JBS-ISSN-2303-9884

Journal of Business Studies

Volume 12, No. 2, July-December 2019

Faculty of Business Studies
University of Rajshahi
www.ru.ac.bd/business

Journal of Business Studies
University of Rajshahi

Volume 12, No. 2, July-December, 2019

JSB-ISSN-2303-9884

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Published by
Dean
Faculty of Business Studies
University of Rajshahi
Rajshahi 6205, Bangladesh

Correspondence
Dean's Complex (2nd Floor)
Faculty of Business Studies
University of Rajshahi
Rajshahi 6205, Bangladesh
Tel: 0721-711129
E-mail: dean.business@ru.ac.bd
Web: www.ru.ac.bd/business

Printed by
Sarkar Printing
Ranibazar, Rajshahi-6100
Tel : 0721-770608

Price
BDT 300 (Taka Three Hundred Only)
$ 25 (US Dollar Twenty Five Only)

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Editorial Note

I am delighted to publish the volume (12, No. 2) of the *Journal of Business Studies (JBS)*. JBS publishes interdisciplinary theoretical and empirical research papers spanning all the major research fields in business and economies. The aim of the *Journal of Business Studies (JBS)* is to provide an outlet for the increasing flow of scholarly research on contemporary business issues. Emphasis in the Journal is given on the theoretical developments and their implementations, empirical, applied, and policy-oriented research in business areas. The purpose of this journal is to improve the communications within the research communities, policy and operational decision makers at both private and public business sectors at national and international levels.

The editorial board is excited to present this issue which carries a varied range of submissions. The faculty has always been offering an intellectually rewarding and effective academic curriculum to the potential planners, business leaders and strategic thinkers of the future. To disseminate the research works in a greater scale, this issue is going to our esteemed readers at home and abroad. Although, not all articles could have been included in this issue due to the limited space, but the volume of articles received stands testament of the embracement of research culture amongst faculty members.

The conception and planning of this issue is the outcome of hard work, commitment and dedication of the entire team. I have received utmost cooperation from both the members of the editorial board and faculty members in publishing this issue. I express my sincere thanks to the parties concerned for this issue.

Professor Dr. M. Humayun Kabir
Chief Editor
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Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 1-15 (Printed in January, 2021)

Rethinking Bangladesh's Institutional Education System for Demographic Dividend in the 'Second Machine Age'

Aumit Ahsan[1]
M. Ahsan Habib[2]

Abstract

Based on insights gathered from data on the current structure, implicit prioritization (or the lack *thereof) and financing of Bangladesh's institutional education system – and vocational education and training in particular, this paper attempts to propose a framework of reorganizing the current system in light of existing and future labor market needs. In doing so, ongoing and future expected shifts in global labor markets have been considered. Also considered were the unique demographic and socio-politico-economic factors characterizing Bangladesh and its current labor force. The technologies of the Second Machine Age or the fourth industrial revolution pose unique challenges as well as opportunities for governments, businesses and communities worldwide and these challenges and opportunities can only be effectively addressed and utilized through multi-stakeholder collaboration. This forms one of the basic premises of the proposed framework. Putting much emphasis on technical and vocational fields, this paper makes a case for an education system that is actively managed in terms of resource allocation and future needs of local and international labor markets. This paper also proposes a framework of institutional education for Bangladesh that incorporates a life-long learning and retraining approach.*

Keywords: *demographic dividend; vocational education; fourth industrial revolution; education policy*

1. Introduction

Fundamental changes to business-as-usual have already emerged across the globe as the fourth industrial revolution paves way for a plethora of 'brilliant' technologies(Caruso, 2017;Peters, 2017). In their 2014 book titled 'The Second Machine Age: Work, Progress and Prosperity in a Time of Brilliant Technologies', Erik Brynjolfsson and Andrew McAfee from the Massachusetts Institute of Technology argued that this new breed of technologies are about to render human beings and AI driven processes substitutes of one another.

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This is in stark contrast to the relationship between technology and the workforce that utilized them in *The First Machine Age*(or the first three industrial revolutions) (Brynjolfsson & McAfee, 2016). The World Economic Forum found the pace at which technology is changing the nature of jobs, affecting the relative stability of core skills necessary in workplaces in the 21st century and fundamentally restructuring skills requirement for jobs across the board space to be increasing (World Economic Forum, 2018). This is evident from a comparison of data from The Future of Jobs reports of the World Economic Forum from 2016 and from 2018.

Unlike conventional opinion, however, the ongoing shifts in today's labor space as a result of technological advancement of a completely novel nature – the increasing need and economic case for automation, demand for workers who can effectively work with the human-machine interface – do not necessarily translate into a'net-negative' outcome. By 2022, some 75 million jobs are expected to be lost to automation in 20 economies across the globe. In fact, the World Economic Forum's analysis found that "increased demand for new roles will offset the decreasing demand for others" (World Economic Forum, 2018). Technology will render a wide range of skills obsolete. An accurate estimate as to the number of people about to get affected is difficult to attain. It is not too difficult perhaps to understand that a seismic shift is underway where millions of jobs will either be irrelevant or in need of modification, augmentation or integration into newer and more complex roles.

Particularly important to note here are areas where new jobs will be created; making way for new employment and prosperity for communities. The ability of states, communities and businesses to reap the economic and societal benefits of increasingly technology-driven prosperity, however, is conditional to success in managing an important and somewhat difficult task: a systematic and comprehensive set of up skilling, reskilling and lifelong learning programs designed to create a capable human resource base for the present and future.

This challenge, not unlike other big ones of our time, demands effective multi-stakeholder collaboration. Governments need to create an 'enabling environment' to help businesses and communities reskill or upskill their labor forces. Indeed, managing the workforce-transition challenge is only one part of the equation. Albeit, it is the 'short-run' part of the equation. Governments, businesses and communities, particularly in the emerging markets, need to rethink the way they educate, train and utilize their human resources if sustainable prosperity is to be achieved for the world's millions. For Bangladesh, this is especially important given its unique demographic and socio-economic properties – such as high population density (one of the highest in the world), failures of governance structures and some unexpected benefits emerging out of it and macroeconomic strengths as well as weaknesses.

The overarching purpose of the current paper is to assess the future labour market demands in Bangladesh and worldwide in the Second Machine Age and propose an institutional education framework capable of preparing working age population of

Bangladesh to actively contribute to economic development. In doing so, ongoing and future expected shifts in global labor markets have been considered. Also considered were the unique demographic and socio-politico-economic factors characterizing Bangladesh and its current labor force.

2. Methodology

The paper is primarily based on a review of relevant literature and analysis of secondary data relating to the prevailing system of institutional education in the country. In understanding of Bangladesh's demographic structure and the existing system of institutional education in the country, data from the Bangladesh Bureau of Statistics (BBS), Ministry of Planning (MoP), Bangladesh Bureau of Educational Information and Statistics (BANBEIS) were consulted. A comparative analysis of education funding among the South-Asian peer nations has also been included.

The authors reviewed current and expected future shifts in local and global labor markets as a result of ongoing technological developments from existing literature and compared the suitability of Bangladesh's existing institutional education systems in terms of equipping its population with the right set of skills to facilitate economic prosperity and sustainability for all. On top of these, the proposed framework incorporated a number of normative value judgments by the authors about how a system of institutional education should be for Bangladesh given current economic and socio-political realities considered.

3. Bangladesh's Demographic Dividend

It was in the year 1798 that Thomas Robert Malthus proposed his theory of exponential population growth and arithmetic growth of resources to support that growing population. Standing on the edge of the second decade on the 21st century, we now know that the 'Malthusian catastrophe' was avoided largely due to productivity rises and increase in the quality of living as a result of technological progress; two important factors Malthus failed to account for in his prediction (Galor & Weil, 1999; Persson, 2008). On the contrary, from a human resource point of view, rising population as a result of high fertility rate and falling mortality rates has provided unique economic advantages to some parts of the world.

However, in order to realize those advantages, a population, at least a sizable portion of it, has to turn itself into a capable human resource base: people with the skills and attitude required to add value to ongoing efforts to attain economic growth and prosperity. Of course, it hardly needs to be mentioned that before making the earlier statement one would assume there are various other important institutions present in the socio-politico-economic environment that would enable individuals and groups to effectively contribute to economic prosperity (Acemoglu & Robinson, 2013; Engerman & Sokoloff, 2008; Hashim Osman, Alexiou & Tsaliki).

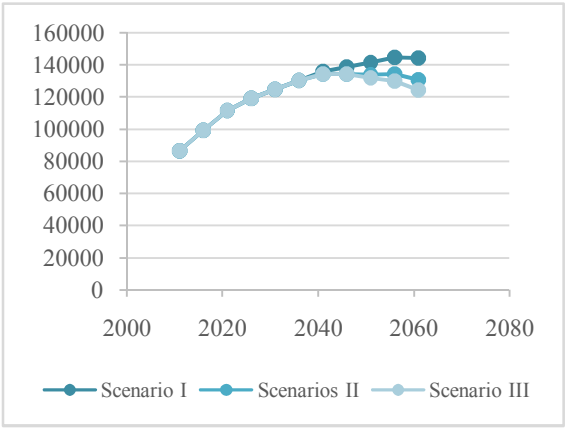
In the development and social sciences literature, the phenomenon of economic advantage gained from a larger working age population has commonly been referred to as

demographic dividend. For Bangladesh, it is widely held that the first demographic dividend started in 1980 and is likely to continue till 2040 (Matin, 2012). **Table A** shows projected working age population (in thousands) till 2061 under three assumption scenarios by the Bangladesh Bureau of Statistics. It is important to note that by 2041, Bangladesh is projected to possess a staggering 134 million people of working age(BBS, 2015). In other words, 134 million *potentially capable* working age individuals who can directly partake in economic activities and contribute to national socio-economic prosperity.

