-credit program plays an important role in poverty reduction.

In this study, authors have analyzed Grameen Bank's micro-credit program under six (06) heads such as level of children education, better housing condition, food security, ownership of household assets, employment opportunity and savings opportunity. It has been observed that the impacts of all six heads were quite at satisfaction level according to the borrowers' opinions. We observed a remarkable satisfaction of the borrowers at the level of increasing children education (mean value 4.0792) after taking micro-credit from GB. We also found that the savings opportunity (mean value 3.8886) of the borrowers was very encouraging. After all, the whole pictures of the borrowers understudy have made a good change after receiving and using micro-credit. Thus, micro-credit program of GB can alleviate the poverty. The study will be applied in the field of micro-finance and it will be helpful to the borrowers as well as micro finance instructions (MFIs) in Bangladesh.

The present study is confined only to GB operating in Chittagong. It did not focus on other leading NGOs operating in Chittagong, which can create an avenue for further research. However, a longitudinal study may be conducted to get better result in this regard.

Reference

Agion, B. A. d.; Morduch, J. (2003). *Microfinance, Where do we Stand*? The British Association for the Advancement of Science Meetings, University of Salford, UK, pp. 4

Azad, S. A. S. M., Shamsuddoha, M., Arif, T. M. H., "Assessing Impact of Micro- Finance on Poverty Alleviation-Bangladesh Perspective", *proceedings of the Prestige Institute of Management and Research (PIMR) national conference,* Indore, India, January 29-30, 2004, [Prestige Institute of Management and Research (PIMR)], [Indore, India], pp. 1-9. **http://ssrn.com/abstract**

Barr, M., S. (2005). *Microfinance and Financial Development*, pp. 271

Begum, R.; Uddin, M. I.; Ahmed, M. M. (2005). "The role of Grameen Bank in enhanci ng the socioeconomic condition of women: A study on bazaar para at gomastapur", *Journal of business Studies*, xxvi (1), June

CIDA and Microfinance (2002). *A Poverty Reduction Approach*, Policy Branch,October.

Copestake, J. P.; Dawson, J. P.; fanning, A.; Mckay and K. Wright-Revolledo, (2005). "Monitoring the diversity of the poverty outreach and impact of microfinance: A comparison of methods using data from Pero", *Development policy Rev., research institute*, 23 (6): 703-723

Durrani, M. K. K.; Usman, D. A.; Malik, M. I.; Ahmed, S. (2011). "Role of Micro Finance in Reducing Poverty: A Look at Social and Economic Factors", *International Journal of Business and Social Science* 2 (21) [*Special Issue – November],* pp.138

Henry, C.; Sharma, C.; Lapenu and m., Ziller, (2000). Assessing the relative poverty of micro finance clients: A CGAP operational tool, international food policy,Wasington DC, Islam, J. M.; Mohajan, H. K.; Rajib, D. (2012). "The aspect of microfinance system of GB of Bangladesh", *International journal of economic research*, pp.76

Khan, M. A., and Rahman, A. M. (2007) "Impact of Microfinance on Living Standards, Empowerment and Poverty alleviation of Poor People: A Case Study of Microfinance in the Chittagong District of Bangladesh, Umea School of Business (USBE), Department of Business Administration, Master thesis (Fall Semester)

Kathrina, H. (2012). Erlösenkannunsnur der Tod ("Only Death Can Save Us"), Frankfurter Rundschau, August.

Likert, R. (1967). *The method for constructing an attitude scale, In M. fishbein (Ed),* Readings in attitude theory and measurement. New York: Wiley, pp 90-95.

Malthora, K. N. (2003). *Marketing Research: An applied orientation*, prentice hall international, Inc. Upper Saddle River, New Jersey

Morris, S. S.; K. M. Ranson; T. Sinha; and J. A. Mills, (2007). Measuring improved targeting of health interventions to the poor in the context of community-randomised tril and rural India, Contemporary clinical trials, 28 (4): (382-390)

Nazmul, H. M.(2014) "Power of Micro-credit to Remove the Global Poverty", PhD study on Development Business and Enterprise, Management Department, People of Friendship University of Russia, Moscow, Russia.

Nelson, C. B.; Mknelly, C. Garber, E. Edgcomb, N.; Horn, G. ;Gaile, K.; Lippold and B. Beard, (2000). Learning from clients: Assessment tools for microfinance practitioners, Washington DC, 2009: Small Enterprise Education and Promotion (SEEP), Network.

Nabi, K. A. et al. (1997). "Grameen Bank and Socio-Economic Changes – A Study of Select Loanees", *published by German Cultural Center*, Goethe Institute, Dhaka, Bangladesh, pp-1/

Noreen, U.; Imran, R.; Zaheer, A.; Saif, M. I. (2011). "Impact of Microfinance on Poverty: A Case of Pakistan", *World Applied Sciences Journal* 12 (6): 877, IDOSI Publications.

Pitt, M. and S. Khander, (1998). "The impact on group based credit programs on poor household in Bangladesh: Does the gender of participant matter?", *The journal of political economy*.

Shirazi, N. S., and Khan, A. U. (2009). "Role of Pakistan Poverty Alleviation Fund's and Micro Credit in Poverty Alleviation (A case of Pakistan)," *Pakistan Economic and Social Review,* pp.215 - 228.

Sekaran, U. (2003). "*Research Methods for Business: A skill building approach,"* NY:John Wiley and sons Inc.

Todd, H. (2001). "Path out of poverty: The impact on share microfinance limited in Andhra Prodesh, India," Unpublished Imp-Act report.

Need for Quality Childcare Centers in Chittagong, Bangladesh: A Potential Approach for the Development of Working Mothers and Children

Fahmida Zaman*
Rownuk Jahan**

Abstract

This paper examines the necessity of quality child care center for the development of working mothers and children. The study is mainly based on primary and secondary data. The data have gathered from 100 working mothers from different sectors like garments, schools, colleges, universities, banks, medical colleges and hospitals. The data are analyzed by statistical tools like Likert Scale, Karl Pearson Coefficient of Correlation and Percentage Analysis. After analyzing the data authors found that in most of these organizations there are no child care centers and in garments factories, there are some child care centers by name only. This study explores some factors that are relevant to quality child care center such as positive and healthy environment, trained staff, nutritious food, hygiene facilities, and entertainment facilities etc. for the development of working mothers and children. Authors have found that there is a high degree of positive correlation between quality child care center and working mother development (r = 0.92) and also have found a high degree of positive correlation between quality child care center and child development (r = 0.93).Major limitations of this study are to use purposive sampling. So, it is not possible to generalize the results. This study recommends for taking some initiatives by government and private sector to establish a remarkable number of quality child care centers along with the organization or nearby the organization for the betterment of working mothers and children.

Key Words: Child care, working mothers, child development

BGC Trust University Journal
Vol. 04, December, 2017, pp. 111 - 132
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Lecturer, Faculty of Business Administration, BGC Trust University Bangladesh*
*** Lecturer, Faculty of Business Administration, BGC Trust University Bangladesh*

1. Introduction

Bangladesh is a developing country and the development of a country depends on population. But in our country, the huge population poses a great threat if we do not convert them into human resources. Development of a country will be hampered if women participation will not be increased. Women participation in various work increase due to increasing literacy rate (Mallica, Rahman & Abbe, 2011). Many of them are working mothers. Earlier people lived in joint families but now people prefer nuclear families. So there is no alternative way to look after the child except child care center. Child care centers would be an effective way to nurture the children in this fast world.

Child care center is a place where parents keep their children safely in exchange for money while working outside. If anyone wants to establish child care center he or she has to take permission from government and City Corporation as a representative body of government will give license for child care center in Bangladesh (Mallica, Rahman & Abbe, 2011). Still now in our country, child care center is not popular because of unavailability of child care centers, poor services, huge cost, lack of trained staff, lack of government support, lack of promotional facilities etc. We have to take proper steps to remove barriers related to child care center and ensure quality child care center for the betterment of working mother, children, organization, and ultimately the nation.

Quality child care center means positive and healthy environment, trained staff, better treatment, safety, entertainment facilities, discipline, food quality, physicians facilities etc. that support children for better learning and development. On the other hand, a poor quality child care center is harmful to physical and mental growth, adjustment with a different relationship, learning, and development.

As per National Labor Act 2006, there should be a child care center in an organization where 40 women work together (Islam & Khan, 2015). Authors have found that in maximum organizations there are huge working mothers but no child care center except in garments sectors. More than 80% female workers work in garments industries but there is a minimum number of good quality child care center. We want to increase production, foreign income, GNP, GDP etc. but we do not think of our working mother who are contributing to the progress of our country. Business organizations always try to maximize profit and minimize cost. Though some cost is associated with child care centers but it is valuable investment for good return because it acts as a reward for working mothers that help to

increase production, motivation, satisfaction, commitment, morale, balance work-life conflict, reduce stress etc. which ultimately help for the development of working mothers and organizations (Babu & Raj, 2013).

This study helps to explore the necessity of quality child care center for the development of working mothers who contribute to national economy and children who lead the country in future. Authors also try to find out the challenges related to quality child care center and suggest some strategies to face the challenges.

2. Justification of the study

Most of the working women in our country cannot continue their job because they do not get proper opportunities or homelike facilities to keep their children during their working hours. Authors feel that availability of reliable and affordable child care center can help them to carry out their jobs with a reduced tension of motherhood responsibilities. Authors found that there are few child care facilities in Chittagong and very few research works was conducted on focusing the importance of childcare facilities, especially in Chittagong district. The main endeavor of this study is to highlight the necessity of child care center as an approach for the development of working mothers and children. Authors also considered that adequate child care support in various organizations can stop women from quitting their jobs and enable them to contribute to their family as well as to the economy of the country. For this purpose, authors have evaluated various factors related to quality child care centers that may effect on working mother and children development.

3. Literature Review

The following literatures have been studied in order to find out the research gap for the study. Glynn,Farrell & Wu (2013) mentioned the importance of preschool and childcare for working mothers to develop children for a future workforce. This also increases women's participation in labor force, that is, women empowerment. Uddin and Ghosh (2014) found that lack of daycare centers of children in banking industries which hampered efficiency and productivity of the working mothers. Mallika et al. (2011) mentioned the importance of day care centers and explore a relational effect of children age and customer attitude toward day care center. They opined more aged children staying longer times and feel comfortable than infants. Customers are also satisfied because there is no option for them and private sectors service is better than government sector. Babu and Raj (2013) explained how child

care assistance helps working mothers to balance work-life conflict and retain employees. They found positive correlation between child care assistance and employee retention. Owen (2011) explained that quality child care helps to develop a relationship with children, mother, teacher, peer and other relationship. It also helps to reduce behavior problem, increase cognitive and language development etc. On the other hand he further discussed that poorer quality of child care may be harmful to a healthy development and relationship. Islam and Khan (2015) mentioned different problems regarding child care center and suggested for taking some initiatives to solve the problems for the prospect of child care center. Karjenevitch and Dunifon (2010) explained different factors such as caregiver training and education, licensing compliance, minimal staff turnover, smaller teacher-child ratio and appropriate group sizes etc. related with quality child care center for the development of the childcare centers.Mahabub (2016) explained that daycare center acts as an income generating activity for women entrepreneur and it helps to enter many women in labor market which helps women empowerment. Islam (2016) mentioned good parenting, preschool and school, quality daycare center, workplace environment help to develop the mental health of a child. Marshall (2004) mentioned that high quality child care center have a great impact on children's language, cognitive competence and social competence than low quality child care center. NICHD Early child care and youth development (2006) examined how child care quality, quantity, type and family features linked with cognitive and language development, social development and healthy development of a child. Siddique (2012) suggested some components of a model day care center and checklist for the parents for selecting day care center and professionals for assessment of a daycare center. Islam, Rashid & Hossain (2016) examined some policies; purposes and operational modes of day care center in Bangladesh especially those of the city dwellers. Smith (2016) suggested some benefits regarding high-quality daycare center which help children to become sociable. It is found that there are many articles related to child care center all over the world. But till now it is not popular in Chittagong, Bangladesh. Demand of child care centers is increasing day by day due to huge working mothers who enter in labor market. Few works have found regarding child care center based on Chittagong. Authors think these are not enough. This research gap encouraged the authors to work on "Need for quality childcare centers in Chittagong, Bangladesh: A potential approach for the development of working mothers and children".

4. Research Objectives

- To explore the importance of quality child care center for the development of working mothers and children.
- To focus on the present status of child care center in Bangladesh
- To suggest some strategies regarding quality child care center.

5. Hypotheses Formulation

On the basis of the above objectives and the literature review, the following hypotheses are developed:

H1: There is a positive relationship between quality child care facilities and working mothers development.

H2: There is a positive relationship between quality child care facilities and child development.

6. Research Methodology

6.1 Population, sample and sampling technique

The working mothers all over the country are the total population and the target population of the present study was the working mothers of different organizations in Chittagong. Data were collected from 100 respondents from different organizations like schools, colleges, universities, medical colleges, hospitals, banks and garment factories. So the sample size was 100.Respondents were selected purposively for research. The purposive sampling is a type of non-probability sampling in which the researchers uses their judgment or knowledge in selecting the sample and they must possess a clear knowledge of the characteristics of the universe (Gupta, 1997).

6.2 Data collection and analytical procedure

The study is mainly constructed of primary and secondary data. Primary data were collected through self- structured questionnaire, observation, interview and focus group discussion. Secondary data were collected from books, journals, newspaper etc.

6.3 Validity and Reliability of the Questionnaire

By approaching different experts to examine the contents of the questionnaire, the content validity of the instrument was ensured. The researchers used Cronbach's

Alpha to examine the internal consistency reliability. The value of reliability coefficient ranges from 0 to 1 and the accepted values are 0.6 or over. The value of Cronbach's Alpha test was 0.919 which indicates that the internal consistency of the items was satisfactory (Samson, Waiganjo & Koima, 2015). For measuring the internal consistency reliability Statistical Package for Social Science (SPSS) version 16.0 was used.

6.4 Data analytical procedure

To analyze quantitative data various statistical tools like Likert Five Point Scale (strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2, strongly disagree = 1), Percentage analysis, weighted score analysis and Karl Pearson's Coefficient of Correlation analysis were applied for interpreting the importance of quality child care center for the development of working mothers and children.

7. Findings of the study

Here authors considered twenty variables related with quality child care center, mother development and children development. Authors used Likert Five Point Scale to represent the opinions of the respondents which are given below:

7.1 Percentage analysis of different variables

Table: 1 working mothers' view regarding child care assistance

Statements	Strongly Agree (%)	Agree (%)	Neither Agree nor Disagree (%)	Strongly Disagree (%)	Disagree (%)
Childcare assistance along with the organization or near the organization	88	12	0	0	0

Source: Field Survey, 2016

Table-1 represents that 100 % respondents felt the necessity of quality child care center along with the organization or near by the organization for the development of working mother and children.

Table: 2 working mothers' view regarding quality child care center for the development of working mother

Serial	Statements	Strongly Agree (%)	Agree (%)	Neither Agree nor Disagree (%)	Strongly Disagree (%)	Disagree (%)
1	Feeling comfortable to keep baby in childcare	32	47	21	0	0
2	Increase motivation and job satisfaction	73	27	0	0	0
3	Increase productivity	72	27	1	0	0
4	Increase organizational citizenship behavior	38	53	9	0	0
5	Increase morale	61	37	2	0	0
6	Increase commitment to the organization	67	33	0	0	0
7	Balance work life conflict	66	34	0	0	0
8	Retain employees	61	39	0	0	0
9	Reduce deviant workplace behavior	52	48	0	0	0
10	Reduce stress	70	30	0	0	0
11	Career advancement possibility	68	32	0	0	0

Source: Field Survey, 2016

From the above Table-2 statement 1 shows that 79% respondent's opined that they feel comfortable to keep their baby in a quality child care center.

Statement 2 indicates that 100% respondents believed that quality child care facility can increase motivation and satisfaction of the working mother.

Statement 3 shows that 99% respondents thought that quality child care assistance can increase productivity of the working mother.

Statement 4 indicates that 91% respondents opined that quality child care provision can increase organizational citizenship behavior.

Statement 5 indicates that 98 % respondents believed that quality childcare facility can increase the morale of working mother.

Statement 6 indicates that 100% respondents agreed that quality childcare facility can increase the commitment of working mother.

Statement 7 represents that 100 % respondents believed that quality childcare facility can help the working mother to balance work life conflict.

Statement 8 indicates that 100 % respondents opined that quality childcare facility can retain the working mother in the organization.

Statement 9 shows that 100 % respondents believed that quality childcare facility can reduce the deviant work place behavior.

Statement 10 indicates that 100 % respondents opined that quality childcare facility can reduce the stress of the working mother.

Statement 11 indicates that 100% respondents believed that quality childcare facility can help in advancing the career of working mother.

Table: 3 working mothers' view regarding quality child care center for the development of children

Serial	Statements	Strongly Agree (%)	Agree (%)	Neither Agree nor Disagree (%)	Strongly Disagree (%)	Disagree (%)
1	Development of psychological advancement, language and communication skill	47	49	4	0	0
2	Trained caregiver/ teacher	87	13	0	0	0
3	Socialization	62	38	0	0	0
4	Entertainment facilities	82	18	0	0	0
5	Respect for diverse families and culture	38	55	7	0	0
6	Learn basics before going to school	81	19	0	0	0
7	Learn discipline	58	39	2	0	1
8	Leadership Quality	27	53	17	2	1

Source: Field survey, 2016

From Table-3 statement 1 indicates that 96 % respondents expressed that quality childcare facility can develop the child's psychological advancement and language and communication skill.

Statement 2 shows that 100 % respondents believed that trained staff or caregiver is the most important factor of a quality child care center for children's development.

Statement 3 indicates that 98 % respondents believed that quality childcare facility can make a child more social.

Statement 4 indicates that 100 % respondents agreed that quality childcare facility can provide entertainment facilities for children's development.

Statement 5 presents that 93 % respondents viewed that quality childcare facility can make the children learn to respect diverse families and cultures.

Statement 6 indicates that 100 % respondents believed that quality childcare center can help a child for preschool learning.

Statement 7 shows that 97 % respondents expressed that quality childcare facility can help learning discipline.

Statement 8 indicates that 80 % respondents believed that quality childcare facility can help a child to build leadership quality.

7.2 Discussion of the study

In this part the major two findings shall be discussed:

- The necessity of quality childcare center for the development of working mother
- The necessity of quality childcare center for the development of the children.

7.2.1 Discussion of the variables related to working mothers' development (From Table -2)

Quality childcare assistance along with the organization or near the organization is the most important variable for the development of working mother and the children. A working mother has to maintain the prime responsibility for raising the children. It seems to be a great problem if she has no one in the house to take care of the child during her office time. This can have a negative impact on her official tasks. She then fell in a dilemma whether she will choose her motherhood or her career. In this context, a quality childcare center along the organization or near the organization can provide support to the working mother. Much of her responsibility and anxiety will be reduced and can help her to concentrate more on her official tasks which can increase her productivity and efficiency. Whenever she can manage time, she can go to her child (age 0 - 2) to feed them or to take care of their sick children because during illness mother is more expected by a child than his father. Mother can feel relaxed as she knows that quality childcare center will provide a secure and caring environment for her child. Many working mothers are engaged in various professions due to a financial crisis or willingness to be financially independent or work for the betterment of their children. A woman has to face many challenges and problems in getting a job as the attitude of the employer is not always positive. In some industry, a female worker has to give the pregnancy test, or she has to sign an agreement where she is not allowed to take children for a certain period of time. It is viewed that becoming a mother, a female worker will lose 60% of her productivity. Besides maternity benefit provided to the working mothers is also considered as a financial loss by many employers as the working mothers receive this benefit without rendering any service to the organization. This sort of thinking prevails in many other organizations where male employers deemed female workers as a burden. They think that as the female has to take the

child caring responsibility she may not be able to carry out her official responsibilities properly. Her child caring responsibility may force her to be absent or take early leave, a late arrival in the job, overstressed by managing work and life, less productive and committed due to dual responsibility. Although a working mother has the talent and skill, the child caring responsibility can negatively affect her performance and career advancement possibility.

In this rapidly changing business environment, the success of an organization fully depends on its workforce. Providing quality child care center along or nearby the organization is very noteworthy to raise motivation and satisfaction which help to increase production, organizational citizenship behavior, morale, committed to the organization, balance work-life conflict, retain employees, reduce the deviant behavior, reduce stress and career development which is reflected from the respondents' opinion (Table-2). If the workforce is motivated then the goal of the organization can be achieved easily. So it is the responsibility of the organization to influence and inspire them in such a way that they can do their tasks enthusiastically and willingly.

Thus the working mothers can properly utilize their talents, skills, and potentiality to be an efficient employee for the organization and an important contributor in the economic sector of our country. In such a way they can empower themselves in the family, society and within the country.

7.2.2 Discussion of the factors related to the child development (From Table-3)

In this study authors found that the following factors are related to the children's developments which are discussed below:

7.2.3 Development of psychological advancement, language and communication skill

In a quality childcare center children can enjoy an environment of love, care, harmony, and peace. This environment can lead the children to develop a good mental, an emotional and psychological condition which can help them to build a positive attitude towards their life.

Children can learn to speak and communicate by observing, listening, interacting and communicating with the adults. The adult's communicating words with the children are used by the children as "input" informing their language to express their views. Parents, teachers, and caregivers can help to develop the language and communication skill of children by using more words in conversation, by talking with them more frequently and by responding to their asking.

7.2.4 Trained teacher or caregiver

It is known that training helps to increase knowledge, skill, experience and change behavior and attitude is required. The essentialities of a trained caregiver are reflected from the opinion of the respondents as he plays a key role in the learning process of the children. If the caregiver is active, responsive, cooperative, understanding and caring for the children then he can help to develop the children's learning process.

7.2.5 Socialization

Now a day's most of the people in urban areas live in a nuclear family. A child in a nuclear family lives with his parents and has less opportunity to interact with others due to the busy life of his parents. Most of the time he has to live in isolation. This isolation can make him shy, unsocial, unfriendly, uncooperative, self-oriented, introverted and frustrated.

In a quality childcare center, the children are engaged in playing and other activities in groups. They have to interact and communicate with many other children daily. Here they can learn values, norms, customs, cultures, and ideologies from their teachers and others. They can learn to share, to make friends, to solve problems, to be supportive, empathetic, compromising, sacrificing. They also learn the appropriate behavior, attitude and respect for others than their parents. This learning technique ultimately makes a child sociable and can help him to form a better relationship with their family, friends, and others in his/ her future life.

7.2.6 Entertainment Facilities

Majority respondents believed that quality child care center can facilitate entertainment to the children. A quality childcare center provides the children an environment where they can spend their time by playing and interacting with other children. They can also spend their time by telling and hearing stories, recite poems, make acts and dramas, coloring and drawing of pictures, making arts and crafts, singing, dancing etc. This funny environment can make a child intelligent, curious, creative, imaginative, and knowledgeable. This ultimately can develop a child's mental and physical health.

7.2.7 Respect for diverse families and cultures

We are now living in a globalized world. Every day we are communicating and interacting with people of different ages, genders, race, ethnicity, cultures, and religions. It is the responsibility of parents and teachers to help a child to respond

successfully in this diverse and complex world. Most of the respondents opined that a quality child care center can provide such an environment to respect for diverse families and cultures. A quality childcare center should provide an environment which must focus on –

- Listening to stories and songs of different cultures and languages
- Reduce inequality between men and women, between different social and economic classes
- Celebrating festivals of different religions
- Providing foods and dishes from different cultures and countries
- Eliminating discrimination between boys and girls while they are playing with toys or asking questions
- Respecting, understanding and considering the values, norms, religions, and ideologies of other cultures and families.

In such an environment a caregiver can eliminate the negative thinking, attitudes, and behaviors of the children. Thus a child can live and cope up himself in this changing and diverse world.

7.2.8 Learn basics before going to school

In a quality childcare center, children can read, write, count and identify different alphabets and numbers, can learn to draw and color pictures, can learn the names of different days of a week, months, objects, shapes, animals, flowers, birds etc. They also tell and hear many stories, rhymes, listen to different songs, make different things with art papers which can ultimately enrich their pre-literacy-numeric and vocabulary skills.

Thus a child who experiences a quality childcare center can build a strong educational background and develop his cognitive skill. These early learning in a child care can be beneficial to the children throughout their entire life.

7.2.9 Learn discipline

Most of the respondents opined that in a quality childcare center, the children can learn appropriate behavior - he can understand which behavior is right and which is wrong. Children shall abide by the rules and regulations of the childcare. They have to play, read, eat and do other activities in time which helps them to do a task in right time and within time.

7.2.10 Leadership quality

Most people believe that leadership quality comes from nature. But every people have the potentiality to be a leader. For building leadership quality parents, teachers, and caregivers can play an important role.

Most of the respondents expressed that quality childcare center can provide the appropriate environment for building leadership quality. In a quality child care center children are encouraged to be honest, intelligent, good communicator, good decision maker, self-confident, persevering and focus to task and goal of various activities which help them to become a good leader.

7.3 Correlation analysis of different variables

Authors were trying to find out whether any relation exists between quality child care center and working mother development. Here, authors used Karl Pearson's coefficient of correlation for discussions. Authors denoted quality child care center as X and working mother development as Y. Authors got the values of X by multiplying frequencies with scale value and values of Y by adding all variables' frequencies related to working mother development then divide with the number of variables and multiplying frequencies with scale value vice versa for the correlation between quality child care center and child development. The correlation analysis has been shown in the Table – 4

Table -4:Correlation Analyses

x	y	Xy	x^2	y^2
440	300	132000	193600	90000
48	148	7104	2304	21904
0	9	0	0	81
0	0	0	0	0
0	0	0	0	0
$\sum x=488$	$\sum y=457$	$\sum xy=139104$	$\sum x^2=195904$	$\sum y^2=111985$

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right).\left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}}$$

$$r = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left(\sum x^2 - \frac{(\sum x)^2}{n}\right).\left(\sum y^2 - \frac{(\sum y)^2}{n}\right)}}$$

Putting the values in to the formula and got r = 0.92

So correlation between quality child care center and working mother development r = 0.92

In the same way, authors were calculated another correlation that is correlation between quality child care center and child development and got r = 0.93

The results of the correlation analysis proved that the hypothesis H1 and H2 are accepted. So, a conclusion can be drawn on the basis of statistical support that there is a high degree of positive relationship between quality childcare center and working mother development as well as there is a significant positive relationship between quality childcare center and child development.

7.4 Calculation of weighted score of different variables

The weighted score regarding child care assistance along the organization or near the organization is 32.53 which reveal that the respondent working mothers emphasized this factor as the most significant variable for their development.

Table 5: Weighted score and ranking of factors related to quality child care center and working mother development

Factors	Weighted Score	Ranking
Feeling comfortable to keep baby in childcare	27.5	11
Increase motivation and job satisfaction	31.53	1
Increase productivity	31.20	4
Increase organizational citizenship behavior	28.6	10
Increase morale	30.6	8
Increase commitment to the organization	31.13	5
Balance work life conflict	31.06	6
Retain employees	30.73	7
Reduce deviant workplace behavior	30.13	9
Reduce stress	31.33	2
Career advancement possibility	31.20	3

Source: Field Survey, 2016

Table 5 shows that the sample respondents emphasized on increase motivation and job satisfaction as a significant factor for the development of the working mother as it contains the highest weighted score which is 31.53. Ranking of other factors is given based on weighted score. Highest weighted score indicates highest ranking and vice versa.

Table 6: Weighted score and ranking of factors related to quality child care center and child development

Factor	Weighted Score	Ranking
Development of psychological advancement, language and communication skill	29.53	5
Trained caregiver/ teacher	32.46	1
Socialization	30.8	4
Entertainment facilities	32.13	2
Respect for diverse families and culture	28.73	6
Learn basics before going to school	32.06	3
Learn discipline	20.8	8
Leadership Quality	26.86	7

Source: Field Survey, 2016

Table 6 shows that the sample working mothers focused on trained caregiver or teacher as an important factor for child development as it has the highest weighted score which is 32.46. Ranking of other factors is given based on weighted score. Highest weighted score indicates highest ranking and vice versa.

8. Present status of child care center in Bangladesh

Over the last two decades, women of our country are moving to a workforce not only to build their career but also to support their family income. According to Bangladesh Labor Force Survey 2013 about 1.68 crores of women over the age of 15 are employed in different profession in the country. Women's participation in total employment is increased by 29% in 2013 from 14% in 1995-96 according to Labor Force Survey (Parvez, 2017) .The increasing number of working parents' raises the demand for convenient, reliable and quality child care centers. The problem of ensuring child care facilities are very much neglected and the number of child care centers is also very insufficient in our country. No reliable information or statistics has been found regarding the exact total number of child care centers in Bangladesh. Considering the problem of childcare facilities government and non-government organizations are taking some steps to support the working mothers. The poor and middle level working mothers can keep their babies of six

months to six years in 43 child care centers from 9 am to 5 pm operated by the Ministry of Women and Children Affairs (MOWCA). In these centers, for a child it will cost Tk.250 for admission fee and Tk. 300 as monthly fee. Here the children are given nutritious food, basic learning education, entertainment and indoor game facilities for their psychological and physical development. These child care centers consist of 12 employees including an official staff, two teachers having knowledge in computer and medical services, four nannies, two chefs, one cleaner and two watchmen. Of these 43 child care centers, 24 are located in Dhaka and rest in the outside the capital. No baby care facilities are provided for the working mothers in 36 districts. The Ministry of Social Welfare has set up a child care center for 50 children at Azimpur in Dhaka from where only 8282 are benefitted till 2015.In 2015; public banks formed a child care center for their employees at Motijeel. Afterwards, 21 private banks establish another center in the same location. Some corporate organizations and non-government organizations like Grameen Phone, BRAC also provide childcare provision in the workplace for their employees. Different non-government organizations like Fulki, Aparajeo Bangladesh are operating child care centers in different public, private organizations and garments factories for lower incoming people. Some privately operated child care centers are also available in Dhaka but all parents cannot afford the huge cost of the service. In such types of child care centers for keeping a child it will cost Tk.500 to Tk.1000 for half day and two times the cost for a whole day i.e. from 8 am to 5 pm. Unavailability of space as well as huge rental cost in the capital are the main two barriers in founding child care centers in private organizations. During conducting the research on 20 different organizations, authors found few existences of privately owned childcare centers in Chittagong district. Child care facilities are not available in government or private schools, colleges, universities, banks and medical hospitals. Few garments industry in EPZ areas offer child care facilities to their employees only to fulfill the buyers' compliance. This type of child care center cannot meet the actual need of the working mothers as well as ensure congenial environment for the children. Some garments provide child care facilities only for children up to two years and the mothers having children above 3 years face trouble in keeping their children. Government should take initiative to establish increased number of low cost quality child care center so that more women can join the workforce and can contribute in the further development of national economy.

9. Limitations of the study

This study has been conducted in Chittagong district, selects some limited sectors

and limited number of respondents for data collection due to time limitation. The respondents were too busy to provide us enough time for interview. Budgetary constraints also obstacle for the study. Every organization has its own secrecy. Therefore, respondents did not want to disclose much information for the sake of the confidentiality of the organization. Another limitation is using purposive sampling for which it is not possible to generalize the result.

10. Suggestions

Authors provide some suggestions regarding quality child care center that is given below:

- Every organization should have a quality child care center for motivating working mothers.
- The government, non- government and entrepreneurs should come forward to establish available quality child care centers with affordable cost.
- Child care centers should have security to release tension for parents.
- Training institutions should be available for caregivers and teachers because a trained person knows how to handle a baby with care.
- Introduce free training program, workshop and seminar regarding quality child care centers by government and non- government organizations.
- Entertainment facilities should have to be available in the centers.
- A quality relationship should be ensured among caregivers, teachers, and children.
- Parents should communicate regularly with caregivers and teachers of the centers.
- The ratio between caregivers and teachers with children should be kept the minimum.
- Stop nepotism and favoritism in case of selection of teachers and caregivers.
- Reduce excessive workload of caregivers and children.
- Payment should be lucrative for caregivers and teachers.
- Physician facilities should be available.
- Provide nutritious food for good health.
- Good hygiene facilities should be available.

- Provide proper curriculum for preschool children.
- Logistic support should be available.
- Promotional activities should be increased.
- Every organization should implement labor law.

The suggestions related to quality child care centers mentioned above can only be possible if a government, non-government organizations, employers, municipalities, private providers, entrepreneurs and trade unions take initiatives and formulate strategies to establish quality child care centers in different organizations to support the working mother so that they can continue their jobs smoothly.

11. Conclusion

Quality child care center is a potential sector to unearth the potentiality of working mothers and children for nation building activities. Authors have found that child care centers still now not popular at Chittagong in Bangladesh due to lack of good intention of employers, support from government and non-government organizations and not habituated to keep baby in childcare. In labor law 1995 mentioned that if any organization belongs to 25 women should have a child care center (Islam & Khan, 2015). Authors have found that labor law exists but not implemented in the organization. It is difficult for the working mother to balance between family and work. The quality child care center helps working mother to balance work-life conflict, increase productivity, satisfaction, morale, motivation and reduce deviant behavior and stress that would help to advance their career so that organization can able to best utilization of working mother for the development of the organization as well as a nation. Quality child care center also helps children to learn ethics, school readiness, discipline, values, respect for diverse family and culture, language and communication, respect for a different relationship etc. so that they will be a good citizen for the country. Government and non-government organizations have to take initiatives like introduce free training, seminar, and workshop related with quality child care center, make budgets, and extensive promotional strategy to expand the market for the development of working mother and children. Quality child care center is also potential sector to generate income. In future, further research will have to be conducted on how quality child care center acts as an income generating activity for the people of Bangladesh.

References

Babu, S.S., & Raj, K.B. (2013). Impact of child care Assistance (a work – life balance practice) on employee retention in Indian IT sector. *Global Journal of Management and Business Research,13*(6),9 – 17.

Glynn, S.J.,Farrell, J., & Wu, N. (2013). The importance of preschool and child care for working mother. *Center for American Progress*.

Gupta, S.P. (1995). *Statistical Methods*. Sultan Chand & Sons.

Islam, M. T., Rashid, F., & Hossain S. A. (2016). Early childhood care and development: an investigation into a day care center in Bangladesh. *American Journal of Educational Research, 4*(4), 338 – 346.

Islam, S., & Khan, N. A. (2015). Childcare center in Bangladesh: problems and prospects. *International Journal of Scientific Engineering and Research, 3*(3), 2347 – 3878.

Islam, T. (2016, October 11). Not to neglect mental health. *The Prothom Alo*, page:10.

Korjenevitch, M., & Dunifon, R. (2010). Child care center quality and child development. *Cornell University*.

Mallika, A.S., Rahman, M.W., & Abbe,M.A.J. (2011). Customer attitude toward day care center and relational effect of children age. *Bangladesh Research Publications Journal, 5*(4), 359 – 367.

Marshall, N. L. (2004). The quality of early child care and children's development. *Center for research on Women, Wellesley College*, 13(4), 165 – 168.

NICHD Early Child Care Research Network (2006). *The NICHD study of early child care and youth development*. National Institute of Child Health and Human Development, 1 – 43.

Owen, M.T. (2011). *Child care and the development of young children*. Child Care – Early Childhood Education and Care.

Parvez, S. (2017, March, 08). Lack of day care centers frustrates working women. *The Daily Star*.

Robbins, S.P., & Judge, T.A. (2013). *Organizational Behavior*. Pearson International Edition.

Samson,G.N., Waiganjo, M., & Koima J. (2015). Effect of workplace environment on the performance of commercial banks employees in Nakuru Town. *International Journal of Managerial Studies and Research, 3*(12),76 -89.

Siddique, J. (2012). Checklists for the components of a model day care center. *Institute of Educational Development, BRAC University*, 4-40.

Smith, D. (2016). The benefits of socialization for children in day care. *Horizon Education Centers*.

Uddin, M.S., & Ghosh, M. (2009). Working mothers in private banks: a paradigm of challenges. *The Chittagong University Journal of Business Administration, 24*(3), 223 – 236.

Ullah, A. (2016, August 11). Economic benefits from day care center. *The Bonik Barta*, page: 4.

Ethnic Cleansing in Myanmar's Rakhine State and Challenges for Bangladesh

Mohammad Moniruzzaman *

Abstract

The Rohingya Muslims is an old ethnical community of Myanmar. They have a locality in this globe, a country of their own but this country does not acknowledge them as its citizens. They are victimized by extensive violence, acts of cruel torture, genocide, gang rape, slaughtering, burning down, force deportation etc. As a result gradual military crackdown on Rohingya Muslims has created a infinite refugee exodus towards Bangladesh which has created immeasurable humanitarian crisis in this zone. This article endeavors to prove that Rohingya community is one of the old ethnic communities of Myanmar but as a part of ethnic cleansing campaign Myanmar government gradually orchestrating a cruel military crackdown on them for deporting from Rakhine State as well as for destroying this old ethnic community. It also argues that the Rohingya crisis is no longer only a humanitarian disaster but a probable threat for internal security of Bangladesh as well as impenetrable challenges for it. Therefore this article critically analyzes the legal framework relating to the topic and recommends some guideline to promote and uphold the human rights as well as vanquishing strategy for Bangladesh.

Key Words: Ethnic Cleansing, Crime against humanity, Genocide, Refugee, Exodus, Humanitarian Crisis.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 133 - 150
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Senior Lecturer (Dept. of Law) & Proctor (In charge), Feni University*
1845 Trunk Road, Feni-3900

Introduction

Rakhine state is a state in Myanmar situated on the western coast, on the other hand Rohingya people a Muslim ethnic community in the Buddhist-majority country, historically also termed Arakanese Indians are Indo-Aryan people from Rakhine State. They have been considered one of the most persecuted ethnic communities all over the globe. They have a locality in this globe, a country of their own but this country does not acknowledge them as its citizen. Universal Declaration of Human Rights (UDHR) along with other international documents relating to the humanitarian law, fundamental human rights and customary international law constantly confer upon peoples and all nations everywhere in the world the right to have legal connection with their state, nationality, freedom, freedom of movement within the border of the state, freedom of thought, conscience and religion, security of their effective recognition, equality and equal protection against any discrimination, participation in the government, access to public service, a standard of living adequate for health, education etc. In spite of having organizations of international law, treaties and conventions relating to the fundamental human rights, Rohingyas are deprived of having their rights. From 1784 to 2017 continuously Rohingyas are victimized by various kinds of discriminations, cruelty, ruthlessness, mass killing, gang rape, burning down the dwelling house and communal discomfort and force deportation. By considering historical background of these heinous activities, UN Human Rights Council (UNHRC) has branded it "textbook example of ethnic cleansing". Several times Rohingya Muslims have been victimized by the brutality and inhumanity carried out by the Myanmar junta and uncounted Rohingyas were heinously killed, injured (stabbed), raped and burned down their homes and domestic animals. Consequently, as per report of the Daily Sabah (2018), approximately one million Rohingiya refugees migrated to Bangladesh after the independence of Burma (Myanmar). This huge number of refugees' exodus towards Bangladesh has already been created a massive humanitarian crisis which is really challenging for Bangladesh. It has been observed that ethnic cleansing is going on in Myanmar on the other hand, Bangladesh is facing a disasters because of the human-made crisis.

Objectives

The article has been prepared based on the following objectives:

- To narrate the implication of ethnic cleansing campaign;
- To point out the gradual process of implementation of the barbarous activities of the Myanmar government;

- To condemn the motive of huge forced deportation towards Bangladesh;
- To analyze the legal provisions of the public international law through which Myanmar personnel may be persecuted;
- To assess the negative impact and challenges for Bangladesh because of huge refugee exodus.

Methodology

The study is analytical in nature based on various kinds of secondary data which were collected from concerned books, reports, websites, national and international journals, case laws, opinion of scholars etc. The study was carried out by systematic method of scrutiny, exploration and fertilization of understanding.

Ethnic cleansing: what it is?

According to the Oxford Dictionary, 'ethnic cleansing' means expulsion or killing of members of one ethnic or religious group in an area by those of another. The term came into common phraseology during the war of Bosnia in 1992.It has been considered as a force deportation or population transfer from a specified territory which may be conducted through crime against humanity, genocide or war crimes. As per Wikipedia (2017) "Ethnic cleansing," though not a formal legal term, may be defined as an intentional policy by any state to remove any ethnical community from certain territory by vicious and brutal activities. "Ethnic cleansing is the systematic deliberate removal of ethnic or religious groups from a given territory with the intention of making it ethnically homogeneous."

According to Thum (2006–2007) "Initially this term was used by the perpetrators during the Yugoslav Wars and cited in this context as a euphemism akin to that of Nazi Germany's "Final Solution", by the 1990s the term gained widespread acceptance due to journalism and the media's heightened use of the term in its generic meaning." In the Jorgic V. Germany (2007), it has been stated that here is no international treaty that specifies a specific crime of ethnic cleansing. 'However, ethnic cleansing in its broad sense means forcible deportation of a population and is defined as a crime against humanity under the statutes of both International Criminal Court (ICC) and the International Criminal Tribunal for the Former Yugoslavia (ICTY)." Though ethnic cleansing has not been recognized yet as an independent crime under public international law, it is a predetermined horrific policy designed by majority portion of a specified territory to remove or expel from that territory through violent acts, genocide and crime against humanity or any other offence which are the offences under international law.

Is Rohingya Muslim an ethnic community of Myanmar?

Leider (2012) states that the term "Rohingya" may come from Rakhanga or Roshanga, the words for the State of Arakan (now Rakhine). The word Rohingya would then mean "inhabitant of Rohang", which was the early Muslim name for Arakan. Tan (2009) argues it comes from the Arabic word Raham (God's blessing) and speculates that early Muslims in Arakan referred to themselves as "God's blessed people." Buchanan (1799) indicates that among the native groups of Arakan are the: "Mohammedans, who have long settled in Arakan, and who call themselves Rooinga, or natives of Arakan."

Ibrahim (2017) mentions that The Classical Journal of 1811 identified "Rooinga" as one of the languages spoken in the "Burmah Empire". In 1815, Johann Severin Vater listed "Ruinga" as an ethnic group with a distinct language in a compendium of languages published in German. Leider (2013) states that "there is no international consensus" on the use of the term Rohingya, as they are often called "Rohingya Muslims", "Muslim Arakanese" and "Burmese Muslims , he also shows that the Rohingya is a political movement that started in the 1950s to create "an autonomous Muslim zone" in Rakhine.

Most of the Rohingya Muslims have been living in the three northernmost townships likes Maungdaw, Buthidaung and Rathedaung for a long period of time. So, by taking historical and political background into account, Rohingya community can be considered as an old ethnic community of Myanmar. On the other hand, because of their common and distinctive physical appearance, culture, religion, language it may also be considered as an old ethnic community. Moreover, prior to 1962 they were also recognized as an indigenous ethnic nationality of Burma and till 1982 constitutionally they were recognized as citizen of Myanmar.

As an old Ethnic Community, Nationality and political participation of Rohingya Muslim in Myanmar

Radio Free Asia (2017) states in an article that as a part of old ethnic community of Myanmar, Rohingya Muslims have been participating in the various kinds of political activities of the country since its independence. After the independence of Burma, for the first time Mohammed Abdul Gaffar was a politician from Arakan (Rakhine State) and also a member of Burma's constituent assembly, called for recognizing Rohingya Muslim in 1948. It also states that Prior to 1962 the Rohingya community was recognized as an indigenous ethnic nationality of Burma, with members of the group serving as representatives in the Burmese parliament, as well

as ministers, parliamentary secretaries and other high-ranking government positions. But since Burma's military junta took control of the country in 1962, the Rohingya have been systematically deprived of their political rights. The Rohingya were declared "non-nationals" and "foreign residents," according to a citizenship law enacted by the regime in 1982.

As per Wikipedia, (2017) 'Rohingya community leaders were supportive to the The 8888 Nationwide Popular Pro-Democracy Protests, also known as the People Power Uprising. 'Subsequently during the Burmese general election, 1990, the Rohingya-led National Democratic Party for Human Rights and they won four seats in the Burmese parliament.'

Mclaughlin (2015) explains that 'Rohingya politicians have been jailed to disbar them from contesting elections. In 2005, Shamsul Anwarul Huq (rahingya MP) was charged under Section 18 of the controversial 1982 Burmese citizenship law and sentenced to 47 years in prison. In 2015, a ruling Union Solidarity and Development Party MP Shwe Maung was disbarred from the Burmese general election, 2015, on grounds that his parents were not Burmese citizens under the 1982 citizenship law.'

By considering historical background, it has been observed that once upon a time Rohingya Muslims were a part of government but afterwards without any justified cause they have been being deprived of participating in the political activities and as of 2017, Burma does not have a single Rohingya MP and they also have no voting rights.

Gradual Violation of Fundamental Human Rights against Rohingya Muslims as a part of 'Ethnic Cleansing Campaign'

Historically the Rohingya Muslims are extremely persecuted minority. The Constitution of any nation recognized legal rights for its inhabitants. The Constitution of the Republic of the Myanmar, (Sec.364) also prohibits the abuse of religion for political reasons, having acts to protect hatred, enmity or discord between communities.

Furthermore, according to article 2, 7 and 18 of the Universal Declaration of Human Rights, 1948, Myanmar is bound to uphold the right of all in its territory to freedom of religion and the principle of non-discrimination but fundamental rights of Rohingyas are violated gradually. Different kinds of deprivation of Rohingya's rights are as follows:

Restrictions to freedom of movement: As per 13(1) of UDHR, everyone has the right

to freedom of movement and residence within the borders of each State. But Rohingya and Kaman face dreadful restrictions on their free movement. Whilst in place in northern Rakhine State for few decades, restrictions became tight after 2012 and differ in severity between townships. The majority of Rohingya live in northern Rakhine State, where they require official authorization to move between, and often within, townships.

Threats to life, liberty and security: Article 3, 4, 5 and 9 of UDHR mentions that every person has the right to life, liberty, security and protection against arbitrary detention/arrest but successively Myanmar has been violating these fundamental human rights against Rohingya Muslims. OHCHR (2017) interviews some victims and reveals credible flash report of the arbitrary arrest and detention of Rohingyas, including women and children and consistent allegations of torture and ill-treatment.

Sexual and gender-based violence: Article 2 of The Convention on the Elimination of All Forms of Discrimination against Women (1979) states that 'The Government has an obligation to protect all individuals from all forms of violence and address sexual and gender based violence within the private and public sphere.' Human Rights Watch (2017) reveals that media and local groups reported numerous incidents of rape and other sexual assault of Rohingya women and girls committed by security forces during the "clearing operations" in Rakhine.

Denial of the right to health: Different kinds of International documents e.g. CRC Art. 24; CEDAW Art. 12; and CRPD Art. 25. state the right regarding public health and services but Muslims cannot freely access in township hospitals surrounding Sittwe, including Pauktaw and Myebon. UNHRC (2016) reveals that the availability, accessibility, affordability and quality of health facilities, goods and services are extremely poor across Rakhine State. The consequences of limited access to health facilities include delays in treatment, reliance on alternative healthcare, the escalation of preventable diseases, and poor overall health outcomes. These restrictions placed on Muslim communities to access public health facilities constitute a violation of the right to health.

Violation of right to religion: In pursuance of Art 18 of UDHR and 18 of ICCPR as a human being everyone has the right to observe their own religion. Subsequently Myanmar's Constitution (sec 20, 362 & 363) affirms this right for the country. But Rohingya Muslims have been denied the right to worship freely because of their religious and ethnic identity. Yale law schools (2015) mentions in a legal analysis that the government issued military orders demanding that unauthorized mosques

be destroyed and the government has closed mosques and Islamic schools and used them as government administrative offices.

Marriage restrictions and population control: The Myanmar government has been continuing to enforce policies to control the Rohingya population, including restrictions on the freedom of marriage and childbirth. Because they have feared that a growing population of Muslims would subside the Buddhist majority population's political and economic power in Rakhine. Fortify Rights (2014) mentions in a report that in the 1990s, Myanmar passed a law that required all people in Rakhine State to gain permission before obtaining marriage licenses. And this law was enforced only against the Muslim populations of the area. The Border Region Immigration Control Headquarters and the Township

Peace and Development Council of Maungdaw issued population control policies in 1993 and2005, respectively.

Cruelty on Rohingya Muslims: Different documents of International law e.g.-UDHR, Art 5; ICCPR Art 7 set the provision that "No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment". As per report



Satellite image is the indication of demolition in Rakhine villages. (Narayan, C. 2017)

of Human Rights Watch (2013), many indication of crime against humanity have been found in Myanmar like: mass murder, massacres, dehumanization, genocide, extrajudicial punishment, state terrorism or state funding of terrorism, death squads, kidnapping and forced disappearance, torture, gang rape and political, racial or religious repression etc. Furthermore this report (HRW; 2013) also states that "some witnesses said they saw several Burmese soldiers digging a large mass grave with trucks full of dead bodies on a road outside a Rohingya IDP camp near Sittwe".

Emanating from what have been narrated above, it may be indicated that by the gradual violation of these rights, it may create a strong assumption that Myanmar authority is trying to abolish or deport them in whole or in part from the Rakhine State.

State Responsibility for committing Genocide and Crime against Humanity as a campaign of Ethnic Cleansing:

UN (2008) specifies that the conduct of a state organ is attributable to the state. Thus, a state is responsible if the actions of a state organ constitute prohibited conduct, such as genocide. Under the Genocide Convention, a state itself may be responsible for committing any of the punishable acts enumerated in Article III. Myanmar could be responsible under the Convention for failing to prevent genocide from occurring within its borders. Article I of the Convention obligates States to prevent genocide and to punish individual perpetrators. In Bosnia and Herzegovina v. Serbia and Montenegro case (2007), the International Court of Justice (ICJ) held that a State has a duty to take all measures within its capacity to prevent genocidal acts. So, as the State and part of this globe Myanmar has the duty to prevent genocide from occurring within its borders. Customary international law and Article I of the Convention on the Prevention and Punishment of the Crime of Genocide, (1948) also obligate States to prevent genocide.

In the Bosnia and Herzegovina v. Serbia and Montenegro case (2007) it has been stated that, 'Thus, States have an obligation to implement suitable measures to prevent genocide.'

Ethnic Cleansing is not a separately listed crime in the Rome Statute of International Criminal Court (ICC, 2002). Rather, acts of ethnic cleansing will be crimes against humanity under Art. 7(d) concerning forced displacement and/or Art. 7(g) concerning persecution.

Recently in Kuala Lumpur "Permanent Peoples' Tribunal (PPT, 2017) , an

international opinion tribunal has given an opinion judgment that Myanmar is responsible for recent atrocities where Judges took into consideration eye witnesses, expert witness and various relevant documentary evidence. On the other hand, international community including, UN, different International Human Rights Organizations, and International Humanitarian Organizations have expressed deep concern regarding Myanmar's atrocities.

The mass range of the atrocities committed specially against Rohingya Muslim also provides strong evidence that Myanmar government has acted with genocide and crime against humanity which are tantamount to gross violation of Human rights. So, by considering all legal domains, Myanmar does not able to deny its responsibility for all brutal activities.

Historical background of Rohingya influx towards Bangladesh and Homecoming

For the several times Myanmar's security forces have been conducted "cruel military operations against Rohingya Muslims and other minority groups of the Rakhine state which have been accelerated Rohingya exodus towards Bangladesh. The brief history of Rohingya exodus towards Bangladesh has been described by Al-Mahmood (2016) as follows:

1977: During began Operation Nagamin, or Dragon King, More than 200,000 Rohingya fled to Bangladesh, amid allegations of army abuses;

1978: Bangladesh struck a U.N.-brokered deal with Burma for the repatriation of refugees, under which most Rohingya were returned;

1991: More than 250,000 Rohingya refugees fled what they said was forced labor, rape and religious persecution at the hands of the Myanmar army. The army said it was trying to bring order to Rakhine;

1992 to 1997: Around 230,000 Rohingya returned to Arakan, now known as Rakhine, under another repatriation agreement;

2012: Rioting between Rohingya and Rakhine Buddhists killed more than 100 people, mostly Rohingya. Tens of thousands of people were driven into Bangladesh. Nearly 150,000 were forced into camps in Rakhine;

2016: Rohingya militant group Harakah al-Yaqin attacked border guard posts, killing nine soldiers. The army retaliated. More than 25,000 people fled Rakhine to Bangladesh, bringing accounts of killing, rape and arson. Aung San Suu Kyi's government denied the atrocities;

2017: The latest crackdown against the Muslim minority has been triggered on 25 August. In response to the anarchist attack, Myanmar's Security forces have started "clearance operations" by committing various kinds of crimes against humanity. As a result more than 650000 people have fled to Bangladesh recently.

Legal Obligation of Bangladesh regarding protection of Refugee

Bangladesh is not party to the refugee convention, 1951 and its protocol of 1967 relating to the status of refugee. Bangladesh does not have national legislation to deal with refugees. Nonetheless international law and constitutional provisions of Bangladesh confer some obligations on it to provide shelter and protection to the Rohingya refugees. Which may be temporary or as long as the threat of torture exists.

Obligation under National and Public International Law: Bangladesh is not a party of the Refugee Convention ,1951 but it has ratified a number of major international human rights instruments including UN Charter, UDHR, ICCPR, ICESCR and CAT. The basic customary international laws applicable to refugees are found in all of these human rights treaties. So vitally, the majority provisions of these instruments are applicable to all individuals in the territory of a state, irrespective of their nationality. These instruments expanded countries' obligations to provide protection towards refugees beyond the 1951 Refugee Convention framework. As per article 3 of CAT and Article 6 and 7 of ICCPR, Bangladesh has obligation to provide protection to Rohingya Muslims who are victimized by 'inhuman or degrading treatment or punishment'.

'The Constitution of People's Republic of Bangladesh has inserted that life and liberty of the individual would be protected. Applicability of it is not only for Bangladeshi citizen but also the inhabitants of it. Article 25 of the Constitution of People's Republic of Bangladesh elucidates that "the State shall base its international relations on the principles of respect for international law and this principle also enunciated in the UN Charter". The UN Charter, in its preamble, specifically refers to the reaffirmation of "faith in fundamental rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small". Accordingly in pursuance of Art 1, 55 and 62, it has given priority on the observance of human rights for all peoples of the world.

So as a party of UN Charter as well as other international legal documents, Bangladesh also has obligation to provide protection to Rohingya refugees who are the grievously persecuted by their own country.

Crisis and Challenges for Bangladesh

Bangladesh is a developing country. It has already been burdened with over population. Worldometers (2017) states that its population is equivalent to 2.18% of the total world population and population density is 1265 per Km2 (3,276 people per mi2).

Till now approximately more than 1000000 Rohingyas are staying in Bangladesh. It's a matter of great concern that previously as per report of the print and electronic media many of them are involved in subversive and militant activities in Bangladesh which is really alarming for forthcoming future. Because of recent vast exodus, Bangladesh exposed deep concern among human rights organizations, intergovernmental bodies, and civil societies. This refugee exodus would create a serious humanitarian crisis that is really challenging for socio-economic and socio-political aspects of Bangladesh. More than half of the estimated 700000 Rohingyas who have escaped Myanmar's military crackdown live in makeshift sites without proper shelter, clean drinking water and sanitation.

Qayum (2017) reports in the Washington Post that, to protect extreme humanitarian crisis enough shelter, food and water, medical assistance and toilets are needed as soon as possible but getting that many resources into refugee camp quickly is extremely challenging. Qayum (2017) also reports that, 'already as many as 14,000 children are suffering from acute malnutrition. The injured including victims of sexual assault need medical and counseling services. More than 18,000 of the new arrivals are pregnant and 150 women have given birth in Bangladesh. A lack of toilets increases the risk of deadly communicable diseases. There's just one hospital but it doesn't seem to be enough. Children and women have fallen into risk of sexual violence and trafficking.'

The law enforcing agencies of Bangladesh claim that Rohingya Muslims have been being involved with various kinds of offences likes arms smuggling, trading of yaba and drugs and underground political activities in Bangladesh.

Shyamol (2017) avows that, hopelessness of Rohingyas and for their survival they will do anything, and because of this reason anyone may easily purchase them or will be able to recruit them in the international terrorist groups also. Recently, Rapid Action Battalion (RAB) recovered 15 lakh pieces of yaba tablets and arrested 12 alleged yaba smugglers including five Myanmar citizens from outer anchorage of Chittagong port.

As per report of bdnews24 (2017), including AIDS citizen of Bangladesh especially

near Rohingya refugee camps may be contaminated by various kinds of infectious diseases. Recently two Rohingya women have been detected HIV-positive and admitted to a hospital in Chittagong for treatment.

Acharjee (2017) states that 'although Bangladesh bans marriages for Rohingya Muslim refugees, it has been observed that Rohingyas have been trying to get married with native citizens in order to obtain Bangladeshi National ID card and passports. A number of Rohingyas are staying in different countries of the Middle East and trying to obtain Bangladeshi passports to stay abroad.'

Hussain (2017) explains that the other pertinent issue is the danger of widespread environmental degradation due to the settlement of the refugees in areas close to hills and forest lands. Clearing of forest land, overexploitation of natural resources to support the livelihoods of the refugees will have serious consequences on biodiversity. Bangladesh is globally recognized as an environmentally vulnerable country and the mentioned activities will further degrade the environment and make the country more environmentally vulnerable.

Covering the whole surroundings it may be assumed that helpless, hopeless, uneducated frustrated Rohingya refugee may be a threat for the future Bangladesh if the State would fail to take following necessary steps.

Recommendations:

Emanating from what have been narrated above, the following recommendations could be made:

- As a matter of urgency, United Nations has to come forward to tackle this crisis. Under supervision of UN, it is necessary to form an independent and impartial investigation committee comprising experts on international human rights law who will make a comprehensive inquiry on all alleged violations of human rights and international humanitarian law to address the root causes, types of offences, criminal liability of Myanmar authority under international law and to provide recommending measure as per their findings;
- After completion of investigation, if it is proved that Myanmar has really committed genocide, crime against humanity or violated fundamental human rights, accused personnels should be taken under the trial of ICC or ICJ. Because this is the question of mankind and humanity and that's why it should be taken under consideration of International authority specially UN for the worth of mankind;

- International community including UN have to put pressure on Myanmar for providing safe and unhindered access of international mass media, international human rights organizations and other international investigation team or rapporteur into all over the affected area of Rakhine State;
- International community including UN security council have to look forward for a durable & sustainable solution, create significant pressure to stop or replicate these types of heinous activities in Rakhine and restore all fundamental human rights of Rohingya;
- International community has to promptly establish a roadmap and timeframe for lifting restrictions in the process of returning Rohingya's home from Bangladesh;
- Under supervision of UN, International community has to create pressure upon Myanmar government to implement the report of Kofi Annan Commission, formed by the State counselor Aung San Suu Kyi in 2016;
- To take under control and to provide psychological stress on Myanmar, international communities e.g. USA, UK, Franc, Germany or other developed countries which have huge trade deals with Myanmar may impose commercial and economic sanctions (embargo) against Myanmar;
- Right of self-determination has been recognized by some international documents e.g.- ICCPR, ICESCR, UDHR, UN Charter, Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States 1970 , Helsinki Final Act,1975, The Vienna Declaration and Program of Action 1993. So as an old ethnical community, inhabitants of a defined territory and because of gradual suppression or brutality on them implementation of the right of self-determination in Rakhine state can be a permanent solution for oppressed Rohingya Community. International community may boost up on this stand point. e.g. Separation, Sovereignty, Autonomy, Freedom or Liberty;
- Bangladesh does not have any set law regarding refugee, neither is it a party of the refugee convention, 1951 and its Protocol. So it is the right time to enact law through the parliament relating to the refugee;
- Bangladesh has to make a constructive diplomatic interaction and cooperation with international community specially with India, China, Russia, USA, UK, Franc, Germany on the specific standpoint of returning Rohingya in their own home;

- Diplomatic activities must be intensified to reduce or protect ongoing dire picture. In this perspective, Bangladesh has to convince international community relating to the dreadfulness of the crisis in this region. UNSC may play vital role for a peaceful, lawful and permanent solution in this regard otherwise it will create a serious threat to global and regional peace as well as security;
- Bangladesh should draw attention on social security, boarder security, drug and narcotic smuggling, woman and child trafficking, environmental pollution. The country should continue diplomatic dialogue with Myanmar for a sustainable return of Rohingyas;
- Temporarily, the government should take into consideration as utmost priorities about food, cloths, shelter, education, health, sanitation of refugee;
- Concerned authority of Bangladesh should ensure the existence of Rohingya refugees only within Refugee Camps and take the prolific initiatives to register all refugees as soon as possible so that it may possible to identify undoubtedly who are won citizens and who are refugees;
- Further, the govt. has to put its urgent surveillance for the protection of rights of Rohingya children and women by the constructive cooperation with the international organizations e.g. UNICEF, OXFAM, CATW, CRC, IOM, ICRC and Save the Children.

So as a party of UN Charter as well as other international legal documents, Bangladesh also has obligation to provide protection to Rohingya refugees who are the grievously persecuted by their own country.

Conclusion:

The Rohingya Muslims in Myanmar have suffered a grave and unrelenting human rights violation. Ethnic cleansing campaign has been being conducted by the Myanmar authorities e.g. security forces, police and local aggressive people since last few decades. The scale of atrocities has increased since 2016.This study has revealed strong and substantial evidences that Myanmar military authority committed gross violation of fundamental human rights and the basic principles of international humanitarian law. For that reason alleged authorities should be convicted by ICC and ICJ under various international documents.

Perpetrated atrocities in Myanmar have created a serious humanitarian crisis both in Rakhine state and in Bangladesh refugee camps. So, at this juncture international bodies as well as various charitable organizations has meaningful role to play for vanquishing the crises.

References:

Bosnia and Herzegovina v. Serbia and Montenegro (2007) or Application of the Convention on the Prevention and Punishment of the Crime of Genocide case I.C.J. 43, para. 165.

Human Rights Watch (2013). 'All you can do pray'crimes against humanity and ethnic cleansing rohingya muslims. Available at https://www.hrw.org/report/2013/04/22/all- you-can-do-pray/crimes-against-humanity-and-ethnic-cleansing-rohingya-muslims (Viewed on 10 November 2017)

Acharjee, D. (2017). Rohingyas in Middle East trying to obtain Bangladeshi MRPs. The Independent. Available at: http://www.theindependentbd.com/post/79988 (Viewed on 15 0ct 2017)

Al-Mahmood, S Z. (2016) 'Timeline: A Short History of Myanmar's Rohingya Minority'. Available at: https://blogs.wsj.com/indiarealtime/2016/12/23/timeline-a-short-history-of-myanmars-rohingya-minority/ (Viewed on 27 Oct 2017)

Tan, A.T.H. (2009). A Handbook of Terrorism and Insurgency in Southeast Asia. Edward Elgar Publishing. p. 327.

Worldometers (2017). Bangladesh Population. Available at: http://www.worldometers.info/world-population/bangladesh-population/

bdnews24.com (2017). HIV-positive Rohingya admitted to Chittagong hospital. Available at: https://bdnews24.com/bangladesh/2017/09/25/two-rohingyas-with-aids-in-chittagong-hospital. (Viewed on 12 0ct 2017)

Buchanan, F. (1799), "A Comparative Vocabulary of Some of the Languages Spoken in the Burma Empire". Asiatic Researches 5: 219–240. Viewed the reprint by SOAS Bulletin of Burma Research, Vol. 1, No. 1, Spring 2003, ISSN 1479-8484 on 8 September 2017 from https://www.soas.ac.uk/sbbr/editions/file64276.pdf

Daily Sabah (2018) 'Number of Rohingya refugees in Bangladesh surpasses 1 million' Available at: https://www.dailysabah.com/asia/2018/01/18/number-of-rohingya-refugees-in-bangladesh-surpasses-1-million. (Viewed on 14 June 2018)

UN (2008). "Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries." Yearbook of the International Law Commission, 2001, vol. II, Part Two, Available at:http://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf

Fortify Rights (2014), "Policies of Persecution: Ending Abusive State Policies Against

Rohingya Muslims in Myanmar", p.36, Available at: http://www.fortifyrights.org/downloads/Policies_of_Persecution_Feb_25_Fortify_Rig hts.pdf. (Viewed on 14 Nov 2017)

Fortify Rights (2014), 'Policies of Persecution: Ending Abusive State Policies Against Rohingya Muslims in Myanmar." pp. 19-20, 36 (Feb. 2014), http://www.fortifyrights.org/downloads/Policies_of_Persecution_Feb_25_Fortify_Rig hts.pdf. 60 Ibid

UNHRC (2016). "Report of United Nations High Commissioner for Human Rights: Situation of human rights of Rohingya Muslims and other minorities in Myanmar." p.09. Available at: http://www.globalr2p.org/media/files/hchr-report- rohingya.pdf (Viewed on 22 Jan. 2018)

Human Rights Watch (2017), World Report, 2017: Burma events of 2016, Available At: https://www.hrw.org/world-report/2017/country-chapters/burma (Viewed on 17 Oct, 2018)

Hussain, A. (2017). "Rohingya Crisis: Can Bangladesh Meet the Challenges? " Daily Sun. Available at: http://www.daily-sun.com/printversion/details/258433/(Viewed on 17 0ct 2017)

Ibrahim, A.(2017). The Rohingyas: Inside Myanmar's Hidden Genocide. Oxford University Press. pp. 24–25. Available at https://www.goodreads.com (Viewed on 7 September 2017)

Jorgic V. Germany (2007). European Court of Human Rights, available at http: //hudoc.echr.coe.int/eng. (viewed on 15 October 2017)

Leider, J.P. (2013). Rohingya: the name, the movement and the quest for identity. Myanmar Egress and the Myanmar Peace Center. PP-218,208. Available at: https://www.academia.edu/7994939/_Rohingya_The_name_the_movement_the_quest_for_identity._Yangon_2013. (Viewed on 15 October 2017)

Leider, J.P. (August 26, 2012). "Rohingya: A historical and linguistic note" (PDF). Network Myanmar.

Mclaughlin, T. (2015). "Sitting Rohingya MP in Myanmar plans to appeal election ban".Reuters. Available at: https://www.reuters.com/article/us-myanmar- politics/sitting-rohingya-mp-in-myanmar-plans-to-appeal-election-ban-idUSKCN0QT1A92 0150824 (Viewed on 18 October 2017)

Narayan, C. (16 September 2017) Rights group accuse Myanmar of 'ethnic cleansing' in Rahingyacrackdown.CNN. AvailableAt: http://edition.cnn.com/2017/09/14/asia/rohingya-amnesty- report/index.html

Shyamol, N. (2017). Rohingyas allegedly involved in crimes in Chittagong. The Asian Age. Available at: http://dailyasianage.com/news/70532/ (Viewed on 15 0ct 2017)

OHCHR (2017). "Report of OHCHR mission to Bangladesh; Interviews with Rohingyas fleeing from Myanmar since 9 October 2016." pp.29-30 Available at: https://www.ohchr.org/Documents/Countries/MM/FlashReport3Feb2017.pdf) (Viewed on 29 May 2018)

Qayum, N. (2017)."There's a massive humanitarian crisis in Bangladesh's Rohingy a refugee camps." The Washington Post. Available at: https://www.washingtonpost.com/news/monkey-cage/wp/2017/10/12/theres-a-massive-humanitarian-crisis-in-bangladeshs-rohingya-refugee-camps/?utm_term=.26dad8afc41f. (Viewed on 28 October 2017)

Radio Free Asia (2017). "Who are the Rohingya?" Available at: https://www.rfa.org/english/multimedia/rohingyaPage-04122010151733.html/RohingyaFactSheet-04132010102750.html (Viewed on 08 October 2017)

Thum, G.(2006–2007). "Ethnic Cleansing in Eastern Europe after 1945". Contemporary European History. 19 (1): PP.75–81. Available at: https://www.cambridge.org/core/journals/contemporary-european-history/article/ethnic-cleansing-in-eastern-europe-after-1945/3161C82792B0A565606D2C5DA813966C

Wikipedia (2017), "Ethnic Cleansing."Available at: https://en.wikipedia.org/wiki/ (Viewed on 15 October 2017)

Wikipedia (2017). "Rohingya people" Available at : https://en.wikipedia.org/wiki/Rohingya_people (Viewed on 6 August 2017)

Yale law schools (2015) 'Persecution of Rohingya the muslims: Is genocide occurring in Myanmar's Rakhinestate?' P.11 Available at: http://www.fortifyrights.org/downloads/Yale_Persecution_of_the_Rohingya_October 2015.pdf (Viewed on 18 Oct 2017)

Rampant Juvenile Delinquency and Ways of Emancipation: An Appraisal of Bangladesh

Mohammad Abdul Hannan *

Abstract

Delinquency stems from anomalous outlook of mind. Juvenile delinquency results from the degradation of conventional values of society. This study contemplates the authentic effectiveness of national laws and up to the mark compliance with the international provisions for promoting the dignity of juveniles and establishing justice for them. Moreover, the article points out the factors for juvenile delinquency and suggests pathways of mitigating the menace of Juvenile delinquency. There exist a few holistic sights of juvenile justice notwithstanding that an utmost endeavor is needed to stir it up. As there is a cyclic increase in juvenile crimes, adverse experiences of juveniles are to be controlled to buffer the abundance of it from the society. The article ponders over the empirical legal structures for juvenile justice and their efficacy.

Key Words: Rampant Juvenile Delinquency and Ways of Emancipation.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 151 - 166
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Lecturer, Department of Law, BGC Trust University Bangladesh.*
E-mail: hannanlawcu14@gmail.com, Cell: 01816174297

Introduction

Juveniles are the core asset of a nation. Rather it's great regret that juvenile delinquency has become a crucial phenomenon throughout the world. The high rate of juvenile delinquents is turning into a national and global threat to the socio-economic set up of a nation. Juvenile delinquency impedes severely social, cultural and economic structure of the state. The UN Convention on the Rights of the Child,1989 and other germane international instruments encourage to enhance the dignity of the children and to initiate pragmatic endeavors for ensuring the rights of the children, notwithstanding that Bangladesh is not in strong state to cope with the guidelines of the internationals instruments. Moreover, juvenile delinquents are being deprived of the social justice and they are turning into the most marginalized section of the society. The severity of juvenile delinquency is to be analyzed with great importance otherwise than nation will face devastating influences. Indeed, a child right-based approach of criminal justice system is the demand of the time. Hence, it is evident by Jeffrey M.Jenson and Matthew O.Howard that emphasizing on rehabilitation is more effective than punishment-oriented policy in controlling youth crimes.1 As the inherent dignity of juveniles are facing the threat of degradation, the state should develop a system to upgrade the vulnerable situation of juveniles with intense sincerity.

Objective of the Study

Today, the world is confronting enormous stresses. Juvenile antisocial behavior is tempting the attention grievously, as children are the most cardinal basis of a nation. This study aims to emphasize on some aspects which are conducive to the overall improvement of juvenile justice system. So the objectives of the study are being summed up in the following ways.

- To focus the status of children who come in conflict with law.
- To rummage the domestic and international instruments in favor of juveniles.
- To point out the factors behind the extreme forms of juvenile delinquency.
- To scrutinize the real situation of juvenile justice system.
- To show the ways of emancipation from the curse of juvenile delinquency.

Definition of Juvenile Delinquency

The term juvenile delinquency indicates antisocial behavior or violation of law by a juvenile. Moreover, According to 'Oxford Advance Learner's Dictionary' juvenile delinquent means a young person who is not yet adult and who is guilty of committing a crime. Article-1 of the Convention on the Rights of the Child (CRC) states that a child means every human being below the age of eighteen, unless under the law applicable to the child, majority is attained earlier.[2] The term 'delinquency' means misbehavior or wrongdoing which is especially committed by the young people. Hence, the children who are in conflict with law are also termed as juvenile delinquents. So in simpler word, juvenile delinquency implies the crimes or illegal behavior committed by the children under a particular age. Vehemently existed some juvenile delinquencies in the society are theft/larceny, vandalism, assault or battery, school disciplinary offence, alcohol offences, truancy, criminal trespass, burglary, harassment, runaways, possession of weapons, loitering and cyber crimes etc. In addition, Juvenile offences are also explained in three specific segments. Such as,

- Status Offenses that include truancy, running away, and underage drinking.
- Property Crimes which mean burglary, larceny, theft, and arson.
- Violent Crimes that imply murder, forcible rape, robbery, and aggravated assault.[3]

Background of Juvenile Justice System

Juvenile delinquency existed in the very antique period. In early Britain the juveniles were tried and convicted similar to the adults. There was no separate treatment for juveniles. In fact, United States of America played a pioneering role in the development of the very juvenile justice system. Juvenile justice is a matter that has attracted interest for many years around the globe. Prior to the nineteenth century, children were subjected to the same laws as adults. They were believed capable of both the act and intent of committing crimes and as such eligible to the same harsh punishments as adults. It is evident by Taolo Boipuso Lucas that criminal capacity and responsibility was thus not determined by age in the early years. It was only during the progressive era of the 1800s that there was a shift of thinking to appreciate young persons as deserving special care and protection because of their age. Rigorous debates and advocacy for children was placed at centre-stage in the mid 1800s and on 1 July 1899, the first juvenile court was established in Illinois (United States of America).[4]

It is further evident by Laura S. Abrams that when the juvenile justice system was fashioned in the earlier part of the US Progressive Era (1890-1920) its founders considered it to be a landmark child-saving victory. As part of the larger child-saving reforms of the era, social reformers and social workers were involved in developing a system from specialized courts to designated reform institutions to handle the often complicated cases of child delinquency.[5] Besides, it is also evident by Michael H. Langley and H. B. Drone (1973) that the doctrine of parens patriae, the principles of which have been codified in the various state juvenile codes. Since 1838, at least, this political doctrine has been used as the legal rationale for both the form and the substance of juvenile justice in the United States. Under parens patriae the state is encumbered to give care and treatment equivalent to that which should be provided by natural parents.[6]

In Britain for example the Children's Act was enacted in 1948 and later it was the Children and Young Persons Acts of 1963 and 1969.The United States had improved a strong benchmark for preventing juvenile delinquency and keeping juvenile offenders separate from adults offenders by 1974. IMPACT LAW (2017) research explains that the Juvenile Justice and Delinquency Prevention Act of 1974 established the following organs:

- The Office of Juvenile Justice and Delinquency Prevention (OJJDP)
- The Runaway Youth Program, and
- The National Institute for Juvenile Justice and Delinquency Prevention (NIJJDP). [7]

It was expanded in succeeding years to form the basis of current international instruments. They include the United Nations Standard Minimum Rules for the Administration of Juvenile Justice (1985), United Nations Guidelines for the Prevention of Juvenile Delinquency (1990), United Nations Standard Minimum Rules for Non-Custodial measures (1990), United Nations Rules for the Protection of Juveniles Deprived of their Liberty (1990), and the Convention on the Rights of the Child (1989).

Moreover, the adoption of the Convention on the Rights of the Child, 1989 is the basis of all children's rights. It is the most widely-ratified international human rights treaty . Now most of the member states of the United Nations have a distinctive court system for the juvenile. Hence, Bangladesh faced a great challenge to ensure the over-all improvement of the children justice system through a specific child-oriented law.

The evidence by Barcklay states that the Government of Bangladesh passed the Children Act 2013 on the basis of the CRC that Bangladesh ratified in 1990. However, in Bangladesh, the Children Act 2013 is a positive step and it is a great milestone for the protection of the rights of the child in all spheres of life. Besides, other laws such as the Penal Code-1860, the Code of Criminal Procedure-1898, the Suppression of Violence against Women and Children Act-2000 also contain provisions regarding children in conflict with the law .In addition, there are three specialized institutions in Bangladesh for the detention of child offenders, which have been renamed as the Child Development Centers among them, two centers for boys are located in Tongi and Jessore and the girls' centre is in Konabari.[8]

Legal Frameworks Regarding Juvenile Justice in Bangladesh

It is a matter of regret that there no comprehensive legal framework for juvenile justice system in Bangladesh , notwithstanding that there are some laws which contain provisions regarding the children in conflict with law. Some remarkable aspects of those laws have been narrated below:

- The Constitution of the People's Republic of Bangladesh: In the Part-III of the constitution which narrates the fundamental rights of citizens , there are a few protections for the children as citizens. Such as, the rights to life, personal liberty and equal protection of law. Moreover, protection against arbitrary arrest and right to speedy and fair trial as ensured by Articles 31,32 and 35. In addition to this, Article 28(4) contains particular provision providing special favor to the women and children or other backward sections of society based on the principle of intelligible differentia and reasonable classification of the citizens.
- The Penal Code,1860: The Penal Code,1860 narrates the provision as to the exemption from criminal liability of a child in section 82 and in section 83. Section 82 states "Nothing is an offence which is done by a child under nine years of age" and according to section 83, "Nothing is an offence which is done by a child above nine years of age and under twelve, who has not attained sufficient maturity of understanding to judge of the nature and consequence of his conduct on that occasion."
- The Code of Criminal Procedure,1898: Section 29B of the Code of Criminal Procedure,1898 states- "Any offence, other than one punishable with death or transportation for life, committed by any person who at the date when he appears or is brought before the Court is under the age of fifteen years, may be tried by Chief Judicial Magistrate or the Chief Metropolitan Magistrate, or by any

Magistrate specially empowered by the Government to exercise the powers conferred by or under any law providing for the custody, trial or punishment of youthful offenders, by any Magistrate empowered by or under such law to exercise all or any of the powers conferred thereby."

- The Bengal Jail Code: The Bengal Jail Code and Prisons Act of 1894 provides separation of children from adults in jails.
- The Vagrancy Act: The evidence is provided by Md. Harun-or-Rhashid that the arrest of children under the Vagrancy Act of 1943 appears to be arbitrary and the threat of its use to extort bribes from children has become an instrument in the hands of police to keep urban areas free of undesirable elements and to extract financial considerations.9
- The Children Act, 2013: Now the Juvenile Justice system is governed by the newly enacted law named as The Children Act 2013 widely known as Shisu Ain 2013.Justice Imman Ali embellishes the remarkable aspects of The Children Act, 2013 in a lucid manner. Such as,
  - In spite of there being provision for children in the Children Act 1974, this new legislation provides rules for Probation Officers' appointment, responsibilities and duties regarding children elaborately. For example, the Probation Officer must assist both the police and the child when a child is brought to the police station.
  - There is also provision regarding the duties of the Children Welfare Board. The Children Welfare Board should monitor, review and assess the roles of institutions where children are deprived of their liberty, including providing guidance for rehabilitation and reintegration of children in conflict with the law.
  - A Child Affairs Police Officer (CAPO) is appointed for maintaining separate registers for cases involving children, informing Probation Officers of cases involving children, informing a child's parents or guardians, providing support for the child, assessing their physical health needs, ensuring a child's age is determined correctly, and taking diversionary measures and assessing the opportunity for bail.
  - At least one 'Children's Court' be established in each district headquarter and metropolitan area, which has the exclusive jurisdiction to deal with children in conflict or contact with the law. This is unique addition of the new Act.

Child-friendly procedures, such as requiring lawyers, police or officials not to wear any professional or official uniform, are also included.

- In case of bail it is incorporated under the new Children Act that if the child is not diverted from the criminal justice system, the Court can release the child on bail with or without surety, whether or not the offence for which they are accused is bailable or non-bailable.
- The new Act of 2013 permits diversionary measures to be used for children in conflict with the law. Children may be diverted from the formal criminal justice system at any time after arrest and throughout the trial process, and are instead assigned to Probation Officers for monitoring. It has also developed Alternative Dispute Resolution (ADR) in cases of less serious offences.
- Child Development Centre (CDC) is the correctional alternatives developed by this law. There are also certain circumstances where the Court, or the Government, may release a child from detention, for example, following a recommendation from the CDC.
- The minimum age of criminal responsibility continues to be 9 years of age, which is below the minimum age of 12 years or higher recommended by the UNCRC.
- There must be legal representation under the Children Act 2013, on behalf of a child in contact or conflict with the law. The Act incorporates provision of legal aid to children.
- If any confidential matter is disclosed by any person, s/he will be punished by the Act, 2013.
- The Children Act, 2013 is enacted for protecting the rights of the children conclusively. So, effective implementation of the Act has become a challenge. There must be rules to apply the concepts developed by the law. To make the Act effective the professionals relates to the children justice system should be trained properly.[10]

International Legal instruments Regarding the 'Children in Conflict with Law'

There are some international legal instruments which deal with the children in conflict with law. In fact, the national courts should draw upon the principles incorporated in the international instruments in case the national laws are not clear enough. Some remarkable international instruments dealing with juvenile delinquents are being stated here:

- Convention on the Rights of the Child 1989 : The CRC is greatly ratified Convention. It consists of 54 articles. Every article contains a different type of rights. All rights on CRC belong to the following themes as 'The Children's Rights Alliance' described.
  - Survival rights which include the child's right to life and those rights are essential for existence, such as nutrition, shelter, an adequate living standard, and access to medical services.
  - Development rights that include the right to education, play, leisure, cultural activities, access to information, and freedom of thought, conscience and religion.
  - Protection rights which explains children are protected against all forms of abuse, neglect and exploitation, including special care for refugee children; safeguards for children in the criminal justice system.
  - Participation rights that encourages children's freedom to express opinions, to have a say in matters affecting their own lives, to join associations and to assemble peacefully. [11]
- Standard Minimum Rules for the Treatment of Prisoners 1955: Here incorporated some non-binding rules that set out the principles to provide treatment with dignity to those who are deprived of their liberty.
- Code of Conduct for Law Enforcement Officials 1979 : It narrates the rules for law enforcement officials to treat human being in a humane manner and respect the human rights of those who come into contact with them.
- UN Standard Minimum Rules for the Administration of Juvenile Justice 1985 ('Beijing Rules') : Penal Reform International (PRI-2013) narrates that The Beijing Rules are a set of principles and guidelines for the proper administration of juvenile justice and includes guidelines and commentary on justice for children issues such as juvenile courts, the age of criminal responsibility, prosecution of juveniles, sentencing and standards for juveniles if incarcerated. 12
- UN Guidelines for the Prevention of Juvenile Delinquency 1990 (Riyadh Guidelines): This includes some influential guidelines for the very prevention of juvenile delinquency. Moreover, it promotes the role that various sectors of society such as the family, community, media, and education system have on the prevention of young people at risk of juvenile delinquency.