The operative word in the previous sentence, in our view, is 'potentially'. Benefits that a developing nation like Bangladesh can expect to receive from a large working age population is underlined by the crucial challenge of "generating a sufficient number of jobs at reasonable wages to 'absorb'… rapidly growing populations into productive employment"(Bloom & Freeman, 1986). In this paper, Weattempt to focus on Bangladesh's education system, its current shape and form; and what it should look like in the coming decades to tackle global economic and technological challenges and opportunities – largely bypassing some of the other important legislative, political, behavioral and socio-economic factors affecting the realization of demographic dividend (Angrist & Evans, 1996, 2000; Bloom, Canning, Fink & Finlay, 2009; Bloom & Finlay, 2009).

Table A: *Projected Population within the Age of 15 to 59 Till the Year 2061 Under Three Assumption Scenarios Source:* (BBS, 2015).

Age	Scenario I	Scenarios II	Scenario III
	15-59	15-59	15-59
2011	86,708	86,708	86,708
2016	99,417	99,417	99,417
2021	111,711	111,711	111,711
2026	119,378	119,378	119,378
2031	124,930	124,930	124,930
2036	130,408	130,408	130,408
2041	**135,975**	**134,531**	**134,531**
2046	138,776	134,436	134,436
2051	141,495	134,304	132,160
2056	144,660	134,502	130,240
2061	144,428	130,821	124,475



4. Bangladesh's Public Education System: How Do We Educate Our Future Generations?

In this section, we briefly look at the present state of Bangladesh's education system in terms of broad metrics of priorities and direction; or perhaps more accurately the lack thereof. Although there are valid reasons for one to argue that official data on important socio-economic metrics published by the government or government led agencies should

only be taken with 'a pinch of salt', particularly when it comes to statistics that are supposed to reflect progress; we can nevertheless attain a general idea of advances made in Bangladesh's public education domain by looking at past aggregate data. After all, government statistics are the only such wide-scale data points available on the present matter.

As indicated in **Figure A** and **Figure B**, Bangladesh has had some remarkable progress when it comes to a) access to primary education, b) reduction in drop-out rates and c) inclusion of female students in all levels of the education system. However, these are largely the stories of the past century. In our view, baseline indicators such as these should no longer lend us any degree of satisfaction or a sense of accomplishment. To what extent our current education system is capable of creating able and prosperous citizens of the future is, in our view, a relatively easy question for the reasonably observant to answer: not to a great extent. In the shadows of noteworthy achievements in quantity lurks alarming gaps in quality and much needed strategic prioritization. To realize benefits of a gargantuan working age population, projected to rise in the following decades, Bangladesh needs to prioritize a) vocational education, b) practical trade-based skills training to cater to domestic industries and c) tertiary education focused on the sciences.

Here, weadmit the existence of valid arguments in favor of a system of public education where individuals can freely choose their respective disciplines of interest. We therefore

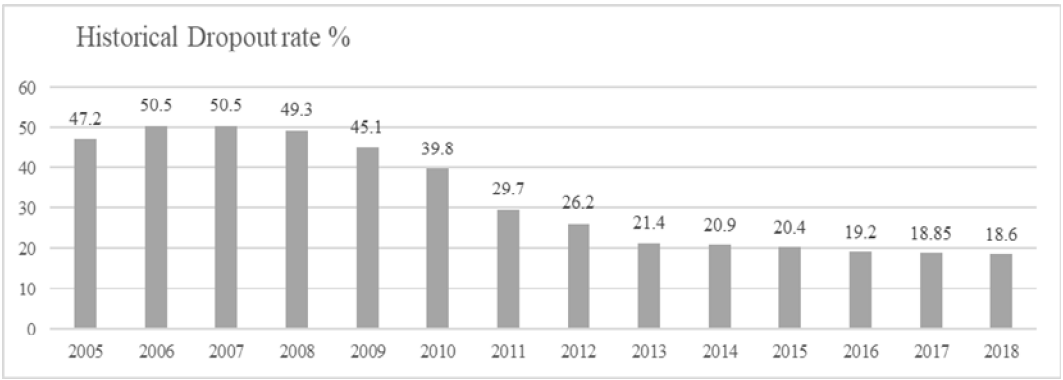


Figure A:Historical Dropout Rates in Primary Education Source: BANBEIS

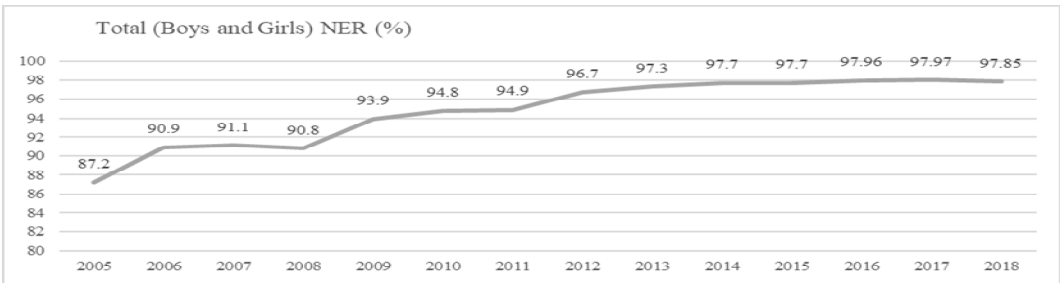


Figure B:Historical Net Enrollment Rates (Total of Boys and Girls) Source: BANBEIS

will not venture against any of those. However, from a sustainable economic development point of view, one can hardly argue against the assertion that a *managed system* with clear definitions of priorities and resource allocation guidelines is the way forward. Bangladesh faces unique opportunities and challenges with its notable population density, resource constraints, geopolitical significance and economic potential. More importantly, as a result of these factors, a managed system perhaps is the only way forward for a country like Bangladesh.

However, a brief look at the distribution of students in the tertiary levels of Bangladesh's education system reveals reality far from this desired optimum. As evident from **Table B**, of the 502,126 students passing different degree exams at the tertiary level in 2017, only a bare 3.37% were undergraduates in technical disciplines. The figure was lower for graduates at0.52%. Similar data from Technical and Vocational institutes are not inspiring either. In terms of metrics such as teacher-student ratio, the Vocational domain does a better job compared to other public and public universities (**Table C**).

Table B: Total Number and Percentage of Students Passing Different Tertiary Level Degree Examinations in 2018 Source: Calculated from BANBEIS Data

Degree	**Passed in 2017**	**%**
Pass Course	146,073	29.09%
Degree (Hon's)	125,652	25.02%
Technical	16,946	3.37%
Masters	123,643	24.62%
Masters (Technical)	2,586	0.52%
MS/MPhil/PhD	1,440	0.29%
Certificate/Diploma	85,786	17.08%
Grand Total	**502,126**	**100.00%**

But when we look into specific sub-disciplines and the number of students passing from each, the distribution within the Vocational category not only seems skewed, it appears skewed in favor of relatively less practical sub-disciplines. **Figure D** exhibits a flow diagram of students going into one of two major sub-categories within the technical and vocational field: a) specific industry related disciplines e.g., Textile Vocational as opposed to b) general technical and vocational fields such as Polytechnic Institutes.

The flow diagram also traces these students up to the final trade they specialized in. Only a fraction of the total students going into vocational education (8.56%) went into disciplines directly connected to a specific industry. Ready-made garments, for example, is by far the most important industry for the country considering its disproportionate contributions to export earnings and employment generation (particularly for women). Yet, only 1.64% of the total number of students in technical and vocational fields in 2018 were in textile and textile related disciplines.

Table C:Teacher-Student Ratios in Universities and Vocational Institutes Source: Calculated from BANBEIS Data

Institution	*Manage-ment*	*No of Institutes*	*Teachers*	*Student*	*Teacher-Student Ratio*
Universities	Public	42	13,799	676,623	1 Teacher Available for Every 49.03 Students
	Private	103	15,575	351,691	1 Teacher Available for Every 22.58 Students
	Total	**145**	**29,374**	**1,028,314**	**1 Teacher Available for Every 35.01 Students**
Technical and Vocational	Public	866	11,423	329,005	1 Teacher Available for Every 28.8 Students
	Private	5,999	39,508	738,479	1 Teacher Available for Every 18.69 Students
	Total	**6,865**	**50,931**	**1,067,484**	**1 Teacher Available for Every 20.96 Students**

As a nation with significant economic potential, Bangladesh needs to rethink its current education system which is heavily focused on *general* education. Effective industry-academia collaboration and strategic curricula design has become central in upcoming policy agenda. The system needs to prioritize human resource enhancement to fuel the country's socio-economic development machine. Enrichment of the human capital base is also required if we are to attempt providing global labor markets with capable, skilled human resource. The later needs careful evaluation as the strategic policy agenda of simultaneous export portfolio diversification and addressing near unsustainable levels of population density in a number of concentrated areas of economic development within the country's borders.

5. Education Finance: Is Bangladesh Funding Strategically?

In its bold and 'ambitious' fiscal budget for 2019-20 of 5,23,190 crore, Bangladesh allocated a sizable 79,486 crore for 'Education and Technology'. This was 15.19% of the total planned expenditure and almost 20 percent higher than allocation for this purpose in the previous fiscal year. Once again, we focus attention onto the specific distribution within this overall allocation (**Table D**)and take a look at the comparative picture with southeast Asian peer nations (**Table E and Figure C**).