- UN Rules for the Protection of Juveniles Deprived of their Liberty 1990 (Havana Rules): Set of principles that apply to every juvenile deprived of their liberty in any facility or institution and promotes their development and well-being. Sets out standards for material conditions of detention, protection of juveniles whilst in detention, and educational, vocational and work programmes, among other things.
- UN Standard Minimum Rules for Non-custodial Measures 1990 (Tokyo Rules):It states rules on how to administer non-custodial sanctions and the safeguards that need to be in place for those sentenced to non custodial measures.
- UN Rules for the Treatment of Women Prisoners and Non-custodial Measures for Women Offenders 2010 (Bangkok Rules):It determines the Standard Minimum Rules for the Treatment of Prisoners to ensure women's rights and needs are adequately met, including the specific needs of girls in detention.
- Binding force of the International Instruments :

  Here, are some provisions to show the binding force of international instruments to protect the rights of the children in conflict with law: In this regard Justice M Imman Ali explains the following observations:

  - Enforceable if the provisions are incorporated into the domestic law.
  - If domestic law is inconsistent with international instrument, then court must respect national law, but shall draw attention of the law makers to such inconsistencies.
  - In a recent decision, State v. Metropolitan Police Commissioner, 60 DLR 660, the applicability by our courts of international instruments was considered. Taking support from a decision of the Indian Supreme Court, which in turn referred to an Australian decision, we (the HCD) held that as a Party to the UNCRC, Bangladesh was under an obligation to take steps for implementing the provisions thereof.
  - It was also observed that, in the absence of the beneficial provisions in our national law, we should implement the aims and goals of the UNCRC.[13]

Core Reasons Behind the Juvenile Delinquency

Several studies contemplates that no specific reasons are responsible for juvenile delinquency. Rather, there are a great variety of causes behind the rampant increment of juvenile offending. Some cardinal factors which make the juveniles inclined to delinquent activities are analyzed below:

- A society which is inflicted with poverty is supportive to the rise of juvenile delinquency. Because as a human being, a child is brought up based on the status of the society.
- If the tie of a family is disintegrated, the life style of juveniles is severely hampered.
- Peaceful socio-economic condition is prerequisite to rear the children in proper guidelines. Therefore, if mental health condition of a child is in chaotic condition, then he will tempt to crimes perilously.
- As a child is not competent to get away with the variable circumstances, that individual inability leads to the growth of juvenile delinquency.
- Anti-social behavior arises from variability of culture. The intrusion of varied exotic cultures influences greatly to the menace of juvenile offending.
- Intense Influence is being emerged by the globalization that tend mass people to the urbanization. It transpires widely to delinquency. Though we are not fully industrialized, we are venturing to ameliorate. Consequently, we are in mixed condition. This conflict also creates greater vulnerability to delinquent behavior.
- Through migration there stem chaotic situation of different ethnic subcultures which result in cultural conflict. These differences of values belch criminal behavior particularly to the children.
- World Youth Report includes that young people who watch violence tend to behave more aggressively or violently, particularly when provoked. Television causes a shift in the system of human values and indirectly leads children to view violence as a desirable and even courageous way of reestablishing justice. The American Psychological Association has reviewed the evidence and has concluded that television violence accounts for about 10 percent of aggressive behavior among children. [14]
- Peer group become evident as we are not out of society. World Youth Report shows that juvenile gang members consider their group a family. For adolescents constantly facing violence, belonging to a gang can provide protection within the neighborhood. In some areas those who are not involved in gangs continually face the threat of assault, oppression or harassment on the street or at school. [15]
- Poor parenting has the capacity to have effect on children's mind. And so harsh

and inconsistent parenting keep grievous impression to the creation of juvenile delinquents.[16]

- Substance abuse has also become one of the reasons behind the juvenile delinquency. Mike Broemmel opines that Children in elementary schools are found to be using powerful illegal drugs. Additionally, juveniles are far more likely to engage in destructive, harmful and illegal activities when using drugs and alcohol.[17]
- Identification of potential risk factors also induce a juvenile to inappropriate and even illegal conduct and behavior and so early interdiction can occur.[18]
- The delinquent attitudes of juvenile can be arised from the scarcity of proper family control.
- Parental criminality vehemently spurs the juveniles to the delinquent behavior.[19]
- Victimization at an early age physically or sexually is the ultimate degradation of juveniles' status. This extremely stimulates a child to the anti-social and criminal activities.
- It's undoubtedly true fact that parents are the authentic contributor to the over-all attitudes of children. But the unexpected demise of parents in the early age perilously impedes the growth of children which tempt the juveniles to the criminal world.
- Decent manners and etiquettes of family members have an influence on the outlook of children. Therefore, maltreatment to children results in delinquency.
- Perfect involvement with local community and school encourages the children to ameliorate the behavior that amicable to the society. If there remains lacuna of this attachment, a juvenile is allured to the social offending.
- It is evident by Howard N. Snyder that Risk factors for delinquent behavior include individual characteristics such as alienation, lack of bonding with society, and substance abuse; family factors like parental conflict and child abuse; early academic failure; peer group influences; and community factors such as economic deprivation and high rates of crime and drug abuse.[20]
- It is further evident by Jeffrey M. Jenson and Matthew O. Howard (1998) that broad demographic, economic, and sociopolitical developments codetermine rates of juvenile offending.[21]

Recommendations to Mitigate Juvenile Delinquency

The very study highly points out that there remain abundant local and international instruments for ameliorating the juvenile justice system. Nonetheless, some pragmatic measures are supposed to be enhanced for mitigating menace of juvenile delinquency. The following steps are being recommended to establish a juvenile friendly justice system and to prevent juvenile offending.

- Intervention of parents in proper time is essential to protect the children from crimes. Early intervening not only saves the life of juveniles from being spoilt but also reduces the burden of crime on society.
- The restorative justice model which includes both offender and victim in resolution should be initiated to mitigate the offences of juvenile.
- The interaction of the family should be more conducive and amicable to juveniles. So, every parents should love their children, and keep proper control over their immature children.
- Making emphasis on the improvement of non-custodial correctional alternatives for ensuring justice for children. The study by Jeffrey Fagan suggests that few modern criminologists or correctional administrators maintain the illusion that incarceration has either broad therapeutic benefits or a strong deterrent effect.22
- Educational programs should be developed to reduce juvenile delinquency. Teaching of basic social values and Government should make education accessible to the youth.
- The involvement with various recreational activities should be widened. This includes sports, dancing, music, rock climbing, drama, karate, bowling, art, and other activities.
- Research demonstrated that positive youth development assists the youth greatly in encountering their demands.
- Conflict resolution and violence prevention curriculums helps a lot to prevent juvenile delinquency.
- Peer group and community based interventions is conducive to the reduction of juvenile offences.
- School based interventions play an important role in the prevention, treatment, and control of juvenile crime.

- Parents should keep attitude which will be a pro-social role model for children.
- Consistent parental support and supervision and Strong bonds to parents keeps outstanding contribution in reducing juvenile offending.
- Strong moral guidance and attitude from parents regarding anti-social and criminal behavior are important for controlling child's wrongdoing from society.
- Strong bonds to the teacher and drug free neighborhood should be ensured.
- Independent child rights commission will be more conducive to the children justice systems.
- Management of Counseling for corrections and rehabilitations of juveniles should be enriched.
- A child -friendly juvenile justice atmosphere should be developed in Bangladesh in conformity with the CRC and other international standards.
- Knowledge of adolescent development should be disseminated with special significance.

Conclusion

Juveniles are the fundamental basis of a nation. Therefore, they should have secured atmosphere to survive. Nevertheless, the juveniles are being endangered and inflicted by varied socio-economic factors of the state. The congenial situation should be ensured for juveniles both nationally and internationally. The Children Act,2013 should be treated in more pragmatic way in conformity with the Convention on the Rights of the Child (CRC), 1989. To implement juvenile friendly system there must be restorative justice approaches, and the community based diversion programs should be expanded. Similarly, research demonstrates that 'The Riyadh Guidelines, 1990' is the most influential instrument of United Nations for the prevention of juvenile delinquency. So, we are supposed to establish a comprehensive juvenile justice system concurring with provisions of The Riyadh Guidelines,1990 which will contribute greatly to emancipate us from the curse of juvenile delinquency. In fact, there should have more studies by showing ways of emancipations from juvenile delinquency.

References

01. Jeffrey M. Jenson and Matthew O. Howard (1998, July), Youth Crime, Public Policy, and Practice in the Juvenile Justice System: Recent Trends and Needed Reforms, Oxford Journals, Oxford University Press. Social Work, Vol. 43, No. 4 pp.331

02. Convention on the Rights of the Child,1989. (1989,November 20), Article No-01. Resolution No-44/25, Adopted and opened for signature, ratification and accession by General Assembly.

03. Cholee Clay. (2017, May 5). Types of Juvenile Delinquency Crime. Retrieved from https://soapboxie.com/government/Juvenile-Delinquency-Crimes.

04. Taolo Boipuso Lucas (2010), Juvenile Justice System and Social Work in Botswana: An Appraisal, Botswana Society Journal in collaborating with JSTOR, Botswana Notes and Records, Vol. 42 (2010), pp. 46

05. Laura S. Abrams (2013, December). Juvenile Justice at a Crossroads: Science, Evidence, and Twenty-First Century Reform , The University of Chicago Press Journals, Social Service Review, Vol. 87, No. 4 (December 2013), pp. 727

06. Michael H. Langley and H. B. Drone (1973, December), Juvenile Justice: Reneging on a Sociolegal Obligation, The University of Chicago Press Journals in Collaborating with JSTOR. Social Service Review, Vol. 47, No. 4 pp. 563

07. IMPACT LAW (Ford & Associates). (2017), History of Juvenile Justice System.P.03 Retrieved from https://www.impactlaw.com/criminal-law/juvenile/system/history

08. UKessays of Barclay. (2015, March 23), Child rights based juvenile justice system in Bangladesh.

    Retrieved from www.ukessays.com/essays/criminology/child-rights-based-juvenile-justice-system-in-bangladesh-criminology-essay.php

09. Md.Harun-or-Rashid. (2015, July 13), Juvenile justice system in Bangladesh Retrieved from http://www.observerbd.com/2015/07/13/99553.php

10. Justice Imman Ali, (2014), The Children Act;2013: A Commentary. Publication (Bangladesh Legal Aid and Services Trust (BLAST) and Penal Reform International (PRI)
    Retrieved from https://www.blast.org.bd/content/publications/The-Children-Act%202013.pdf

11. The Children's Rights Alliance, (1992), What Does the Convention on the Rights of the Child Say?.
Retrieved from http://childrensrights.ie/childrens-rights-ireland/un-convention-rights-child

12. Penal Reform International (PRI, 2013), Protecting children's rights in criminal justice systems.P. 11. Retrieved from file:///E:/International%20legal%20frameworks%20for%20the%20children%20in%20conflict%20with%20law/Childrens-rights-training-manual-FinalHR.pdf

13. Justice M Imman Ali. (2014, September 6), Justice for Children and The Law: The Past, Present and The Future. Retrieved from file:///E:/Juvenile%20delinquency%20draft%20(own)/Child%20Act%202013/06-09-2014-jfc-and-law.pdf

14. World Youth Report. (2003),Juvenile Delinquency, World Youth Report, 2003. P. 194 Retrieved From -file:///E:/Juvenile%20delinquency%20draft%20(own)/Core%20reasons%20behind%20juvenile%20delinquency/ch07.pdf

15. Ibid p.196

16. Penal Reform International (PRI, 2013), Protecting children's rights in criminal justice systems.P. 21. Retrieved from file:///E:/International%20legal%20frameworks%20for%20the%20children%20in%20conflict%20with%20law/Childrens-rights-training-manual-FinalHR.pdf

17. Mike Broemmel, (2017, May 31), What Are the Causes of Juvenile Delinquency? Retrieved from https://legalbeagle.com/5103746-causes-juvenile-delinquency.html

18. Ibid. p.08

19. George E.Higgings. (2009, June 17), Parental criminality and low self-control: an examination of delinquency, a critical journal of crime, law and society. Volume 22, 2009 - Issue 2,P.141
Retrieved from http://www.tandfonline.com/doi/abs/10.1080/14786010902975416

20. Howard N. Snyder. (1996, Winter), The Juvenile Court and Delinquency Cases, Princeton University Journal. The Future of Children, Vol. 6, No. 3, pp. 60

21. Jeffrey M. Jenson and Matthew O. Howard (1998, July), Youth Crime, Public Policy, and Practice in the Juvenile Justice System: Recent Trends and Needed Reforms, Oxford Journals, Oxford University Press. Social Work, Vol. 43, No. 4 pp. 331

22. Jeffrey Fagan, (2008, Fall), Juvenile Crime and Criminal Justice: Resolving Border Disputes , Princeton University Journal. The Future of Children, Vol. 18, No. 2, pp. 101

Effect of Ethical Behavior on Organizational Performance: An Evaluation with Organizational Commitment and Job Satisfaction in Bangladesh

Sanjida Nusrat Lovely *
Amanul Hoque **

Abstract

Recently, ethical behavior is a very important concept in every spare of business organizations and it's playing more critical role in banking sector of Bangladesh. Organizations are faced with numerous challenges related to unethical business practices. Hence, the aim of this study is to examine the impact of ethical behavior on organizational performance of employees in banking sector of Bangladesh. Ethical behavior is examined with the employee's organizational commitment and level of job satisfaction.For this study, data were collected from 102 employees of different public and private banks through structured questionnaire.To justify the relationship among the variables, correlation and regression analysis are used. Findings revealed that ethical behavior has significant positive effects on the performance of employees and ethical behavior has a positive correlation with the organizational commitment and job satisfaction of employees. Recommendations were offered for the decision makers in business organization by which they can improve the practices of employee's ethical behavior in organization. Limitations and directions for future research are also suggested.

Key Words: Ethics, Ethical behavior, Organizational performance, Organizational Commitment, Job satisfaction.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 167 - 186
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Lecturer (HRM), Faculty of Business Administration, BGC Trust University Bangladesh*
*** Lecturer (Mathematics), Faculty of Business Administration, BGC Trust University Bangladesh*

1. Introduction

Ethical behavior has been a cause of concern in many fields of human activities since very ancient time. The practices of ethical behavior in business organizations are continuously developed. For the success of business organization ethical behavior is very important.Without ethics no employee can work properly and survive in the long turn in any organization. But, practices of ethics in Bangladesh are not satisfactory at all levels of organization. Unethical and illegal activities in business organizations are continuously increasing in our country. In public sector organizations, employees are not concerned about their ethics in behavior. The scenario of private sector is also not satisfactory. So, to protect our business organizations, business leaders should behave and operate the business in an ethical way which will increase the performance level of the employees and in organizations.

As human beings, people must have to behave in an ethical way. People need to know that, what he or she says is right or wrong. Our country is now a developing country. To become a developed country, economic development is very essential. For developing the economic conditions, the contributions of individual organization are very much significant. Banking organizations is playing a vital role in moving forward the economic conditions of Bangladesh. The success or failure of an organization will be directly affected the economic situation of a country. To be a successful organization, the behavior of individual worker is very important. If all the employees behave in an ethical way, the performance of organizations will be positive, which will also increase the employee's organizational commitment and job satisfaction.

Earlier it was said that "business of business is business". Now the slogan has taken the form "the business of business is ethical business". Applying ethics in business makes good sense because it induces others to follow ethics in their behavior. Ethics can help the society for development by offering qualitative products and services, enhancing incomes and standard of living, providing jobs, paying taxes to the government and being the facilitator for economic development of a country. Success of an organization in making profit and enhancing public esteem depends on practicing ethical behavior in their daily activities. Many empirical studies have shown that companies that follow ethical practice are able to double their profits and show increased market capitalization compared to companies that do not adhere to ethics (e.g. John R. Boatright, 2000, Roger Bradburn, 2001, & J. H. Kaler, 1994).

This study will encourage the employees of an organization to behave in an ethical way. Competition will be created among the organizations of our country to practice ethical behavior in daily activities. Customers will be attracted to the firm's products, thereby boosting sales and profits when traders practice their ethics in business activities. Employees of the organization want to stay with the business, reduce labor turnover and therefore increase productivity. Investors will be encouraged and keep the company's share prices high, thereby protecting the business from takeover. This study will assist to create a better image of an organization.

Major objective of the study is to see whether ethical behaviors of employees have an impact on organizational performance in banking sector of Bangladesh or not.

1.1 Statement of problem

In current days, practice of ethics in behavior is a burning issue. A low level of ethical behavior in business sector is a part of wider socio-economic and political problems faced by many countries like Bangladesh.

We are aware that, behavioral ethics in organizations are becoming increasingly more complex, involving issues such as societal expectations, fair competition, legal protection and rights, and social responsibilities (Koh and Boo, 2001). They also have potential consequences on more and more parties, including customers, employees, competitors and the general public (Vitell and Davis, 1990).

Many researchers have attempted to clarify the research on why individual differences occur in moral judgment. Some researchers have suggested that either individual characteristics (Trevino, 1986) or social networks (Brass, Butterfield, & Skaggs, 1998) may be able to explain why there are differences in how a person reacts to a moral dilemma. Other researchers have examined the circumstances surrounding each dilemma as an explanation for ethical behavior.

As Bangladesh is an economy in transition, the evolutionary process of transforming its business ethical values, norms and moralities has greatly hampered its organizational culture (Hoque, Khan & Mowla, 2013) and development. Business organizations are not yet fully implementing international standards or codes of ethics, and though that can contribute to the organizational ethics in Bangladesh. Reports of scandals, questionable business and political behavior in many organizations are extremely increasing their frequency. Unethical behavior is an issue of concern across both organizations and individuals in terms of the people who engage in such practices and those who are negatively impacted by the practices.

In dynamic and complex organization life uncertainty is inevitable. Ethical issues are always present in the uncertain conditions because of conflict of interest among employees, managers, various stakeholders, interest groups and unclear laws. So, for improving the performance of an organization, the ethical behavior of employee's is very emerging issue and managers need to attempt on it.

1.2 Objectives of the study

The purpose of this study is to investigate the relationship between ethical behavior and organizational performance of employee's, particularly in the context of banking sector in Bangladesh. Some scholars have shown a positive relation between ethical behavior and organizational performance (e.g Baker, Hunt &Andrews 2006, Kott.2012, Joseph 2010, Thomas 2013,Saeed,Shakeel&Lodhi2013). But, it's not clear that to what degree or to what extent it is positive. So, this paper will try to find out a clear relationship between those terms. Ethical behavior is also evaluated with the employee's organizational commitment and level of job satisfaction.

More specifically the objectives of the study are as follows:

1. Trace out the degree of ethical behavior of Bangladeshi employees to their organization specially, in banking sector.
2. Interpreting ethical behavior as the best indicator of organizational performance in comparison with the other most frequently used predictor such as organizational commitment and job satisfaction.
3. Find out the relationship between ethical behavior and organizational performance.
4. Find out the relationship between ethical behavior and organizational commitment, and between ethical behavior and job satisfaction.

1.3 Rationale of the study

In recent years, the issue of ethics in behavior has gained increased attention. Ethics has an immense impact on the brands and reputations of an organization as well as on customer trust and investor confidence. But there is very little research that has examined on ethical issues in the newly emerging economy of Bangladesh. Specially, in banking sector organizations.

Ethics in banking sector of Bangladesh is of supreme importance for the development of economy and the society. Ethics in banking must be firmly

anchored on four pillars. First, banks must comply with all laws, rules and regulations that are usually framed in any country to ensure soundness of operations and to enhance confidence of the society. Second, banks must ensure fair and equitable treatment to all stakeholders. The interests of various stakeholders such as shareholders, depositors, borrowers and employees do not necessarily coincide. Third, the banks must ensure full truthful and transparent disclosure of their financial health. Fourth, banks must behave as socially responsible corporate citizens. (Mirza and Islam 2011). So, for the success of an organization, the practices of ethical behavior are very much important for all levels of people.

In our country, the practice of unethical behavior in business sector is increasing day by day. This will result the declining of performance level in the organization and total economic condition of the country. It also has drawn a negative image in the whole world. So, to protect our business organizations, business leaders should behave and operate the business in an ethical way this will increase the performance of an organization. This paper will try to find out a clear and numerical relation between those terms.

1.4 Research Questions

- How do ethical behaviors affect the performance of organization in banking sector of Bangladesh?
- How can ethical behavior be related to an employee's organizational commitment and job satisfaction in banking sector of Bangladesh?
- What are the factors of ethics that influence an employee's ethical behavior?
- What recommendations can be provided to the business leaders?

1.5 Research Hypothesis

From above discussion we can conclude that employee's ethical behavior is positively related to the organizational performance of individuals which also assist to motivate the employee's organizational commitment and job satisfaction. So we can test the hypothesis as:

H1: Ethical behavior is positively related to the organizational performance of bank employees in Bangladesh.

Hypothesis 1

Ethical behavior ⟶ Organizational performance

H2: There is a positive relationship between ethical behavior and organizational commitment.

Hypothesis 2

Ethical behavior ⟶ Organizational commitment

H3: There is a positive relationship between ethical behavior and job satisfaction.

Hypothesis 3

Ethical behavior ⟶ Job satisfaction

2. Literature Review

2.1 Ethics

Merriam Webster (2014) defines ethics as "rules of behavior based on ideas about what is morally good and bad." People have varying concepts of what is considered right or wrong, or good and bad. For this reason ethics becomes difficult to define and comply with (De Cremer de Bettignies, 2013). Oates and Dalmau (2013) define ethics as "the body of knowledge that deals with the study of universal principles that determine right from wrong". Mishra and Sharma (2010) depicted about the ethical organization and employees. They find that values, ethics and moral principles of an organization should be communicated in a system of code of ethics to the employees.

Ethics can be defined as the art and discipline of applying principles and frameworks to analyze and resolve complex moral dilemmas, Rossy (2011). According to Trevino (2001) ethics are moral principles that explain what is right or wrong, good or bad and what is appropriate or inappropriate in various settings. Candy (2005) defines ethics as the system of rules that govern the ordering of values. Miner (1998) also defines ethics as a philosophy of human conduct; reflecting prevailing values especially those of moral nature. To sum-up the above definitions, ethics can be defined as standards of morality that guides individuals and organizations in following certain norms of conduct when dealing with each other. Ethics involves some hard features, like duties and rights (most of them legal), that are mandatory for all and soft components, like values, aspirations or best practices that are desirable but not compulsory and can vary from one organization to another.

2.2 Ethical behavior

Ethical behavior is characterized by honesty, fairness and equity in interpersonal, professional and academic relationship and it respects the dignity, diversity and the right of individual and groups of people, Legan (2000). Therefore, for an organization to move forward in the aspect of performance, it is however important for such an organization to have a good understanding of ethics and also take it seriously as this can undermine the competitive strength of the organization and the society at large.

According to Baker, Hunt and Andrews (2006), higher levels of ethical behavior are positively associated with more organizational citizenship behaviors which are desired by the organization and also support to improve the performance of an organization. They also provide that, employees those have ethical values are more committed to the organization which will reduce the turnover rate of the organization. Ethical behaviors may be associated with a number of positive outcomes such as increased satisfaction, enhanced corporate reputation and organizational citizenship behaviors. Geeta, Pooja and Mishra (2016) predicted about the ethical behavior in organizations and find out that ethical behavior is dependent on various factors and variables which influence ethical behavior of employees. In their study, these variables are divided into individual factors, organizational factors and external factors. Variables under these factors are locus of control, achievement orientation, Machiavellianism as individual variable. Ethics training, code of ethics and rewarding system are organizational variables. Competition, influence of stakeholders and regulation system are external variables. From the review of their study, it is clear that, all the variables are related to each other, to come to the stage of ethical behavior. Not only one factor or variable is responsible for ethical behavior, but also all factors and variables are responsible in influencing and promoting ethical behavior.

Saba, Fatima, Ahmad and Atif (2015), try to examine the antecedents of individual's ethical behavior within an organization and find out their positive relationship with the corporate ethical values, organizational justice and organizational citizenship behavior.

2.3 Organizational Performance

"Performance is the key multi-character factor intended to attain outcomes which has a major connection with planned objectives of the organization" Mwita (2000).This comprises the actual output or results of an organization as measured

against its intended outputs (or goals and objectives). Employee performance is the vital element of any organization and the most important factor for the success of the organization and its performance. According to Richard (2009) organizational performance encompasses three specific areas of firm outcomes. These include financial performances (profits, return on assets and return on investment), Product market performance (sales, market share) and shareholder return (total shareholder return, economic value added). Generally, organizational performance involves identifying outcomes that it wants to achieve, creating plans to achieve those outcomes, carrying out those plans, and determining whether the outcomes were achieved. It is true that most of the organizations are dependent on its employees, but one or two employee cannot change the organization's destiny. The organization's performance is the shared and combined endeavor of all of its employees. Joseph (2010) studied the relationship between ethical behavior and organizational performance and found that ethical behavior has effects on the performance of an organization and that good ethical behavior has a positive correlation with organizational performance.

2.4 Organizational Commitment

Organizational commitment refers to the level of an individual's identification with and involvement in his or her organization (Mowday, Porter, & Steers, 1982). Organizational commitment consists of affective, normative, and continuance commitment (Allen & Meyer, 1993). Affective Commitment reflects commitment based on emotional ties the employees develop with the organization primarily via positive work experiences. Normative Commitment reflects commitment based on perceived obligation towards the organization. Continuance Commitment reflects commitment based on the perceived costs, both economic and social, of leaving the organization.

Organizations often try to foster commitment with their employees to achieve stability and reduce costly turnover. It is commonly believed that committed employees will work harder and be more likely to "go the extra mile" to achieve organizational objectives. Research has consistently demonstrated that commitment does indeed contribute to a reduction in turnover (Tett & Meyer, 1993; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Meyer and Herscovitch (2001) propose that 'commitment is a force that binds an individual to a course of action of relevance to one or more targets'.

2.5 Job satisfaction

Job satisfaction is a positive feeling about an employee's job. Padmanabhan (2005) summarizes the concept of job satisfaction as follows: an individual's overall job satisfaction is the overall feeling one gets from satisfaction with different aspects of the job. According to Moorman (1993) job satisfaction is a combination of cognitive and affective contentment of an employee. Affective satisfaction, which is founded on an overall positive emotional assessment of the employee's job, focuses on their mood when working, i.e. whether the job induces a good mood and positive feeling when working. In contrast, cognitive satisfaction is the fulfillment an employee gets from a more logical and rational appraisal such as the job conditions, opportunities or outcomes. Hence, it describes the job and not the feelings.Koh and Boo (2001) said that the ethics of organization and job satisfaction can be explained by the organizational justice theory and cognitive dissonance theory. The concept of organizational justice is central to understanding a wide range of human attitudes and behaviors in organizations. According to the cognitive dissonance theory, first proposed by Festinger in 1942, individuals strive to minimize dissonance in their environment.

3. Research Methodology

This overall study is about the effect of ethical behavior on the performance of employees in banking sector of Bangladesh and also evaluates the relationship to employee's organizational commitment and job satisfaction. This is a cross sectional study. Data have been collected at a point in time. The study is quantitative in nature. Questionnaire is used for the collection of data in which 5 point Likert scale is followed. For analyzing the data SPSS-23 is applied.

3.1 Research Design

The research is conducted to examine the relationship between ethical behavior and employee's organizational performance. Each variable has an important link with other variables. Organizational commitment and job satisfaction are also related to the employee's ethical behavior. To find out their impact the research is done, so on this basis we can say that the research is exploratory.

3.2 Selection of sample

For this research work, the respondents were those, who have been serving in different banking organizations in Chittagong city of Bangladesh and who have sufficient qualification, knowledge and experience in their fields. Convenience

sampling method is applied for this study. The reason for choosing this sampling method is the time constraint. The sample size of 102 respondents is selected for conducting the research, including both male and female providing their services in a bank. The data are collected from the middle and top level management depending on their knowledge and work experience.Top level management board act as a role model to all employees of an organization. Employees are motivated by observing the ethical behavior of their managers. The lower level employees are also motivated by the ethical behavior of their supervisors and the supervisors are middle level employees of an organization. So, the response of top level and middle level management are very much important for focusing the overall practices of ethical behavior in a banking organization.

3.3 Instruments of the study

For measuring the ethical behavior of employee's and their performance in a bank, different variables are used in this study. The research instrument used in this research is self-administered questionnaire, meaning respondents read and understand the questions and complete the survey on his or her personal values. Questionnaires are supplied to the respondent for collecting data. The sources of the variables are stated below:

3.3.1 Ethical behavior

To measure the ethical behavior of employee's in an organization, Trevino et at., (1986) twenty items scale is adopted for this study. Sample variables are: "Ethical behavior is important for success in an organization, It is important to follow strictly the organization's rules and procedures, People of integrity are rewarded in this organization. The code of conduct is widely distributed throughout the organization, and Each person in this organization decides for themselves what is right and wrong" etc.

3.3.2 Organizational performance

For measuring the organizational performance of employee's, Tsui et al., (1997) eleven-item scale is used.Sample items are "The employee's efficiency is much higher than average, Employee's standards of work quality are higher than the formal standards for this job, Employee strives for higher quality work than required" etc. The mean score of job performance is obtained by totalling the job performance item scores, and dividing them by the number of items, in order to obtain the job performance mean score.

3.3.3 Job satisfaction

For measuring the Job satisfaction of the respondents, an eleven-item scale developed by Ather and Nimalathasan (2006) is used. Sample items are "My salary is the best compared with other organization,there are many chances to get promotion in my career, and overall I am satisfied" etc.

3.3.4 Organizational commitment

To measure the organizational commitment of the executives, eighteen-item Scale developed by Meyer, Allen, & Smith (1993) is adopted in this study. Sample items for the OCs are"I really feel as if this organization's problems are my own,I would be very happy to spend the rest of my career with this organization, this organization has a great deal of personal meaning for me".

3.4 Data collection tool

For the sake of analysis the data are collected from primary sources. In this study questionnaire is the primary source of data collection. Hypothetical model is developed to check the effect of ethical behavior on the organizational performance of employees. Organizational commitment and job satisfaction of employees are studied under the concept of ethical behavior and developed a relationship with the ethical behavior. The participants were guaranteed that all the information provided by them would be kept confidential and used only for research purpose.

In the questionnaire, each variable (ethical behavior, organizational performance, job satisfaction and organizational commitment) contains 20, 11, 11 and 18 questions consequently to inspect the connection of these variables. 5 point Likert Scale technique is used for this analysis (ranging from 1 to 5 such as strongly disagree, disagree, neutral, agree and strongly agree).

We dispersed 150 questionnaires to the respondents and collect 120 questionnaires, out of which 08 questionnaires are not filled and 10 questionnaires which are rejected due to scarcity and incompleteness of information. So we have chosen 102 questionnaires for our analysis. The data received from the respondents were analyzed with the help of statistical software programSPSS- 23. To testify the hypothesis, Pearson correlation analysis was used to accept or reject the hypothesis. Regression and correlation analysis were also applied for quantifying the impact of ethical behavior on organizational performance. Due to some constraints, it was not possible to collect an equal number of responses from each of the banks approached for this study.

4. Data analysis and Discussion

4.1 Reliability and Co- efficient Analysis (Table 1)

Table 1: Reliability Statistics and Co-efficient of correlation of the relationship between Ethical Behavior, Organizational Performance, Job Satisfaction and Organizational commitment.

Correlations

		Reliability (Value of Alpha)	Ethical Behavior	Organizational Performance	Job Satisfaction	Organizational Commitment
Ethical Behavior	Pearson Correlation		1	.355**	.432**	.455**
	Sig. (2-tailed)	0.617		.000	.000	.000
	N		102	102	102	102
Organizational Performance	Pearson Correlation		.355**	1	.502**	.489**
	Sig. (2-tailed)	0.627	.000		.000	.000
	N		102	102	102	102
Job Satisfaction	Pearson Correlation		.432**	.502**	1	.532**
	Sig. (2-tailed)	0.896	.000	.000		.000
	N		102	102	102	102
Organizational Commitment	Pearson Correlation		.455**	.489**	.532**	1
	Sig. (2-tailed)	0.834	.000	.000	.000	
	N		102	102	102	102

** Correlation is significant at the 0.01 level (2-tailed).

For the purpose of reliability (Table 1), cronbach's alpha is commonly used for data collection. The result in cronbach's alpha depends on the total number of questions used in the questionnaire. For reliability, value of alpha should be at least 0.6 and at most 1. In this study the reliability of the independent variable which is ethical behavior of employees is 0.617 and it is acceptable. The reliability of the dependent variable which is organizational performance is 0.627

The reliability of the other variables such as Job Satisfaction and Organizational Commitment are 0.896 and 0.834. Consequently, all of the values is acceptable and good enough for this study.

The validity refers the extent to which differences in observed scales scores reflect true differences among objects on the characteristics being measured, rather than systematic or random error (Malhotra, 2002). Validity is not essential because established survey instruments are used in this study.

Table1: This highlights the co-efficient of correlation paradigm among the ethical behavior (independent variable), organizational performance (dependent variable), job satisfaction and organizational commitment. The most considerable relationship is the employee's ethical behavior $r = 0.455$, $p<0.01$ with organizational commitment. The following next considerable relationship between employee's ethical behavior and job satisfaction that is $r =0.432$, $p<0.01$. While ethical behavior and organizational performance are positively correlated at $r =0.355$, $p<0.01$. The relationship between organizational performance and job satisfaction is $r =0.502$, $p<0.01$ and relationship between organizational performance with organizational commitment is $r =0.489$, $p<0.01$. The last relation between job satisfaction and organizational commitment is also positively correlated at $r =0.532$, $p<0.01$. All the variables have bond with each other and have the positive and significant correlation.

4.2 Regression Analysis (Table 2, 3, 4)

Regression Analysis supports to check the interdependence of dependent and independent variables. SPSS- 23 is used to check the interdependence of the variables. For this purpose the analysis performed and result also computed which are shown in the tables. Table 2, 3, and 4 are mentioned clearly showing the results through their values.

Table 2:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.355[a]	0.126	0.117	0.37381	1.686
a. Predictors: (Constant), Ethical Behavior					

Table 3:

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.980	1	1.980	14.171	0.000[b]
	Residual	13.694	98	0.140		
	Total	15.674	99			
a. Dependent Variable: Organizational Performance						
b. Predictors: (Constant), Ethical Behavior						

Table 4:

Co-efficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.450	0.732		1.982	0.050
	Ethical Behavior	0.642	0.171	0.355	3.764	0.000
a. Dependent Variable: Organizational Performance						

In table 2, the model summary is shown which provides the values for interpretation. Here first thing is the value of adjusted R Square which is 0.117 shown in the table. It is commonly considered that the value of adjusted R Square should be less than 0.8 to be called significant. On this basis it is giving significant results for the study.

Next the value of Durbin-Watson in the analysis is comes out to be 1.686 which is near to 2 showing the result as significant. The value of Durbin-Watson equal to 2 or near to 2 shows that there is no issue of auto correlation.

By focusing on table 3, the value of F is 14.171 which are showing the point of significance for the whole model. As the criterion for it is that value of F should be greater than 5 which is fulfilled in it.The second thing that is supporting this statement is that p-value is <0.05.

In table 4, the values of all the betas are shown. They tell us that how much our independent variables are affecting the dependent variable. It can be interpreted as 1 unit change in ethical behavior brings 0.642 units change in employee's organizational performance. The t-value should be greater than 1.96 and p-value should be less than 0.05. So considering both t-values and p-values we found that t = 3.764 > 1.96, and p = 0.000 < 0.05. So we can say that results of the independent variables are significant.

4.3 The proposed hypothesis is explained as under

H1: Ethical behavior is positively related to the organizational performance:

Ethical behavior is very important for every employee to improve his/her organizational performance.Without ethics no employee can work properly and attain his/her objectives.The most competitive job sector in Bangladesh is banking. So practices of ethics are very important for a banker. It is found that, ethical behavior is affecting the organizational performance positively. It can be interpreted as 1 unit change in ethical behavior brings 0.642 units change in employee's organizational performance.

On the other hand t = 3.764 > 1.96, and p = 0.000 < 0.05. So due to these reasons,it can be said that ethical behavior is positively related with the organizational performance of banking sector in Bangladesh and the hypothesis can be accepted.

H2: Ethical behavior and organizational commitment:

The employees who value their ethics in working place, they must be committed with their organizations. It is found that, ethical behavior is positively correlated with organizational commitment at 0.455 which has shown a significant result. So the hypothesis can be accepted that there is a positive relationship between ethical behavior and organizational commitment.

H3: Ethical behavior and job satisfaction:

Employees who practiced ethics in their organization, they must be satisfied with their organization. Here, it is shown that, ethical behavior and job satisfaction have a positive relationship at value 0.432 which is a significant result. So,hypothesis can be accepted as there is a positive relationship between ethical behavior and job satisfaction.

5. Limitations of the study

Although there are several contributions in this research, a lot of limitations are still

there. This study focused only on the experienced executives working in different banking sector organization, and ignored those belonging to young generation, who have entered into their practical field and have less experience. The main cause for not taking into consideration the young generation is that, majority of them are not skilled enough in their field, and those who have this opportunity are not authorized to play their active part into the decision making process of organization.

The researchers face the problem of some inadequate and unreliable data. Another problem is that some of the respondents are not ready to cooperate especially in filling the questionnaires; they feared that their information will be disclosed to other people. Also the researcher does not get back all the questionnaires that are distributed to the respondents. However, the responses received were sufficient to accomplish the purpose of this study.

6. Conclusion

The overall findings that we got from the analysis show that ethical behavior has positive impact on organizational performance of employees. The result provides a comprehensive description about the hypothesis of our study. Correlation matrix of our variables is positively related to each other and ethical behaviors of employees are positively predicted the organizational performance of employees in banking industry. The job satisfaction of employees and organizational commitment is also positively related to the ethical behavior.

Kott (2012) stated that the practice of ethicality in an organization can contribute to a more positive work experience for employee's ethical behavior in the workplace and this should eventually be considered as a priority for organizations.Thomas (2013) said that personal values, organizational values, and the congruence of these values do affect ethical work behaviors and organizational commitment which will result to improve the organizational performance. Different studies show that ethical behavior is important to be followed by the employees of the organization. But sometimes employees don't value the ethics at all and keep doing their work in general way. Ethical behavior affects every aspect of our lives and according to the employees of banking sector of Bangladesh, ethical behavior is the prominent factor of employee's organizational performance.

From the findings and the analysis of the research it is stated that every employee should have the ethical values, morality, integrity, credibility, trustworthiness, code of ethics, interpersonal qualities and capabilities to carry out the different tasks as

needed for their performance. But, it is also very difficult to find out a single person who is the mixture of different skills to perform the different tasks of the organization. Employees who practice ethics in their behavior must be satisfied with their jobs and they also have committed with their organizations. After the whole analysis of the research, it can be stated that ethical behavior plays a dominant role to enhance the performance level of employees, which will automatically increase the organizational productivity, market share and can achieve the organizational goals.

7. Recommendations

Basing on the views obtained from different bankers, the following recommendations can support to improve the organizational ethical behavior of employees. Decision makers should set use of ethical conducts as priority towards improving organizational performance by sets adequate resources and commitments to achieve these ends. There is a need for responsible training institutions to enhance training on ethical behavior of employees so that the graduate professionals can acquire adequate knowledge, skills and hence appreciate and adhere to organizational performance. It is, therefore, recommended that the responsible authorities should have the concern to improve working conditions in organization since employee's ethical behavior is positively connected with the organization's performance. This study is conducted by considering the different banking organizations in Chittagong city. The sample size which is 102 in this study can be enlarged and there will be more chances for better results in terms of significance.

8. Future Research

This research paper is directly related with the ethical behavior of employees on organizational performance. The future research can be to discover that how ethical behavior can be strategically executed and implemented in order to increase the employee's performance level of the organization. Another aspect of the future research can be to see whether ethical behavior is negatively correlated with the employee's performance in the organization.

The main point here is to go to other areas in Bangladesh which are far apart with regard to research study and where very fewer studies have been conducted. The simple thing is that any kind of advancement will definitely contribute towards research work.