Table D: Specific Distribution of Education Expenditure in Fiscal Budget of 2019-20 Source: Finance Division, Ministry of Planning

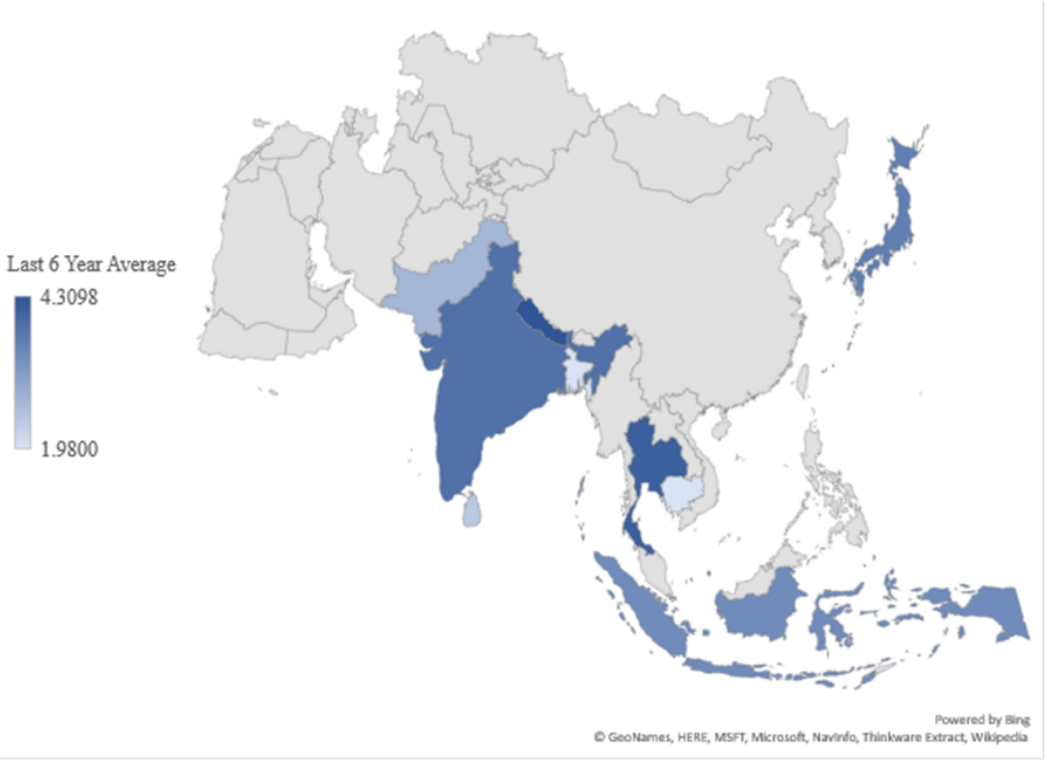
Particulars	**Absolute Amount**	**As a % of Total Expenditure**
Ministry of Primary and Mass Education	**24,041**	**4.60%**
Operating	14,771	2.82%
Development	9,270	1.77%
Secondary and Higher Education Division	**29,624**	**5.66%**
Operating	19,696	3.76%
Development	9,928	1.90%

Particulars	Absolute Amount	As a % of Total Expenditure
Ministry of Science and Technology	**16,438**	**3.14%**
Operating	530	0.10%
Development	15,908	3.04%
Information & Communication Technology Division	**1,930**	**0.37%**
Operating	285	0.05%
Development	1,645	0.31%
Technical and Madrasa Education Division	**7,453**	**1.42%**
Operating	5,940	1.14%
Development	1,513	0.29%
Total Education and Technology	**79,486**	**15.19%**

In terms of allocation percentage, the least portions were for the operation and development of Technical and Madrasa Education Division, Information and Communication Technology Division and the operation of Ministry of Science and Technology. In terms of average government expenditure on education over the last 6 years expressed as a percentage of GDP, Bangladesh came second to last among a list of peer nations predominantly from South-east Asia. These numbers, in part at least, should lend us enough indication to reconsider whether Bangladesh expends enough of its financial resources to invest in its future generations in a way that reflects economic and strategic realities. On this note of reconsideration, we also intend to inspire questions that challenge the continual funding of a number of purely theoretical and outdated/impractical disciplines in the tertiary levels of Bangladesh's public education system with taxpayer's money.

***Table E**:* 6-year Average Government Expenditure on Education as a % of GDP Source: Calculated by the Author from World Bank Data

Country Name	Last 6 Year Average
Cambodia	1.9800
Bangladesh	1.9901
Sri Lanka	2.4119
Pakistan	2.7024
Indonesia	3.4102
Hong Kong SAR, China	3.4203
Japan	3.6280
India	3.8447
Thailand	4.1240
Nepal	4.3098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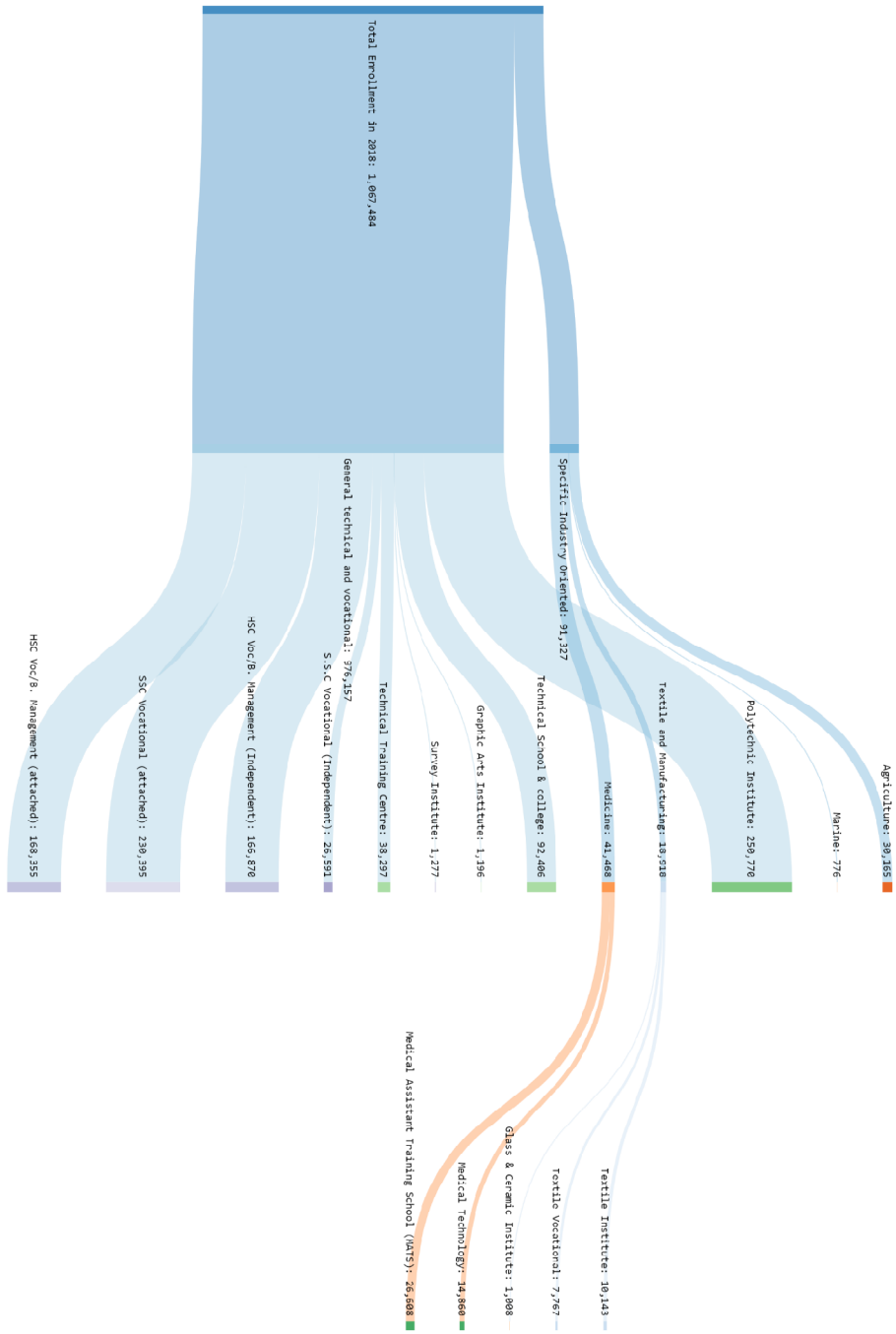

Figure DFlow Diagram of Students Going into Technical and Vocational Institutes in Bangladesh in 2018 Source: Visualized by the Author Based on BANBEIS Data

6. A New Framework for Institutional Education: The Lifelong-long Learning and Retraining Approach

In concluding this paper, we have tried to propose a framework for consideration by policy makers, education-experts, independent observers as well as industry participants who are interested to contribute to the development and flourishing of their future workforce. This proposition is based on insights gathered from data presented in the preceding sections, a review of literature related to effective education management and subjective understanding of major gaps in Bangladesh's education system and how best to address them.

Skills Identified by the World Economic Forum's 2018 Future of Jobs Report:	**Required Disciplines to prioritize in Bangladesh's Education System with Respect to These Skills for the 4IR**
Distinctly 'Human' skills:	***Distinctly 'Human' skills:***
Customer Service Workers	Service design and management
Sales and Marketing Professionals	Marketing Analytics
Training and Development,	Human Resource Management,
People, Culture, and Organizational Development Specialists	Applied Management and Business Development
Innovation Managers	Innovation Management
Specialist Roles:	***Specialist Roles:***
AI and Machine Learning Specialists	Computer Science and Applied Mathematics
Big Data Specialists	Data Science
Process Automation Experts	Data Science, Web Development and Computer Programming
Information Security Analysts	Information Systems and ICT security
User Experience and Human-Machine Interaction Designers	Design Thinking and Behavioral Sciences
Robotics Engineer	Engineering
Blockchain Specialists	Mathematics, Statistics, Analytics

Figure E: Skills for the 4IR and How to Prioritize Them in a New System

Figure F summarizes and visually integrates various components of this framework – along with their interrelationships. First, a relatively radical shift has been proposed in terms of organization of different levels of education and their respective strategic aims. It is important to note that in all four of these levels, self-learning has been emphasized as a core skill. Tomorrow's citizens need to be, more than anything, agile learners. Even if considerable efforts are put into making an education system that keeps abreast of the most recent changes in the workforce, it is perhaps very unlikely that any system can keep up with the *exponential* pace of technological progress. However, what a system can successfully achieve is to enable students with the ability to learn by themselves.

In the proposed system (institutional hierarchy), Primary Level forms the basis in language, mathematics and the arts for a learner. The Secondary Level builds on this solid foundation and offers candidates two alternative pathways to choose from immediately after graduating from the Primary Level: a) General, b) Vocational. The General Secondary Level is largely similar to the existing Higher Secondary level in almost all respect. The only difference proposed is in terms of curricula design. It will incorporate foundational parts from Technical Tertiary Levels and will focus on STEM subjects.