9. References

1. Saba, S., Fatima, A., Ahmad, J., &Atif, Q. (2015, October). Determinants of an individual's ethical behavior: A path model approach. *Journal of economics, Business and Management,* Vol.3, No. 10.
2. Sabir, M. S., Iqbal, J. J., &Rehman, K. U. (2012, January).Impact of corporate ethical values on ethical leadership and employee performance. *International journal of business and social science,* Vol. 3, No. 2.
3. Baker, T. L., Hunt, T. G., & Andrews, M. C. (2006). Promoting ethical behavior and organizational citizenship behavior: The influence of corporate ethical values. J*ournal of business research* 59, 849-857.
4. Kaptein, M. (2007, December). Developing and Testing a measure for the ethical culture of organization: The corporate ethical virtues model. *Erasmus Research Institute of Management,* ERS-2007-084-ORG.
5. Kott, J. K. (2012, May).The role of ethics in employee behavior. *University of Tennessee at Chattanooga.*
6. Thomas, T. P. (2013, August). The effect of personal values, organizational values and P-O fit on ethical behavior and organizational commitment outcomes among substance abuse counselors: A preliminary Investigation. *Lowa Research online,* University of Lowa.
7. Joseph, K. O. (2010). Effect of ethical behavior on organizational performance: Evidence from three service organizations in Lagos, Nigeria. *Journal of Research in National Development,* Vol- 8, No. 1.
8. Saeed, R., Shakeel, M., &Lodhi, R. N. (2013). Ethical behavior and employee's job performance in education sector of Pakistan. *Middle-East Journal of scientific research,* 18(4): 524-529.
9. Geeta, M., Pooja, J., & PN, M. (2016). Ethical behavior in organization: A literature review. Quest Journals, *Journal of research in business and management,* Vol. 4, issue 1, pp: 1-6.
10. Mumtaz, R., Ahmed, B., Shad, I., &Ghouri, T. A. (2011). Impact of top management ethical behavior on job satisfaction: Evidence from Pakistan. *Research journal of Finance and Accounting,* ISSN 2222-1697, Vol-2, No-3.
11. Palomino, P. R.& Martinez, R. (2011, March). HRM and ethical behavior: Exploring the role of training in the Spanish banking industry. *Ramon LLULL Journal of applied ethics,* Issue- 2.

12. Mishra, N. & Sharma, G. (2010). Ethical organization and employees. *Asian journal of management research,* ISSN- 2229-3795.

13. Aliya, A. N. (2012). Business ethics and practice in multinational companies: evidence from Nigeria. *European journal of humanities and social sciences,* Vol. 14, No. 1.

14. Daveninderak, K. A/P. (2009, May). The relationship between organizational ethics and job satisfaction: A study of managers in Malaysia. *University of Malaya.*

15. Victor, G. Y. S. &Soutar, G. N. (2005). The role of ethical behaviors in the relations between leadership styles and job performance. *University of western Australia,* ANZMAC conference.

16. Saleem, F. (2014). Impact of corporate ethical values on employee's behavior: Mediating role of organizational commitment. *Pakistan journal of psychological research,* Vol. 29,No. 1, p-245-263.

17. Msanze, S. N. (2013). An assessment on the impact of employees ethical conducts to organization performance: Acase of Dawasco. *Open University of Tanzania.*

18. Fernando, A. C. (2009). *Business ethics: An Indian perspective.* Pearson education, New Delhi.

19. Trevino, L. K. (1986). Ethical Decision Making in Organizations: A Person-Situation Interactionist Mode. *Academy of Management Review* 11, p-601–617.

20. Trevino, L. K., Weaver, G. R. & Reynolds, S.J. (2006, December). Behavioral Ethics in Organizations: A Review. Journal of Management, Vol. 32, No. 6, 951-990.

Role of Emotional Intelligence in Transformational Leadership and Leadership Outcomes

Mohona Biswas *
Prof. Dr. Md. Sahidur Rahman **

Abstract

This paper aims to investigate the role of emotional intelligence in transformational leadership and leadership outcomes at the private commercial banks of Chittagong in Bangladesh. The research sample comprised of 356 employees at the private commercial banks of Chittagong who took part in the study voluntarily. Emotional intelligence was measured by the Emotional Quotient Index while the Multifactor Leadership Questionnaire was administered to measure the transformational leadership and leadership outcomes perceived by the employees at the private commercial banks of Chittagong. In data collection, a convenience sampling technique was used. Descriptive statistics, bivariate correlation, and regression analysis were used to analyze the data. Current findings indicate that a significant correlation exists between emotional intelligence and transformational leadership. Again, the findings report a significant relationship between emotional intelligence and leadership outcomes (extra-effort, effectiveness, and satisfaction) perceived by the employees at the private commercial banks of Chittagong. Discussions, implications, limitations, and future research directions are also pointed out.

Key Words: Emotional Intelligence; Transformational Leadership; Leadership Outcomes; Private Commercial Banks.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 187 - 206
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Lecturer (HRM), Faculty of Business Administration, BGC Trust University Bangladesh*
*** Professor, Department of Management, University of Chittagong, Bangladesh*

1. Introduction

In today's increasingly competitive environment, the business environment is continually changing and a leader must respond (Goleman, 2000) to cope with these changes. In Bangladesh, the environment of the private commercial banks is even continually changing as they have to face a lot of challenges. To survive in the competitive environment, private commercial banks must change, sometimes radically. The rapidly changing world of work has been coined the "permanent white waters" of modern life (Vaill, 1996). Private commercial banks require emotionally intelligent managers/leaders in driving and managing these "white waters". Thus, rapid change requires that private commercial banks have managers/leaders who are emotionally intelligent to cope with the demands of the rapidly changing world and to motivate the workers to achieve competitive advantage.

Emotional intelligence (EI) is one of the most widely discussed topics not only in psychology but also in the field of organizational behavior as a new concept (Rahman, Ferdausy, & Taher, 2007; Rahim et al, 2002; Dulewicz & Higgs, 2005; Leban & Zulauf, 2004; Higgs & Aitken, 2003; Gardner & Stough, 2002; Goleman, 2000). Although the concept developed twenty eight years ago, in the last ten years it has received extensive popularity among the academics and researchers. Research on EI emphasizes the importance of EI on leadership behaviors especially on transformational leadership (TFL) behaviors (Avolio & Bass, 2002; Bass & Avolio, 1994; Covey, 1990; Gates, 1995; Goleman, 1995, 1996, 1998a; Megerian & Sosik, 1996; Morris & Feldman, 1996; Shamir, 1995; Rahman, Ferdausy & Uddin, 2012). EI has also significant impact on the components of leadership outcomes such as extra effort, effectiveness, and satisfaction. Thus, it is reported that EI may positively affect the extra-effort, effectiveness, and satisfaction of the employees working at the private commercial banks of Bangladesh.

The literature review has revealed that in-depth research on the role of EI on TFL and leadership outcomes is largely absent in a developing country, like Bangladesh. This research gap has motivated the researchers to undertake the present study. Thus, the main objective of this study is to investigate the role of EI in TFL and leadership outcomes at the private commercial banks (PCBs) of Bangladesh. In order to achieve the main objective, this study proposes the following specific objectives:

1. To understand the relationship between EI and TFL perceived by the employees at the PCBs of Bangladesh.

2. To identify the relationship between EI and extra-effort perceived by the employees at the PCBs of Bangladesh.
3. To examine the relationship between EI and effectiveness perceived by the employees at the PCBs of Bangladesh.
4. To understand the relationship between EI and satisfaction perceived by the employees at the PCBs of Bangladesh.

2. Literature Review

2.1 EI

EI is a term created by two researchers – Peter Salavoy and John Mayer. However, the term EI became popular with the publication of Goleman's book: "Emotional Intelligence – Why it can matter more than IQ" (1995). EI brings together the fields of emotions and intelligence by viewing emotions as useful sources of information that help one to make sense of and navigate the social environment (Salovey & Grewal, 2005).

2.1.1 Definitions of EI

EI was firstly depicted by Salovey and Mayer (1990) as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action" (p. 189). This definition consists of three types of ability: i) expression and evaluation of emotion, ii) regulation of emotion, and iii) using emotions in the decision making process. Again, Goleman (1998b) defined EI as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (p. 317). It indicates that EI is related to a number of non-cognitive skills, abilities, or competencies that can influence an individual's capacity. According to Northouse (2013) EI is concerned with our ability to understand emotions and apply this understanding to life's tasks. It is noted that the EI of an individual can be measured by using different scales available in the literature, such as EQ-i (Bar-On, 1997), ECI (Boyatzis, Goleman, & Rhee, (2000), EIQ (Dulewicz & Higgs, 2000), SUEIT (Palmer, Walls, Burgess, & Stough, 2001), MSCEIT (Mayer, Salovey, & Caruso, 2002), EQI (Rahim et al., 2002), WEIP (Jordan, Ashkanasy, Hartel, & Hooper, 2002), TEIQue (Petrides & Furnham, 2003), WLEIS (Wong, & Law, 2002) and AES (Schutte, Malouff, & Bhullar, 2009).

2.1.2 Components of EI

Goleman, (1995) an American psychologist, developed a framework of five elements that define EI:

a. **Self-Awareness** – Self-awareness includes identifying our strengths, weakness, likes, and dislikes. People who score high on EI can detect their own emotions and they never become fierce in any extreme situation. It is found from the prior research that the person with high self-awareness can master his or her destiny effectively (Bandura, 1986, Frankl, 1992).

b. **Self-Regulation** – Self-regulation is the ability to control emotions. Self-regulated people never become too angry or nervous, and they evaluate carefully before making any decision. They are honest, trustworthy, innovative, conscientious and transparent. Self-controlled people are comfortable with the uncertainties of organizational goals (Goleman, Boyatzis, & McKee, 2002). They try to manage their disturbing emotions and impulses and also try to maintain proper quality and to ensure professional standards (Dulewicz et al., 2000).

c. **Motivation** – Motivation is the ability of an individual's motives, sense of hope and optimism, and self-efficacy (Goleman, 1995, 1998a, 1998b). People those who score high on EI usually highly productive, and they love to accept challenges. According to Rahim et al. (2002) a self-motivated person always try to attain goals and objectives despite obstacles, operates from hope of success rather than fear of failure, and accepts change to attain goals.

d. **Empathy** – Empathy includes understanding others, service orientation, leveraging diversity, and political awareness (Goleman, Boyatzis, & McKee, 2004). Empathyis the ability to recognize the emotions, needs, views of others and respond to their emotions. Those who score high in empathy can easily detect emotions and feelings in others.

e. **Social Skills** – Social skills include socio-economic skills necessary to analyses and understand human relationships, negotiate disputes, resolve conflicts, influence popular opinion, and exhibit considerate and cooperative behaviors (Goleman, 1995, 1998a, 1998b). Thus, who have strong social skill can handle interpersonal conflict, disputes effectively.

2.2 TFL

TFL style is the most taught matters in the whole world as well as in research community (Avolio 2010; Bass 1985; 1990; Bass et al., 1994, as cited in Gill 2010). According to Gardner et al. (2002) transformational leaders always able to create a vision, they communicate their vision to others and build strong commitment amongst subordinates to the vision and role model of the vision. Transformational leaders motivate followers to perform beyond expectations (Hartog, Muijen, & Koopman, 2011). Bass and Riggio (2006) viewed transformational leaders are as like as earning credits with followers because they always consider the followers' needs over their own personal needs.

2.2.1 Components of TFL

A transformational leader exhibits idealized influence, provides intellectual stimulation, individualized consideration, and motivates followers to perform beyond expectations (Bass, Avolio, Jung, & Berson, 2003; Bass & Riggio, 2006).

a. **Idealized Influence (Attribute)** - 'Idealized influences (attributes)' is the ability to build trust within the team by inspiring pride and respect among followers (Gill 2010, p. 53). Northouse (2013) claims that this type of leaders act as a strong role models for followers; these leaders usually have very high standards of moral and ethical conduct and they are respected by their followers.

b. **Idealized Influences (Behaviors)** - Leaders having idealized behaviors features positive and consistent vision and consider the moral and ethical consequences of their actions. 'Idealized influences (behaviors)' include strong moral and values-driven behaviors from leaders but also highly valuated behaviors like dominance, consciousness, self-control, optimism and self-efficiency (D & D consultants group, 2007, p. 5).

c. **Inspirational Motivation** - Northouse (2013) claims that this type of leader communicates high expectations to their followers, inspires them to become committed to and part of the shared vision in the organization, they use symbols and emotional appeals to focus group members' effort to achieve more than they would in their own self-interest.

d. **Intellectual Stimulation** - Northouse (2013) reports that this type of leader stimulates followers to be creative and innovative and to challenge their own beliefs and values as well as those of the leaders and the organization, this type of leader supports followers as they try new approach and develop innovative ways of dealing with organizational issues.

e. **Individualized Consideration** - Northouse (2013) suggests that this leader provide a supportive climate in which they listen carefully to the individual needs of followers. He claims that these leaders act as coaches and advisers to assist followers in becoming fully actualized, as for example: this type of leadership is a manager who spends time treating each employee in a caring and unique way.

2.2.2 EI and TFL

It is found that EI is associated with three aspects of TFL such as- idealized influence, inspirational motivation, and individualized consideration (Barling, Slater, & Kelloway, 2000). A meta-analysis of 39 studies using the MLQ 5X recommended that three transformational behaviors (idealized influence, individualized consideration, and intellectual consideration) were related to leadership effectiveness (Harms & Crede, 2010). Webb (2004) examined the extent to which EI is related to TFL within mentoring relationships and 112 faculty members were assessed on the various dimensions of EI. The results indicated that EI can predict several aspects of TFL, including charisma and inspirational motivation.

2.3 Leadership Outcomes

Leadership outcomes are the end results of leadership that include the following three factors (Bass & Avolio, 2000).

a. **Extra Effort:** The leaders' ability to expand followers' desires to succeed and willingness to try harder (Bass, 2000).

b. **Satisfaction:** How satisfied followers or subordinates are with their leaders and their job (Bass, 2000).

c. **Effectiveness:** Leaders' abilities to lead an effective group and satisfy the followers' job-related needs (Bass, 2000).

2.3.1 EI and Leadership Outcomes

Sivanathan and Fekken (2002) found that leaders reporting greater EI were perceived to be more effective as leaders. Thus, leaders who score high on EI can lead effectively. Gardner et al. (2002) identified the outcomes of leadership (extra effort, effectiveness, and satisfaction) which were correlated significantly with the components of EI. Another study also emphasized on how best to include EI theoretically in the relationship between leadership and its outcomes (Lowe, Kroeck, & Sivasubramania, 1996).

3. Development of Research Hypotheses

3.1 EI and TFL

Mandell and Pherwani (2003) examined the relationship between EI and TFL style and the results suggested that EI significantly predicts TFL style. These results indicate that EI can be used to identify the leaders who possess positive TFL qualities. Another study found that EI is a significant element in determining transformational leaders (Goleman, 1995; 1998b; Shamir, House, & Arthur, 1993). Srivastva and Bharamanaikar (2004) investigated the relationship of EI with leadership excellence, success and job satisfaction. They found that EI significantly correlates with TFL and success. Hence, the first hypothesis has been developed as follows:

Hypothesis 1: There is a positive relationship between EI and TFL perceived by the employees of the private commercial banks in Chittagong.

3.2 EI and Extra-effort

The extra-effort of a follower is means the willingness of the subordinates to work harder, and to become committed to their job. Emotionally intelligent leaders could influence followers to exert extra-effort. Thus, leaders who score high on emotional intelligent would be able to inspire followers extra-effort. Hence, the second hypothesis has been suggested as follows:

Hypothesis 2: There is a positive relationship between EI and extra-effort perceived by the employees of the private commercial banks in Chittagong.

3.3 EI and Effectiveness

Leaders who are emotionally intelligent are effective and performed well. They are able to identify their followers' needs and to influence their subordinates' emotions, and thus maintain an effective team performance. Hence, the third hypothesis has been formulated as follows:

Hypothesis 3: There is a positive relationship between EI and effectiveness perceived by the employees of private commercial banks in Chittagong.

3.4 EI and Satisfaction

According to Bass (1997) satisfaction is achieved when the leader is working with others in a satisfying way. Emotionally intelligent leaders are able to instill feelings of trust and satisfaction. Thus, emotionally intelligent leaders are highly associated with higher ratings of employee satisfaction. Hence, the fourth hypothesis has been developed as follows:

Hypothesis 4: There is a positive relationship between EI and satisfaction perceived by the employees of private commercial banks in Chittagong.

A hypothetical model was developed to exhibit the relationships among EI and TFL and leadership outcomes as follows:

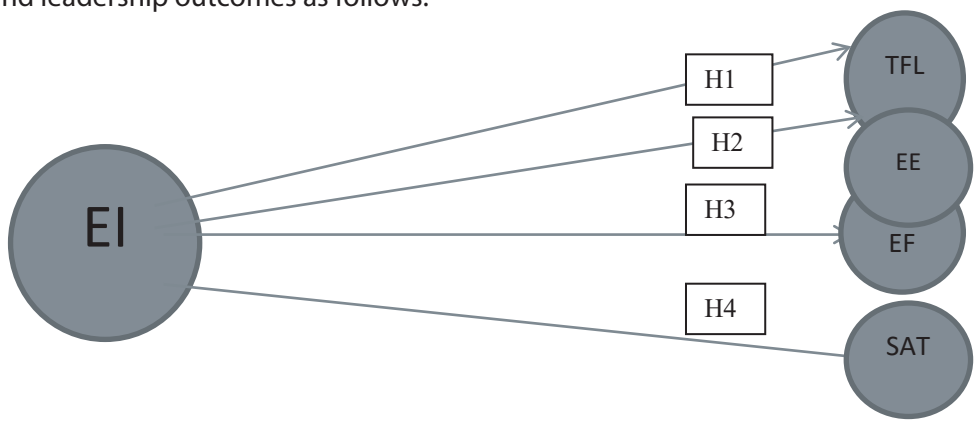


Figure 1: Hypothetical Model; Source: Authors' own contribution, 2017

Note: EI = emotional intelligence; TFL= transformational leadership; EE= extra-effort; EF= effectiveness; SAT= satisfaction.

4. Private Commercial Banks of Bangladesh

Private commercial banks (PCBs) are now considered the nerve system of all economic development in Bangladesh. PCBs are doing a tremendous job as they are now using latest information technology, competing in the open market with high technology system, changing from domestic banking to investment banking. Bangladesh Bank is the central bank of Bangladesh and the banking system consists of 6 state-owned commercial banks, 39 private commercial banks, 8 Islamic Shariah based commercial banks, 2 specialized banks, 9 foreign commercial banks, 34 non-bank financial institutions and 4 specialized financial institutions. In the banking industry of Bangladesh, the effects of EI on TFL and leadership outcomes (extra effort, efficiency, and satisfaction) have not been validated yet. Conducting this study on the role of EI in TFL and leadership outcomes in the PCBs of Bangladesh will provide insightful information that will help the banking industry and managers to develop and sustain a culture that will be favorable to higher employee performance and better organizational outcomes.

5. Research Methods

5.1 Participants

Data were collected from 356 employees working at different PCBs in Chittagong city. The PCBs were categorized as first generation, second generation, and third generation. While conducting the study, the respondents were classified into three categories namely: higher-level, mid-level, and lower-level. All respondents were given autonomy and assured that any information provided by them would be kept confidential and used only for academic purposes.

5.2 Survey Instruments

The study adopts the following measures to collect data from the participants.

5.2.1 Emotional Quotient Index

Total 40-item instrument from the EQ Index by Rahim et al. (2002) were used to measure the EI suggested by Goleman (1998a). The respondents were asked to give their opinions regarding their own perception on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The five EI components of the EQI were: i) self-awareness, ii) self-regulation, iii) motivation, iv) empathy and v) social skills. The higher score indicates the higher EI of the employees.

5.2.2 Multifactor Leadership Questionnaire (MLQ 5X)

The components of TFL and leadership outcomes (extra-effort, effectiveness and satisfaction) were measured using the Multifactor Leadership Questionnaire (MLQ 5X) (Bass et al., 2000). Respondents were asked to tick from a Likert-scale ranging from zero to four, how often each statement applies: (Not at all=0, Once in a while =1, Sometimes=2, Fairly often =3, Frequently =4).

5.3 Data Collection Procedure

In order to collect data, 500 employees working at different PCBs in Chittagong city were selected. For selecting the respondents, a convenience sampling technique was used in this study. The authors spent few weeks to collect data from the selected employees. The employees took forty minutes on an average to complete the survey questionnaires. Finally, a total of 356 (71%) usable responses were received. Then, the raw data was entered into an Excel file for summarization, and then imported into the SPSS statistics 20.0 data editor for statistical analysis.

5.4 Reliability of Scales and Validity of Data

Reliability is the degree to which a measuring procedure produces similar, in other words consistent outcomes, when it is repeated under similar conditions (Islam, 2014). Cronbach's alpha is the most widely used method to measure the reliability of the scale (Hair, Anderson, Tatham, & Black, 2003; Malhotra, 2002; Cooper & Schindler, 2001; Page & Mayer, 2000). It may be mentioned that Cronbach's alpha value ranges from 0 to 1, but a satisfactory value is required to be more than .60 for the scale to be reliable (Malhotra, 2002; Cronbach, 1951). Cronbach's alpha values for the EI, TFL, and leadership outcomes (extra-effort, effectiveness, and satisfaction) for the current study were .96, .88 and .75 respectively. Therefore, these two instruments were highly reliable for data collection.

Validity is the extent to which differences found with a measuring instrument reflect true differences among those being tested (Kothari, 2004). How valid these questionnaires were determined by the panel of experts, who were specialists in this field, approved the questionnaires.

6. Results of the Study

The mean (M) and standard deviation (SD) calculated for EI, TFL and leadership outcomes are presented in the Table 1. The mean and standard deviation for EI were consistent with the previous research (Rahman et al., 2012; Rahman et al., 2007; Ferres & Connell, 2004; Rahim et al., 2002; 2006; Rahim & Minors, 2003).

Table 1: Means, standard deviations, reliabilities, and correlations between variables

Variables	Mean	Standard Deviation	Alpha	Correlations				
				1	2	3	4	5
1. EI	6.23	0.55	0.96	1				
2. TFL	3.36	0.27	0.88	0.72**	1			
3. EE	3.52	0.45	0.76	0.60**	0.48**	1		
4. EF	3.41	0.51	0.75	0.55**	0.46**	0.60**	1	
5. SAT	3.57	0.59	0.71	0.42**	0.31**	0.49	0.45	1

Source: Authors' own research, 2017; ** Significant at the 0.01 level; n = 356;

Note: EI = Emotional intelligence; TFL = Transformational leadership; EE = Extra effort, EF = Effectiveness, SAT= Satisfaction

Examination of the Table-1 shows that there was a significant positive correlation (strong) between EI and TFL ($r=0.72$, $p<0.01$) (leaders motivate others to sacrifice their own interest for the sake of the organization and they are admired, respected, and trusted). There were also significant correlations between the EI and the components of leadership outcomes: a) extra-effort ($r=0.60$, $p<0.01$) (strong correlation), b) effectiveness ($r=0.55$, $p<0.01$) (moderate correlation), and c) satisfaction ($r = 0.42$, $p <0.01$) (moderate correlation) respectively. All correlations were in the positive direction, meaning that if the scores of the EI increased then TFL and the outcomes of leadership scores also increased. Thus, our all hypotheses were supported by the results.

Table-2: Regression analysis regarding EI with TFL and leadership outcomes

Independent Variable	**Particulars**	**Dependent Variables**			
		TFL	**EE**	**EF**	**SAT**
EI	Co-efficient (β)	.35	.50	.51	.45
	Standard Error	.02	.03	.04	.05
	Beta	.72	.60	.55	.42
	Value of t-statistic	19.27**	14.21**	12.35**	8.68**
	Value of R^2	**.51**	**.36**	**.30**	**.18**
	Value of F – statistic	**371.41****	**201.84****	**152.57****	**75.36****

Source: Authors' own research, 2017; ** Significant at the 0.01 level; n = 356;

Note: EI = Emotional intelligence; TFL= Transformational leadership; EE= Extra effort, EF= Effectiveness, SAT= Satisfaction

In the Table 2 regression analysis shows that about 51%, 36%, 30%, and 18% of the variances in TFL, extra-effort, effectiveness, and satisfaction were explained by EI where all of them were significant. It has been suggested that EI might be the significant predictors in explaining the TFL and the components of leadership outcomes perceived by the respondents. The presence of unexplained variance suggests that there were other implied predictor variables those account for variations in TFL and the components of leadership outcomes.

Table 3a: Regression analysis of potential covariates with EI, TFL, and leadership outcomes

Covariates	Co-efficient (β)					Standard Error (β)					Value of t-statistics				
	EI	**TFL**	**EE**	**EF**	**SAT**	**EI**	**TFL**	**EE**	**EF**	**SAT**	**EI**	**TFL**	**EE**	**EF**	**SAT**
EXP	.001	.001	-.005	.011	-.009	.011	.005	.009	.010	.012	-.046	.123	-.567	1.13	-.768
AGE	-.009	.003	.012	-.009	.007	.009	.004	.007	.008	.010	-1.02	.729	1.62	-1.12	.689
EMP	.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	1.02	.726	.170	1.19	.040
DEP	-.049	-.022	-.007	-.024	-.023	.021	.010	.017	.019	.022	-2.40*	-2.23*	-.439	-1.26	-1.03
EDU	-.006	-.005	-.017	-.008	.020	.021	.010	.017	.019	.023	-.269	-.528	-1.02	-.391	.872
GEN	.030	.011	.072	-.021	-.086	.074	.036	.061	.070	.081	.410	.313	1.18	-.298	-1.06
POS	-.132	-.070	-.053	-.091	-.065	.069	.034	.058	.066	.076	-1.90	-2.06*	-.913	-1.38	-.852

Source: Authors' own research, 2017. n=356; (** Correlation is significant at the 0.01 level) Note: EXP=Experience, EMP=Employee, DEP=Department, EDU=Education, GEN=Gender, POS= Position, EI = Emotional intelligence, TFL= Transformational leadership, EE= Extra effort, EF= Effectiveness, SAT= Satisfaction.

Table 3b: Regression analysis of potential covariates with EI, TFL, and leadership outcomes

Covariates	Value of R^2					Value of F-statistic				
	EI	TFL	EE	EF	SAT	EI	TFL	EE	EF	SAT
EXP	.03	.04	.02	.02	.01	1.72	1.83	1.04	1.02	.629
AGE										
EMP										
DEP										
EDU										
GEN										
POS										

Source: Authors' own research, 2018. n=356; (** Correlation is significant at the 0.01 level) Note: EXP=Experience; EMP=Employee; DEP=Department; EDU=Education; GEN=Gender; POS= Position.

The Table 3b exhibits that that only 3%, 4%, 2%, 2%, and 1% of the variance in EI, TFL, extra-effort, effectiveness, and satisfaction were explained by the socio-demographic factors (such as experience, age, employee, department, education, gender, and position respectively). It indicates that a larger portion of variance in EI, TFL, and the components of leadership outcomes (extra-effort, effectiveness, and satisfaction) were unexplained. The presence of unexplained variance suggests that there were other implied variables those account for variations in EI, TFL, and the components of leadership outcomes.

7. Discussions

The present study intends to assess the role of EI in TFL and leadership outcomes perceived by the employees at the PCBs of Bangladesh. **The first purpose** of this study was to explore the relationship between EI and TFL perceived by the employees at the PCBs of Bangladesh. To fulfill the purpose, the first hypothesis states that there is a positive relationship between EI and TFL perceived by the employees at the PCBs of Bangladesh. Analysis reveals that that there is a positive relationship between these two variables. The significance of this research finding is that it supports previous research findings that identifies a significant positive predictive relationship between the two constructs in which individuals scoring high on either of these two constructs were found to score high on the other as well (Goleman,1998; Hay/McBer, 2000; Mandellet al., 2003). This finding suggests that individuals with higher EI foster TFL capacity of employees.

The second purpose of the study was to examine the relationship between EI and extra-effort perceived by the employees at the PCBs of Bangladesh. The second hypothesis states that there is a positive relationship between EI and extra-effort perceived by the employees at the PCBs of Bangladesh. Analysis shows that a positive relationship exists between these two variables. **The third purpose** of the study was to examine the relationship between EI and effectiveness perceived by the employees at the PCBs of Bangladesh. The third hypothesis furnishes that there is a positive relationship between EI and effectiveness perceived by the employees at the PCBs of Bangladesh. Analysis reveals that there is a positive relationship with a positive score between these two variables. **The fourth purpose** of this study was to explore the relationship between EI and satisfaction perceived by the employees at the PCBs of Bangladesh. To fulfill the purpose, the fourth hypothesis stated that there is a positive relationship between EI and satisfaction perceived by the employees at the PCBs of Bangladesh. Analysis reveals that there is a positive relationship between these two variables.

8. Implications for Management

The theoretical insight that this study will provide, will make a valuable contribution to the literature. While there is a growing body of research focusing on EI, however, the role of EI in TFL and leadership outcomes has not been fully explored. Thus, a better understanding of these issues not only can address the gap currently existing in the literature, but can also enhance the body of knowledge from the academic perspective.

From a practical viewpoint, the current study is relevant to practitioners, business leaders, and authorities of PCBs as the findings of this study may help them to develop EI skills so that they can recruit self-regulated, empathetic, and socially skilled employees who will be able to exhibit effective leadership in their organizations.

9. Limitations

First, The sample size (n=356) is very limited which might limit the findings of the research. Second, the study group consists of bankers working only at PCBs. Thus, the results of the study cannot be generalized to other populations. Third, using convenience sampling technique might limit the generalizability of the findings. Fourth, the study has been considered for a specific location (Chittagong, Bangladesh) which may be a major limitation.

10. Futurfe Research Directions

Future research can be conducted on understanding the relationship between EI and other leadership styles such as laissez-faire leadership, charismatic leadership, democratic leadership, autocratic leadership, authentic leadership, and situational leadership. In addition, future research would benefit from a large sample size, using a variety of samples (Brown & Schutte, 2006) so that the result of the research can be more easily generalized. More research is needed to examine whether emotionally intelligent managers/leaders can improve the performance of their employees/subordinates. Further research should focus on how EI competencies can be developed through personal training and development programs.

References

Avolio, B. J. (2010). *Full range leadership development.* London: SAGE Publications Ltd.

Avolio, B., & Bass, B. (2002). *Developing potential across a full range of leadership: Cases on transactional and transformational leadership,* Lawrence Erlbaum Associates, Mahwah, NJ.

Bandura, A. (1986). *Social Foundations of Thought And Action: A Social Cognitive Theory*. New York: Prentice Hall.

Barling, J., F. Slater, & Kelloway, E. K. (2000). Transformational Leadership and Emotional Intelligence: An Exploratory Study. *Leadership and Organization Development Journal,* 21,157-161.

Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory (EQ-I): Technical Manual. Toronto.* Canada: Multi-Health Systems.

Bass, B. M. (1985). *Leadership and performance beyond expectations.* New York: The Free Press.

Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership* (3rd ed.). Free Press, New York.

Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics,* 18(3), 19–31. doi: 10.1016/0090-2616(90) 90061-S

Bass, B. M. (1997). Does the transactional-transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist,* 52(2), 130–139. doi: 10.1037/0003-066X.52.2.130.

Bass, B. M. (2000). The future of leadership in learning organizations. *Journal of Leadership & Organizational Studies,* 7(3), 18-40. doi: 10.1177/ 107179190000700302.

Bass, B. M., & Avolio, B. J. (1994). Transformational leadership and organizational culture. *International Journal of Public Administration,* 17(3/4), 541–554. doi: 10.1080/01900699408524907.

Bass, B., & Avolio, B. (1994). *Improving organizational effectiveness through transformational leadership:* Sage Publications, Inc.

Bass, B., & Avolio, B. (2000). Multifactor leadership questionnaire: Technical report. *Mind Garden, Redwood City,* CA.

Bass, B., Avolio, B., Jung, D., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology,* 88(2),207-218.

Bass, B.M., & Riggio, R.E. (2006). *Transformational Leadership.* (2nd ed.). New Jersey: Lawrence Erlbaum Associates, publishers.

Boyatzis, R., Goleman, D., Rhee, K. (2000). Clustering Competence In Emotional Intelligence: Insights From The Emotional Competence Inventory (ECI). In R. Bar-On & J.D.A. Parker (Eds.), *Handbook of Emotional Intelligence,* 343-362. Jossey-Bass, San Francisco.

Brown, R., & Schutte, N. (2006). Direct and indirect relationships between emotional intelligence and subjective fatigue in university students. *Journal of Psychosomatic Research,* 60, 585-593.

Cooper, D., & Schindler, P. (2001). *Business Research Methods.* Sydney: McGraw-Hill.

Covey, S. R. (1990). *Principle-centered leadership:* Free Press.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika,* 16, 297–334.

D&D Consultants Group. (2007). *MLQ™ Report.* Romania: Mindgarden Inc. Retrieved from <https://files.acrobat.com/a/preview/c76a35ae-0778-45ac-a562-02d774f1ec2c>.

Dulewicz, V., & Higgs, M. (2000). Emotional intelligence: A review and evaluation study. *Journal of Managerial Psychology,* 15(4), 341-372.

Dulewicz, V., & Higgs, M. (2005). Assessing leadership styles and organizational context. *Journal of Managerial Psychology,* 20(2), 105-123.

Ferres, N., & Connell, J. (2004). Emotional intelligence in leaders: an antidote for cynicism towards change? *StrategicChange,* 13(2), 61-71.

Frankl, V. (1992). *Man's Search for Meaning: An Introduction to Logo therapy. Boston,* MA: Beacon Press.

Gardner, L., & Stough, C. (2002). Examining the relationships between leadership and emotional intelligence in senior level managers. *Leadership and Organizational Development Journal,* 23, 68-78.

Gates, G. (1995). A review of literature on leadership and emotion: exposing theory, posing questions, and forwarding an agenda. *Journal of Leadership & OrganizationalStudies,* 2(4), 98.

Gill, R. (2010). *Theory and practice of leadership.* London: Sage publications.

Goleman, D. (1995). *Emotional Intelligence,* New York, NY, England: Bantam Books, Inc.

Goleman, D. (1996). *Emotional intelligence:* Why it can matter more than IQ. London, Bloomsbury.

Goleman, D. (1998). *Working with emotional intelligence.* New York: Bantam Books.

Goleman, D. (1998a). What makes a good leader. *Harvard Business Review,* 76(6), 93–104.

Goleman, D. (1998b). *Working with emotional intelligence,* Random House, Inc.

Goleman, D. (2000). Leadership that gets results. *Harvard Business Review,* 78(2), 78-93.

Goleman, D., Boyatzis, R., & McKee, A. (2002). *The new leaders: Transforming the art of leadership into the science of results.* London: Little, Brown.

Goleman, D., Boyatzis, R., & McKee, A. (2004). Primal leadership: Learning to lead with emotional intelligence. Boston, *Harvard Business School Press.*

Hair, J., Anderson, R., Tatham, R., & Black, W. (2003). Multivariate Data Analysis with Readings. *New Jersey: Prentice Hall,* 18(8), 814-823.

Harms, P., & Crede, M. (2010). Emotional intelligence and transformational and transactional leadership: A meta-analysis. *Journal of Leadership & Organizational Studies,* 17(1), 5-17.

Hartog, D. N., Muijen, J. J., & Koopman, P. L. (2011). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of occupational and organizational psychology,* 70(1), 19-34.

Hay/McBer. (2000). *Research into teacher effectiveness: A model of teacher effectiveness* London, DfEE/The Stationery Office.

Higgs, M., & Aitken, P. (2003). An exploration of the relationship between emotional intelligence and leadership potential. *Journal of Managerial Psychology,* 18(8), 814-823.

Islam, N. M. (2014). *An Introduction to Research Methods* (3rd ed). Dhaka: Mullick & Brothers.

Jordan, P., J., Ashkanasy, N. M., & Hartel, C. J. (2002). Emotional intelligence as a moderator of emotional and behavioral reactions to job insecurity. *Academy of Management Review,* 27(3), 361-372.

Kothari, C. R. (2004). *Research methodology: methods and techniques.* New Delhi: New Age International.

Leban, W., & Zulauf, C. (2004). Linking emotional intelligence abilities and transformational leadership styles. *Leadership & Organization Development Journal,* 25(7), 554-564.

Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformation and transactional leadership: A meta-analytic review of the MLQ. *Leadership Quarterly,* 7(3), 385–425. doi: 10.1016/S1048-9843(96) 90027-2.

Malhotra, N.K. (2002). *Marketing Research: an applied orientation.* New Delhi: Pearson Education Asia.

Mandell, B., & Pherwani, S. (2003). Relationship between Emotional Intelligence and Transformational Leadership Style: A Gender Comparison. *Journal of Business and Psychology,* 17 (3), 387-404.

Mayer, J., Salovey, P., & Caruso, D. R. (2002). *MSCEIT technical manual*. Toronto: Multi-Health Systems.

Megerian, L. E. & Sosik, J. J. (1996). An affair of the heart: Emotional intelligence and transformational leadership. *Journal of Leadership & Organizational Studies,* 3(3), 31.

Morris, J. A. & Feldman, D. C. (1996).The dimensions, antecedents, and consequences of emotional labor. *Academy of Management Review,* 986-1010.

Northouse, G. (2013). *Leadership Theory and Practice*. Thousand Oaks, CA: Sage Publications.

Page, C., & Meyer, D. (2000). *Applied Research Design for Business and Management*. New York: McGraw-Hill.

Palmer, B., Walls, M., Burgess, Z., & Stough, C. (2001). Emotional intelligence and effective leadership. *Leadership and Organizational Development Journal,* 22(1), 5-10.

Petrides, K., & Furnham, A. (2003). Trait emotional intelligence: Behavioral validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality,* 17(1), 39-57.

Rahim, M. A., Psenicka, C., Oh, S.Y., Polychroniou, P., Dias, J. F., Rahman, M.S., & Ferdausy, S. (2006). Relationship between emotional intelligence and transformational leadership: A cross -cultural study. In M. A. Rahim (Ed.), *Current Topics in Management,* 11, 223-236. New Brunswick & London: Transaction Publishers.

Rahim, M., & Minors, P. (2003). Effects of emotional intelligence on concern for quality and problem solving. *Managerial Auditing Journal,* 18(2), 150-155.

Rahim, M., Psenicka, C., Polychroniou, P., Zhao, J., Yu, C., Chan, K., Susana, K., Alves, M., Lee, C., Rahman, M.S., Ferdausy, S., & Wyk, R. (2002). A model of emotional intelligence and conflict management strategies: a study in seven countries. *International Journal,* 10(4), 302-326.

Rahman, M. S., Ferdausy, S., & Taher, M. A. (2007). Emotional intelligence as a tool for managing employees' conflict styles: the Bangladesh perspective. *The Journal of Business Administration,* 33(1 & 2), 57-67.

Rahman, M., Ferdausy, S., & Uddin, M. (2012). Examining the relationships between emotional intelligence and the components of transformational leadership. *The ABAC Journal,* 32(1), 45-59.

Salovey, P., & Grewal, D. (2005).The science of emotional intelligence. *Current Directions in Psychological Science,* 14, 281–285.

Salovey, P., & Mayer, J. (1989, 1990). Emotional intelligence. *Imagination, Cognition, and Personality,* 9 (3), 185-211.

Schutte, N., Malouff, J. & Bhullar, N. (2009). The Assessing Emotions Scale. In C. Staugh, D. Saklofske, and J. Parker (Eds.), *The Assessment of Emotional Intelligence.* New York: Springer Publishing, 119-135.

Shamir, B. (1995). Social distance and charisma: Theoretical notes and an exploratory study. *The Leadership Quarterly,* 6(1), 19-47.

Shamir, B., House, R. & Arthur, M. (1993). The Motivational Effects of Charismatic Leadership: A Self-Concept Based Theory. *Organization Science,* 4(4), 577-94.

Sivanathan, N. & Fekken, G.C. (2002). Emotional intelligence, moral reasoning and transformational leadership. *Leadership and Organization Development Journal,* 23, 198-204.

Srivastva, K. B. N., & Bharamanaikar, S. R. (2004). EI and Effective Leadership Behavior. *Psychological Studies,* 49, 107-113.

Vaill, P. B. (1996). *Learning as a way of being: Strategies for survival in a world of permanent white water.* San Francisco, CA: Jossey-Bass.

Webb, S. (2004). *Exploring the Relationship of Emotional Intelligence to Transformational Leadership within Mentoring Relationships* (PhD Thesis). University of South Florida.

Wong, C., & Law, K. S. (2002). The effects of leader and following emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly,* 13, 243-274.

Synthesis, characterization, electrolytic behavior and antibacterial activities of zinc(II) complexes of an isomeric macrocyclic ligand

Foni Bushon Biswas* Md. Masudur Rahaman** Babul Chandra Nath***
Saswata Rabi**** Tapashi Ghosh Roy*****

Abstract

Biologically important tetraazamacrocyclic ligand 3,10-C-meso-3,5,7,7,10,12,14,14-octamethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene dihydroperchlorate, Me_8[14]diene.2$HClO_4$ (L_1.2$HClO_4$) was synthesized by the condensation of 1, 2-diaminopropane with acetone in presence of quantitative amount of $HClO_4$ and three isomeric ligands of its reduced analogues designated as L_A, L_B & L_C were separated by the reduction of L_1.2$HClO_4$ with $NaBH_4$ followed by fractional crystallization from xylene. Isomeric ligand, L_C on reaction with zinc(II) nitrate hexahydrate gave an octahedral trans product, trans-[$ZnL_C(NO_3)_2$] which on axial substitution with KCNS, KNO_2, KCl, KBr and KI produced corresponding trans derivatives of general formula trans- [$ZnL_C(X)_2$], where X = NCS, NO_2, Cl, Br or I. All these complexes have been characterized by analytical, spectroscopic and conductometric analysis. Though all the complexes are noneletrolytes and octahedral in CHCl3, but they change their geometry in DMSO. Antimicrobial activities of these complexes have been investigated against a few phytopathogenic bacteria.

Key Words: Zinc(II); Tetraazamacrocyclic ligand; Axial substitution; Spectroscopic studies; Antimicrobial activity.

BGC TRUST UNIVERSITY BANGLADESH

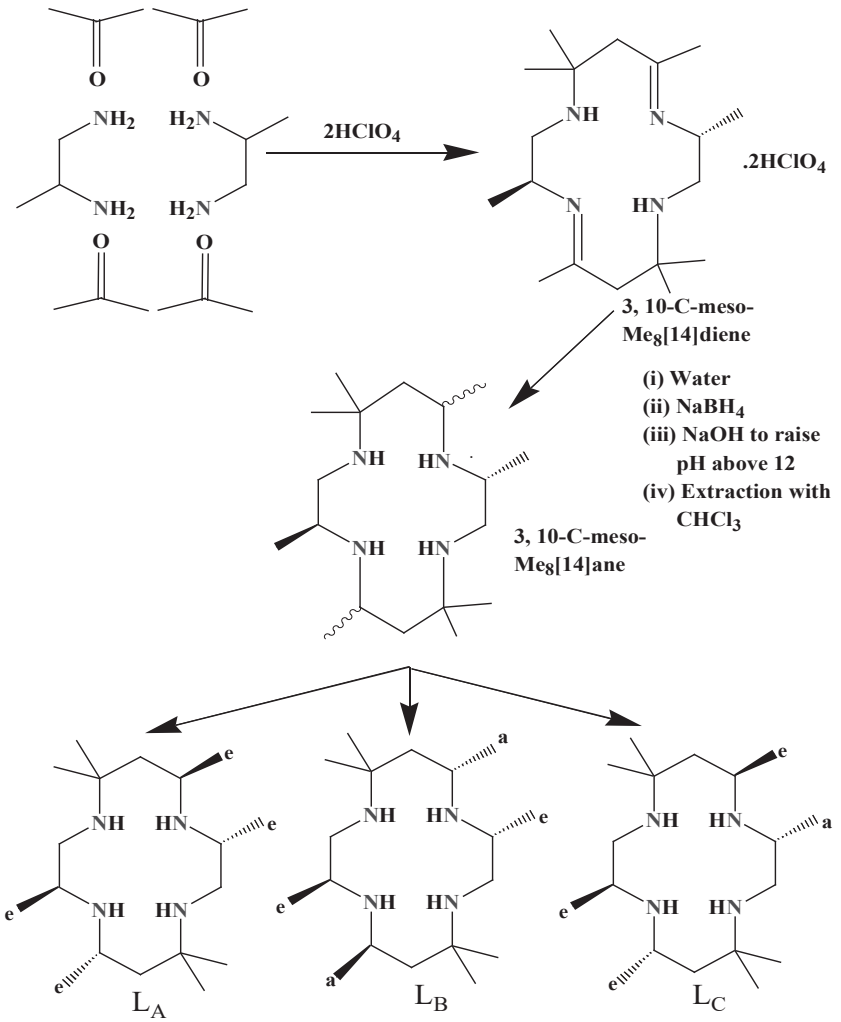
BGC Trust University Journal
Vol. 04, December, 2017, pp. 207 - 222
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Department of Chemistry, University of Chittagong*
*** Assistant Director, Anti corruption commission*
**** Department of Chemistry, Satkania Govt. College*
***** Department of Chemistry, Chittagong University of Engineering and Technology*
****** Department of Chemistry, University of Chittagong*

1. Introduction

The chemistry of macrocyclic ligands and their different metal complexes has attained a remarkable focus on their application in various sectors of modern science[1]. The macrocyclic chemistry is carrying an important role not only in the development of coordination chemistry but also in the bioinorganic chemistry. The macrocyclic compounds are also important due to their use as analytical[2] therapeutic[3] and pharmacological[4,5] agents. On the other hand, different macrocyclic compounds have been reported to exhibit potential antidiabatic[6], anticancer[7] and antitumor[8] activities. Our interest in this field revolves around an exploration of the antifungal and antibacterial activities in combination with syntheses and characterization of copper, nickel, cobalt, cadmium, zinc and palladium complexes of 3,10-C-*meso*-Me_8[14]diene (L^1), its reduced isomeric anes (L_A, L_B and L_C), analogous ligands and their N-substituted ligands [9-15].

Reports on different zinc(II) complexes with different macrocyclic ligands are available in the literature[16-19]. But axial addition and substitution reactions on zinc(II) complexes of the concerned ligand L_C have not been reported so far. So it seems attracting to investigate whether axial addition and substitution reactions on zinc(II) complexes of the concerned ligand could be prepared. The ligand salt, $L^I.2HClO_4$ and three isomeric ligands, L_A, L_B & L_C of its reduced form (Scheme-1) have been synthesized and characterized as per literature [20-22]. In this context, synthesis and characterization of dinitratozinc(II) complex of L_C, axial substitution reaction products of this complex as well as electrolytic behavior and antibacterial activities of all complexes have been carried out. Thus, herein, we report synthesis, characterization, electrolytic behavior and antibacterial activities of new zinc(II) complexes of the concerned ligand L_C.



Scheme-1: Synthesis of Ligands

2. Experimental

2.1 Material and Equipment

All chemicals were of analytical grade (Sigma Aldrich) or of equivalent grades and were used without further purification. The solvents were of reagent grade and dried according to standard procedure. Equipments used were of standard ones.

2.2 Syntheses

2.2.1 Syntheses of isomeric ligands (L_A, L_B, L_C)

Synthesis of the parent ligand, 3,10-C-meso-Me_8[14]diene dihydroperchlorate, $L^I.2HClO_4$ reduction of this diene and resolution of isomeric Me_8[14]anes, (L_A, L_B & L_C) were carried out as per literature [20-22].

2.2.2 Syntheses of complexes

2.2.2.1 [$ZnL_C(NO_3)_2$]

The complex, [$ZnL_C(NO_3)_2$] was prepared as per our earlier report[23] as described below.

0.312 g (1.0 mmol) of ligand, L_C and 0.297g (1.0 mmol) of zinc(II) nitrate hexahydrate were dissolved separately in 20 mL of hot methanol and mixed while hot. The solution was heated on a steam bath and the volume of the solution reduced to 10 mL. The solution was allowed to cool and a white product of [$ZnL_C(NO_3)_2$] separated from the solution was washed with methanol followed by diethylether and dried in a vacuum desiccator over silicagel.

[$ZnL_C(NO_3)_2$] ($C_{18}H_{40}N_6O_6Zn$), Yield 65%; m. p. 235 °C; Anal. Calc.(%) C, 43.07; H, 8.03; N,16.74. Found (%): C, 43.02; H, 7.99; N, 16.68. FTIR (KBr, cm^{-1}): ν_{N-H}, 3163; ν_{C-H}, 2952; ν_{CH3}, 1373; ν_{C-C}, 1184; ν_{NO3}, 1345s, 1460m; ν_{Zn-N}, 543.

2.2.2.2 Axial substitution of dinitratozinc(II) complex of L_C, [$ZnL_C(NO_3)_2$]

2.2.2.2.1 [$ZnL_C(NCS)_2$]

0.502 g (1.0 mmol) of [$ZnL_C(NO_3)_2$] and 0.097 g (2.0 mmol) of KCNS were taken separately in 20 mL hot absolute methanol and mixed while hot. The clear and colourless solution was heated on a water bath till completely dried up. The product was extracted with chloroform and colourless chloroform extract was evaporated to dryness to give white solid product, [$ZnL_C(NCS)_2$]. The product was stored in desiccator over silica gel.

$[ZnL_C(NCS)_2]$ ($C_{20}H_{40}N_6S_2Zn$), Yield, 55%; m. p. 225 °C; Anal. Calc.(%) C, 48.62; H, 8.15; N, 17.01; S, 12.98. Found (%), C, 48.58; H, 8.12; N, 16.99; S, 13.02%. FTIR (KBr, cm^{-1}), ν_{N-H}, 3130; ν_{C-H}, 2968; ν_{CH3}, 1379; ν_{C-C}, 1184; ν_{CN}, 2015; ν_{CS}, 840; δ_{NCS}, 480; ν_{Zn-N}, 572.

2.2.2.2.2 $[ZnL_C(NO_2)_2]$

0.502 g (1.0 mmol) of $[ZnL_C(NO_3)_2]$ and 0.127 g (2.0 mmol) of KNO_2 were taken separately in 20 mL hot absolute methanol and mixed while hot. The colorless solution thus obtained was heated on a steam bath and completely dried. The dry product was extracted with chloroform. The chloroform extract was evaporated to dryness to give a colourless solid product, $[ZnL_C(NO_2)_2]$.

$[ZnL_C(NO_2)_2]$ ($C_{18}H_{40}N_6O_4Zn$), Yield 64%, m. p. 235 °C, Anal. Calc.(%): C 46.01; H, 8.58; N, 17.88%. Found(%): C, 45.98; H, 8.62; N, 17.93. FTIR (KBr, cm^{-1}): ν_{N-H}, 3247; ν_{C-H}, 2966; ν_{CH3}, 1382; ν_{C-C}, 1184; $\nu_{NO2(assym)}$, 1450; $\nu_{NO2(sym),}$ 1325; $\delta_{NO2,}$ 835; ν_{Zn-N} 542, 430.

2.2.2.2.3 $[ZnL_CCl_2]$

0.502 g (1.0 mmol) of $[ZnL_C(NO_3)_2]$ and 0.149 g (2.0 mmol) of KCl were suspended in 25 mL dry methanol separately. The solution of the complex was added to the hot KCl suspension drop by drop. The reaction mixture was dried by heating on a water bath. Then colorless dry product was extracted by chloroform. The chloroform extract was evaporated to dryness on a steam bath to give a white product, $[ZnL_CCl_2]$ which was dried under vacuum over silicagel.

$[ZnL_CCl_2]$ ($C_{18}H_{40}N_4Cl_2Zn$) Yield 45%, m. p. 245 °C, Anal. Calc. (%), C, 48.17; H, 8.98; N, 12.48;. Found(%): C, 48.19; H, 8.95; N, 12.45;. FTIR (KBr, cm^{-1}): ν_{N-H}, 3101; ν_{C-H}, 2966; ν_{CH3}, 1383; ν_{C-C}, 1151; ν_{Zn-N}, 543.

2.2.2.2.4 $[ZnL_CBr_2]$

0.502 g (1.0 mmol) of $[ZnL_C(NO_3)_2]$ and 0.238 g (2.0 mmol) of KBr were suspended in 35 mL dry methanol. The reaction mixture was heated on a water bath and completely dried. The dry solid was extracted with chloroform and evaporated to dryness to yield a colorless solid complex $[ZnL_CBr_2]$.

$[ZnL_CBr_2]$, ($C_{18}H_{40}N_4Br_2Zn$), Yield 53%, m. p. 238 °C, Anal. Calc.(%): C, 40.21; H, 7.50; N, 10.42. Found(%): C, 40.18; H, 7.53; N, 10.45%. FTIR (KBr, cm^{-1}): ν_{N-H}, 3124; ν_{C-H}, 2966; ν_{CH3}, 1382; ν_{C-C}, 1182; ν_{Zn-N}, 545.

2.2.2.2.5 $[ZnL_CI_2]$

0.502 g (1.0 mmol) $[ZnL_C(NO_3)_2]$ and 0.332g (2.0 mmol) KI were taken separately in 25 mL hot methanol and then mixed. The reaction mixture was colourless, which

was heated on a steam bath till dryness. The product was dissolved in chloroform and filtered to remove any undissolved material. On evaporation of chloroform solution, a white solid complex, $[ZnL_CI_2]$ was obtained.

$[ZnL_CI_2]$, $C_{18}H_{40}N_4I_2Zn$, Yield 54%, m. p. 235 °C. Anal. Calc.(%), C, 34.22; H, 6.38; N, 8.87. Found (%): C, 34.20; H, 6.40; N, 8.88%. FTIR (KBr, cm^{-1}): ν_{N-H}, 3143; ν_{C-H}, 2966; ν_{CH3}, 1380; ν_{C-C}, 1182; ν_{Zn-N}, 543.

2.3 Physical measurements

Microanalysis (C, H, N analysis) of the complexes were carried out on a C, H, N & S analyzer at the Inorganic Research Laboratory of the Institut der Anorganische und Angewandle Chemie, Hamburg Universitaet, Germany and at Department of Chemistry. FTIR spectra were recorded on a Shimadzu IR 20 spectrophotometer as KBr disks. UV- visible spectra were recorded on a Shimadzu UV-visible spectrophotometer in DMSO. Conductance measurements were carried out on a conductivity bridge Hanna instrument HI-8820 in DMSO. Magnetic measurements were performed on Gouy Balance which was calibrated using $Hg[Co(NCS)_4]$. ^{1}H-NMR spectra were recorded in DMSO with a 400 MHz Bruker DPX-400 spectrometer using TMS as internal standard the BCSIR Laboratory, Dhaka, Bangladesh.

2.4 Antibacterial activities

Antibacterial activities of the ligands and their complexes against selected gram-positive and gram-negative bacteria were investigated by the disc diffusion method. Paper disc (6 mm in diameter) and Petri plates (70 mm in diameter) were used throughout the experiment. Pour plates were made with sterilized melted nutrient agar NA (45 °C) and after solidification of pour plates, the test organisms (suspension in sterilized water) were spread uniformly over the pour plates with sterilized glass rod separately. The paper discs after soaking with test chemicals (1 mg/1mL in DMSO) were placed at the center of the inoculated pour plates. A control plate was also maintained in each case with DMSO. At first the plates were left for four hours at low temperature (4°C) and the test chemicals diffused from disc to the surrounding medium by this time. The plates were then incubated at (35±2) °C for growth of test organisms and were observed at 24-hour and 48 hours intervals. The activity was expressed in terms of zone of inhibition in mm. The results for all concerned complexes have been reported after subtracting values for solvent DMSO itself. Tests were repeated thrice for statistical analysis.

3. Result and Discussion

The concerned octamethyl tetraazamacrocyclic ligand salt, $L^{I}.2HClO_4$ was synthesized and isomeric ligands of its reduced form, L_A, L_B & L_C were isolated as per procedure adopted in the literature[20-22] (Scheme-1). The dinitratozinc(II) complex of L_C, $[ZnL_C(NO_3)_2]$ was prepared and characterized by different analytical data and spectroscopic data. The molecular model shows that 16 diastereoisomers are possible for any complex of each isomeric ligand, but only one distereoisomer could have been isolated in this case as in other cases with L_A & L_B [23]. This dinitratozinc(II) complex underwent axial ligand substitution reactions to give a variety of trans-derivatives on reactions with KX (X= SCN, NO_2, Cl, Br & I) in proper ratio. Since infrared spectra of these complexes could not be run at a range lower than 400 cm^{-1}, so some of the IR bands due to metal-ligands (axial) stretch could not be recorded. However, conductance values of 0 $ohm^{-1}cm^2mole^{-1}$ of these complexes in chloroform supported the formation of six coordinate non-electrolytic octahedral complexes as noted in analogous complexes[23]. All these zinc(II) complexes are found to be diamagnetic as expected for the presence of paired electrons in their d^{10} system. The electronic spectra of these complexes do not exhibit any d-d band as expected for their d^{10} system. The spectra only display Zn-N charge transfer bands. Since ^{1}H-NMR spectra of all the derivative complexes have not been measured due to lack of facilities, so the stereochemistry of all derivatives have been assigned on the basis that axial substitution takes place without change of conformation and configuration of the ligand of original complex [16, 23, 24]. The details of characterization of these six coordinate complexes have been described as follows.

3.1 $[ZnL_C(NO_3)_2]$

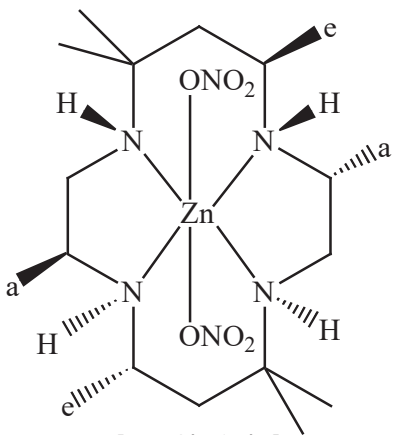
Interaction of L_C with zinc(II) nitrate hexahydrate produced white solid product. All the analytical and spectroscopic data are consistent with the molecular formula $[ZnL_C(NO_3)_2]$. The infrared spectrum of the complex $[ZnL_C(NO_3)_2]$ exhibits ν_{NH} band at 3163 cm^{-1}, and other characteristic ν_{C-H}, ν_{CH3}, ν_{C-C} and ν_{Zn-N} bands at the expected region. The spectrum further displays bands at 1460 cm^{-1} and 1345 cm^{-1} attributed to coordinated NO_3^- group. The separation of these bands by 115 cm^{-1} is accounted for unidentate mode of coordination[25]. Molar conductivity value 0 $ohm^{-1}cm^2mole^{-1}$ (Table-1) of the complexes in chloroform indicates that the complex is non-electrolyte in nature[26]. Again 73 $ohm^{-1}cm^2mole^{-1}$ in DMSO and 172 $ohm^{-1}cm^2mole^{-1}$ in water corresponding to 1:1 (expression-01) and 1:2 (expression-2) electrolyte is probably due to the replacement of one NO_3^- ion by one DMSO molecule and two NO_3^- ions by two H_2O molecules from the coordination

sphere respectively. These replacement reactions can be expressed by the following expressions.

$$[ZnL_C(NO_3)_2] \xrightarrow{DMSO} [ZnL_C(NO_3)DMSO](NO_3) \text{ …….. (1)}$$

$$[ZnL_C(NO_3)_2] \xrightarrow{H_2O} [ZnL_C(H_2O)_2](NO_3)_2 \text{ ....……(2)}$$

The 400 MHz ^{1}H-NMR spectrum (Table-2) of $[ZnL_C(NO_3)_2]$ exhibits two singlets at 1.21 and 1.40 ppm each corresponding to six protons. These singlets can be assigned to equatorial and axial components of gem-dimethyl groups on C_7 and C_{14}. In addition the spectrum displays two doublets at 1.17 and 1.37 ppm each corresponding 6H can be assigned to a pair of equatorial methyls and axial methyls respectively attached on the four chiral carbons respectively. The spectrum further shows three multiplets at 2.21, 3.34 and 4.73 ppm due to methylene, methyne and NH protons. Thus a diaxial-diequatorial arrangement with trans-III type configuration has been assigned to this complex. Trans-III type structure has also been shown to be more stable configuration as assigned to other complexes[16, 23, 24]. On the basis of above discussion octehedral structure (I) can be assigned for $[ZnL_C(NO_3)_2]$.



[ZnLC(NO3)2]

Table 1. Molar conductivity data for complexes

Complexes	**In H_2O ($ohm^{-1}cm^2\ mol^{-1}$)**	**In $CHCl_3$ ($ohm^{-1}cm^2\ mol^{-1}$)**	**In DMSO ($ohm^{-1}cm^2\ mol^{-1}$)**
$[ZnL_C(NO_3)_2]$	172	0	73
$[ZnL_C(NCS)_2]$	-	0	156
$[ZnL_C(NO_2)_2]$	106	0	-
$[ZnL_CCl_2]$	-	0	57
$[ZnL_CBr_2]$	-	0	77
$[ZnL_CI_2]$	-	0	55

'-' means not done.

Table 2. $_1$H-NMR data of complex $[ZnL_C(NO_3)_2]$

Complex	**For CH_3 proton (ppm)**	**For methylene, methyne and NH protons (ppm)**
$[ZnL_C(NO_3)_2]$	1.21 (e, s, 6H); 1.40 (a, s, 6H); 1.17 (e, d, 6H); 1.37 (a, d, 6H)	2.21(m); 3.34(m); 4.73 (m)

* a, e, s, d and m means axial, equatorial, singlet, doublet and multiplet respectively.

3.2 $[ZnL_C(NCS)_2]$

By the reaction of $[ZnL_C(NO_3)_2]$ with KCNS in the ratio of 1:2 and evaporation of chloroform extract yielded white solid product. The infrared spectrum of this complex shows ν_{N-H}, ν_{C-H}, ν_{CH3}, ν_{Zn-N} and ν_{C-C} stretching bands at 3130 cm^{-1}, 2968 cm^{-1}, 572 cm^{-1}, 1379 cm^{-1} and 1184 cm^{-1} respectively. This complex exhibits ν_{CN} band at 2015 cm^{-1}, ν_{CS} band at 840 cm^{-1} and δ_{NCS} band at 480 cm^{-1} So from these peak positions, it is concluded that the present complex is N-bonded and called isothiocyanato complex. The molar conductivity value of 0 $ohm^{-1}cm^2mole^{-1}$ (Table-1) of this complex in chloroform solution support the non electrolytic nature of this complex, i.e., both the thiocyanato ions are coordinated to zinc(II) ions. The molar conductivity value of 156 $ohm^{-1}cm^2mole^{-1}$ corresponding to 1: 2 electrolytes is probably due to replacement of two anion a DMSO molecule [26]. Though 1:2 electrolytes can be assigned for square pyramidal (expression-3), tetrahedral (expression-4) or octahedral (expression-5) complex, but it is more likely to assign a square pyramidal geometry. Since for the formation of tetrahedral geometry, the pre-oriented planar N_4 system of their ligand could be disturbed which is almost imposible in these cases and for octahedral structure two big DMSO molecules

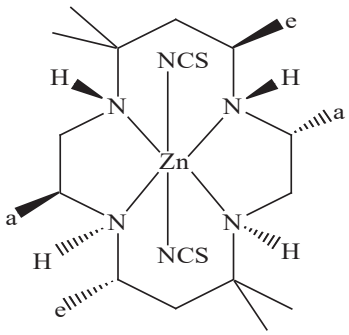
should be incorporated into the cavity which is also not favorable, so only square pyramidal structure (expression-3) in water is more favorable.

$$[ZnL_C(NCS)_2] \xrightarrow{DMSO} [ZnL_C(DMSO)](NCS)_2 \ldots\ldots\ldots (3)$$

$$[ZnL_C(NCS)_2] \xrightarrow{DMSO} [ZnL_C](NCS)_2 \ldots\ldots\ldots\ldots (4)$$

$$[ZnL_C(NCS)_2] \xrightarrow{DMSO} [ZnL_C(DMSO)_2](NCS)_2 \ldots\ldots (5)$$

On the basis of above discussion octahedral structure (II) can be assigned for $[ZnL_C(NCS)_2]$.



$[ZnL_C(NCS)_2]$

Structure (II)

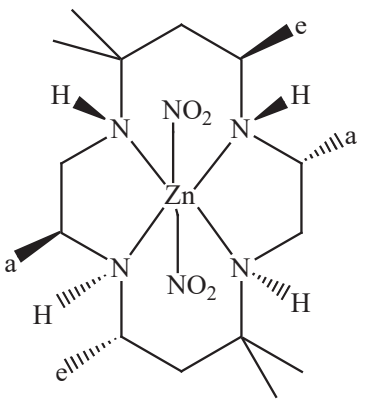
3.3 $[ZnL_C(NO_2)_2]$

Interaction of $[ZnL_C(NO_3)_2]$ with KNO_2 in methanolic solution resulted white mass, which was extracted with chloroform and evaporation of solvent yielded white solid product, $[ZnL_C(NO_2)_2]$. Infrared spectrum of this complex shows ν_{N-H}, ν_{C-H}, ν_{CH3}, ν_{C-C} and ν_{Zn-N} stretching bands at the expected regions. Moreover the complex exhibits the $\nu_{asym}(NO_2)$ and $\nu_{sym}(NO_2)$ bands at 1450 cm^{-1} and 1325 cm^{-1} respectively. Appearance of band at 835 cm^{-1} can be attributed to δ_{NO2} frequency. Presence of ν_{Zn-N} band at 430 cm^{-1} and other bands in the proper region strongly support the complex to be N-bonded nitro complex. Though NO_2^- group can also behave as bidentate ligand, it is difficult in this case as discussed earlier. The molar conductivity value of 0 $ohm^{-1}cm^2mole^{-1}$ (Table-01) in chloroform corresponding to non electrolytic nature of this complex demonstrated that two NO_2^- ions are in the coordination sphere. On the other hand molar conductivity value of 106 $ohm^{-1}cm^2mole^{-1}$ in H_2O corresponding to 1:1 electrolyte can be attributed to the

formation of its corresponding square pyramidal complex as shown by the expression 6.

$$[ZnL_C(NO_2)_2] \xrightarrow{H_2O} [ZnL_C(NO_2)](NO_2) \text{ …….. (6)}$$

So according to above evidences and earlier discussion following structure-III is assigned for this complex, $[ZnL_C(NO_2)_2]$.



$[ZnL_C(NO_2)_2]$.

Structure- (III)

3.4 $[ZnL_CX_2]$ (X= Cl, Br or I)

The complex, $[ZnL_C(NO_3)_2]$ on reaction with KX (X = Cl, Br or I) in methanol in the ratio of 1:2 gave white mass. Extraction of this product with chloroform and evaporation of solvent produced white products. The infrared spectra of these complexes show ν_{N-H}, ν_{C-H}, ν_{CH3}, ν_{C-C} and ν_{Zn-N} stretching bands at the expected regions. The IR-spectra could not be run at a range lower than 400 cm^{-1}. So the expected bands at around 260 cm^{-1} due to Zn-X stretch for $[ZnL_CX_2]$ could not be recorded. The molar conductivity value of 0 $ohm^{-1}cm^2mole^{-1}$ of chloroform solution of these complexes indicated that the complexes are nonelectrolytic in nature, i.e, both the halide ions (X^-) are in coordination sphere but the molar conductivity values of 55-77 $ohm^{-1}cm^2mole^{-1}$ of the DMSO solutions of these complexes correspond to 1:1 electrolytes. This behaviour can be accounted for the three following possibilities (expression 7, 8 & 9). Such as

(i) Replacement of one X-by one DMSO from coordination sphere

$$[ZnL_CX_2] \xrightarrow{DMSO} [ZnL_CX(DMSO)]X \text{ ..... (7)}$$

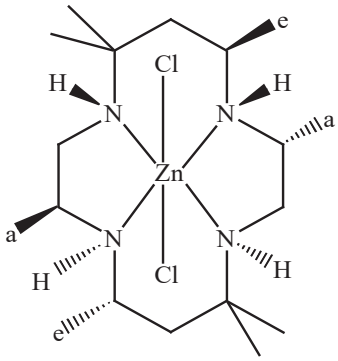
(ii) Formation of square pyramidal complex in DMSO solution

$$[ZnL_CX_2] \xrightarrow{DMSO} [ZnL_CX]X \text{ ..... (8)}$$

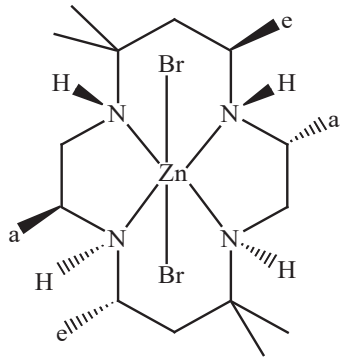
(iii) An equilibrium between a nonelectrolyte [ZnLCX2] and 1:2 electrolytes

$$[ZnL_CX_2] \underset{}{\overset{DMSO}{\rightleftharpoons}} [ZnL_C(DMSO)_2]X_2 \text{ .... (9)}$$

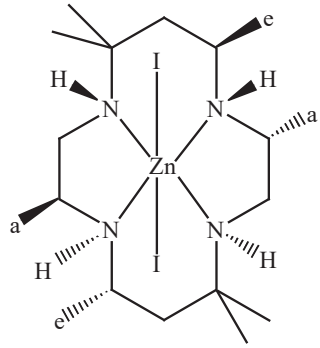
However, since DMSO is a big molecule, incorporation of DMSO in the coordination sphere is difficult. So the second possibility (expression-7) is more favorable. On the basis of above discussion the following structures (IV), (V) and (VI) can be assigned to $[ZnL_CCl_2]$, $[ZnL_CBr_2]$ and $[ZnL_CI_2]$ respectively.



$[ZnL_CCl_2]$
Structure (IV)



$[ZnL_CBr_2]$
Structure (V)



$[ZnL_CI_2]$
Structure (VI)

Table 3: Antibacterial activities of the compounds

Compounds	Inhibition zone of the compounds against bacteria			
	Gram-positive bacteria		Gram-negative bacteria	
	B. cereus	*S. aureus*	*E. coli*	*S. typhi*
L_C	8	7	5	6
$[ZnL_C(NO_3)_2]$	15	14	13	14
$[ZnL_C(NCS)_2]$	16	14	12	15
$[ZnL_C(NO_2)_2]$	14	14	15	12
$[ZnL_CCl_2]$	3	2	4	3
$[ZnL_CBr_2]$	12	10	12	14
$[ZnL_CI_2]$	14	16	14	12
$[ZnL_CCl_2]$	20	22	18	20
Ampiciline	24	22	28	34
DMSO	5	6	7	8
$ZnNO_3.6H_2O$	4	8	4	3

3.5 Antibacterial activities

Antibacterial activities of the concerned macrocycles and their complexes have not been studied extensively except for a few cases[27-19]. It is therefore noteworthy to examine whether the ligand and its Zn(II) complexes show any such activity against some specific bacteria. Moreover in our earlier studies[27-29] the concentration was maintained at 1mg/mL only. In the present case, it was found that almost all complexes including ligands were ineffective at the concentration of 1mg/mL. So the activities of all ligands, complexes, non-coordinated metal, solvent as control, standard antibiotic Ampiciline were studied at the concentration of 2.5 mg/mL. Thus, investigation directed towards the antibacterial activities of this ligand and its zinc(II) complexes have been carried out against two important gram-positive and two gram-negative bacteria which cause different fatal diseases, viz. *Salmonella typhe*, cause typhoid fever, and *Escherichia coli* & *Bacillus cereus*, cause gastroenteritis. The results [Table-3] show that, while the ligands are poorly effective in all cases, but almost all of their Zn(II) complexes exhibit notable antibacterial activity. This is in accord with observations on complexes of copper(II), nickel(II) of Me_8[14]anes and their N-pendent systems[27-29]. As seen from the study, though all of the complexes were effective against both gram-positive and gram-negative bacteria, but the effectiveness varies from complex to complex. Increased activity of the complexes compared to ligands can be explained by using the chelation theory[30]. The possible mechanism is that the complexes disturb the respiration process of the cell and thus block the synthesis of proteins, which fact restricts the growth of the organism[31].

4. Conclusion

This study reveals that the concerned isomeric ligand L_C undergoes facile complexation with zinc(II) when reacts with zinc(II) nitrate hexahydrate to produce octahedral dinitrato complex, $[ZnL_C(NO_3)_2]$. This dinitratozinc(II) complex undergoes axial substitution reactions with SCN^-, NO_2^-, Cl^-, Br^- & I^- to produce corresponding substituted derivative complexes of general formula $[ZnL_CX_2]$ (X= NCS, NO_2, Cl, Br or I). It is noted that, in all cases though the complexes are having nonelectrolytic octahedral geometry in $CHCl_3$ but they change their geometry as square pyramidal in DMSO corresponding to 1:1 electrolyte. Regarding antibacterial activity, though the ligand is poorly effective as antibacterial agent against concerned gram positive and gram-negative bacteria at a concentration of 2.5 mg/mL, but almost all of the complexes exhibit notable activities at the same concentration.

Acknowledgment

We gratefully acknowledge to the Ministry of Science and Technology, People's Republic of Bangladesh for awarding a Research Grant to Tapashi Ghosh Roy. The authors are also thankful to the Department of Microbiology for antimicrobial studies, University of Chittagong, Bangladesh.

References

1. L. Fabbrizzi, M. Micheloni and P. Paoletti, *Inorg. Chem.,* **19(2)**, 535 (1980).
2. Y.W. Ren, H. Guo, C. Wang, J.J. Liu, H. Jiao, J. Li and F.X. Zang, *Trans. Met. Chem*., **31(5)**, 611(2006)
3. Lippert, B. (Ed.): Cisplatin-chemistry and biochemistry of a leading anticancer drug. *WILEY-VCH<Weinheim*, (1999).
4. S.G. Shankarwar, B.B. Nagolkar, V.A. Shelke and T.K. Chondhekar, *Spectrochim. Acta Part A*, **145**, 188 (2015).
5. V. Pawar, S. Joshi and V. Ua, *J. Chem. Pharm. Res.,* **3(1)**, 169 (2011).
6. J. Vanco, J. Marek, Z. Travnicek, E. Racanska, J. Muselik and O. Svajlenova, *J. Inorg. Biochem.,* **102(4)**, 595 (2008).
7. A.T. Chaviara, P.J. Cox, K.H. Repana, R.M. Papi, K.T. Papazisis, D.A. Zambouli, H. Kortsaris, D.A. Kyriakidis and C.A. Bolos, *J. Inorg. Biochem.,* **98(8)**, 1271 (2004).
8. S.A. Galal, K.H. Hegab, A.S. Kassab, M.L. Rodriguez, S.M. Kervin, A.M.A. El-Khamry and H.I. El Diwani, *Eur. J. Med. Chem.,* **44(4)**, 1500 (2009).

9. D.P. Singh, R. Kumar and P. Tyagi, *Transition Met. Chem.,* **31**, 970 (2006).
10. A. Chaudhary, R. Swaroop and R. Singh, *Bol. Soc. Chile Quim.,* **47**, 203 (2002).
11. S.K.S. Hazari, T.G. Roy, B.K. Dey, S.C. Das and E.R.T. Tiekink, *Metal-Based Drugs,* **4(5),** 255 (1997).
12. T.G. Roy, S.K.S. Hazari, B.K. Dey and E.R.T. Tiekink, *Metal Based Drugs.,* **6(6)**, 345 (1999).
13. T.G. Roy, S.K.S. Hazari, B.K. Dey, R. Sutdradhar, L. Dey, N. Anowar and E.R.T. Tiekink, *J. Coord. Chem.,* **59(3),** 351 (2006).
14. T.G. Roy, S.K.S. Hazari, B.K. Dey, H.A. Miah, C. Bader and D. Rehder, *Eur. J. Inorg. Chem*., 4115 (2004).
15. P. Palit, S. Rabi, B.K. Dey, D. Palit, M. Uddin and T.G. Roy, *Iran. J. Chem.* (In press).
16. M. Shakir, S. Khanam, M. Azam, A.U. Khan and F. Firdaus, *Synth. React. Inorg., Metal-Org., Nano-Metal Chem.,* **41**, 979 (2011).
17. S.M.A. Yusoff, A. Sallehhuddin, L.M. Yusoff, B.M. Yamin, I. Nazlina and O.E. Leng, *Orient. J. Chem*. **31(3)**, 1751 (2015).
18. C. Benelli, A. Dei, D. Gatteschi and L. Pardi, *Inorg. Chem.,* **28(8)**, 1476 (1989).
19. T.J. Hubin, N.W. Alcock, M.D. Morton and D.H. Busch, *Inorg. Chim. Acta.,* **348**, 33 (2003).
20. T.G. Roy, S.K.S Hazari, K.K. Barua, D.I. Kim, Y.C. Park and E.R.T. Tiekink, *Appl. Orgnometal. Chem.,* **22**, 637 (2008).
21. N.F. Curtis, S.A. Swann, T.N. Waters and I.E. Maxwell, *J. Am. Chem. Soc.* **91**, 4588 (1969).
22. R. Bembi, S.M. Sondhi, A.K. Singh, A.K. Jhanjii, T.G. Roy, J.W. Lown and R.G. Ball, *Bull. Chem. Soc. Jpn*., **62**, 3701(1989).
23. T.G. Roy, S.K.S. Hazari, K.K Barua, B.K. Dey, B.C. Nath, A. Dutta, F. Olbrich and D. Rehder, *Inorg. Chim. Acta.*, **371**, 63 (2011).
24. S. Alam, S. Rabi, M.M. Rahaman, A. Baidya, M. Debi, T.G. Roy, *J. Chem. Sci.*, **35**, 1 (2018).
25. C.M. Madyski, J.P. Michael and R.D. Hancock, *Inorg. Chem.*, **23**, 1487 (1984).
26. N.N. Greenwood and B.P. Straughan and A.E. Wilson, *J. Chem. Soc. A,* 2209 (1968).

27. T.G. Roy, S.K.S Hazari, B.K. Dey, S. Dutta, M.A. Monsur and E.R.T. Tiekink, *J. Coord. Chem.* **59(15)**, 1757 (2006)

28. D.P. Singh, V. Malik, R. Kumar and J. Singh, *J. Enzyme Inhib. Med. Chem.,* **24(5),** 1201 (2009).

29. T.G. Roy, S.K.S. Hazari, B.K. Dey, H.A. Miah, C. Bader and D. Rehder, *Eur. J. Inorg. Chem.,* 4115 (2004).

30. M. Salehi and M. Hasanzadeh, *Inorg. Chim. Acta.,* **426**, 6 (2015).

31. N. Dharmaraj, P. Viswanathamurthi and K. Nataranjan, *Trans. Met. Chem.,* **26**, 105 (2001).

Examining the Relationship between the Components of Emotional Intelligence and Job Stress Management: A Study on Listed Commercial Banks in Bangladesh

Rashed Mahmud Shakil *
Md. Siraz Meah **

Abstract

The purpose of this study is to examine the relationship between components of emotional intelligence and job stress management of Bankers working in the listed commercial banks in Bangladesh. Data were collected from 80 bankers who are working in the top, mid, and low level of different banks. Authors have used convenience sampling method in this regard. Data were analyzed by the help of descriptive statistics, bi-variate correlation, and multiple regression models. To do this, authors used Statistical Packages of Social Science (IBM SPSS 23 version).The findings of the study indicate that among five components of Emotional intelligence (EI), two components such as Self-Awareness (SA) and Motivation (MO) are positively correlated (r = 0.053, r = 0.172) while remaining three components such as Self-Regulation (SR), Empathy (EM), Social Skills (SS) are negatively correlated (r = -0.140, r = -0.052, r = -0.093) with Job Stress Management (JSM). A significant implication of this research is that employees should recognize and utilize their emotional intelligence expertise to manage effectively their own and colleagues' job stress. Limitations and future research guidance are also discussed.

Key Words: Emotional Intelligence, Job Stress Management, Bankers.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 223 - 244
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Lecturer, Faculty of Business Administration, BGC Trust University Bangladesh*
*** Assistant Professor, Faculty of Business Administration, BGC Trust University Bangladesh*

1.0 Introduction

The twenty-first century is characterized by the era of globalization, information technology revolution, and speed (Cascio, 2001). The most significant outcome can be noticed in the current business arena, and consequently the organizations bring about outstanding changes in their structures, policies, strategies, functions, and technologies (Langley, 2000). Now-a-days organizations that are continuously changing impose modern and innovative roles and responsibilities on their employees and the employees who are ready to undertake new responsibilities require possessing excellent intelligence quotient (IQ) and proper emotional quotient (EQ) in the decision making process and solving critical problems.

The twenty-first century is also identified as an age of stress. Individuals encounter stress not only in their organizational setting but also in daily lives. Though society maintains various legal rules and regulations to assist individuals lead a healthful life, these rules and regulations do not remove stress. Therefore, a totally stress free life is not possible, and stress turns into a part and parcel of human survival. The modern literature review exhibits that among the different organizational worries, the matter of occupational stress and its paramount consequences on the employees' job performance and emotions have continued to be a buzzword among organizational behavior researchers and practitioners. In reality workplace stress is originated from work demands in corporation that results into the development of several negative psychological and physiological syndromes, which hinder their overall productivity as well as routine performance.

Individuals have applied different approaches to manage stress that includes their intelligence, particularly their emotional intelligence (Sirin, 2007). A variety of studies have proposed that individuals possessing huge emotional intelligence have more capacity to understand and manage their emotions that let them to adapt to their environment and develop more tolerance to difficult competitive situations, including stress (Bar-On, 1997; Goleman, 2005; Matthews et al.,2006). Since stress is a discerned idea while emotional intelligence acts a crucial part in the intellectual process of ascertaining the origin of the stress (Ucar, 2004).