The curriculum for this level is to incorporate basic understanding of the technologies of the fourth industrial revolution and how they can be used to tackle some of the biggest challenges facing the world today. The Vocational Secondary Level's principal directive is to create the next generation of *industry workers* for the country as well as for global industrial arena. Tertiary level in the proposed system will focus all its resources in delivering and distributing research in disciplines of practical and strategic importance.

Second, as we have already mentioned, for a developing nation like Bangladesh with limited resources, prioritization of certain disciplines makes economic sense. **Figure E** should provide some directions as to which disciplines the system should focus on if taxpayer's money is to be spent judiciously and effectively. Third, the Government has to assume a far more active role in *bridging the gap between academia and industry*. Active government involvement, guidance and support may be the only way academia is going to create the research insights and capable, educated, willing citizens of the future that the industry needs. Similarly, it may also be the only way the industry is going to provide adequate financial and technical assistance to academia.

Fourth, global and geostrategic collaboration should move up the policy agenda. This is important for two reasons: a) to improve quality of education imparted and the governance of the system, b) to secure economically profitable placement of the workforce of the future. Fifth, from a developing-country-reality perspective, no amount of careful design can lead to fruitful outcome if *the human resource that produces human resources* is not prioritized, rewarded and recognized. Bangladesh needs to recognize its teachers at all levels of the education system and this is only one of the areas that necessitates far greater financial resource allocation. The importance of teacher training and faculty member development is symbolized, to borrow a rather rhetoric term, by the pillar-like structure that encompasses the proposed framework from one side.

Rethinking Bangladesh's institutional system to enable the citizens of tomorrow to thrive in the 'Second Machine Age' will no doubt require an integrative framework of multi-stakeholder collaboration, strategic thinking at the policy level in terms of resource allocation and priorities of outcome, and perhaps most importantly, an effective governance mechanism to realize the reformation process and the benefits thereof.

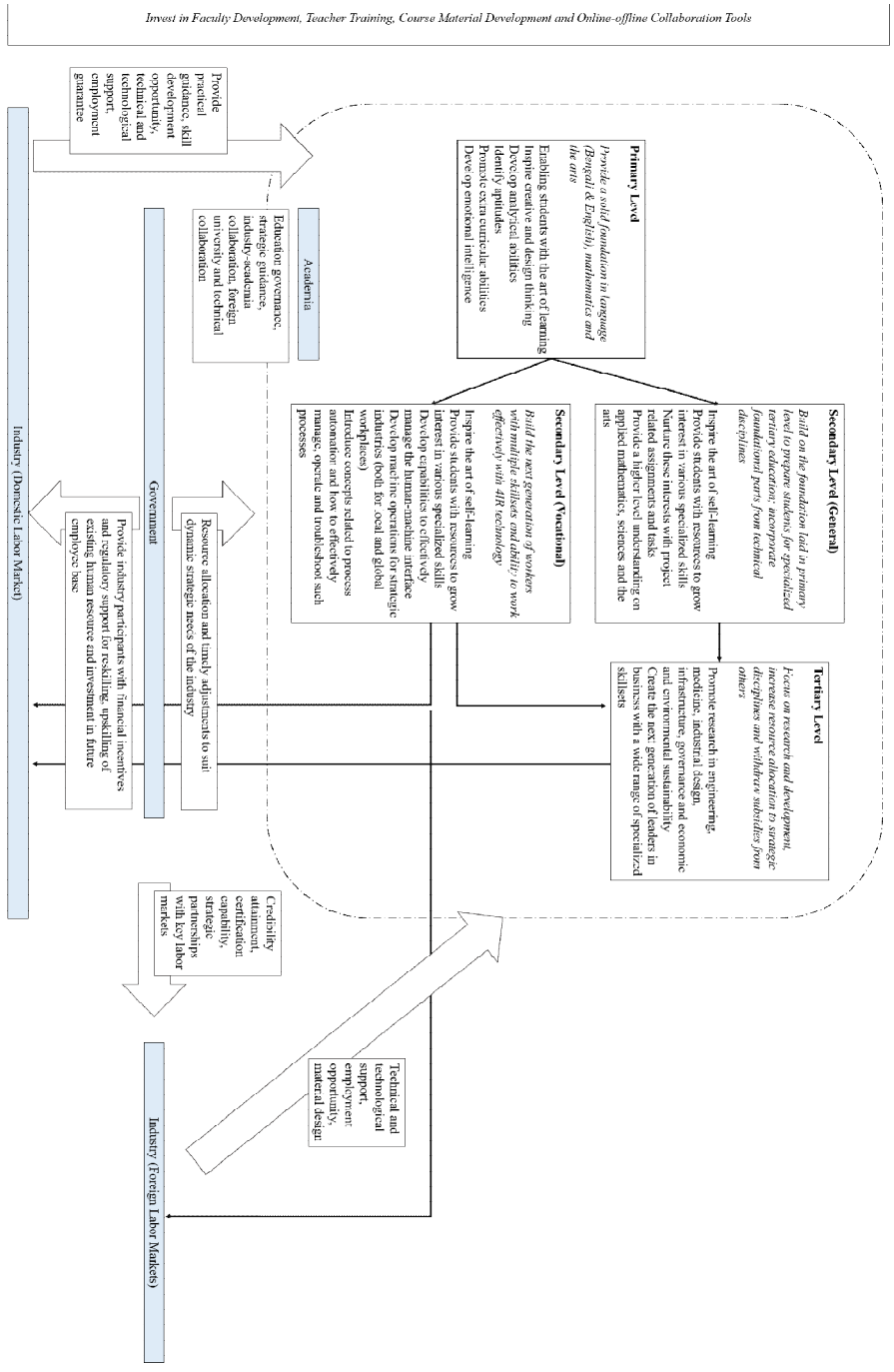

***Figure F**:* Proposed Framework of a Reformed Education System for Bangladesh with Significant Focus on Creating the Workforce for the Fourth Industrial Revolution and Reap the Demographic Dividend

References

Acemoglu, D., & Robinson, J. (2013). Why nations fail. London: Profile Books.

Angrist, J., & Evans, W. (1996). Children and Their Parents' Labor Supply: Evidence from Exogenous Variation in Family Size. doi: 10.3386/w5778

Angrist, J., & Evans, W. (2000). Schooling and labor market consequences of the 1970 state abortion reforms. Research In Labor Economics, 18, 75-113. doi: 10.1016/s0147-9121(99)18020-8

BBS. (2015). Population Projection of Bangladesh: Dynamics and Trends (2011-2061). Bangladesh Bureau of Statistics, Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh.

Bloom, D., & Finlay, J. (2009). Demographic Change and Economic Growth in Asia. Asian Economic Policy Review, 4(1), 45-64. doi: 10.1111/j.1748-3131.2009.01106.x

Bloom, D., & Freeman, R. (1986). The Effects of Rapid Population Growth on Labor Supply and Employment in Developing Countries. Population And Development Review, 12(3), 381-414. doi: 10.2307/1973216

Bloom, D., Canning, D., Fink, G., & Finlay, J. (2009). Fertility, female labor force participation, and the demographic dividend. Journal Of Economic Growth, 14(2), 79-101. doi: 10.1007/s10887-009-9039-9

Brynjolfsson, E., & McAfee, A. (2016). The second machine age. New York: W. W. Norton & Company.

Caruso, L. (2017). Digital innovation and the fourth industrial revolution: epochal social changes?. AI & SOCIETY, 33(3), 379-392. doi: 10.1007/s00146-017-0736-1

Engerman, S., & Sokoloff, K. (2008). Debating the Role of Institutions in Political and Economic Development: Theory, History, and Findings. Annual Review Of Political Science, 11(1), 119-135. doi: 10.1146/annurev.polisci.11.120406.135217

Galor, O., & Weil, D. (1999). From Malthusian Stagnation to Modern Growth. American Economic Review, 89(2), 150-154. doi: 10.1257/aer.89.2.150

Hashim Osman, R., Alexiou, C., & Tsaliki, P. (2011). The role of institutions in economic development. International Journal Of Social Economics, 39(1/2), 142-160. doi: 10.1108/03068291211188910

Matin, K. (2012). The Demographic Dividend In Bangladesh: An Illustrative Study. In 18th Biennial Conference for the Bangladesh Economic Association. Dhaka. Retrieved from https://bea-bd.org/site/images/pdf/40.pdf

Persson, K. (2008). The Malthus delusion. European Review Of Economic History, 12(1), 165-173. doi: https://doi.org/10.1017/S1361491608002219

Peters, M. (2017). Technological Unemployment: Educating for the Fourth Industrial Revolution. Journal Of Self-Governance And Management, 5(1), 25-33.

World Economic Forum. (2018). The Future of Jobs Report.

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 16-29 (Printed in January, 2021)

Performance Evaluation of Conventional and Islamic Banks in Bangladesh

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Abstract

This study aims to evaluate financial performances of Conventional banks and Islamic banks operating in Bangladesh and compare the financial performance based on some selected variables. The study has used a panel data from the period 2010 to 2018 published in the annual reports of these banks and the Bangladesh Bank. The study had a sample of 10 commercial banks consisting of 5 Conventional and 5 Islamic banks. This study has chosen a common set of 7 balance sheet variables to test the performance of both groups of banks and used the OLS regression method and the correlogram to measure the relationships and the contributions of these variables on the profitability of both groups of banks. The study results reveal that balances with other banks, money at call, investment in securities, total loans, borrowings from other banks and total deposits had significant contributions to operating profits of the group of conventional banks. On the other hand balances with other banks, investment in securities, and total deposits had significant contributions to operating profits of the group of Islamic banks.

Key Words: Performance evaluation of banks, Conventional Bank, Islamic Bank.

1. Introduction

The bank is the financial institution which is licensed by the government, responsible to conduct the monetary operation in an economy. The banking system in an economy plays a very vital role in terms of being a custodian of financial assets of mass people. It generally deals with the capital, wealth and money. The main banking functions are: capital mobilization, acts as the middle man between lender and borrower, eradication of scarcity of resources, investment and so on. The banking function is mostly dealt with credit money. This can conclude that bank plays a very important and potential role in the economy for the uplift of any state. Bangladesh has two types of banking system i) Conventional banking ii) Islamic banking.