2.0 Theoretical Framework and Literature Review

2.1 Theoretical Framework (Emotional intelligence)

Emotional intelligence (EI) attained widespread attention from scholars, psychologists, and organizational behavior (OB) researchers in recent times (Clarke, 2006; Dulewicz& Higgs, 2005; Gardner & Stough, 2002; George, 2000; Higgs &

Aitken, 2003; Leban & Zulauf, 2004; Miller, 1999; Palmer, Walls, Burgess, & Stough, 2001; Rahim et al., 2006; Rahman, Ferdausy, & Uddin, 2012; Rosete & Ciarrochi, 2005; Singh, 2007). Goleman (1995), who contributed significantly in this field as pioneer, suggested that "EI is twice as important as IQ". Goleman (1995) popularized the concept among practitioners, scientists, and ordinary readers by publishing his most-selling book namely "Emotional Intelligence". Notwithstanding, Salovey and Mayer (1990) firstly coined the concept "emotional intelligence" by drawing several research as interpersonal and intrapersonal intelligence concepts of Gardner (1983), non-intellective capability concepts of Wechsler (1940), and social intelligence concepts of Thorndike (1920). Different scholars showed a continuous interest by giving various definitions of emotional intelligence. It was Salovey and Mayer (1990) who first defined the concept EI as "a social intelligence aspect that includes the capacity of monitoring the perceptions and emotions of individuals and others, discriminating among them and using this information to direct one's judgments and activities". Three types of capacities are consisted in this definition: i) expressing and evaluating emotions ii) regulating emotions, and iii) utilizing emotions in the process of decision making. Bar-On (1997) defined EI similarly as "an orderly arrangement of social, personal, and emotional capacities that affect a person's abilities to deal efficiently with environmental forces and difficulties". EI was also defined by Goleman (1998b) as "the ability to recognize one's own perceptions and feelings of others, to motivate ourselves, and to manage our as well as our relationship's emotions in a skillful way". It points out that emotional intelligence is concerned with a set of non-cognitive expertise, capacities, or skills that can induce a person's abilities.

Another definition of EI was given by Cooper and Sawaf (1998) as "the capacity to perceive, realize, and utilize the potentials and intelligence of emotions effectively as the source of individual's dynamism, knowledge, relationship, and motivation". EI is also explained as the capacity of cognizance and perceptions to understand the feelings regarding interpersonal communication, and to hinder the allurement to react recklessly and inconsiderately, but instead of acting from responsiveness, accuracy, and simplicity (Ryback, 1998). From the viewpoint of Weisinger (1998), EI was "the intelligent use of emotions. In this way you intentionally make your emotions work for you by using them to help guide your behaviour and thinking in ways that enhance your results" (p.xvi). Davies et al., (1998) briefly defined EI as "the capacity to realize emotional information through visualized and audible stimuli". Therefore, emotional intelligence is the capacity to identify and realize emotions, to manage and coordinate emotions, and to produce and regulate emotions for the

purpose of enhancing judgments and promoting intellectual growth. Emotional Intelligence which is consisted of five components are mentioned below:

Self-awareness: It is such type of capacity by which moods, attitudes, impulses, and emotions are experienced. It is directly related with precise self-assessment, self-confidence, and emotional consciousness. According to Goleman (1995, 1998a, 1998b) "self-awareness is not only associated with a person's psychological perceptions and self comprehension but also plays a vital role in ascertaining how a person displays behaviors and communicate with other individuals". Previous researches show that the individuals who possess a high degree of self-awareness could be adept of mastering their own fate efficiently.

Self-regulation: It is the capacity to manage emotions that are encountered and includes exercising strategies such as understanding how to relax others and how negative emotions can be controlled (Goleman, 1995, 1998a, 1998b). Self-regulation is concerned with self management, trust, self consciousness, coping with uncertainty, and innovative capacity. Goleman et al., (2002) opined that individuals who are emotionally self-controlled can easily find better ways to handle their own disruptive impulses and emotions, and link those in effective manner.

Motivation: It is the capability of individuals' wants and desires, sense of aspiration, optimistic views, and self efficiency (Goleman, 1995, 1998a, 1998b). Rahim et al., (2002) contended that, an individual of self-motivation is determined on his or her achievement of goal and objectives in spite of the potential hindrances, functions from the desire of success instead of worry of failure, and receive change in order to achieve desired goals. Need for authority, need for accomplishment, and need for association lay strong and significant ground for individuals who possess self-motivation (McClelland, 1987). Shamir, House, & Arthur, (1993) argued that charismatic people are characterized as self directed and self motivated since they display not only high levels of trust and belief but also high degrees of hopes and aspirations for the upcoming future.

Empathy: It is the capacity to comprehend the other individuals' feelings, exhibit active enthusiasm to them, acknowledge and become responsive to any changes occurred in their emotional conditions. It also encompasses the ability to recognize passions and emotions, conveyed via verbal and non-verbal communication within others. Goleman (1995) suggested that empathy in connection with self-regulation develops on self-awareness. In another sense, it supports people emotionally in case of their urgency and realizes the relationship of emotions with behaviors of

other individuals (Rahim et al., 2006). Empathy has a direct association with realizing and improving others' mental state, orientation to service, expediting diversity, and awareness of political condition (Goleman, Boyatzis, & McKee, 2004).

Social Skills: It is the capabilities of handling the emotions of other individuals in such manner that interpersonal disagreement and conflicts are resolved with reasonable solutions. It encompasses social and economic competencies required for analyzing and understanding personal relationships, bargain disputes, settle personal and organizational conflicts, induce public viewpoint, and influence collaborative efforts (Goleman, 1995, 1998a, 1998b). Leaders with social skills are efficient at managing conflicts strategically and exercising change in the organization. Overall, an individual possessing social skills can learn how to communicate appropriately, guide and influence others, and disseminate critical situations by applying negotiation and persuasion skills.

2.1.2. Occupational Stress: The stress concept has become an emerging topic by gaining mass attention since past times. It is believed that the word "Stress" derived from the Latin word "Stringere", that means "bind it tight" (Humphrey, 2002). Stress has been regarded as interdisciplinary theme in the field of research for the past several decades and a noteworthy growth has been observed in the interest of researchers concerning to organizational context (Hochwarter, Perrewe, Meurs & Kacmar, 2007, Cartwright, 2000). Workplace stress or occupation related stress can be defined as different and divergent physical and mental reactions that happens when capacities, material resources, and workers' needs do not properly match with work demands (National Institute of Occupational Safety and Health (NIOSH, 1999). These reactions appear because of several physical stressors such as overload of work, changes of technology, downsizing, working overtime, bad posture, physical injury or various emotional stressors namely intense competition, schedule pressure, work conflict, and fear in the organization (Defrank, 1998; Onciul, 1996). Narayan et al., (1999) observed that these types of stressors vary from one profession to another profession. If these stressors are dealt within ineffective manner, then psychological and physiological disturbance may occur and job performance can be lowered. Spector (2002) highlighted that individuals with high levels of self-control have less possibility of experiencing stress at workplace.

2.2 Literature Review

Various recent studies have shown immense interests of researchers who explored the consequences of emotional intelligence proficiencies on stress management which reveals that positive associations existed between these two constructs

namely EI and stress management (Gardner, 2005; Spector and Goh, 2001; Ciarrochi, Chan, and Bajgar, 2001). In the working environment, occupational stress is familiar and many researchers assumed that job stress and emotional intelligence are not similar but actively interrelated constructs. For example, an employee with a strong capacity to handle his own and his subordinates' emotions can readily deal with physiological and psychological job stress (Adler et al., 2006, Hourani et al., 2006, Wetzel et al., 2006, Zhong et al., 2006; Gillespie et al., 2001, Spector, Goh, 2001). Many organizational behavior researchers also observed and exposed the relationship from various samples. In the United Kingdom (UK), Slaski and Cartwright (2002) chose 320 mid-level managers as a sample of larger retailing business for the purpose of their study. And from Greece, 212 mental health institution professionals took part (Nikolau, Tsaosis, 2002). A comprehensive findings were pointed out from these studies that the capacity of staff to cope with and utilize their emotions to handle their subordinates' attitudes, decrease their physiological and psychological job stresses (Gillespie et al., 2001; Slaski and Cartwright, 2002; Nikolau, Tsaosis, 2002). Fariselli et al., (2008) analyzed emotional intelligence, occupational stress, and job performance in the health-service sector.

The employees who possess emotional intelligence skills can handle negative emotions in their work setting and resolve any psychological difficulties with high degrees of organizational commitment and job satisfaction (Gardner, 2005). Bar-On, Brown, Kirkcaldy, and Thome (2000) examined the consequences of emotional intelligence on police officials and health-service professionals. They decided that police officials with high level of emotional intelligence can respond to their mental stress with effective managing strategies compared to health-service professionals who possess a low level of emotional intelligence. Another study conducted on Australian and American college level students indicated that students who had a high emotional intelligence level, displayed less physical syndromes, fewer social worries and depressed emotions. They possessed self-respect and interpersonal contentment, and employed effective coping techniques to handle their psychological anxieties (Salovey, Stroud, Woolery & Epel, 2002, Ciarrochi, Deane, & Anderson, 2002).

Darolia and Darolia (2005) conducted a study that revealed the impact of emotional intelligence in dealing with stressful situations and emotions controlling behavior. The study discovered that the people who are emotionally efficient and intelligent are capable of understanding and recognizing their own emotions, managing themselves to keep control under stressful circumstances.

Oginska – Bulik (2005) examined the association between EI and stress management in the organization and various health related outcomes among workers. The research recognized emotional intelligence as a safeguard which restrain employees from negative consequences of health, particularly from the syndromes of depressed emotions.

Ismail, Suh-Suh, Ajis and Dollah (2009) conducted a comprehensive study that investigated the relationship between emotional intelligence, occupation related stress, and job performance. The research exposed that emotional intelligence had significant negative correlation with occupational stress and positive correlation with job performance.

Sing and Sing (2008) guided another study on medical professionals to indicate the relationship between EI and stress coping in their respective organizational setting. The research concluded that emotional intelligence had significant negative relationship with occupational stress of both male and female professionals.

Regardless of these connections, there had been generally minimal exact empirical research inspecting the connection between Emotional Intelligence components and job stress management. It is crucial to mention that a large portion of the broad research on EI and stress management has been directed in the advanced nations like USA, UK, Canada, and Australia and in a few different areas of the world. The literature uncovered that comprehensive research on EI and its association with managing stress in a growing nation, similar to Bangladesh, is essentially missing. The gap motivated the researchers to explore and investigate the connection between the components of EI (Self-awareness, self-regulation, motivation, empathy, and social skills) and job stress management in the listed Commercial Banks of Bangladesh.

3.0 Objectives of the study

The primary objective of the study is to examine the relationship between the components of EI and job stress management. To achieve primary objective, the following specific objectives are covered:

1. To examine the relationship between self-awareness and job stress management measured by bankers' perception
2. To assess the relationship between self-regulation and job stress management measured by bankers' perception
3. To explore the relationship between motivation and job stress management measured by bankers' perception

4. To evaluate the relationship between empathy and job stress management measured by bankers' perception
5. To examine the relationship between social skills and job stress management measured by bankers' perception.

4.0 Research Methodology

4.1 Sample design

At present, there are 28 private commercial banks who are listed in CSE and DSE. For conducting the study, the total numbers of ten (10) listed private commercial banks operating in Bangladesh were selected by using convenience-sampling techniques. The target respondents were categorized into three different groups such as: top level, mid level, and low level. Besides branch manager, various designation categories were chosen such as operations manager, credit manager, customer service officer, consumer finance officer, sales in-charge, assistant officer, cashier, etc. Full autonomy was given to all respondents for giving their response. We assured to respondents that their all information will remain confidential and applied solely for the purpose of academic research. The author prepared and sent 100 structured questionnaires to the respondents for collecting data. Among the questionnaires, 80 respondents gave their feedback due to the fact that some employees resigned, some responded incorrectly, and some refused to take part in this survey. They filled up all the questions without any missing. Thus, all the 80 questionnaires were finally selected for analysis. The listed private commercial banks taken for the study are EXIM Bank Ltd., Shajalal Islami Bank Ltd. (SJIBL), Southeast Bank Ltd. (SEBL), National Credit and Commerce Bank Ltd. (NCCBL), First Security Islami Bank Ltd. (FSIBL), Bank Asia Ltd. (BAL), Uttara Bank Limited (UBL), United Commercial Bank Limited (UCBL), Jumuna Bank Ltd. (JBL) and National Bank Ltd. (NBL). The demographic characteristics of respondents are shown in details in table 01.

Table 01: Demographic characteristics of sample

Demographic characteristics		**Frequency**	**Percentage**
Gender	Male	65	81.25%
	Female	15	18.75%
	Total	**80**	**100%**
Service Tenure	Less than 5 years	30	37.5%
	5 and above	50	62.5%
	Total	**80**	**100%**
Age (Years)	25-39	35	43.75%
	40 and above	45	56.25%
	Total	**80**	**100%**
Education	Bachelor	20	25%
	Master	60	75%
	Total	80	100%
Job Position	Top	10	12.5%
	Mid	50	62.5%
	Low	20	25%
	Total	**80**	**100%**

Source: Questionnaire survey, 2017

It is shown that i) Most of the sample includes more males (81.25%) than female (18.75%); ii) Majority of the respondents are post graduate (75%) and graduate (25%); iii) 62.5% respondents worked at middle level, 25% respondents worked in lower level, and remaining (12.5%) are in top level in the organization.

4.2 Survey Instruments

Rahim et al., (2002, 2006) developed EQI for measuring emotional intelligence and to assess the perceptions of subordinates toward their individual supervisors' emotional intelligence. To evaluate the five components of emotional intelligence, the EQI applies 40-items to generate a scale. The EQI is consisted of five components namely a) self-awareness, b) motivation, c) self-regulation, d) empathy, e) social skills. All items are assessed on the basis of 5-point Likert scale that range from 5 (Strongly Agree) to 1 (Strongly Disagree). Higher level of score denotes greater level of emotional intelligence of supervisor.

The questionnaire of stress was produced on the basis of empirical study on bank employees and extensive review of literature. The fundamental purpose pertaining to this questionnaire is assessing the level of stress on the employees working in

private commercial banks and analyzing the relationship of EI components with job stress. In this perspective, the participants relate to what extent they notice the level of stress in their working environment and how their respective supervisor play vital role in managing stressful situation in the work-setting. This dimension holds 10 items and examines the subordinates' level of stress. This structured questionnaire also employs 5-point Likert scale ranging from 5 (Strongly Agree) to 1 (Strongly Disagree) that will be filled in by employees.

4.3 Data collection methods

The authors used convenience-sampling techniques in this research for identifying the respondents. For collecting data, 100 bankers working in different listed commercial banks had been selected. Upon entering into different banks, the authors briefed the bankers regarding the study purpose and the methods of completing the printed survey questionnaire. For the business and work pressure, the bankers took 5 days on an average to finish the questionnaire. Because of few unavoidable constraints, it was impossible to gather similar number of feedback from each bank. The authors took 5 days to gather data from the respondents. Total 80 (80%) practicable responses were obtained.

4.4 Data processing techniques

The study was conducted on the basis of primary data. The authors used Statistical Package for Social Science (IBM SPSS version 23.0) and excel to process the data. Karl Pearson's Correlation analysis has been used to determine the relationship between the components of EI and job stress management. Multiple linear regression analysis is also used to determine the influence of independent variables on the dependent variable. As statistical tools, t-test has been used. The authors have used t-test to find the significance of the correlation between EI and job stress management.

4.5 Reliability and validity of data

To measure the variables of the study, reliability is the best way to reflect consistency among the items. The differences among individuals regarding the extent to their agreement and disagreement of the studying variables are illustrated in reliability. The alpha of Cronbach is extensively applied for measuring the scale's reliability (Hair, Anderson, Tatham, & Black, 2003; Malhotra, 2002; Cooper & Schindler, 2001; Page & Mayer, 2000). It is necessary to mention that the alpha value of Cronbach is ranged from 00 to 01, but to make the scale reliable the agreeable level must be more than 0.60 (Malhotra, 2002; Cronbach, 1951). In the

current study, the Cronbach's alpha values for emotional intelligence and job stress management is 0.626 jointly.

The validity denotes the amount of differences in the scores of scale and explain whether right variation among the information of measured characteristics are reflected or not instead of occurring random or systematic error (Malhotra, 2002). Criterion of validity is considered in this research. This validity indicates that various criterion of variables such as demographic features, behavioral, attitudinal measures etc. were gathered simultaneously.

5.0 Findings and discussion on the result

General Statistics of sample respondents included were mean, standard deviation (table 02) in the analysis to get the exact picture of the Emotional Intelligence (EI) of bankers who are working in listed commercial bank in Chittagong. Mean, Standard Deviation and Total Observation Count (N) are the descriptive statistics that give the information of both the dependent variable (Job Stress Management) and independent variables (Emotional Intelligence).The total observation number is 80. The mean value of all five (05) components of Emotional Intelligence (EI) is 4.00 (approximate), which shows the view of satisfaction level of bankers on all five (05) components of Emotional Intelligence (EI).

Table 02: Descriptive statistics of respondents

Variables	N	Mean	Standard deviation
SA	80	4.18	0.3124
SR	80	4.16	0.2417
MO	80	4.24	0.2677
EM	80	4.05	0.3454
SS	80	4.07	0.3018
JSM	80	4.05	0.2271

SA=Self-Awareness, SR=Self-Regulation, MO=Motivation, EM= Empathy, SS=Social Skills, and JSM=Job Stress Management.

At first, the authors have done simple correlation analysis to find if there exists any correlation between the five (05) components of Emotional Intelligence (EI) and Job Stress Management (JSM). The authors have considered the five (05) components of Emotional Intelligence (EI) as independent variables for Pearson's correlation analysis and found most of the factors are correlated. The result of Pearson's correlation is given in details in the following table 03:

Table 03: Correlations Matrix

Variables	**Correlations**					
	SA	**SR**	**M0**	**EM**	**SS**	**JSM**
SA	1					
SR	0.487	1				
MO	0.449	0.307	1			
EM	0.416	0.166	0.214	1		
SS	0.353	0.302	0.259	0.210	1	
JSM	0.053	-0.140	0.172	-0.052	-0.093	1

N=80, SA=Self-Awareness, SR=Self-Regulation, MO=Motivation, EM=Empathy, SS=Social Skills and JSM=Job Stress Management.

The above table shows that Self-Awareness (SA), Self-Regulation (SR), Motivation (MO), Empathy (EM), Social Skills (SS), were found correlated with Job Stress Management (JSM) (r= 0.053, r= -0.140, r= 0.172, r= -0.052, r= -0.093) respectively. It also indicates that Self-Awareness and Motivation were positively correlated. On the other hand, Self-Regulation, Empathy, and Social Skills were negatively correlated.

In order to measure the significance of the independent variables on the dependent variable (JSM), and to find out individual contribution of five (05) components of Emotional Intelligence (EI), the authors have extended the analysis to multivariate analysis (Multiple regressions). The summary of regression is shown in the following table 04:

Table 04 summary of regression between components of EI and Job Stress Management

Predictors/component of EI	Unstandardized Coefficients		Value of t-statistics	Sig	Value of R square	Value of F-statistics
	Beta	S.E				
SA	0.105	0.107	0.979	0.33	0.10	1.55
SR	-0.216	0.121	-1.783	0.07		
MO	0.194	0.106	1.822	0.07		
EM	-0.065	0.080	-0.813	0.41		
SS	-0.085	0.09	-0.930	0.35		

Correlation is significant at the level of 10%, N=80, SA=Self-Awareness, SR=Self-Regulation, MO=Motivation, EM=Empathy, SS=Social Skills and JSM=Job Stress Management.

The table 04 provides useful information about regression analysis. The column labeled "Unstandardized Coefficients" reveals the unstandardized regression coefficients. The t-test tells whether the regression coefficient is different enough from zero to be statistically significant at the level (0.000). 'R' square states the proportion (percentage) of the (sample) variables in the dependent variable that can be attributed to the independent variables. Here, F ratio is 1.55. So, the smaller the F ratio, the smaller variance in the dependent variable is explained by the independent variables. In general, R square always increases as independent variables are added to a multiple regression model.

In the study, the value of R-square for the regression model is 0.10. This means that 10 percent of the variation in Job Stress Management (dependent variable) among the respondents could be explained for the five (05) components (SA, SR, MO, EM, and SS) of Emotional Intelligence (independent variables) while larger portions of variance in the five (05) components of EI was unexplained. The reason for unexplained variance suggests that there were other implied variables that account for variance in EI. Among five (05) predictors, only Self-Regulation (SR), and Motivation (MO) were significant at the level of 10% and other three predictors were not significant statistically. It indicates that three (03) predictors like Self-Awareness (SA), Empathy (EM), and Social Skills (SS) did not account for any significant statistically.

At last, it can be said that the authors intend to examine the relationship between the components of EI and job stress management (JSM) as perceived by the bankers who are working in the listed commercial banks in Bangladesh. The first objective of the study was to examine the relationship between self awareness and job stress management (JSM) measured by respondents' (bankers) perception. The obtained result from above analysis indicated that the first objective was attainable. Thus, respondents (bankers) with higher self awareness are more likely to be high job stress handling managers. The third objective of the study was to investigate the relationship between motivation and job stress management (JSM). In this regard, positive result was found. This positive relationship also supported the second objective. Thus, it can be said that motivated bankers (respondents) can handle their own stress via emotional intelligence.

6.0 Implications for management

A significant research implication is that employees should attain and utilize their emotional intelligence expertise to manage their own as well as their colleagues' job stress. Contemporary organizations ought to concentrate on developing EI skills of the employers who are competent to reduce job stress. More importantly, the significant consequences of emotional intelligence components on managing occupational stress are noteworthy in the area of Human Resource Management (HRM) and in promoting the strategic capabilities of the organizations. In growingly competitive circumstances, many organizations are recklessly searching for creative and innovative methods for attaining and retaining their organization's competitive advantage, and thus applying EI expertise to recognize and manage emotions has been considered as foremost priority. The present study is pertinent to researchers, practitioners, and academicians since the findings may assist them to moderate the level of job stress by identifying the supervisor who possesses self-awareness, self-regulation, empathy, motivation, and social skills.

7.0 Limitations and Future Directions

The most significant defects of this study were to use convenience samples that might confine the finding's generalizability. To ensure the finding's generalizability, a random sampling method can be best used. Another limitation faced by this study was the sample size (N=80). A large number of samples are required for additional investigation of the association between the emotional intelligence components and stress management. Lastly, it needs to be mentioned that EQI used in the present study is an instrument rated by the observer. This instrument was deficient of 360 degree evaluation where the participants are rated by bosses,

colleagues, supervisors, peers, and subordinates on the basis of certain criteria.

Future research will be beneficial by taking larger sample and utilizing different types of samples (Brown & Schutte, 2006). A Structural Equation Model (SEM) produces more trustworthy results with respect to the measurement's construct validity. Further research could also be conducted to examine the relationship between EI components and stress management on other service professionals who have direct interactions with customers such as restaurant staff, nursing, university and sales assistants etc.

8.0 References

Adler, D.A., McLaughlin, T.J., Rogers, W.H., Chang, H., Lapitsky, L. and Lerner, D. (2006). Job performance deficits due to depression. *American Journal of Psychiatry, 163,* 1569-1576. doi:/10.1176/appi.ajp.163.9.1569

Bar-On, R. (1997). The Emotional Quotient Inventory (EQ-i). *Technical Manual*. Toronto: Multi Health Systems.

Bar-On, R., Brown, J., Kirkcaldy, B., & Thome, E. (2000). Emotional Expression and Implications for Occupational Stress: An Application of the Emotional Quotient Inventory (EQ-I). Personality and Individual Differences, *28,* 1107-1118.

Bass, B. (1990). *Bass and Stogdill's Handbook of Leadership: Theory, Research and Managerial Applications*. New York: Free Press.

Brotheridge, C. M. (2001). A comparison of alternative models of coping: Identifying relationships among co-worker support, workload, and emotional exhaustion in the workplace. *International Journal of Stress Management, 8,* 1-14.

Brotheridge, C. M. (2003). The Role of Fairness in Mediating the Effects of Voice and Justification on Stress and Other Outcomes in a Climate of Organizational Change. *International Journal of Stress Management, 10,* 253-268.

Brown, R., & Schutte, N. (2006). Direct and indirect relationships between emotional intelligence and subjective fatigue in university students. *Journal of Psychosomatic Research, 60,* 585-593.

Burns, J. (1978), *Leadership*. New York: Harper & Row.

Cartwright, S. (2000). Taking the pulse of executive health in the UK. *The Academy of Management Executive, 14,* 16-24.

Cascio W. F. (2001). Knowledge creation for practicalsolutions appropriate to a changing world of work. *South African Journal of Industrial Psychology. 27*(4): 14–16.

Caulfield, N., Chang, D., Dollard, M. F. & Elshaug, C. (2004). A review of occupational stress interventions in Australia. *International Journal of Stress Management, 11,* 149-166.

Ciarrochi, J, Chan, A & Bajgar, J. (2001). Measuring emotional intelligence in adolescents. Personality and Individual Differences, *28,* 539-561.

Ciarrochi, J., Deane, F. P., & Anderson, S. (2002). Emotional intelligence moderates the relationship between stress and mental health. Personality and Individual Differences, *32,* 197-209.

Clarke, N. (2006). "Emotional intelligencetraining: A case of caveat emptor". *Human Resource Development Review,5*(4), 422.

Cooper, D., & Schindler, P. (2001). *Business Research Method*s. Sydney: McGraw-Hill.

Cooper, R., & Sawaf, A. (1998). *ExecutiveEQ: Emotional intelligence inleadership and organizations*. Perigee.

Cronbach, L. (1951). "Coefficient alpha and the internal structure of tests". *Psychometrika, 6*(3), 297-334.

Darolia C.R & Darolia S., The Punjab Heritage, 2005, Vol -20.

Davies, M., Stankov, L., & Roberts, R. (1998). "Emotional intelligence: Insearch of an elusive construct". *Journal of Personality and Social Psychology*, *75*(4), 989-1015. doi:10.1016/j.jpsychores.2006.05.001

DeFrank, R. S., Ivancevich, J. M. (1998). Stress on the job: An executive update. *Academy of Management Executive, 12,* 55-66.

Dulewicz, V., & Higgs, M. (2000). Emotional intelligence: A review and evaluation study. *Journal of Managerial Psychology, 15*(4), 341-372.

Galanakis, M., Stalikas, A., Kallia, H., Karagianni, C., & Karela, C. (2009). Gender differences in experiencing occupational stress: the role of age, education and marital status. *Stress and Health, 25,* 397-404.

Gardner, H. (1983). *Frames of Mind: TheTheory of Multiple Intelligences*. Basic Books.

Gardner, L. & Stough, C. (2002)."Examining the relationships between leadership and emotional intelligence in senior level managers". *Leadership and Organizational Development Journal, 23,* 68-78.

Gardner, L. (2005). Emotional intelligence and occupational stress. Unpublished doctoral dissertation, Swinburne University of Technology, Melbourne, Australia.

Gardner, W., & Avolio, B. (1996). "Charismatic leadership: The role of impression management". *Unpublished manuscript*. Gender and occupation, *J. Organizational Behavior, 20*(1), 63-73.

George, J. (2000). "Emotions and leadership: The role of emotional intelligence". *Human Relations, 53*(8),1027-1056.

Gillespie, N. A., Walsh, M., Winefield, A. H., Dua, J. and Stough, C. (2001) Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress. *Work and Stress*, 15(1), 53-72. doi: 10.1080/02678370117944

Goleman D (2005). Why is emotional intelligence more important than IQ? (In Turkish). (Trans. ByBanu S. Yüksel).*Varlık Publications*, Istanbul,Turkey.

Goleman, D. (1995). *Emotional Intelligence*. New York: Bantam Books.

Goleman, D. (1998a). "What makes a leader?" *Harvard Business Review*, November-December, 93-102.

Goleman, D. (1998b). *Working with Emotional Intelligence*. New York: Bantam Books.

Goleman, D., Boyatzis, R., & McKee, A. (2002). *The new leaders: Transforming the art of leadership into the science of results*. London: Little, Brown.

Goleman, D., Boyatzis, R., & McKee, A. (2004). *Primal leadership: Learning to lead with emotional intelligence*. Boston: Harvard Business School Press.

Hair, J., Anderson, R., Tatham, R., & Black, W. (2003). *Multivariate Data Analysis with Readings*. New Jersey: Prentice Hall.

Higgs, M., & Aitken, P. (2003)."An explorationof the relationship between emotional intelligence and leadership potential". *Journal of Managerial Psychology,18*(8), 814-823.

Hochwarter, W. A., Perrewe, P. L., Meurs, J. A. & Kacmar, C. (2007). The interactive effects of work-induced guilt and ability to manage resources on job and life satisfaction. *Journal of Occupational Health Psychology. 12,* 125-135.

Hourani, L. L., Williams, T. V., Kress, A. M. (2006). Stress, mental health and job performance among active duty military personnel: Findings from the 2002 Department of Deference health-related behaviors survey", *Military Medicine, 171*(9), 2006, pp. 849-856. http://dx.doi.org/10.1037/0003-066X.55.6.665

Humphrey, J. H. (2002), *An Anthology of Stress: Selected Works*, Nova Science Publishers.

Ismail, A. Suh-Suh Y., Ajis, M. N. and Dollah, N. F. (2009). Relationship between Work related stress, Emotional Intelligence and Job Performance: An Empirical Study in Malaysia. *Theoretical and Applied Economics, 10* (539), 3-16.

Kazmi, R., Amjad, S., & Khan, D. (2008). Occupational stress and its effect on job performance: A case study of medical house officers ofdistrict Abbottabad. *Journal of Ayub Medical College. 20*(3), 135-139.

Fariselli, L., Freedman, J., Ghini, M., and Valentini, F. (2008). Stress, emotional intelligence and performance in health care. *Six Seconds White Paper,* February 25, pp: 1-11. https://www.6seconds.org/sei/media/WP_Stress_EQ.pdf.

Langley, A. L. (2000). Emotional Intelligence – a new evaluation for management development. *Career Development International, 5* (3), 177-183.

Lazarus, R. (2000). Toward better research on stress and coping. *American Psychologist, 55,* http://dx.doi.org/10.1037/0003-066X.55.6.665

Leban, W., & Zulauf, C. (2004). "Linking emotional intelligence abilities and transformational leadership styles". *Leadership and Organization Development Journal, 25*(7), 554-564.

Malhotra, N. K. (2002). *Marketing Research: an applied orientation* (3rd ed.).

Matthews, G., Emo, A. K., Funke, G., Zeidner, M., Roberts, R. D., Costa, P. T. Jr., & Schulze, R. (2006). Emotional intelligence, personality, and task-induced stress. *Journal of Experimental Psychology: Applied, 12,* 96-107.

McClelland, D. (1987). "Biological aspects of human motivation". *Motivation, Intention, and Volitio*n, 11-19.

Miller, M. (1999). "Emotional intelligencehelps managers succeed". *Credit Union Magazine, 65*(7), 25-26.

Narayan, L., Menon, S., and Spector, P. E. (1999). Stress in the workplace: A comparison of gender and occupations. *Journal of Organizational Behavior, 20*(1), 63–73.

National Institute of Occupational Safety and Health (NIOSH), (1999), "Stress at Work, Centres for Disease Control and Prevention." *U.S. Department of Health and Human Services, Publication No.26,* pp. 99-101.

Nikolaou, I., & Tsaousis, I. (2002). Emotional intelligence in the workplace: Exploring its effects on occupational stress and organizational commitment. *The International Journal of Organizational Analysis, 10*(4), 327-342.

Nina, O. (2005). Emotional intelligence in the work place; exploring its effects on occupational stress and health outcomes in human service workers, *International journal of Occupational medicine and environmental health, 18*(2).

Oginska-Bulik, N. (2005). Emotional intelligence in the workplace: Exploring its effects on occupational stress and health outcomes in human service workers. *International Journal of Occupational Medicine and Environmental Health, 18*(2), 167 175.

Onciul, J. V. (1996). Stress at work, *British. Medical, 313*(7059), 745-748.

Page, C., & Meyer, D. (2000). *Applied Research Design for Business and Managemen*t. New York: McGraw- Hill.

Palmer, B., Walls, M., Burgess, Z., &Stough, C. (2001). "Emotional intelligenceand effective leadership". *Leadershipand Organizational DevelopmentJournal*, 22(1), 5-10.

Popper, K. (1959). *The logic of scientific discovery:* Hutchinson.

Rahim, M., Psenicka, C., Oh, S., Polychroniou, P., Dias, J., Rahman, M., & Ferdausy, S. (2006). "Relationship between emotional intelligence and transformational leadership: A crosscultural study". In M. A. Rahim (Ed.), *Current Topics in Management*, New Brunswick & London: Transaction Publishers, 11, 223-236.

Rahim, M., Psenicka, C., Oh, S.,Polychroniou, P., Dias, J., Rahman, M.,&Ferdausy, S. (2006). "Relationshipbetween emotional intelligence andtransformational leadership: A cross cultural study". In M. A. Rahim (Ed.),*Current Topics in Management*, NewBrunswick & London: TransactionPublishers, 11, 223-236.

Rahim, M., Psenicka, C., Polychroniou, P., Zhao, J., Yu, C., Chan, K., Susana, K., Alves, M., Lee, C., Rahman, M., Ferdausy, S., & Wyk, R. (2002). "A model of emotional intelligence and conflict management strategies: A study in seven countries". *International Journal*, 10(4), 302-326.

Rahman, M., Ferdausy, S., &Uddin, M.(2012)."Examining the relationshipsbetween emotional intelligence and thecomponents of transformational leadership".*The ABAC Journal*, 32(1), 45-59.

Rosete, D., &Ciarrochi, J. (2005)."Emotionalintelligence and its relationshipto workplace performance outcomes ofleadership effectiveness".*Leadership& Organization Development Journal*,26(5), 388-399.

Ryback, D. (1998). Putting Emotional Intelligence to Work: Successful Leadership Is More than Just IQ, Butterworth-Heinemann, Boston, MA.

Salovey, P., & Mayer, J. D. (1990). Emotional Intelligence. Imagination, Cognition, and Personality, 185-211. http://dx.doi.org/10.2190/DUGG-P24E-52WK-6CDG

Salovey, P., Stroud, L. R., Woolery, A., &Epel, E. S. (2002). Perceived emotional intelligence, stress reactivity, and symptom reports: Further explorations using the Trait Meta-Mood Scale. Psychology and Health, 17, 611-627

Schaufeli, W. B. & Kompier, M. A. J.(2001). Managing job stress in the Netherlands. *International Journal of Stress Management, 8,* 15-34.

Shamir, B. (1991). "The charismatic relationship: Alternative explanations and predictions". *Leadership Quarterly*, 2(2), 81-104.

Shamir, B., House, R. J., & Arthur, M. B. (1993). "The motivational effects of charismatic leadership: A self-concept based theory". *Organization Science*, 4, 577-594.

Singh, S.K. & Singh, S. (2008). Managing role stress through emotional intelligence: a study of Indian medico professionals. Int. J. of Indian Culture and Business Management, 1 (4), 377-396.

Singh, S.K. (2007). Emotional intelligence and organizational leadership: A gender study in Indian context. International Journal of Indian Culture and Business Management, 1(1/2), 48–63.

Sirin G (2007).The relationship between teachers'emotional intelligence levels and their ways ofcoping up with stress (In Turkish).Master's thesis,Gazi University, Ankara, Turkey.

Slaski, M. and Cartwright, S. (2002). Health, performance andemotional intelligence: An exploratory study of retail managers. *Stressand Health, 18,* 63-68.

Spector, P. E. (2002). Employee control and occupational stress. Current Directions in Psychological Science, 11(4), 133–136.

Spector, P. E., & Goh, A. (2001). The role of emotions in the occupational stress process. In P. L. Perrewé & D. C. Ganster (Eds.). Research in OccupationalStress and Well-Being, (Volume 1): Exploring Theoretical Mechanisms andPerspectives (pp. 195-232). Greenwich, CT: JAI.

Thorndike, E. L. (1920). Intelligence and its uses. *Harper's Magazine, 140,* 227–235.

Ucar, F. (2004). The role of mind in stress, and cognitive and psychological disorders related to stress (In Turkish). *Turkish Psychology Bulletin. 10* (34-35), 85–102.

Wechsler, D. (1940). Non-intellective factors in general intelligence. *Psychological Bulletin, 37,* 444–445.

Weisinger, H. (1998). Emotional intelligence at work: The untapped edge for success. San Francisco, CA: Jossey-Bass.

Wetzel, C. M., Kneebone, R. L., Woloshynowych, M., Moorthy, K., Darsy, A. D. (2006). The effects of stress on surgical performance, *The American Journal of Surgery, 191*(1), 5-10. http://dx.doi.org/10.1016/j.amjsurg.2005.08.034

Yukl, G. (2010). *Leadership in organizations (7th ed.)*. Upper Saddle River: Prentice Hall.

Zhong, F., Yano, E., Lan, Y., Wang, M., Wang, Z., & Wang, X. (2006). Mental ability and psychological work performance in Chinese workers. *Industrial Health, 44,* 598 - 603.

Effect of Aluminum Sulphate on Sodium Alginate based Amoxicillin Trihydrate Beads

Jewel Mallick*
Irin Ferdous**

Abstract

Cross linked alginate beads were prepared by using Amoxicillin Trihydrate in different percentage of $Al_2(SO_4)_3$ solution. Drug was blended with polymer for five batches of F-1 to F-5 formulations where drug:polymer ratios are 1:2, 1:2.5, 1:3, 1:2, 1:2 and concentration of electrolyte solutions are 5%, 5%, 5%, 10%, 15% respectively. These ratios ultimately resulted 55.42%, 49.39%, 52.4%, 48.19% and 47.52% drug loading where the percent entrapment efficiency is highest for 5% $Al_2(SO_4)_3$ with drug:polymer ratio = 1:2. The entrapment efficiency decreases with increasing $Al_2(SO_4)_3$ concentration as well as drug polymer ratio. The % of drug release from different formulations at 360 minutes is 43.042%(F-1), 43.713%(F-2), 33.611%(F-3), 52.823%(F-4) and 70.904%(F-5). Drug release was increased with increasing the electrolyte concentration and decreasing the polymeric concentration.

Key Words: Amoxicillin Trihydrate, Aluminium Sulphate, Entrapment Efficiency, Drug Release.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 245 - 262
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Lecturer, Department of Pharmacy, BGC Trust University Bangladesh*
*** Department of Pharmacy, University of Science and Technology*

1. Introduction

Sodium alginate has been used as a matrix material to achieve controlled-release drug delivery due to its hydrogel-forming properties.[1-2] The ability of alginate sodium salt, to rapidly form viscous solutions and gels on contact with aqueous media has been exploited by the pharmaceutical industry in wide application of sodium alginate as a carrier in hydrophilic matrix controlled release oral dosage forms. Matrices incorporating alginate salts have been employed to successfully prolong the release of many drugs.[1-4]

Amoxicillin is an antibiotic useful for the treatment of a number of bacterial infections. It is a moderate-spectrum, bacteriolytic, β-Lactam antibiotic in the aminopenicillin family used to treat susceptible gram-positive and gram-negative bacteria. It is usually the drug of choice within the class because it is better-absorbed, following oral administration, than other β-lactam antibiotics. Amoxicillin is one of the most common antibiotics prescribed for children. The drug first became available in 1972. It is on the World Health Organization's List of Essential Medicines, a list of the most important medications needed in a basic health system.[5]

Hence, an attempt was made to formulate a SR dosage form containing beads of Amoxicillin for controlled release, which eliminates the need for multiple dosing thereby increasing patient compliance and decreasing the occurrence of adverse effects.[6] The beads were evaluated with respect to LOD (Loss on drying) study, % yield value, swelling index study, percent entrapment efficiency, and in vitro dissolution study.

2. Materials and Method

Amoxicillin Trihydrate was obtained from Singapore. Sodium alginate was procured from Loba Chemie, India. Aluminium sulphate were obtained from Merck (India). All other reagents were of analytical grade satisfying pharmacopoeial specifications.

2.1 Preparation of core and surface cross-linked beads

Sodium alginate solutions of different concentrations were prepared. Alginate was dissolved under gentle agitation. Amoxicillin Trihydrate was dispersed in alginate solution under constant stirring for uniform distribution. The resultant dispersion of drug and polymer was extruded drop wise through a needle into different concentrations of electrolyte solutions to form beads at room temperature. Then

the beads were allowed to remain in the stirred solution for 10 minutes. The beads were filtered and washed with distilled water and dried at room temperature for 24 hours. Such beads are named surface cross-linked beads.[7]

Table 1: Composition of different formulations

Formulation No.	Amoxicillin Trihydrate (gm)	Sodium Alginate (gm)	Aluminium Sulfate Solution (%)
F-1	1	2	5
F-2	1	2.5	5
F-3	1	3	5
F-4	1	2	10
F-5	1	2	15

2.2 λ_{max} determination of Amoxicillin Trihydrate

Absorbance of 0.02 mg/ml Amoxicillin Trihydrate solution was scanned from 246 nm to 300 nm and highest absorbance was identified for confirmation of Amoxicillin Trihydrate.

2.3 Standard curve determination

Different concentration of 20 µg/ml, 40 µg/ml, 60 µg/ml, 80 µg/ml and 100 µg/ml Amoxicillin Trihydrate solutions was made and absorbance was recorded for each solution. Absorbance was plotted against time to get standard curve graph.

2.4 Evaluations of beads

2.4.1 LOD (Loss on drying) study[8-9]

10 gm of fresh beads were taken and placed to dry. After 30 minutes interval weight of beads were measured up to 4 hours, which indicates LOD in respect to time.

2.4.2 Determination of % yield value

The % yield value was calculated by following formula: [8-9]

$$\% \text{ yield value} = [W_{Rec} / (W_D + W_P)] \times 100$$

Where,

W_{Rec} = weight of dry microspheres recovered
W_D = Weight of drug used
W_P = Weight of polymer used

2.4.3 Swelling index study

20 mg of beads from each formulation was kept in Petridis containing distilled water. At the end of every 1 hour, the beads were withdrawn and weighed up to 6 hours. The % weight gain by the beads was calculated by the following formula:[8-9]

$$\textbf{Swelling Index (SI)} = [\{W_t - W_0\}/ W_0] \times 100$$

Where,

W_t = Mass of swollen beads at time t (minutes)

W_0 = Mass of dry beads at time 0 (minute)

2.4.4 Estimation of entrapment efficiency:

50 mg Amoxicillin Trihydrate containing beads was taken in mortar-pastel and crushed to powder. Some extent of fresh distilled water was added to dissolve the powder and filtered. Absorbance was measured at 272 nm with suitable dilution. Concentration of the drug was determined and entrapment efficiency was calculated by following equation.[7-9]

$$\textbf{Entrapment efficiency} = L_P/ L_T \times 100$$

Where,

L_P = Practical drug loading

L_T = Theoretical drug loading

2.4.5 In vitro dissolution study:

Dissolution study was carried out by using eight basket dissolution tester at (37±0.5)°C for 6 hours where phosphate buffer of pH 7.2 was used as dissolution media. The absorbance of the collected sample was analyzed for dissolution by using UV-VIS spectrophotometer at λmax of 272 nm.[9]

3. Results and Discussion

Absorption maxima (Figure 1) shows, the maximum absorption of Amoxicillin Trihydrate was held at 272 nm, which confirms the drug, because λ_{max} of Amoxicillin Trihydrate is 272 nm according to BP and USP.

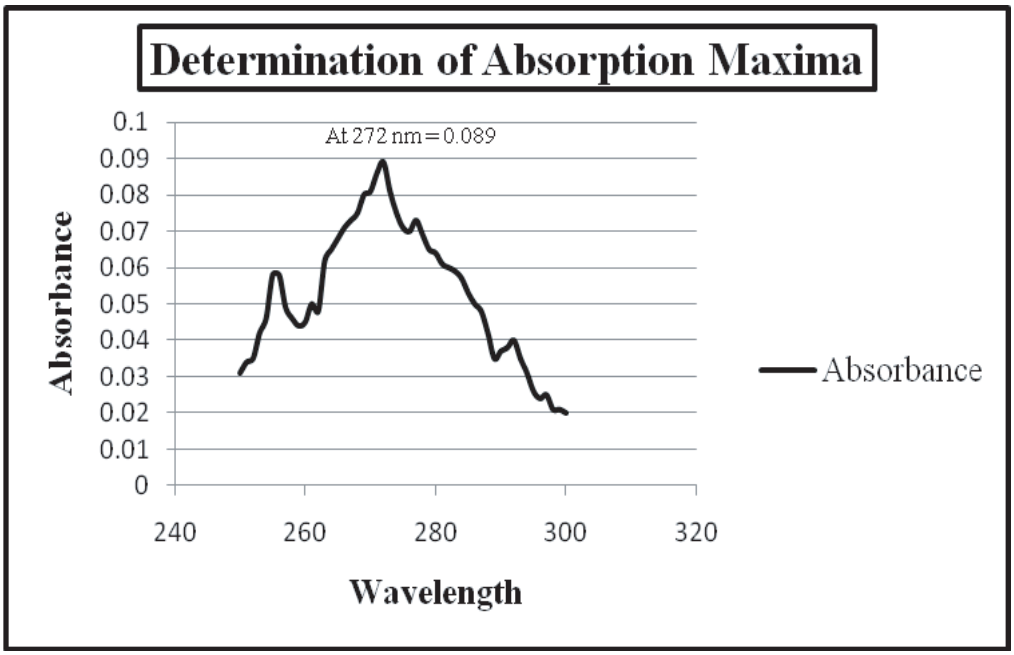


Figure 1: Determination of Absorption maxima of Amoxicillin Trihydrate

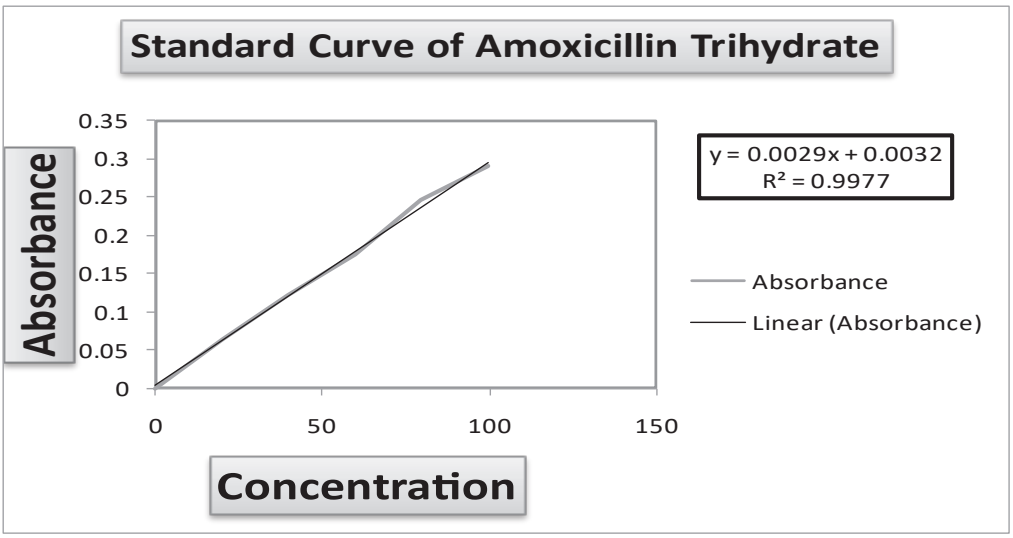


Figure 2: Standard curve of Amoxicillin Trihydrate

Standard curve of Amoxicillin Trihydrate was plotted in figure 2 by taking absorbance in different concentration from where it was found in almost linear and the value of m is 0.0029 and c is 0.0032.

3.1 Loss on Drying (LOD)

After preparation of beads in different concentration of $Al_2(SO_4)_3$ solution, weight loss of 8 data were taken after 30 minutes interval for each. Those are shown in table 2.

Table 2: Data of weight loss of beads in 30 minutes interval

Time (Min.)	F-1 (gm)	F-2 (gm)	F-3 (gm)	F-4 (gm)	F-5 (gm)
0	10	10	10	10	10
30	9.02	8.33	8.08	8.46	6.54
60	7.07	6.95	5.96	6.79	4.55
120	5.68	5.75	5.01	5.81	3.66
150	4.42	4.72	4.28	4.82	3.16
180	3.77	4.16	3.45	3.85	2.40
210	3.04	3.76	2.81	3.05	2.13
240	2.55	3.38	2.35	2.35	2.00

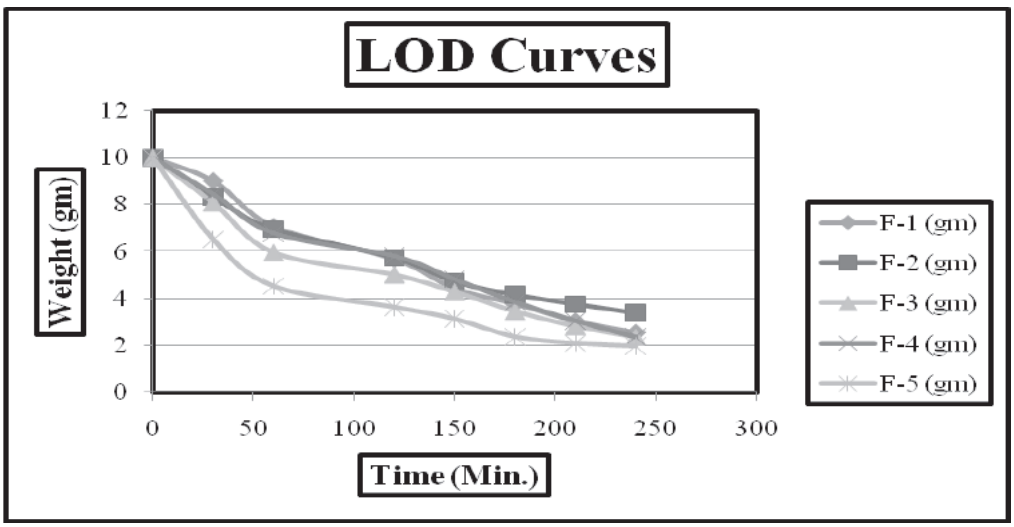


Figure 3: Graphical representation of weight loss of beads

Figure 3 indicates that the weight loss is maximum for F-5, where the drug-polymer ratio and the concentration of $Al_2(SO_4)_3$ were 1:2 and 15% respectively. Also, weight loss is minimum in F-2, where the drug-polymer ratio and the concentration of $Al_2(SO_4)_3$ were 1:2.5 and 5% respectively. Comparative study indicates that, in case of F-1 and F-3, loss on drying was increased in same amount of electrolyte solution when polymer was increased. It further indicates that, among F-1, F-4 and F-5, loss on drying was increased when electrolyte solution was increased with fixed amount of drug polymer ratio.

3.2 Determination of % yield value

The beads were evaluated for % yield value which is shown in table 3.

Table 3: Determination of % yield value

Formulation No.	% yield value
F-1	95
F-2	92
F-3	78
F-4	84
F-5	93

From table 3, it was predicted that, highest % of yield value was obtained in F-1 formulation, where the concentration of $Al_2(SO_4)_3$ and the drug-polymer ratio were 5% and 1:2 respectively. Then the lowest value was obtained in F-3 formulation, when the $Al_2(SO_4)_3$ concentration and the drug-polymer ratio were 5% and 1:3 respectively. Comparative study indicates that, among F-1, F-2 and F-3, % of yield value was decreased when polymer was increased with the fixed amount of drug and electrolyte solution. Again among F-1, F-4 and F-5, it was found that, % of yield value was increased in both lower and higher electrolyte concentration, but decreased in medium electrolyte concentration when electrolyte solution was increased with fixed amount of drug polymer ratio.

3.3 Swelling index study

The swelling index data of alginate based amoxicillin beads in $Al_2(SO_4)_3$ are given in table 4.

Table 4: Data for swelling index of alginate based Amoxicillin beads in $Al_2(SO_4)_3$ electrolyte solution

Time (hr)	Swelling index (%) of formulation				
	F-1	F-2	F-3	F-4	F-5
0	0	0	0	0	0
1	47.5	9.5	14	40.5	58
2	51	14	17.5	0.5	37.5
3	39	4	16.5	10.5	28
4	36	3	11.5	16.5	27.5
5	-17	10	12.5	9.5	23

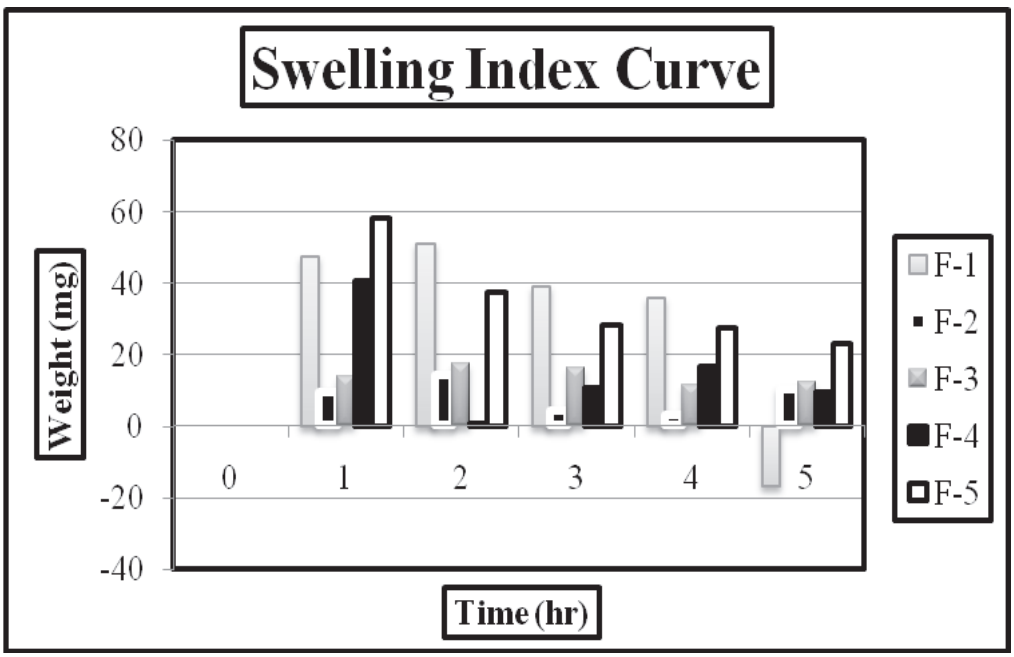


Figure 4: Comparison of Swelling index of alginate based Amoxicillin beads in $Al_2(SO_4)_3$ solution.

The formulation from 1 to 5 has different alginate concentration i.e. 1 gm to 3 gm and different electrolyte solution from 5% to 15%.

Comparative study indicates that, among F-1, F-2 and F-3, the beads are swelled up to 2 hours, than swelling gradually decreased when polymer is increased with fixed amount of electrolyte solution. After 5 hours F-1 shows negative value because of bead degradation. In case of F-4 and F-5, it was found that, swelling gradually decreased after 1 hour when electrolyte solution is increased with fixed amount of drug polymer ratio. Among all of these formulations F-5 showed the highest swelling where the $Al_2(SO_4)_3$ concentration was 15% and the drug-polymer ratio was 1:2.

3.4 Percentage of entrapment

With the addition of sodium alginate to ammonium sulphate solution, instantaneous interfacial cross-linking takes place with precipitation of aluminium alginate followed by a more gradual gelation of the interior which decreases the loss of surface drug as well as decrease the number of pores.[10] High level of calcium chloride concentration was affecting negatively on the entrapment efficiency because water soluble calcium chloride created significant number of pores on the surface of beads through which the drug molecules leached from the membrane into the medium.[11]

Table 5: Data of entrapment efficiency

Batch No.	% of $Al_2(SO_4)_3$	Drug:Polymer Ratio	Experimental value	Predicted value	% entrapment
F-1	5 %	1:2	169	85.34	55.42
F-2	5%	1:2.5	154	83.46	49.39
F-3	5 %	1:3	157.5	82.53	52.4
F-4	10%	1:2	150.5	72.53	48.19
F-5	15%	1:2	137.5	65.34	47.52

The percentage of entrapment are given in table 5, from which it was concluded that, with the increment of drug-polymer ratio the entrapment efficiency of drug become decreased. Highest entrapment was found as 55.42% (F-1) when the drug-polymer ratio and the $Al_2(SO_4)_3$ concentration were 1:2 and 5% respectively. But in comparison among F-1, F-2 and F-1, F-3, entrapment efficiency was decreased in both case of highest and lowest amount of polymer. As well as, with the increment of $Al_2(SO_4)_3$ concentration the entrapment efficiency of drug become decreased. i.e. in comparison among F-1, F-4 and F-5, highest entrapment was found in F-1, where drug-polymer ratio and electrolyte concentration were 1:2 and 5% respectively.

3.5 Dissolution study

3.5.1 Effect of $Al_2(SO_4)_3$ concentration on Amoxicillin trihydrate release from cross linked alginate beads

The effect of aluminium sulphate concentration on drug release was investigated by considering different formulation of same loading. We considered the formulations of 25% drug loading beads which prepared using 5%, 10% 15% aluminium sulphate solution for cross linking. The formulations were F-1, F-4 and F-5. The in vitro release data of those formulations is plotted in figure 5-9.

It is observed from the figure 5 that drug release was increased with increasing the concentration of aluminium sulphate. The % releases of drug within 360 min were found 43.042%, 52.823% and 70.904% in F-1 (1:2:5%), F-4 (1:2:10%) and F-5 (1:2:15%) respectively. The high amount of aluminium sulphate ensures the maximum cross linking sodium alginate with aluminium sulphate which augments the conversion of sodium alginate to aluminium alginate. When cross linking is properly occurred by the increased amount of aluminium sulphate, aluminium alginate entrapped the drug more precisely.

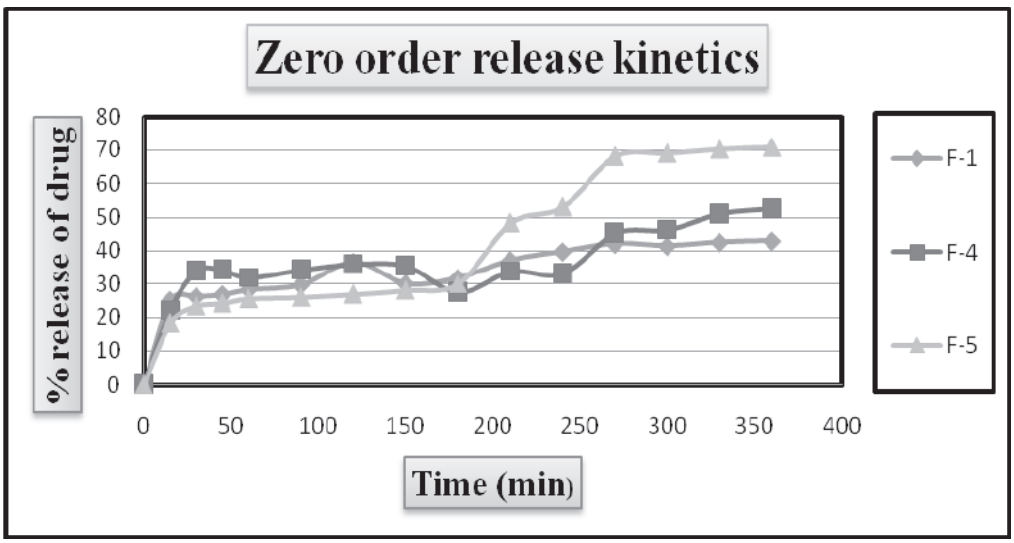


Figure 5: Zero order release profile of Amoxicillin trihydrate from alginate based beads in different $Al_2(SO_4)_3$ solution.

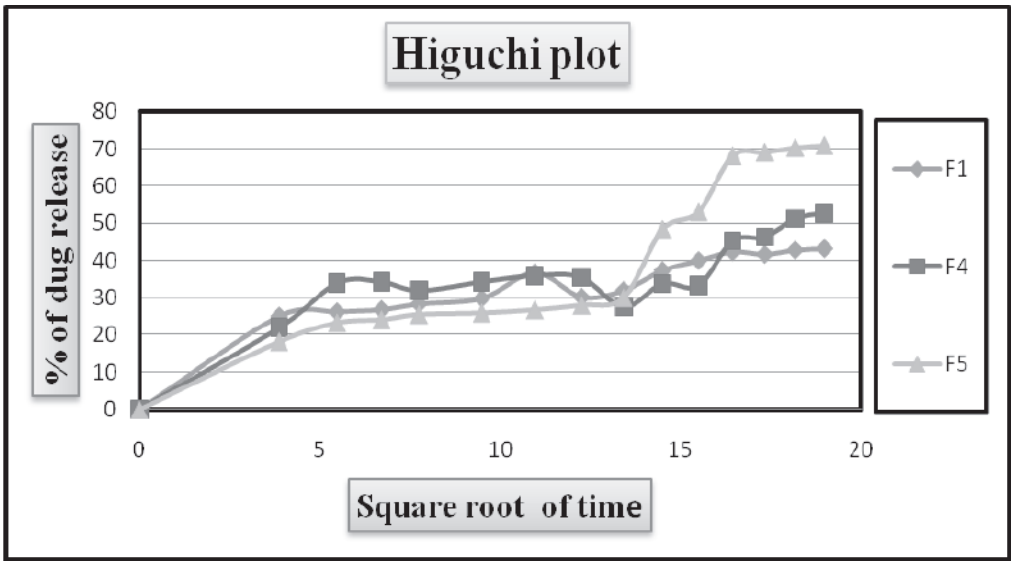


Figure 6: Higuchi release profile of Amoxicillin trihydrate from alginate based beads in different $Al_2(SO_4)_3$ solution.

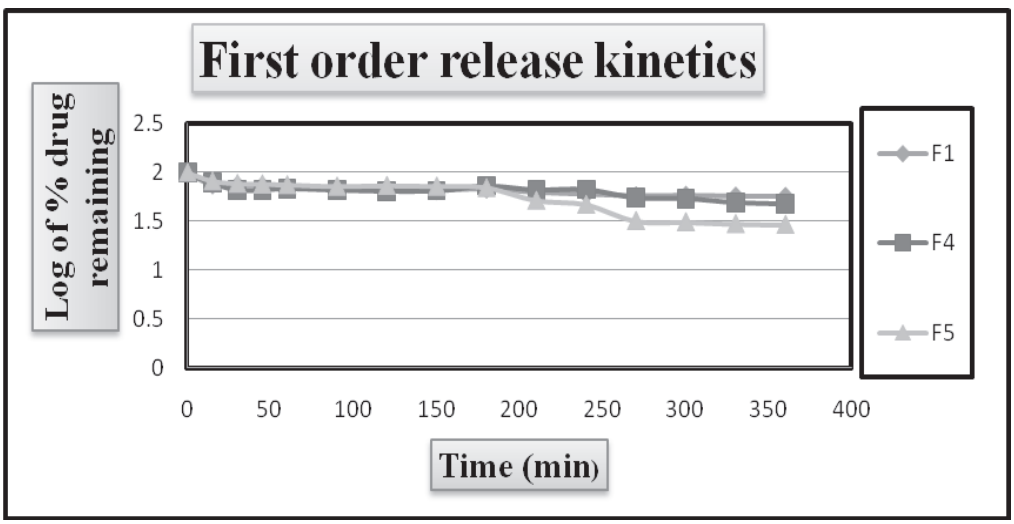


Figure 7: First order release profile of Amoxicillin trihydrate from alginate based beads in different $Al_2(SO_4)_3$ solution.

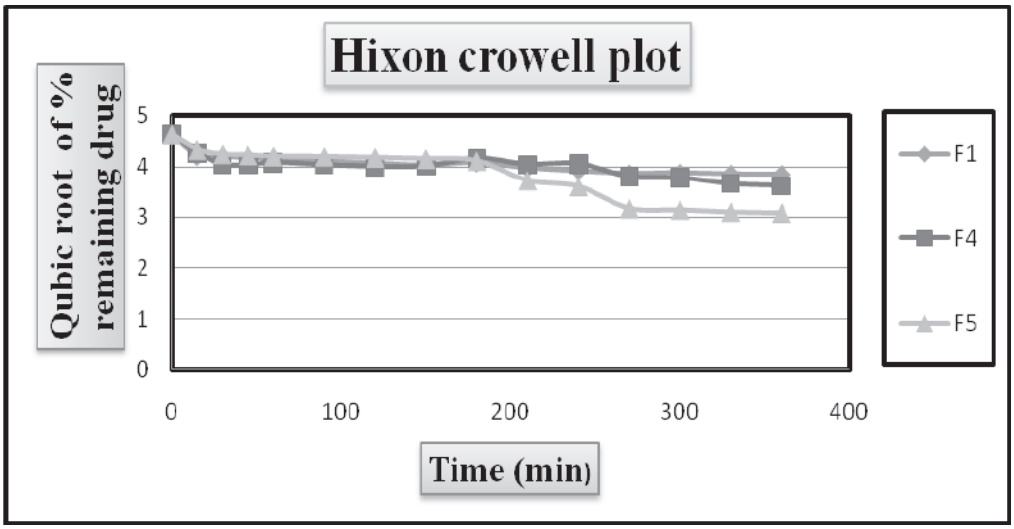


Figure 8: Hixon Crowell plot of Amoxicillin trihydrate from alginate based beads in different $Al_2(SO_4)_3$ solution.

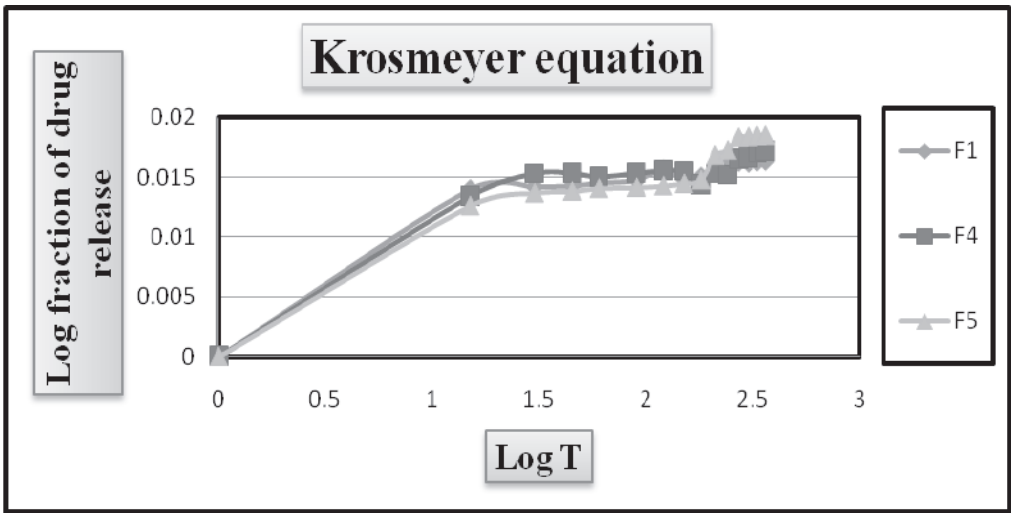


Figure 9: Krosmeyer equation profile of Amoxicillin trihydrate from alginate based beads in different $Al_2(SO_4)_3$ solution.

Table 6: Correlation coefficient (r^2) values of different plots [$Al_2(SO_4)_3$]

Formulation No.	Correlation coefficient (r^2)				
	Zero order	Higuchi	First order	Hixion crowell plot	Krosmeyer equation
F-1	0.617	0.832	0.773	0.746	0.835
F-4	0.601	0.705	0.668	0.649	0.774
F-5	0.91	0.866	0.898	0.906	0.916

For the formulations of F-1, F-4 and F-5, the highest correlation coefficient (r^2) value was found in krosmeyer release rather than other release kinetics, which were 0.835, 0.774 and 0.916 respectively (Table 6). This confirms that drugs release from beads follow krosmeyer equation in case of F-1, F-4 and F-5.

3.5.2 Effect of polymer load on the release of Amoxicillin trihydrate from alginate beads using $Al_2(SO_4)_3$ solution

This effect can be observed by comparing F-1, F-2 and F-3 formulations. It is observed from the figure 10 that the release of drug decreases with increasing drug loading and polymeric concentration. After 360 min the percentage of drug release were observed 44.042% (F-1), 43.7125% (F-2) and 33.611% (F-3). The slowed or decreased in drug release may be due to highest entrapment of durg and polymer when increased polymeric concentration. The release of amoxicillin trihydrate is plotted in figure 10-14.

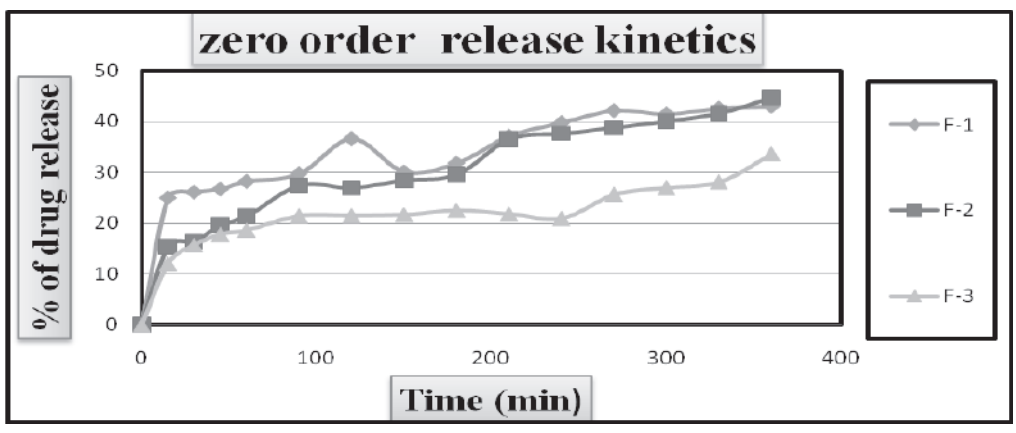


Figure 10: Zero order release profile of Amoxicillin trihydrate from different amount of alginate based beads in same $Al_2(SO_4)_3$ solution

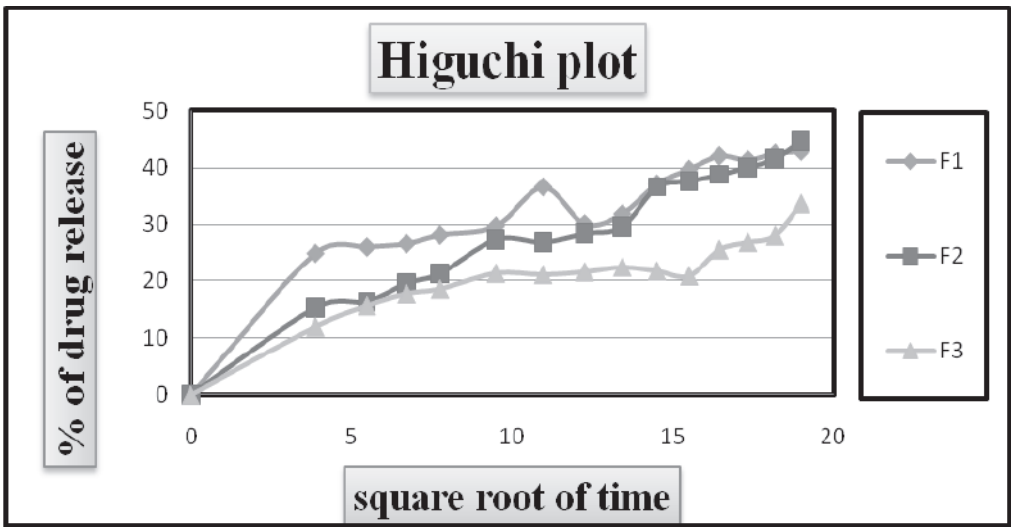


Figure 11: Higuchi release profile of Amoxicilin trihydrate from different amount of alginate based beads in same $Al_2(SO_4)_3$ solution

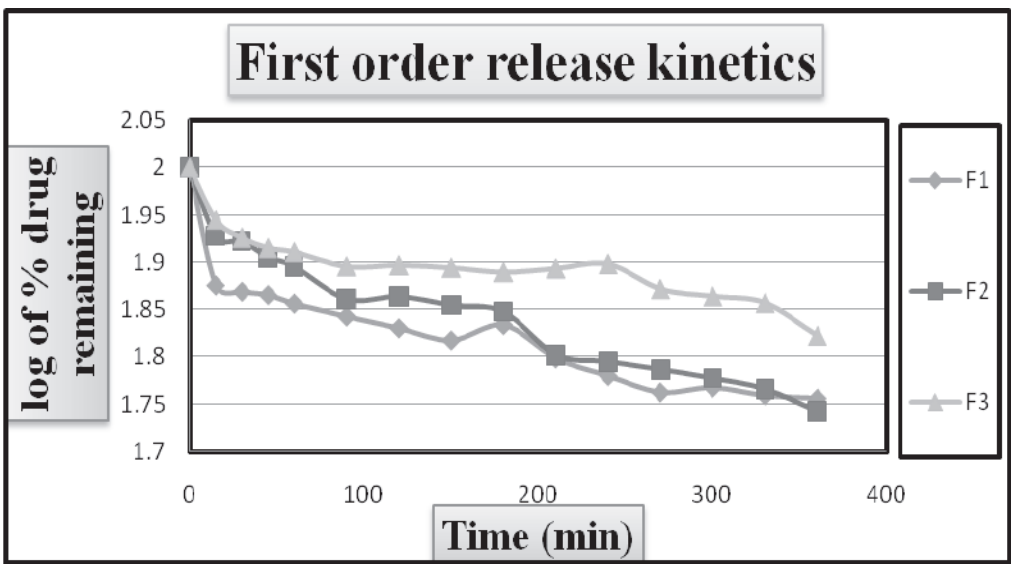


Figure 12: First order release profile of Amoxicillin trihydrate from different amount of alginate based beads in same $Al_2(SO_4)_3$ solution

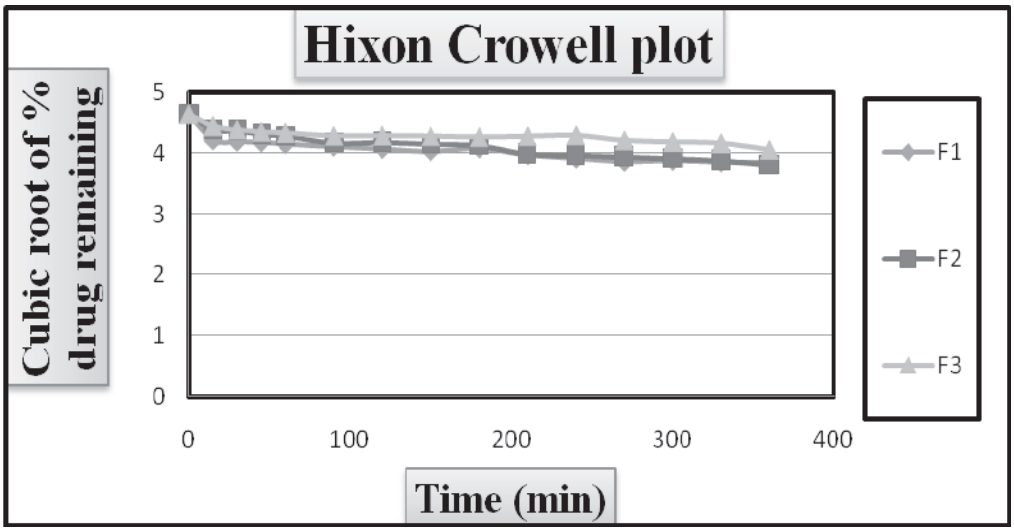


Figure 13: Hixion crowell profile of Amoxicillin trihydrate from different amount of alginate based beads in same $Al_2(SO_4)_3$ solution

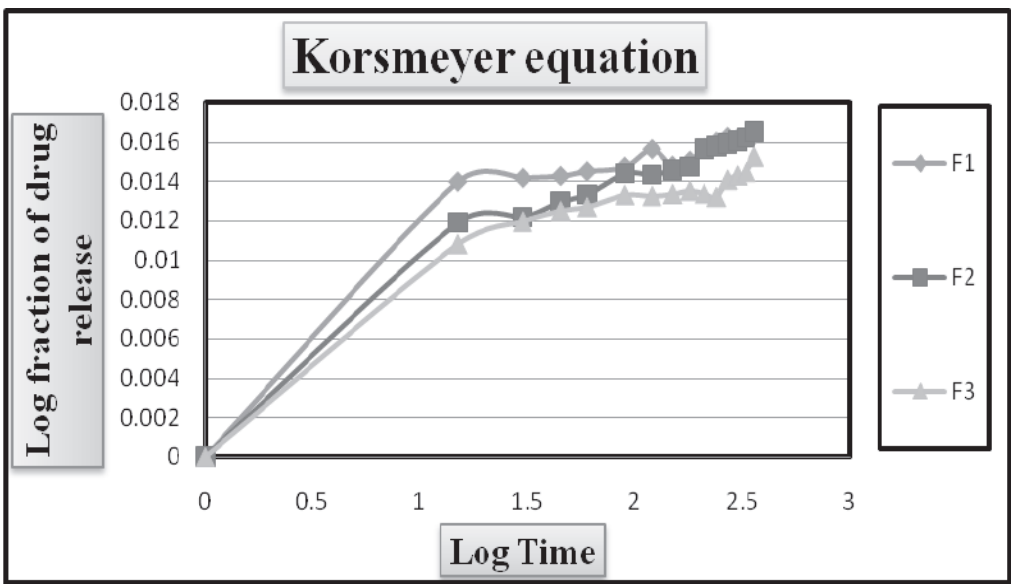


Fig 14: Korsmeyer equation profile of Amoxicillin trihydrate from different amount of alginate based beads in same $Al_2(SO_4)_3$ solution

Table 7: Correlation coefficient (r^2) values of different plots [$Al_2(SO_4)_3$]

Formulation No	Correlation coefficient (r^2)				
	Zero order	Higuchi	First order	Hixon crowell	Korsmeyer equation
F-1	0.671	0.832	0.773	0.746	0.835
F-2	0.876	0.973	0.924	0.910	0.917
F-3	0.719	0.863	0.759	0.747	0.861

It is observed from the table 7 that, F-1 follows Korsmeyer release. For F-2 and F-3, highest r^2 value was found in Higuchi plot rather than other release kinetics. This confirms that drugs release from F-2 and F-3 beads follow Higuchi release.

4. Conclusion

It was observed that increasing the sodium alginate and drug ratio decrease the entrapment efficiency and also it decreases with increase in the concentration of aluminium sulfate. It was also found that, drug release was increased with increasing the concentration of aluminium sulphate. In case of aluminium sulphate comparison, drug release from beads follows Krosmeyer equation.

Again, the release of drug decreases with increasing drug and polymer ratio. In case of polymeric change, drug release from beads follows Higuchi release.

References

1. A.F. Stockwell, S.S. Davis and S.E. Walker, In vitro evaluation of alginate gel systems as sustained release drug delivery systems. *J. Control Release,* **3**, 167-175, 1986.
2. P. Veski and M. Marvola, Sodium alginate as diluents in hard gelatin capsules containing ibuprofen as a model drug. *Pharmazie,* **48**, 757-760, 1993.
3. S. Ojantakanen, A.M. Hannula, M. Marvola, E. Klinge and M. Makioaa, Bioavailability of ibuprofen from hard gelatin capsules containing sucralfate or sodium alginate. *Eur. J. Pharm. Biopharm.,* **39**, 197-201, 1993.
4. P. Veski, M. Marvola, J. Smal, I. Heiskanen and H. Jurjenson, Biopharmaceutical evaluation of pseudoephedrine hydrochloride capsules containing different grades of sodium alginate. *Int. J. Pharm.,* **111**, 171-179, 1994.
5. S. Desai and S. Boston, A Floating controlled release drug delivery system: In vitro and in vivo evaluation. *Pharm. Res.,* **10**, 1321-1325, 1993.

6. YW. Chien, Controlled and modulated-release drug delivery systems. *Marcel Decker Inc,* New York **3rd** edition, 1991.
7. P.A. Pawar, A.R. Gadhe, P. Venkatachalam, P. Sher and K.R. Mahadik, Effect of core and surface crosslinking on the entrapment of metronidazole in pectin beads. *Acta Pharm.,* **58**, 75-85, 2008.
8. P.G. Yeole, U.C. Galgatee, I.B. Babla and P.D. Nakhat, Design and evaluation of xanthan gum based sustained release matrix tablets of Diclofenac Na. *Indian J. Pharm. Sci.,* **68**,185-189, 2006.
9. M.D. Dhanaraju, V.D. Sundar, S. NandhaKumar and K. Bhaskar, Development and evaluation of sustained delivery of diclofenac sodium from hydrophilic polymeric beads. *J Young Pharmaceutics,* **1**, 301-304, 2009.
10. V. Lannuccelli, G. Coppi, M.T. Bernabel and R. Cameroni, Air compartment multiple-unit system for prolonged gastric residence. Part I: Formulation study. *Int. J. Pharm.,* **174**, 47-54, 1998.
11. M.G. Sankalia, R.C. Mashru, JM. Sankalia and B.S. Vijay, Papain entrapment in alginate beads for stability improvement and site-specific delivery: physicochemical characterization and factorial optimization using neural network modeling. *AAPS Pharm. Sci. Tech.,* **6**, 31, 2005.