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1.1 Conventional banking

Conventional banking plays an immensely important preamble in the promotion of the financial system. This bank mainly performs different work like, reallocation of capital which has easy access to business. Conventional banking commonly borrows the capital from savers and give the borrowing money to loan seeker. The main source of income is the differentiation between the borrowing rate and lending rate which is known as interest rate spread. And this bank also helps in International business through the letter of credit (LC) and guarantee. This banking system totally rely on interest, there is no restriction in interest. There is no concept of *Halal* (legal) and *Haram* (illegal*)* from the view point of Islamic Shariah.

1.2 Islamic Banking

Islamic banking system based on Islamic Shariah. It is performed through Islamic law and economics. There is a restriction of using interest (which is called 'Riba') in the transaction through Islamic banking system. The general purpose of the Islamic banking system is to avoid interest in the transaction.

One thing needs to clear is that the Islamic banking system must allow maximizing the asset. But it disallows the predetermined rate over certain principal/credit/loan/advance. When conventional banking talk about the interest-bearing transaction then Islamic banking talk about Profit Loss Sharing (PLS). Islamic banking system earns profit from its PLS deposit which keeps away from the interest rate. In Bangladesh Islamic Bank first established on March 13, 1983, in Dhaka. It is also relevant to say is that Islamic banking and Mudaraba banking has an outstanding future in Bangladesh. Bangladesh has already some banks in the Islamic banking field those are Bangladesh Islamic Bank ltd, First security Islamic bank ltd, Social Islamic bank ltd, Shajalal Islamic bank ltd, etc. In Bangladesh Islamic bank has started from many years and in some context, it performs better than others and it contributes more on government project than others.

Various comparative analyses regarding the performance analysis have been conducted in Bangladesh. Basically, various ratios have been used like: ROA, ROE, Fixed Asset Turn Over, and other things like profit and so on. So, we took the time span (from 2010 – 2018) and such conventional banks and Islamic banks along with the variables, that are unique and very helpful to find out the actual scenario.

2.0 Literature Review

Ayub, N. Sohail, R. M. (2012) had done a great job on conventional and Islamic banking. In their study, they considered some conventional and Islamic banks for appraising their performance. For this measuring the performance used some variables that are Operating Fixed assets, Borrowing from Financial Institutions, Profit, Net investment, Deposits, and Other Accounts, Advances, Administrative Expenditures & Number of Employees. The outcome disclosed that only three is significant out of eight factors.

Ahmed, Ahmed, (2006) study says that Bangladesh has Various kinds of banking with NCB, PCB, FCB, SDB (Specialized Commercial Bank), ICB (Islamic Commercial Bank), & the cooperative banks, etc. Persons have believed in an Islamic bank that it has a better recovery rate of a loan.

Rana, Hossain, Rekha, (2016). The goals of this work are to assimilate the profitability and liquidity between the Islamic bank and conventional banks in our country. This paper considered some ratios which are Return on equity (ROE), Profit expense ratio & Return on assets (ROA). Moreover, it added the Loan Deposit Ratio, Current Ratio, Net Loan/ Total Asset Ratio & Current Asset Ratio. The finding of this work was that the Islamic Bank in Bangladesh had been performed well than that of the Conventional Banks.

Alam, M.N. (2000) did a study and the aim of this study was to show Islamic bank operations were varying from that of the conventional banks and even showed how the Islamic bank added on financial services towards the small and rural area. He also tried to show the details function of Islamic bank interest rate free besides conventional banks.

*Sufian & Habibullah (2009).T*his paper strives to evaluate the performance of 37 Bangladeshi commercial banks from 1997 to 2004. Their findings recommend that bank individual features like credit risk, loan intensity and cost have a plus and important impact on the performance but non-interest income shows the opposite relationship with bank performance. Also, recommend that, size has the opposite effect on return on equity (ROE) and vice versa for return on assets (ROA) and net **Interest margins (NIM).**

Idris, F.F.A., Asari, H. Taufiq, N.A.A., Salim, N.J., Mustaffa, R., & Jussof, (2011). This study was done on Islamic Banking Institutions in Malaysia to examine the determinants of profitability. Here she included some determinants like credit risk, liquidity, capital solvency, bank size and management of expenses. The Generalized Least Square (GLS) panel data analysis was used which was built by the combination of foreign and local Islamic banks in Malaysia from 2007-2009. The result disclosed that only the bank size has a positive relationship with profitability and which was significant.

3.0 Objectives

- To evaluate the profitability or performance of conventional banking and Islamic banking in Bangladesh.
- To make a comparative scenario between conventional banks and Islamic banks in terms of their performances.

4.0 Research Methodology

The data collected for analysis was the secondary data.

We selected 5 conventional and 5 Islamic banks. We selected them from all listed banks in Bangladesh Stock Exchange.

This secondary data was collected from 5 conventional banks namely AB Bank, Bank Asia, Basic Bank, Brac Bank, and One Bank Ltd. and five Islami banks namely, Alfara Islamic bank, ICB Islami bank, Islami Bank Bangladesh Ltd, Shajalal Bank, and Social Islamic Bank. Data about eight variables Deposit, Investments, Fixed Asset, Total Asset, Borrowings from Other Banks, Balance with others, Operating Expenses, Profit after tax for Islamic bank from (2010-2018) are collected. We considered data from 2010 to 2018. And for the conventional bank, we took also eight variables namely, Balance with Other banks, Money at Call and on Short Notice, Investments, Total Loan, Total Assets, Borrowings from Other Banks, Total Deposit, Profit after tax. We used the OLS technique for analyzing data as this very useful and attractive method for regression analysis. For graphical analysis correlograms used to check whether data was stationary or not. All the data was stationary at level 1 difference.

For determining the performance of the banks, the hypothesis is one of a good way to measure the capability of the selected independent variables to impact on the performance.

Hypothesis

H_0, Variables have an insignificant coefficient. (Independent variable has an insignificant impact on the performance or dependent variable)

H_1, Variables have a significant coefficient. (Independent variable has a significant impact on the performance or dependent variable)

4.1 Regression Analysis

In this article we used the multiple regression model for analysis.

The general forms of model that includes more than one independent variable:

$Y_i = \beta_o + \beta 1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots\ldots\ldots\ldots\ldots \beta_k X_k + \mu_i$

4.2 Model

Various econometrics models used to estimate the performance of conventional and Islamic banks. Regression analysis is a statistical technique that was very useful for the work for measuring the performance. We examined the determinants of banks' profitability.

For estimating the relationship between Profit and, Balance with Other Bank, Money at Call and on Short Notice, Investments, Total Loan, Total Asset, Borrowings from Other Banks, Total Deposit (**Operating Expenses & Fixed Asset** (extra for Islamic bank)

Regression equation for this model:

$Y_i = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots\ldots\ldots\ldots\ldots \beta_7 X_7 + \mu_i$

Where;

Y_t= A dependent variable denoting the Profit (In Millions)

X_1 = An Independent variable denoting Balance with Other Bank.

X_2 = An Independent variable denoting Money at Call.

X_3 = An Independent variable denoting Investment.

X_4 = An Independent variable denoting Total Loan.

X_5 = An Independent variable denoting Borrowings from Other Banks.

X_6= An Independent variable denoting Total Asset.

X_7= An Independent variable Total Deposit.

μ_i = Error Term

β_o is the intercept and β_1+.....+β_7 is the regression coefficients.

5.0 Outcomes

Outcome of these variables with Conventional banks related are followed,
Test statistics of Multiple Regression Models of all conventional banks.

	Coefficients	***Standard Error***	***t Stat***	***P-value***
Intercept	1179453620	1000854534	1.1784465	0.2461421
Balance with Other Bank	-0.260933586	0.11210592	2.327562963	0.0255124
Money at Call and on Short Notice	-0.52167876	0.242046471	-2.1552834	0.0377152
Investments	-0.38566407	0.086275987	-4.4701206	7.15068E
Total Loan	-0.230016482	0.060457425	-3.8046026	0.0005159
Total Asset	0.086337697	0.073105429	1.1810025**	0.2451378**
Borrowings from Other Banks	0.309135931	0.094162893	3.2829910	0.0022484
Total Deposit	0.159121519	0.064232669	2.4772677	0.0179319
R Square	0.776853935	**Probability(F-statistic)**	.00000000	
F-statistic	7.205750787	**Durbin-Watson statistic**	1.8445	

For data analysis *E–Views* (version 9.0) was used.
Showed significant 5% level of significance.
(**)-is insignificant.
(P>.05 & t <2) have insignificance effect.

Conventional bank regression equation is:

Profit = 1179453620 - 0.260933586 X_1 - 0.52167876 X_2-0.38566407 X_3-0.230016482 X_4 +0.086337697 X_5+0.309135931 X_6+0.159121519 X_7.

The outcome disclosed that only one (Total Asset) out of seven is insignificant in determining the bank's performance. All variables included in this regression model of these conventional banks are explained below.

The coefficient of balance with other banks had significant negative effects on profit that's means there was a negative relationship between balance with other bank and profit. We can see the above table shows the Coefficient of money at Call and on Short Notice, Coefficient of investments, Coefficient of the total loan had significant negative effects on profit. That's means there was a negative relationship between money at Call and on Short Notice, investments, total loan, and profit. This table also shows that the Coefficient of borrowings from other Banks, Coefficient of total deposit had significant positive effects on profit. That's means there was a positive relationship between borrowings from other Banks, total deposit, and profit. In this model, there had a total asset factor which had insignificant positive effects on profit.

All variables are considered at a 5% level of significance. R square value showed that 77.69% of the variation of profit can be explained by this model others remaining variation can't be explained by this model as the remaining variation due to other variables. F-statistic showed that this model is significant.

Now we will see the outcomes of Islamic Banks

5.1 Test statistics of Multiple Regression Model of five Islamic banks

	Coefficients	***Standard Error***	***t Stat***	***P-value***
Intercept	177791140.5	210647497.9	0.844022086	0.404081213
Deposit	0.00016452	0.00006085	2.6755924172	0.041109279
Investments	0.001005296	0.000493787	2.372985037	0.035138723
Fixed Asset	0.15609672	0.078152159	1.997343687**	0.05318139***
Total Asset	0.000502118	0.00061455	0.817048986**	0.419130488**
Borrowings from Other Banks	-0.001225656	0.018205927	-0.067321798**	0.946688009**
Balance with others(BB & A)	0.101561323	0.021835924	4.651111758	4.12249E-05
Operating Expenses	-0.252282956	0.10996347	-2.294243328	0.027550886
R Square	0.815346	**Probability (F-statistic)**	.00000000	
F-statistic	23.339216	**Durbin-Watson statistic**	1.657518	

For data analysis *E–Views* (version 9.0) was used.
Showed significant 5% level of significance.
(**)-is insignificant.
(P>.05 & t <2) have insignificance effect.

Here the equation is,

Profit=177791140.5+0.101561323X_1-.2523X_2 +0.001005296X_3 +0.15609672X_4(F.A)-0.001225656X_5+0.000502118X_6+0.00016452X_7.

The outcome disclosed that only four out of seven are significant in determining the bank's performance. All variables included in this regression model of these Islamic banks are explained below:

The coefficient of deposit and investment had significant positive & negative respectively effects on profit. And we can see above that Coefficient of fixed asset, the total asset had insignificant positive effects on profit that's means there were positive relationship between deposit and profit. The coefficient of borrowings from other Banks had insignificant negative effects on profit that's means there were a negative relationship deposit and profit. But the Coefficient of balance with others had significant positive effects on profit which means there was positive relationship deposit and profit and the Coefficient of operating expenses had significant negative effects on profit that's means there were negative relationship deposit and profit.

All variables were considered at a 5% level of significance. R square value showed that 81.53% of the variation of profit can be explained by this model others remaining variation can't be explained by this model as the remaining variation due to other variables. F-statistic showed that this model is significant.

5.2 Comparison:

- X1 variable (Balance with Other) had a negative relation with profit in conventional banking and it's had a significant coefficient whereas in Islamic banks had a positive relation with profit.
- Investment variable (X3) had a negative relation with profit in conventional banking and it had a significant coefficient whereas in Islamic banks had a positive relation.
- Balance With Other Bank had a negative relation with profit in the case of Conventional Bank with significant coefficient but it showed the positive relation with profit in case of Islamic Bank.
- Borrowings from other Bank variable showed the negative relation with profit in Conventional Banking whereas it showed the negative relation with profit in Islamic Banking. For both cases this variable possessed the significant status.
- Total assets (X7) had a positive relation with profit both in conventional and Islamic banking and it had insignificant coefficient both with the case in Conventional and Islamic banking.
- And exceptionally, in Islamic bank, we considered operating expense which had a negative relationship with profit and had significant coefficient.

From regression analysis of Five conventional and five Islamic banks we find out from comparison, the view is that in the conventional bank we can see there have only one insignificant coefficient (total asset) and other six are significant coefficient whereas in Islamic bank has three insignificant coefficients.(coefficient of Fixed Asset, Total Asset, Borrowings from Other Banks) others four are significant coefficient(Deposit, Investment, Operating expenses, Balance with others).

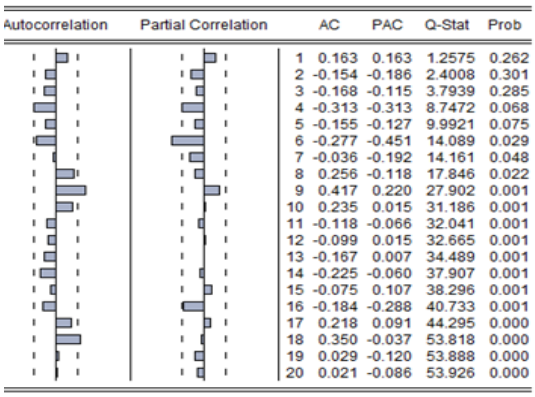
In Conventional bank, R Square is 77.68% whereas in Islamic bank has 81.53% but both are significant statistically according to F-statistic.

6.0 Correlograms

Now we can see the correlograms of the conventional and Islamic banks where it was used to check weather data was stationary or not. All the data found stationary at level 1 difference.

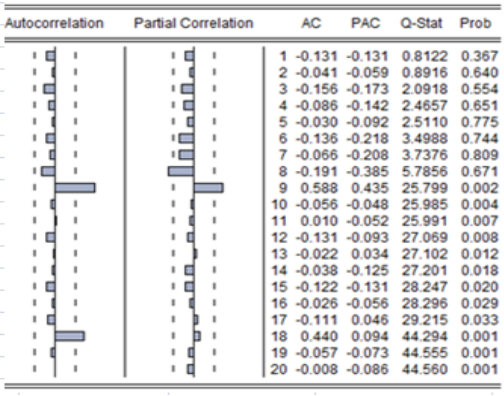
6.1 Conventional banks' data correlograms

Correlogram of Balance with Other Bank



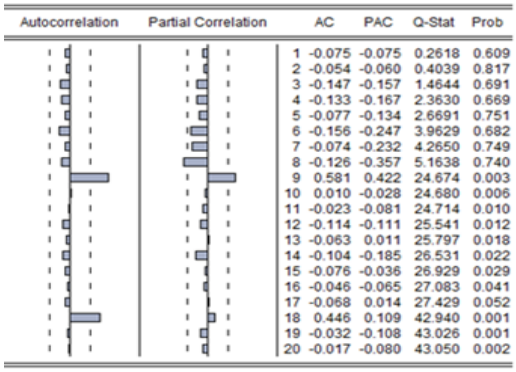
	Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
1			0.163	0.163	1.2575	0.262
2			-0.154	-0.186	2.4008	0.301
3			-0.168	-0.115	3.7939	0.285
4			-0.313	-0.313	8.7472	0.068
5			-0.155	-0.127	9.9921	0.075
6			-0.277	-0.451	14.089	0.029
7			-0.036	-0.192	14.161	0.048
8			0.256	-0.118	17.846	0.022
9			0.417	0.220	27.902	0.001
10			0.235	0.015	31.186	0.001
11			-0.118	-0.066	32.041	0.001
12			-0.099	0.015	32.665	0.001
13			-0.167	0.007	34.489	0.001
14			-0.225	-0.060	37.907	0.001
15			-0.075	0.107	38.296	0.001
16			-0.184	-0.288	40.733	0.001
17			0.218	0.091	44.295	0.000
18			0.350	-0.037	53.818	0.000
19			0.029	-0.120	53.888	0.000
20			0.021	-0.086	53.926	0.000

Correlogram of Money at Call and on Short



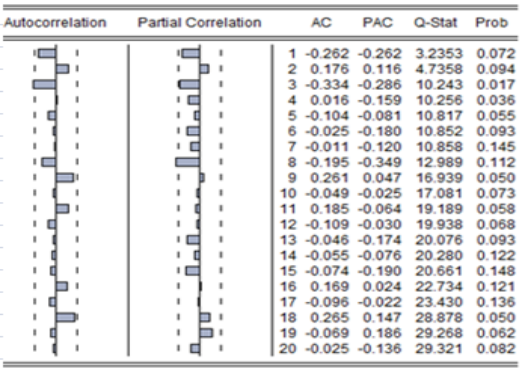
	Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
1			-0.131	-0.131	0.8122	0.367
2			-0.041	-0.059	0.8916	0.640
3			-0.156	-0.173	2.0918	0.554
4			-0.086	-0.142	2.4657	0.651
5			-0.030	-0.092	2.5110	0.775
6			-0.136	-0.218	3.4988	0.744
7			-0.066	-0.208	3.7376	0.809
8			-0.191	-0.385	5.7856	0.671
9			0.588	0.435	25.799	0.002
10			-0.056	-0.048	25.985	0.004
11			0.010	-0.052	25.991	0.007
12			-0.131	-0.093	27.069	0.008
13			-0.022	0.034	27.102	0.012
14			-0.038	-0.125	27.201	0.018
15			-0.122	-0.131	28.247	0.020
16			-0.026	-0.056	28.296	0.029
17			-0.111	0.046	29.215	0.033
18			0.440	0.094	44.294	0.001
19			-0.057	-0.073	44.555	0.001
20			-0.008	-0.086	44.560	0.001

Correlogram of Total Asset



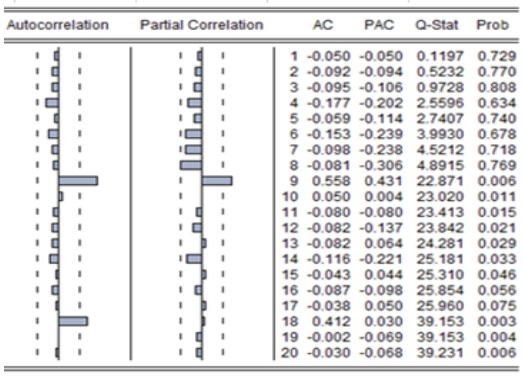
	Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
1			-0.075	-0.075	0.2618	0.609
2			-0.054	-0.060	0.4039	0.817
3			-0.147	-0.157	1.4644	0.691
4			-0.133	-0.167	2.3630	0.669
5			-0.077	-0.134	2.6691	0.751
6			-0.156	-0.247	3.9629	0.682
7			-0.074	-0.232	4.2650	0.749
8			-0.126	-0.357	5.1638	0.740
9			0.581	0.422	24.674	0.003
10			0.010	-0.028	24.680	0.006
11			-0.023	-0.081	24.714	0.010
12			-0.114	-0.111	25.541	0.012
13			-0.063	0.011	25.797	0.018
14			-0.104	-0.185	26.531	0.022
15			-0.076	-0.036	26.929	0.029
16			-0.046	-0.065	27.083	0.041
17			-0.068	0.014	27.429	0.052
18			0.446	0.109	42.940	0.001
19			-0.032	-0.108	43.026	0.001
20			-0.017	-0.080	43.050	0.002