The Determinants Influencing the Extent of Corporate Social Responsibility Disclosure of Pharmaceutical and Chemical Companies in Bangladesh

Soma Dey *

Abstract

The main objective of this study is to investigate the factors that influence pharmaceutical and chemical companies to disclose corporate social responsibility (CSR) information in their annual report. A total of 18 listed pharmaceutical and chemical companies out of 23 companies in Chittagong Stock Exchange (CSE) are included as a sample. The result shows that average score of CSR disclosure is five and 75% companies disclose 6 CSR items which is 16% of total discloseable items. The result of multiple regression analysis shows that there is a positive significant relationship between the level of CSR disclosure and firm size (total asset), age as listing company, affiliation of multi-nationality, size of the board and percentage of independent directors. The result also shows that profitability and size of audit firm are negatively associated with the level of CSR disclosure.

Key Words: Corporate characteristics, Corporate social responsibility disclosure, Multiple regression analysis, Pharmaceutical and chemical companies.

BGC Trust University Journal
Vol. 04, December, 2017, pp. 263 - 284
© BGC Trust University Bangladesh
ISSN : 2073- 5448

** Assistant Professor, Faculty of Business Administration, BGC Trust University Bangladesh*

1. Introduction

Corporate social responsibility (CSR) is equally considered as an obligation in the developed nations. CSR is a corporate philosophy in terms of social investing aimed to build up social capital and to improve the economic performance of the firm (Waddock, 2001; Habish, Meister, & Schmidpeter, 2001). Hackston and Milne (1996) mentioned that CSR disclosure is a way of providing company's financial and non-financial information. Gray, Javad, Power, and Sinclair (2001) stated that CSR disclosure is a process for providing information about communication between companies concerning environment, society, employees and consumer issues.

The world economy becomes more integrated, companies have been facing more pressure to disclose CSR information in their respective annual report during the last few decades (Hooghiemstra, 2000). In general, the level of CSR disclosure is very low and unsatisfactory in developing countries. Imam (2000) and Alawi and Rahman (2011) found that CSR disclosure is very low in Bangladesh and Yemen. Kamla (2007) stated that CSR disclosure is low in most of the Arab countries. Guthrie and Parker (1990) found that 56 percent of Australian companies, 85 percent of US companies and 98 percent of UK companies disclosed some social information. A few studies conducted in Bangladesh reported low and poor disclosure phenomenon. Belal (1999) and Islam, Hosen, and Islam (2005) found that only 6% and 16% companies in Bangladesh disclosed environmental information in their annual reports respectively.

Pharmaceutical and chemical sector in any country can contribute directly to social wellbeing. CSR practices of pharmaceutical and chemical sector have been selected for the following reasons: (1) In Bangladesh, pharmaceutical and chemical sector is one of the most developed hi-tech sectors which are contributing to the country's economy. The pharmaceutical sector is the third largest tax-paying industry in the country (Rahman & Azim, 2011). (2) Ethics and transparency are the two most important themes for those companies operating in the pharmaceutical and chemical sector. Few researchers have discussed the determinants of CSR disclosure of pharmaceutical and chemical companies and reporting in developing countries in general and Bangladesh in particular. The study focused the level of corporate social responsibility disclosures linking to size of company, profitability, age as listing company, affiliation of multinational company, size of audit firm, size of the board and percentage of independent directors.

2. Statement of the Problem

Although CSR disclosures are abundant in developed countries, the fact is not true for developing countries, particularly in Bangladesh. In general, the disclosure of CSR items in the annual reports is very poor in Bangladesh (Belal, 1999; Sufian, 2012). In Bangladesh, no such sufficient study considering 7 corporate characteristics namely, size of the firm, profitability, age as listing company, affiliation of multinational company, size of audit firm, size of the board, and independent directors was carried out in the field of pharmaceutical and chemical industry. There are indeed other factors could be the determinants affecting CSR disclosure, but the proposed study is limited to above mentioned 7 corporate characteristics as they are most important determinants in corporate giving and also to test how current level of disclosure had an impact and relationship on CSR disclosure, to increase companies, directors, managers and public's awareness of CSR practices in Bangladesh.

3. Objectives of the Study

The main objective of this study is to investigate the factors that influence pharmaceutical and chemical companies to disclose corporate social responsibility (CSR) information in their annual report. The specific objectives of this study are:

(a) To analyze the present scenario of CSR disclosure made by listed pharmaceutical and chemical companies of CSE in Bangladesh in their annual reports.

(b) To find out the relationship between CSR disclosure and different corporate characteristics.

4. Literature Review and Hypotheses Development

4.1 Literature Review

There are many studies that examined the disclosure of CSR information beyond the legal requirements. Some of these studies explore the association between corporate characteristics and the level of CSR information disclosed (Alsaeed, 2006; Ghazali, 2007). The previous studies can serve as a helpful guide to assess the level of CSR disclosure and hypothesis development.

Singh and Ahuja (1983) conducted a study for measuring the extent of CSR disclosure and trying to establish the relationship between the level of CSR disclosure and company size, profitability, age and nature of industry. The study inquired into the annual report of 40 public sector companies and the result found

that the age of the company did not have a significant influence on social disclosure. In contrast, the study found that total assets, the earnings margin, and nature of the study were positively significant with the level of social disclosure.

Another study was conducted by Suwaidan (2004) in Jordan analyzing CSR disclosure practices of Jordanian industrial companies and determining the effect of firms characteristics in explaining variation in social responsibility information found in their annual reports. The result showed that size, profitability and risk were positively associated with the level of CSR disclosure.

Hossain, Islam, and Andrew (2006) conducted a study to investigate the extent and nature of social and environmental reporting in corporate annual reports and examine the relationship between social and environmental disclosure and several corporate characteristics in Bangladesh. Out of 150 companies, the annual reports of 107 non-financial companies were considered as a sample. The study showed that on average 8.33% of Bangladeshi companies disclosed social and environmental information in their annual reports. The results of multiple linear regressions showed that nature of the company, presence of debentures and the net profitability were positively significant with the level of CSR disclosure.

Rouf (2011) conducted a study to examine the extent and nature of CSR disclosure in the annual reports of listed companies of Dhaka Stock Exchanges. A total of 39 items of information were considered to measure the level of CSR disclosure. The result of OLS model showed that proportion of independent directors was positively associated with the level of CSR disclosure. But, there was a negative significant presented between the level of CSR disclosure and firm's size.

Another study was conducted by Sufian (2012) for investigating the affecting factors between corporate characteristics and CSR disclosure in the annual reports of listed 70 non-financial companies in Bangladesh. The study made it evident that the average score of CSR disclosure was five which was 16% of total disclosureable items. Again, 75% companies disclosed 7 items voluntarily which was 20% of total disclose-able items. The study revealed that total assets, profitability, MNC affiliation and listing age were insignificant factors for CSR disclosure while market capitalization had statistically significant effect on CSR disclosure.

Bayoud, Kavanagh, and Slaughter (2012) conducted a study for exploring whether company age, industry type and company size had a potential influence on levels of CSR disclosure in the annual reports of Libyan companies. Quantitative and qualitative methods were used in this study to collect data to determine the level of

CSR disclosure in Libyan firms. They found that there was a positive relationship between company age, industry type and the level of CSR disclosure.

Giannarakis (2014) conducted a study with an aim to investigate the potential effects of corporate characteristics on the extent of CSR disclosure focusing on the US companies. A total of 366 companies from the fortune 500 list were considered as a sample. The result of multiple regression analysis showed that company and board size were significantly and positively related to the extent of CSR disclosure and companies with CEO duality characteristics influenced to show low CSR information, while different companies were significantly associated with the level of CSR disclosure.

Das, Dixon, and Michael (2015) conducted a study for investigating the CSR reporting practices of the listed banking companies in Bangladesh and explore the potential effects of corporate characteristics on CSR disclosures. The study found that engagements of banks in CSR activities had been increasing from an average CSR disclosure index 59.02% in 2007 to 76.87% in 2011 and direct monetary expenditure increases more than 10 times in this period. The result showed that CSR disclosure was positively significant with firm size, board size, ownership structure, and independent non-executive director on the board, while it was negatively associated with firms' profitability and the age of the company. The result also indicated that board leadership structure was not significantly associated with the level of CSR disclosure.

Another study was conducted by Al-Gamrh and AL-Dhamari (2016) to evaluate the level of CSR disclosure of Saudi listed firms and investigate the influence of corporate characteristics (firm size, industry type, government ownership, firm age, capital raised, and audit firm size) on the CSR disclosure. The study found that the level of CSR disclosure was low. The result of OLS model showed that large, government-owned, and old firms disclosed more CSR information.

Rosli, Fauzi, Azami, Mohd, and Said (2016) conducted a study to identify the focus level of CSR disclosure in Malaysia. A total of 100 public listed companies were analyzed and reported in this study. The result of multiple regression analysis revealed that company size, profitability and share return were significantly associated with the CSR disclosure while the industry type was insignificant with CSR disclosure.

CSR is the major part of corporate voluntary disclosure in annual reports of the firms. However, there is a lack of specific and sufficient studies regarding on CSR

disclosures both in developed and developing countries. No such sufficient study was carried out with special reference to Bangladesh specifically in the field of pharmaceuticals and chemical industry. In this context, the proposed study will help to fulfill this gap. Here, the study focuses the level of CSR disclosure linking to size of the firm, profitability, age as listing company, affiliation of multinational company, size of audit firm, size of the board, and independent directors.

4.3 Hypothesis Development and Variable Measure

In the present study, Corporate Social Responsibility Disclosure (CSRD) is considered as a dependent variable and a number of firm characteristics have been considered as explanatory variables to explain the variation of CSR disclosure. In this study, seven corporate attributes namely, size of firm, profitability, age as listing company, affiliation of multinational company, size of audit firm, size of the board and percentage of independent directors are considered as explanatory variables to examine the relationship between firm characteristics and the level of CSRD. These variables are explained here to develop hypotheses.

1. Size of Firm

Size of firm is very important in the variability of disclosure. Different studies revealed that large firms are subject to more social and political pressure as compared to small firms. Several studies (Singh & Ahuja, 1983; Suwaidan, 2004; Giannarakis, 2014; Das et al., 2015) found that the firm size was positively significant with the level of CSR disclosure. Besides, Hossain et al. (2006) and Rouf (2011) found that size of the firm did not affect the level of CSR disclosure. Several measures of size has been used by different researchers, such as, total assets, fixed assets, turnover, paid-up capital, number of shareholders equity, capital employed, number of employees and the market value of the firm as proxies of size. In this study, total assets are considered as explanatory variable. The hypothesis stands for:

H_1-1: Total assets has positive association with CSR disclosure.

2. Profitability

Profitability may affect the CSR disclosure. Previously, a number of studies have confirmed a mixed result in an attempt to establish the relationship between CSR activity and profitability. Singh and Ahuja (1983), Suwaidan (2004) and Rosli et al. (2016) showed that a positive association was presented between profitability and the level of CSR disclosure. Further, Belkaoui and Kahl (1978) and Wallace and Naser (1995) found that profitability was negatively significant with the level of CSR disclosure. In contrast, Aupperle, Carroll, and Hatfield (1985) and Sufian (2012)

found that there existed no significant relationship between profitability and CSR disclosure. In the present study, profitability will be measured by the net profits of firm. So, an alternative hypothesis can be drawn as follows:

H_1-2: Profitability of the business has significant impact on CSR disclosure.

3. Age as Listing Company

Age as listing company is one of the factors that may affect the amount of CSR disclosure. Age of firm is the length of listing in capital market as a public company. Bayoud et al. (2012) and Al-Gamrh and AL-Dhamari (2016) showed that a positive significant relationship was existed between firm age and CSR practices. In contrast, Singh and Ahuja (1983) and Hossain and Reaz (2007) found that age of company had no significant impact on the level of CSR disclosure. The alternative hypothesis can be drawn as follows:

H_1-3: Age as listing company is positively associated with CSR disclosure.

4. Affiliation of Multinational Company

Affiliation of multinational company is considered as an important determinant of disclosure level. Rahman and Widyasari (2008) stated that high-profile industries were superior in CSR disclosure activities compared to low-profile industries. Besides, Sufian (2012) and Rosli et al. (2016) found that type of multi-nationality was not significant with CSR disclosure. A dichotomous variable is considered for indicating affiliation of multi-nationality whether the company is multinational parent or not. i.e. 1= if the company is multinational and 0= if the company is not multinational. Therefore, affiliation of multi-nationality can be hypothesized in alternative form as follows:

H_1-4: There is a positive and significant relationship between affiliation of multinational company and CSR disclosure.

5. Size of the Audit Firm

Empirical evidence on relationship between size of audit firm and the level of CSR disclosure were mixed. Eng and Mak (2003) and Uwuigbe and Egbide (2012) found that the size of audit firm had a positive significant relationship with the level of CSR disclosures. Besides, Malone, Fries, and Jones (1993) and Mohamed and Janggu (2006) found no significant relationship between size of audit firm and the level of CSR disclosures. In contrast, Mohamad and Ahmad (2001) found that there existed a negative significant relationship between size of the audit firm and the level of CSR disclosure. So, an alternative hypothesis can be drawn as follows:

H_1-5: Size of Audit Firm has significant role in CSR disclosure.

6. Size of the Board

The size of the board is an important factor in the level of CSR disclosure. Size of the board may control the level of CSR disclosure. Giannarakis (2014) and Das et al. (2015) showed that board size had been significantly and positively related to the extent of CSR disclosure. In contrast, Monks and Minow (1995) and Rao and Tilt (2015) found that size of board had insignificant impact on CSR disclosure. The following Alternative hypothesis has been tested regarding the size of board:

H_1-6: Size of the board is significantly associated with CSR disclosure.

7. Independent Directors

Generally, a board is made of both inside and outside members. Forker (1992) stated that independent boards were more likely to inspire managers for disclosing the high level of CSR information. Rouf (2011) and Das et al. (2015) found that a positive significant relationship had existed between board with higher proportion of independent directors and CSR disclosure. In contrast, Haniffa and Cooke (2002) and Nazli and Weetman (2006) found that the proportion of outside non-executive directors was not significantly associated with the level of disclosure. This study considered the independent directors as the mainstay of corporate governance and hence assessed them as an important variable influencing CSR disclosure. So, an alternative hypothesis can be drawn as follows:

H_1-7: There is a positive and significant relationship between percentage of independent directors and CSR disclosure.

5. Methodology

5.1 Population of the Study

The population of this study is consisted all companies listed in Chittagong Stock Exchange (CSE) of Bangladesh. There were a total of 298 listed companies in twenty (20) subsectors as of 31st December, 2016. These subsectors are Bank, Cement, Ceramic, Corporate Bond, Debenture, Energy, Engineering & Electrical, Foods & Allied, General Insurance, ICT, Leasing & Finance, Leather & Footwear, Life Insurance, Miscellaneous, Mutual Funds, Papers & Printing, Pharmaceutical & Chemicals, Services & Property, Telecommunication, and Textiles & Clothing. In this study, only all listed companies of pharmaceutical & chemicals sector are considered as a sample.

5.2 Sample Design

The annual report is considered as a canvass to sketch out the CSR practices. Because it is a primary means of communication between the company and its stakeholders (Guthrie and Parker, 1990; Raman, 2006). The annual reports are therefore considered appropriate documents for analysis to understand CSR disclosure by pharmaceutical and chemical companies. To analyze the extent of CSR disclosure by Bangladesh companies, annual reports constituted the main primary source. Guthrie and Parker (1990) and other scholars investigated corporate social responsibility disclosure practices using annual reports as the key source of information. In this study, the sample is drawn from a set of listed pharmaceutical and chemical companies in the Chittagong Stock Exchange (CSE). A total of 23 pharmaceutical and chemical companies are listed on the Chittagong Stock Exchange as of December 31st, 2016. Selection of the sample is restricted to those firms whose annual report 2015-16 is available. Some of the annual reports are gathered from other sources, such as the Securities and Exchange Commission of Bangladesh (SEC), Lankabangla website and the firms' websites. Finally, the sample includes 18 companies (Appendix- A) out of 23 companies from the listed pharmaceutical and chemicals companies in CSE after the elimination of firms with missing annual reports.

The study is mainly based on data collected from annual reports audited by the professional auditors. The study of Islam et al. (2005), Hossain et al. (2006), Rahman and Azim (2011), Sufian (2012) and a circular vide DFIM Circular No. 02 dated 9 January 2012 issued by Bangladesh Bank are considered to select the items of CSRD index. A list of overall disclosure information is attached in Appendix- B.

5.3 Scoring in the CSRD Index

Several techniques are used to develop CSRD index in previous studies. In this study, the unweighted disclosure index approach (Haniffa & Cooke, 2002, 2005; Hossain et al., 2006; Rouf, 2011; Sufian, 2012) has been employed to measure the degree of CSR disclosure as a dichotomous variable. Under unweighted disclosure index approach, a dichotomous procedure is used for scoring items of CSRD in which an item scores 1, if it is disclosed and 0, if it is not disclosed. In this study, all items disclosed by company are considered. The following formula is used to measure the total CSRD score (TDS) for a company:

$$TDS = \sum_{i=1}^{n} d_i$$

Where, $d = \begin{cases} 1, & if\ a\ discloseable\ item\ is\ disclosed \\ 0, & if\ a\ discloseable\ item\ is\ not\ disclosed \end{cases}$

n = number of discloseable items

5.4 Regression Model

Multiple regression technique is used for data analysis. The regression model is developed to test the relationship between dependent variable of corporate social responsibility disclosure (CSRD) and independent variable of firm specific characteristics. The following regression model is used to test the above hypotheses:

$$CSRD = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

Where,

CSRD = Total score for each company under CSR index.

X_1 = Size of firm, X_2 = Profitability, X_3 = Age as listing company, X_4 = Affiliation of multinational company, X_5 = Size of audit firm, X_6 = Size of the board, X_7 = Percentage of independent directors, β_0= the constant, and ε= the error term

6. Results and Discussion

6.1 Results of Descriptive Statistics

Statistical Package for Social Sciences (SPSS V21.0) is used to analyse the results of this study. The results of descriptive statistics are shown in the table:1. The results display in the table:1 that the sample companies disclose only five CSR items on average in their respective annual reports. The minimum and maximum CSR disclosure of the sample companies are 1 and 9 respectively. First quartile indicates that only 25% sample companies have 3.75 disclosure items while third quartile implies that 75% sample companies have 6 disclosure items in their annual reports. It is observed that only two companies (Beximco Pharmaceuticals Ltd & Marico Bangladesh Ltd) have maximum CSR disclosure score of 9 while one company (Far Chemical Industries Ltd) has minimum disclosure score of 1. The result also shows that the average value of total assets (as of June 2016) is Tk.10998.86 million. The minimum value of total assets is Tk.707.59 million and the maximum is Tk.39174.69 million. The analysis also illustrates (table:1) that the average value of net profit for July 2015 to June 2016 is Tk.939.97 million while the maximum and minimum value

of profit are Tk.7670 million and Tk.5.82 million respectively. Table:1 shows that average age as listing company in CSE is 10.33 years. The minimum age is 0 means less than 1 year and the maximum age is 21 years. The data also reveals that 2 sample companies are multi-national company and the remaining 16 sample companies are non-multinational. Again, the average size of audit firm in the sampled companies is 3.67 while the maximum and minimum size of audit firm is 8 and 3 respectively. It is also found that the average size of the board is 6.83 whereas the average percentage of independent directors is 31. Further, the maximum size of the board is 10 and the minimum size is 5. More so, the maximum and minimum percentage of independents director are 60 and 20 respectively. All these information have been tabulated as under:

Table 1: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	Q1	Q3
Score of CSRD	1	9	5.17	2.093	3.75	6.00
Total assets (As of June 2016)	707586561	39174685604	10998860196.33	12406217310.016	1904705675.75	21954526781
Net Profit (July 15 to June 2016)	5820394	7669995680	939970811.61	1791299768.629	59989370.75	1238987072
Age as listing company	0	21	10.33	7.670	3.00	19.25
Affiliation of Multi-nationality	0	1	.11	.323	0.00	0.00
Size of Audit Firm	3	8	3.67	1.237	3.00	4.00
Size of the Board	5	10	6.83	1.654	5.00	8.00
Percentage of Independent directors	20	60	31.06	12.365	20.00	40.00

6.2 Results of Multiple Regression Analysis

Multiple regression analysis has been applied to examine the relationship among corporate social responsibility disclosure and corporate characteristics. The following table: 2 presents the result of multiple regression model.

Table 2: Results of multiple regression analysis using CSR disclosure as the dependent variable

	Unstandardized Coefficients		Standardized Coefficients	t	*P*-value	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.552	2.325		.238	.817		
Total Assets (As of June 2016)	1.111E-10	.000	.658	2.636	.025	.337	2.971
Profit after Tax (July 15 to June 2016)	-8.318E-10	.000	-.712	-2.573	.028	.274	3.647
Age as Listing company	.129	.047	.474	2.769	.020	.715	1.399
Affiliation of Multi-nationality	5.195	1.373	.803	3.785	.004	.467	2.143
Size of Audit Firm	-.948	.349	-.560	-2.719	.022	.495	2.022
Size of the Board	.526	.244	.415	2.153	.057	.563	1.775
Percentage of Independent Directors	.069	.032	.407	2.131	.059	.574	1.742

Model Summary

R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
				R^2 Change	F Change	df1	df2	Sig. F Change
.889[a]	.790	.643	1.250	.790	5.381	7	10	.009

The coefficients of the independent variables show the direction and the magnitude of the relationship of the dependent variable. The results of multiple regression model show in the table: 2 that the CSR disclosure is positively significant with firm size (total asset), age as listing company and affiliation of multi-nationality, size of the board and percentage of independent director. Further, profitability and size of audit firm are negatively significant with the level of CSR disclosure. The positive relation means that CSR disclosure increases with increasing firm size (total asset), age as listing company, affiliation of multi-nationality, size of the board and percentage of independent directors. In contrast, the negative relation means that the CSR disclosure decreases with facing in its slowdown profitability and size of audit firm.

The result of multiple regression model (table:2) shows that there is a highly significant ($p<.05$) relationship between CSR disclosures and firm size (total asset), profitability, age as listing company, affiliation of multi-nationality, size of audit firm and a low significant ($p<.1$) relationship is presented between CSR disclosures and size of board and percentage of independent directors. So, the result mentions that all firms' characteristics i.e. firm size (total asset), profitability, age as listing company, affiliation of multi-nationality, size of audit firm, size of the board and percentage of independent directors affect the CSR disclosure.

The result of multiple regression analysis accepts with the firm characteristics research hypotheses concerning the existence of a positive significant relationship between CSR disclosure and firm size. So, it accepts the hypothesis H_1-1, i.e. firms with large total assets disclose more CSR items in their annual reports. This result is similar to Giannarakis (2014), Suwaidan (2004) and Das et al. (2015). The result of regression analysis also agrees with the firm characteristics research hypotheses concerning the existence of a negative significant relationship between CSR disclosure and profitability. So, it accepts the hypothesis H_1-2, i.e. the level of CSR disclosure decreases with showdown profitability in their annual reports. Wallace and Naser (1995) and Belkaoui and Kahl (1978) had found same result in their study. Again, it is also observed that age as listing company has positive significant effect on CSR disclosure. So, it accepts the hypothesis H_1-3, i.e. increased age as listing company discloses more CSR items in their annual report. This result is consistent in line with Al-Gamrh and AL-Dhamari (2016) and Bayoud et al. (2012).

Further, the regression model agrees that affiliation of multi-nationality has statistically significant with CSRD. So, it accepts hypothesis H_1-4, i.e. affiliation of multinational company has positive significant relation with CSRD. Rahman and Widyasari (2008) had found same result in their study. Furthermore, size of audit firm is negatively associated with CSR disclosure. So, it accepts hypothesis H_1-5, i.e. the level of CSR disclosure decreases with large size of audit firm in their annual reports. This result is consistent in line with Mohamad and Ahmad (2001).

Moreover, the result of regression model shows that size of the board is positively significant with the level of CSR disclosure. So it accepts the hypothesis H_1-6, i.e. large size of the board in company discloses more CSR items in their annual report. Giannarakis (2014) and Das et al. (2015) had found same result in their study. Finally, the result of multiple regression analysis indicates that a positive significant relationship existed between CSR disclosure and percentage of independent directors. So, it accepts hypothesis H_1-7, i.e. large percentage of independent

directors in company discloses more CSR items in their annual report. This result is similar to Forker (1992) and Das et al. (2015).

The adjusted R^2 of the model explains how much of the changes in the dependent variable explained by the changes in the independent variables. The explanatory power of the OLS model as indicated by the adjusted R^2 is 64.3% which reveals that the model is capable of explaining the variability of CSR disclosure in the annual reports of investigated companies as explained by the proposed model in the current study.

The multicollinearity test was utilised to find that independent variables are not correlated with other variables and no multicollinearity amongst independent variables exists. The Pearson correlation and the variance inflation factor (VIF) and tolerance were used to detect the multicollinearity problem. Gujarati (2009) suggests that, if the VIF is lower than 10 or tolerance is higher than 0.10, multicollinearity among variables is not a problem. As a rule of thumb, a serious multicollinearity is present when correlation coefficient is greater than 80%. The results in table 2 show that VIF values were lower than 3.647 and tolerance values above 0.274 and the results in Appendix- C show that correlation coefficients were less than 80%, suggesting that there was no multicollinearity found to be a problem for this model.

7. Conclusion and Recommendation

The aim of this study was to investigate the factors that influence pharmaceutical and chemical companies to disclose social responsibility information in their annual reports. This study has examined whether the present scenario of CSR disclosures made by listed pharmaceutical and chemical companies of CSE in Bangladesh in their annual reports and whether there is a relationship between CSRD and different corporate characteristics.

The annual reports of 18 listed pharmaceutical and chemical companies for the financial year 2015-16 were analyzed critically based on a list of 38 CSR disclosure items. The result of this study displayed that average score of CSR disclosure is five and 75% companies disclose 6 CSR items which is 16% of total discloseable items listed in Appendix-B. The result of multiple regression model showed that there is a positive significant relationship between the level of CSR disclosure and firm size (total asset), age as listing company, affiliation of multi-nationality, size of the board, and percentage of independent directors. Besides, profitability and size of audit firm are negatively significant with the level of CSR disclosure.

There are a number of limitations which might influence the results of this research. Firstly, in this study, only CSE listed pharmaceutical and chemical companies were considered as a sample. Therefore, the results may not be suitable for all companies in Bangladesh. Secondly, the disclosure index constructed by the researcher has been used in this study. The index is very sensitive and can affect the results if selected the items of information improperly. In this study, the period is considered from 1st July 2015 to 30th June 2016. So, the results may differ across different years if multiple years are considered for analysis. Finally, CSR disclosure depends on the regulatory requirements, accountability, socio-economic culture and other mass communication mechanisms. These aspects of the research could be explored by interviewing the management of pharmaceutical and chemical companies who have included CSR in practice. According to the findings of the present study recommendation for standard setting bodies to set up CSR reporting framework is made. Hence, further study can be done considering more corporate characteristics with large sample size in this area.

References

Alawi, N., & Rahman, A. (2011). Corporate social responsibility disclosure in response to CSR award with the moderating effect of family group affiliation in Yemen. *Proceedings from the 2011 International Research Conference and Colloquium*. College of Business, University Utara Malaysia. http://www.unirazak.edu.my/ colloquium 2011/eproceedings/1.%20FINNahg_Alaw.pdf. Accessed 2 February 2013

Al-Gamrh, B. A., & AL-Dhamari, R. A. (2016). Firm Characteristics and Corporate Social Responsibility Disclosure. *International Business Management,* 10(18), 4283-4291.

Alsaeed, K. (2006). The association between firm-specific characteristics and disclosure. *Managerial Auditing Journal,* 21(5), 476-496.

Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between Corporate Social Responsibility and Profitability. *Academy of management Journal,* 28(2), 446-463.

Bayoud, N. S., Kavanagh, M., & Slaughter, G. (2012). Factors Influencing Levels of Corporate Social Responsibility Disclosure by Libyan Firms: A Mixed Study. *International Journal of Economics and Finance,* 4(4), 13-29.

Belal, A. R. (1999). Corporate social disclosure environmental reporting in Bangladesh annual reports. *The Bangladesh Accountants,* ICAB, 27(1), 76–81.

Bewley, K., & Li, Y. (2000). Disclosure of Environmental Information by Canadian Manufacturing Firms: A Voluntary Disclosure Perspective. *Advances in Environmental Accounting and Management,* 1, 201-226.

Das, S., Dixon, R., & Michael, A. (2015). Corporate Social Responsibility Reporting: A Longitudinal Study of Listed Banking Companies in Bangladesh. *World Review of Business Research,* 5(1), 130-154.

Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy,* 22(4), 325-345.

Forker, J. J. (1992). Corporate governance and disclosure quality. *Accounting and Business Research Journal,* 22(86), 111-124.

Ghazali, M. N. A. (2007). Ownership structure and corporate social responsibility disclosure: some Malaysian evidence. *Corporate Governance: The international journal of business in society,* 7(3), 251-266.

Giannarakis, G. (2014). The determinants influencing the extent of CSR disclosure. *International Journal of Law and Management,* 56(5), 393-416

Gray, R. H., Javad, M., Power, D. M., & Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: a research note and extension. *Journal of Business Finance and Accounting,* 28, 327-356.

Gujarati, D. N. (2009). *Basic econometrics,* McGraw-Hill Irwin, Boston.

Guthrie, J., & Parker, L. D. (1990). Corporate Social Disclosure Practice: a Comparative International Analysis. *Advances in Public Interest Accounting,* 3, 159-175.

Habish, A., Meister, H. P., & Schmidpeter, R. (2001). *Corporate citizenship as investing in social capital.* Berlin: Logos.

Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal,* 9(1), 77-108.

Haniffa, R. M., & Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy,* 24,391-430.

Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus,* 38(3), 317-349.

Hooghiemstra, R. (2000). Corporate Communication and Impression Management-New Perspectives Why Firms Engage in Corporate Social Reporting. *Journal of Business Ethics,* 27(1/2), 55-68.

Hossain, M., & Reaz, M. (2007). The Determinants and Characteristics of Voluntary Disclosure by Indian Banking Companies. *Corporate Social Responsibility and Environmental management,* 14, 274-288.

Hossain, M. A., Islam, K. S., & Andrew, J. (2006). Corporate social and environmental disclosure in developing countries: evidence from Bangladesh. *Proceedings of the Asian Pacific Conference on International Accounting Issues,* Hawaii, October 2006.

Imam, S. (2000). Corporate social performance reporting in Bangladesh. *Manag Audit J,* 15(3), 133-142

Islam, S., Hosen, A., & Islam, M. (2005). An Examination of Corporate Environmental Disclosure by the Bangladeshi Public Limited Companies. *Pakistan Journal of Social Sciences,* 3(9), 1095-1102

Kamla, R. (2007). Critically appreciating social accounting and reporting in the Arab Middle East: A post-colonial perspective. *Adv Int Account,* 20, 105-177

Lassaad, B. M., & Khamoussi, H. (2012). Determinants of communication about corporate social responsibility: Case of French companies. *Int J Contemp Bus Stud,* 3(5), 49-60

Malone, D., Fries, C., & Jones, T. (1993). An Empirical Investigation of the Extent of Corporate Financial Disclosure in Oil and Gas Industry. *Journal of Accounting, Auditing and Finance,* 8(3), 249-273.

Mohamad, J., & Ahmad, Z. (2001). *Determinants of Environmental Reporting in Malaysia, A Positive Accounting Approach.* Multimedia University, Malaysia.

Mohamed, Z. M., & Janggu, T. (2006). Corporate Social Disclosure (CSD) of Construction Companies in Malaysia. *Malaysian Accounting Review,* 5(1), 85-114.

Monks, R. A. G., & Minow, N. (1995). *Corporate Governance.* Cambridge, MA: Blackwell Business.

Nazli, M. G., & Weetman, P. (2006). Perpetuating traditional influences: voluntary disclosure in Malaysia following the economic crisis. *Journal of International Accounting, Auditing & Taxation,* 15, 226-248.

Ness, K. E., & Mirza, A. M. (1991). Corporate Social Disclosure: A Note on the Test of Agency Theory. *The British Accounting Review,* 23(3), 211-217.

Rahman, A., & Widyasari, K. N. (2008). The Analysis of Company Characteristic Influence toward CSR Disclosure: Empirical Evidence of Manufacturing Companies Listed in JSX. *JAAI,* 12(1), 25-35.

Rahman, S., and Azim, M. (2011). Corporate social reporting by pharmaceutical companies in a LDC: a hard pill to swallow. http://dx.doi.org/10.2139/ssrn.1950032 (accessed 14 January 2014).

Raman, S. R. (2006). Corporate social reporting in India- A view from the top. *Global Business Review,* 7, 313-324.

Roa, K., & Tilt. (2015). Board Diversity and CSR reporting: Australian Evidence. *Preceding of the 14th Australasian centre on Social and Environmental Accounting Research Conference*. 10-11 December 2015.

Rosli, M. H., Fauzi N. A., Azami M. F. A. M., Mohd F., & Said, J. (2016). Company Characteristics and Corporate Social Responsibility Disclosure of Malaysian Listed Companies. *International Conference on Accounting Studies (ICAS) 2016,* 15-18 August 2016, Langkawi, Kedah, Malaysia.

Rouf, A. M. (2011). The Corporate Social responsibility Disclosure: A Study of Listed Companies in Bangladesh. *Business and Economics Research Journal,* 2(3), 19-32.

Singh, D. R., & Ahuja, J. M. (1983). Corporate Social Reporting in India. *International Journal of Accounting Education and Research (Spring),* 151-169.

Sufian, M. A. (2012). Corporate Social Responsibility Disclosure in Bangladesh. *Global Journal of Management and Business Research,* 12(14), 149-155.

Suwaidan, M. S. (2004). Social responsibility disclosure and corporate characteristics: the case of Jordanian industrial companies. *International Journal of Accounting, Auditing and Performance Evaluation,* 1(4), 432-447.

Uwuigbe, U., and Egbide, B. (2012). Corporate Social Responsibility Disclosures in Nigeria: A Study of Listed Financial and Non-Financial Firms. *Journal of Management and Sustainability,* 2(1), 160-169.

Waddock, S. (2001). The multiple bottom lines of corporate citizenship: Social investing, reputation and responsibility audits. *Bus. Soc. Rev.,* 105(3): 323-345

Wallace, R. S. O., Naser, K., & Mora, A. (1994). The Relationship between comprehensiveness of corporate annual reports and firm characteristics in Spain. *Accounting and Business Research,* 25(97), 41-53.

Appendix- A

Sample of Listed Pharmaceutical and Chemical Companies in CSE

Sl	Company
1	Advanced Chemical Industries Ltd.
2	ACI Formulations Limited
3	The ACME Laboratories Ltd.
4	Active Fine Chemicals Ltd.
5	AFC Agro Biotech Limited
6	Beacon Pharmaceuticals Ltd.
7	Berger Paints Bangladesh Ltd
8	Beximco Pharmaceuticals Ltd
9	Central Pharmaceuticals Limited
10	Far Chemical Industries Limited
11	Keya Cosmetics Limited
12	Libra Infusions Limited
13	Marico Bangladesh Limited
14	Orion Infusion Limited
15	Orion Pharma Limited
16	Salvo Chemical Industry Ltd
17	Square Pharmaceuticals Limited
18	Wata Chemicals Limited

Appendix- B

Corporate Social Responsibility Disclosure Index

Environment

01. Pollution control
02. Prevention or repair of environmental damage
03. Conservation of natural resources

Energy

04. Conservation
05. Energy efficiency of products
06. Other energy related disclosures

Fair business practices

07. Employment of minorities
08. Advancement of minorities
09. Employment of women
10. Employment of other special interested group
11. Socially responsible practices abroad
12. Other statements on fair business practices

Employees Information

13. Employee health and safety
14. Employee training
15. Educational facilities for employee
16. Sponsoring educational conferences, seminars or art exhibitions
17. Worker's profit participation fund
18. Profit sharing for employee welfare
19. Provident Fund and Gratuity
20. Pensions
21. Holidays and Vacations.
22. Information about support for day-care, maternity and paternity leave

23. Recreation Clubs and public libraries
24. Reduction or elimination of pollutants, irritants, or hazards in the work environment
25. Discussion on staff accommodation/staff home ownership schemes
26. Policies for the company's remuneration package/scheme
27. Discussion on the company's relationship with trade unions and/or works

Community involvement

28. Donations to the charity, arts, sports, etc.
29. Cash donation program for disaster people
30. Establishment of Educational Institution
31. Seminars and conferences
32. Medical Establishments
33. Beautification activities
34. Canteen, Transportation, and crèches for the employees' children.

Product Safety

35. Safety
36. Reducing pollution from product use
37. Product quality disclosure
38. Product development or research and development

Appendix- C

Correlation Results of CSR disclosure and Corporate Characteristics

Variables	Score of CSRD	Total asset (As of June 2016	Net Profit (July 15 to June 2016)	Age of listing based 2016	Affiliation of Multi-nationality	Size of audit firm	Size of Board	Percentage of Independent director
Score of CSRD	1.000							
Total assets (As of June 2016)	.401	1.000						
Net Profit (July 15 to June 2016)	.235	.732	1.000					
Age as listing company	.377	.376	.450	1.000				
Affiliation of Multi-nationality	.405	-.170	.038	-.063	1.000			
Size of Audit Firm	.045	-.142	.024	.037	.686	1.000		
Size of the Board	.501	.302	.201	.181	.367	.374	1.000	
Percentage of Independent directors	.016	.042	.370	-.067	.011	-.019	-.346	1.000

Authors' Guidelines

1. The articles to be considered for publication must be original. Papers accepted, published or submitted elsewhere will not be accepted by BGC Trust University Journal.
2. Three (3) copies of manuscripts should be submitted to – The Editor, BGC Trust University Journal, BGC Trust University Bangladesh, BGC Bidyanagar, Chandanaish, Chittagong.
3. The articles should be typed in font 12, Times New Roman on 'A4' size paper. The manuscripts should be double spaced throughout (except the abstract) with wide margins (1.5"), on one side of the paper only. A soft copy has to be sent by e-mail to journal bgctub@bgctrustbd.org for checking plagiarism.
4. The manuscript should be approximately 4,000 to 6,000 words in length, inclusive of Tables, Figures, References and Appendices.
5. The Journal adopts the APA (American Psychological Association) format for the text and referencing.
6. The page number should appear in the upper right hand corner throughout the manuscript.
7. The first page should contain the title, which should be brief. The name of the author (s) should be typed below the title, affiliation, address, telephone/cell number and e-mail address. Correspondence will be sent to the first name author, unless otherwise indicated.
8. The second page of the manuscript should contain the title and an abstract of not more than 150 words. The abstract should be single spaced.
9. The paper should begin on the third page and should not relist the title or author(s).The article should be divided into sections and subsections to aid readability.

10. Footnotes should be avoided. Essential notes should be numbered consecutively in the text and grouped together at the end in an annexure.
11. References in the text to an article should be by author's name and year of publication as in these examples.

    Akbar (2001) states that---------

    Further evidence is provided by John (2006) --------

    The model indicated a lateral increase (Smith & James, 1989).
12. The reference list should start at the end of the text. Type the word "References" aligned left with initial letter capitalized. Single-space all reference entries. The first line of each reference should be set flush left and subsequent lines should be indented. Examples of APA style:

    * Journal Article, with Continuous Pagination by Volume.

      Deutsch, F. M., Lussier, J. B., & Servusm L. J. (1993). Husbands at home: Predictors of parental participation in childcare and housework. Journal of Personality and Social Psychology, 65, 1154-1166.

    * Journal Article paginated by Issue

      Green, B. J. (2000) Picture books and teaching science. Science and Children, 38 (2), 43-45.

    * Magazine Article

      Posner, M. I. (1993, October 29). Seeing the mind. Science, 262, 673-674.

    * Newspaper Article, No Author

      New drug appears to sharply cut risk of death from heart failure. (1993, July 15). Washington Post, p.A12.

      If an article appears on discontinuous pages, give all page numbers with a comma, e.g.(pp.B1, B6)

* Edited Book

  Gibbs. J. T. & Huang, L. N. (Eds.). (1991). Children of Color: Psychological intervention with minority youth. San Francisco: Jossey-Bass.

* Book, No Author or Editor

  Merriam-Webster's dictionary. (10th ed.). (1993). Springfield, Ma: Merriam- Webster.

13. For articles in science subjects the references should be as follows:
    (a) In text serial number is to be given in superscript.
    (b) Reference at the end should be as follows: Serial number, Author's name (first and middle name in abbreviation , the surname), journal's name and volume (bold), starting page number, (year).
14. The responsibility for opinions in the paper rests entirely on their authors and publication does not necessarily constitute endorsement by the Journal of the opinions expressed therein.
15. Initial screening of papers for publication is made by editorial board followed by final assessment by reviewers. Papers appropriate for consideration receive independent blind reviews by the listed reviewers. The authors are required to submit a soft copy of the accepted paper along with necessary correction/ modifications following the instructions of the reviewers
16. A copy of the Journal along with five reprints is supplied to the author(s) free of charge.
17. The copyright of the paper will be reserved by BGC Trust University Bangladesh once it is accepted for publication in the Journal. The author(s) must obtain written permission from the University for Publication elsewhere.