Correlogram of Borrowings from Other Banks



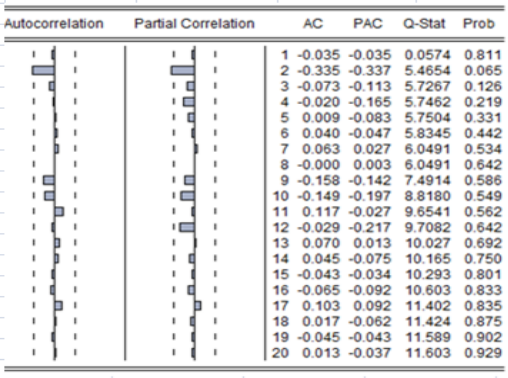
	Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
1			-0.262	-0.262	3.2353	0.072
2			0.176	0.116	4.7358	0.094
3			-0.334	-0.286	10.243	0.017
4			0.016	-0.159	10.256	0.036
5			-0.104	-0.081	10.817	0.055
6			-0.025	-0.180	10.852	0.093
7			-0.011	-0.120	10.858	0.145
8			-0.195	-0.349	12.989	0.112
9			0.261	0.047	16.939	0.050
10			-0.049	-0.025	17.081	0.073
11			0.185	-0.064	19.189	0.058
12			-0.109	-0.030	19.938	0.068
13			-0.046	-0.174	20.076	0.093
14			-0.055	-0.076	20.280	0.122
15			-0.074	-0.190	20.661	0.148
16			0.169	0.024	22.734	0.121
17			-0.096	-0.022	23.430	0.136
18			0.265	0.147	28.878	0.050
19			-0.069	0.186	29.268	0.062
20			-0.025	-0.136	29.321	0.082

Correlogram of Total Deposit



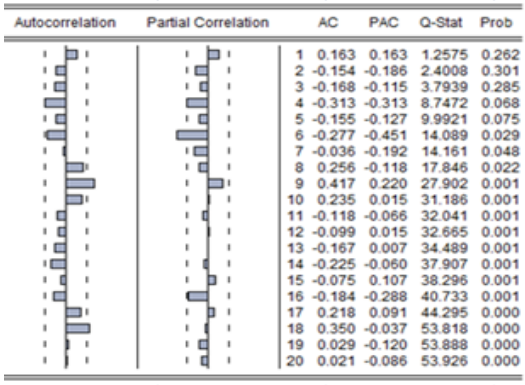
	AC	PAC	Q-Stat	Prob
1	-0.050	-0.050	0.1197	0.729
2	-0.092	-0.094	0.5232	0.770
3	-0.095	-0.106	0.9728	0.808
4	-0.177	-0.202	2.5596	0.634
5	-0.059	-0.114	2.7407	0.740
6	-0.153	-0.239	3.9930	0.678
7	-0.098	-0.238	4.5212	0.718
8	-0.081	-0.306	4.8915	0.769
9	0.558	0.431	22.871	0.006
10	0.050	0.004	23.020	0.011
11	-0.080	-0.080	23.413	0.015
12	-0.082	-0.137	23.842	0.021
13	-0.082	0.064	24.281	0.029
14	-0.116	-0.221	25.181	0.033
15	-0.043	0.044	25.310	0.046
16	-0.087	-0.098	25.854	0.056
17	-0.038	0.050	25.960	0.075
18	0.412	0.030	39.153	0.003
19	-0.002	-0.069	39.153	0.004
20	-0.030	-0.068	39.231	0.006

Correlogram of Profit after tax



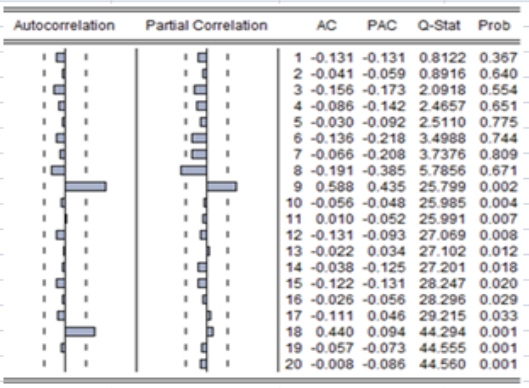
	AC	PAC	Q-Stat	Prob
1	-0.035	-0.035	0.0574	0.811
2	-0.335	-0.337	5.4654	0.065
3	-0.073	-0.113	5.7267	0.126
4	-0.020	-0.165	5.7462	0.219
5	0.009	-0.083	5.7504	0.331
6	0.040	-0.047	5.8345	0.442
7	0.063	0.027	6.0491	0.534
8	-0.000	0.003	6.0491	0.642
9	-0.158	-0.142	7.4914	0.586
10	-0.149	-0.197	8.8180	0.549
11	0.117	-0.027	9.6541	0.562
12	-0.029	-0.217	9.7082	0.642
13	0.070	0.013	10.027	0.692
14	0.045	-0.075	10.165	0.750
15	-0.043	-0.034	10.293	0.801
16	-0.065	-0.092	10.603	0.833
17	0.103	0.092	11.402	0.835
18	0.017	-0.062	11.424	0.875
19	-0.045	-0.043	11.589	0.902
20	0.013	-0.037	11.603	0.929

Correlogram of Total Investment



	AC	PAC	Q-Stat	Prob
1	0.163	0.163	1.2575	0.262
2	-0.154	-0.186	2.4008	0.301
3	-0.168	-0.115	3.7939	0.285
4	-0.313	-0.313	8.7472	0.068
5	-0.155	-0.127	9.9921	0.075
6	-0.277	-0.451	14.089	0.029
7	-0.036	-0.192	14.161	0.048
8	0.256	-0.118	17.846	0.022
9	0.417	0.220	27.902	0.001
10	0.235	0.015	31.186	0.001
11	-0.118	-0.066	32.041	0.001
12	-0.099	0.015	32.665	0.001
13	-0.167	0.007	34.489	0.001
14	-0.225	-0.060	37.907	0.001
15	-0.075	0.107	38.296	0.001
16	-0.184	-0.288	40.733	0.001
17	0.218	0.091	44.295	0.000
18	0.350	-0.037	53.818	0.000
19	0.029	-0.120	53.888	0.000
20	0.021	-0.086	53.926	0.000

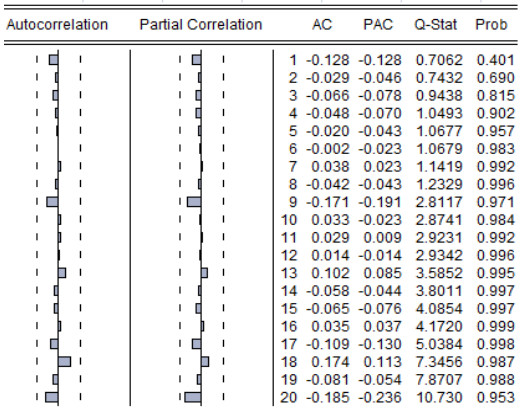
Correlogram of Total loan



	AC	PAC	Q-Stat	Prob
1	-0.131	-0.131	0.8122	0.367
2	-0.041	-0.059	0.8916	0.640
3	-0.156	-0.173	2.0918	0.554
4	-0.086	-0.142	2.4657	0.651
5	-0.030	-0.092	2.5110	0.775
6	-0.136	-0.218	3.4988	0.744
7	-0.066	-0.208	3.7376	0.809
8	-0.191	-0.385	5.7856	0.671
9	0.588	0.435	25.799	0.002
10	-0.056	-0.048	25.985	0.004
11	0.010	-0.052	25.991	0.007
12	-0.131	-0.093	27.069	0.008
13	-0.022	0.034	27.102	0.012
14	-0.038	-0.125	27.201	0.018
15	-0.122	-0.131	28.247	0.020
16	-0.026	-0.056	28.296	0.029
17	-0.111	0.046	29.215	0.033
18	0.440	0.094	44.294	0.001
19	-0.057	-0.073	44.555	0.001
20	-0.008	-0.086	44.560	0.001

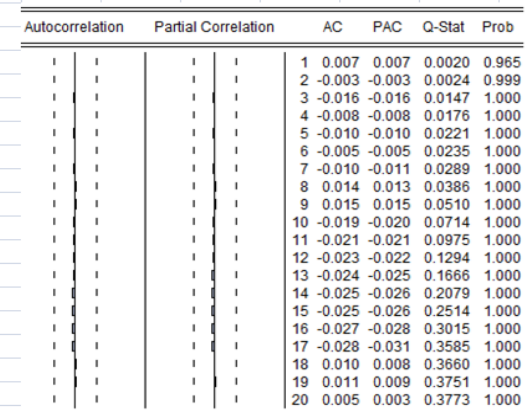
6.2 Islamic banks' data correlograms,

Correlogram of Profit after tax



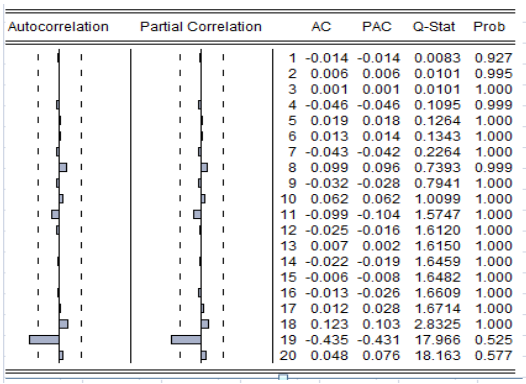
	AC	PAC	Q-Stat	Prob
1	-0.128	-0.128	0.7062	0.401
2	-0.029	-0.046	0.7432	0.690
3	-0.066	-0.078	0.9438	0.815
4	-0.048	-0.070	1.0493	0.902
5	-0.020	-0.043	1.0677	0.957
6	-0.002	-0.023	1.0679	0.983
7	0.038	0.023	1.1419	0.992
8	-0.042	-0.043	1.2329	0.996
9	-0.171	-0.191	2.8117	0.971
10	0.033	-0.023	2.8741	0.984
11	0.029	0.009	2.9231	0.992
12	0.014	-0.014	2.9342	0.996
13	0.102	0.085	3.5852	0.995
14	-0.058	-0.044	3.8011	0.997
15	-0.065	-0.076	4.0854	0.997
16	0.035	0.037	4.1720	0.999
17	-0.109	-0.130	5.0384	0.998
18	0.174	0.113	7.3456	0.987
19	-0.081	-0.054	7.8707	0.988
20	-0.185	-0.236	10.730	0.953

Correlogram of Deposit



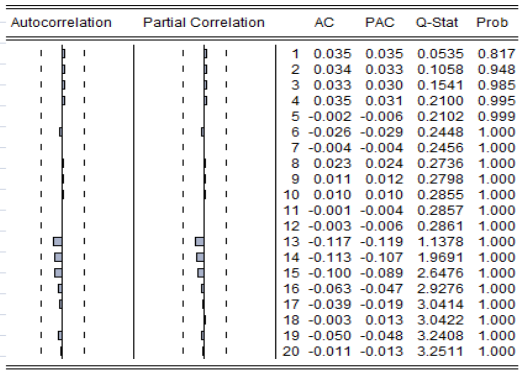
	AC	PAC	Q-Stat	Prob
1	0.007	0.007	0.0020	0.965
2	-0.003	-0.003	0.0024	0.999
3	-0.016	-0.016	0.0147	1.000
4	-0.008	-0.008	0.0176	1.000
5	-0.010	-0.010	0.0221	1.000
6	-0.005	-0.005	0.0235	1.000
7	-0.010	-0.011	0.0289	1.000
8	0.014	0.013	0.0386	1.000
9	0.015	0.015	0.0510	1.000
10	-0.019	-0.020	0.0714	1.000
11	-0.021	-0.021	0.0975	1.000
12	-0.023	-0.022	0.1294	1.000
13	-0.024	-0.025	0.1666	1.000
14	-0.025	-0.026	0.2079	1.000
15	-0.025	-0.026	0.2514	1.000
16	-0.027	-0.028	0.3015	1.000
17	-0.028	-0.031	0.3585	1.000
18	0.010	0.008	0.3660	1.000
19	0.011	0.009	0.3751	1.000
20	0.005	0.003	0.3773	1.000

Correlogram of Fixed Asset



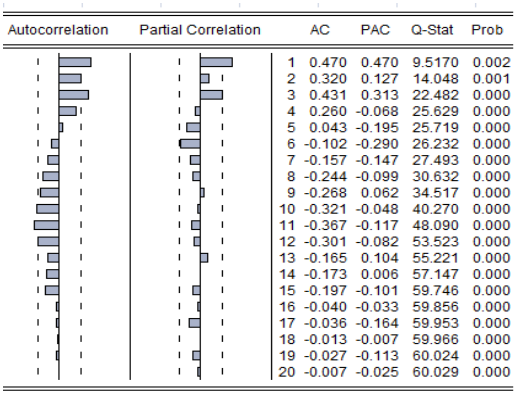
	AC	PAC	Q-Stat	Prob
1	-0.014	-0.014	0.0083	0.927
2	0.006	0.006	0.0101	0.995
3	0.001	0.001	0.0101	1.000
4	-0.046	-0.046	0.1095	0.999
5	0.019	0.018	0.1264	1.000
6	0.013	0.014	0.1343	1.000
7	-0.043	-0.042	0.2264	1.000
8	0.099	0.096	0.7393	0.999
9	-0.032	-0.028	0.7941	1.000
10	0.062	0.062	1.0099	1.000
11	-0.099	-0.104	1.5747	1.000
12	-0.025	-0.016	1.6120	1.000
13	0.007	0.002	1.6150	1.000
14	-0.022	-0.019	1.6459	1.000
15	-0.006	-0.008	1.6482	1.000
16	-0.013	-0.026	1.6609	1.000
17	0.012	0.028	1.6714	1.000
18	0.123	0.103	2.8325	1.000
19	-0.435	-0.431	17.966	0.525
20	0.048	0.076	18.163	0.577

Correlogram of Investment



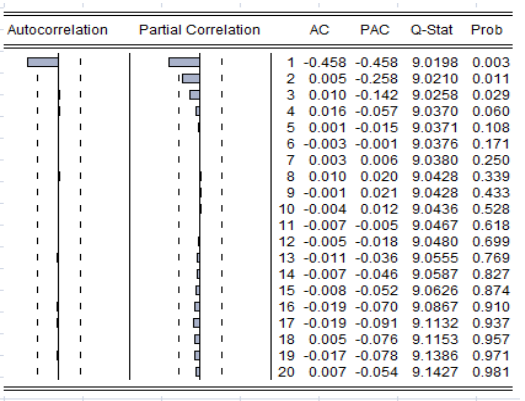
	AC	PAC	Q-Stat	Prob
1	0.035	0.035	0.0535	0.817
2	0.034	0.033	0.1058	0.948
3	0.033	0.030	0.1541	0.985
4	0.035	0.031	0.2100	0.995
5	-0.002	-0.006	0.2102	0.999
6	-0.026	-0.029	0.2448	1.000
7	-0.004	-0.004	0.2456	1.000
8	0.023	0.024	0.2736	1.000
9	0.011	0.012	0.2798	1.000
10	0.010	0.010	0.2855	1.000
11	-0.001	-0.004	0.2857	1.000
12	-0.003	-0.006	0.2861	1.000
13	-0.117	-0.119	1.1378	1.000
14	-0.113	-0.107	1.9691	1.000
15	-0.100	-0.089	2.6476	1.000
16	-0.063	-0.047	2.9276	1.000
17	-0.039	-0.019	3.0414	1.000
18	-0.003	0.013	3.0422	1.000
19	-0.050	-0.048	3.2408	1.000
20	-0.011	-0.013	3.2511	1.000

Correlogram of operating expenses



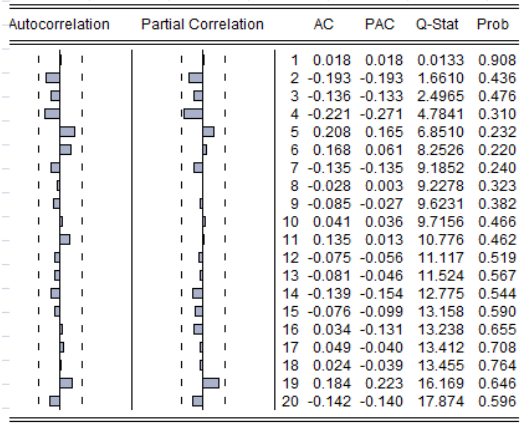
	AC	PAC	Q-Stat	Prob
1	0.470	0.470	9.5170	0.002
2	0.320	0.127	14.048	0.001
3	0.431	0.313	22.482	0.000
4	0.260	-0.068	25.629	0.000
5	0.043	-0.195	25.719	0.000
6	-0.102	-0.290	26.232	0.000
7	-0.157	-0.147	27.493	0.000
8	-0.244	-0.099	30.632	0.000
9	-0.268	0.062	34.517	0.000
10	-0.321	-0.048	40.270	0.000
11	-0.367	-0.117	48.090	0.000
12	-0.301	-0.082	53.523	0.000
13	-0.165	0.104	55.221	0.000
14	-0.173	0.006	57.147	0.000
15	-0.197	-0.101	59.746	0.000
16	-0.040	-0.033	59.856	0.000
17	-0.036	-0.164	59.953	0.000
18	-0.013	-0.007	59.966	0.000
19	-0.027	-0.113	60.024	0.000
20	-0.007	-0.025	60.029	0.000

Correlogram of Total Asset



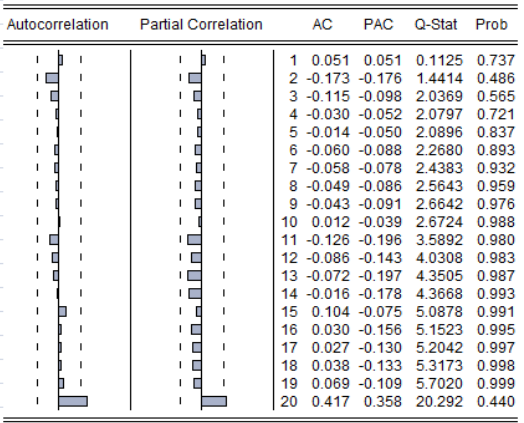
	AC	PAC	Q-Stat	Prob
1	-0.458	-0.458	9.0198	0.003
2	0.005	-0.258	9.0210	0.011
3	0.010	-0.142	9.0258	0.029
4	0.016	-0.057	9.0370	0.060
5	0.001	-0.015	9.0371	0.108
6	-0.003	-0.001	9.0376	0.171
7	0.003	0.006	9.0380	0.250
8	0.010	0.020	9.0428	0.339
9	-0.001	0.021	9.0428	0.433
10	-0.004	0.012	9.0436	0.528
11	-0.007	-0.005	9.0467	0.618
12	-0.005	-0.018	9.0480	0.699
13	-0.011	-0.036	9.0555	0.769
14	-0.007	-0.046	9.0587	0.827
15	-0.008	-0.052	9.0626	0.874
16	-0.019	-0.070	9.0867	0.910
17	-0.019	-0.091	9.1132	0.937
18	0.005	-0.076	9.1153	0.957
19	-0.017	-0.078	9.1386	0.971
20	0.007	-0.054	9.1427	0.981

Correlogram of Borrowings from Other Banks



	AC	PAC	Q-Stat	Prob
1	0.018	0.018	0.0133	0.908
2	-0.193	-0.193	1.6610	0.436
3	-0.136	-0.133	2.4965	0.476
4	-0.221	-0.271	4.7841	0.310
5	0.208	0.165	6.8510	0.232
6	0.168	0.061	8.2526	0.220
7	-0.135	-0.135	9.1852	0.240
8	-0.028	0.003	9.2278	0.323
9	-0.085	-0.027	9.6231	0.382
10	0.041	0.036	9.7156	0.466
11	0.135	0.013	10.776	0.462
12	-0.075	-0.056	11.117	0.519
13	-0.081	-0.046	11.524	0.567
14	-0.139	-0.154	12.775	0.544
15	-0.076	-0.099	13.158	0.590
16	0.034	-0.131	13.238	0.655
17	0.049	-0.040	13.412	0.708
18	0.024	-0.039	13.455	0.764
19	0.184	0.223	16.169	0.646
20	-0.142	-0.140	17.874	0.596

Correlogram of Balance with others(BB & A)



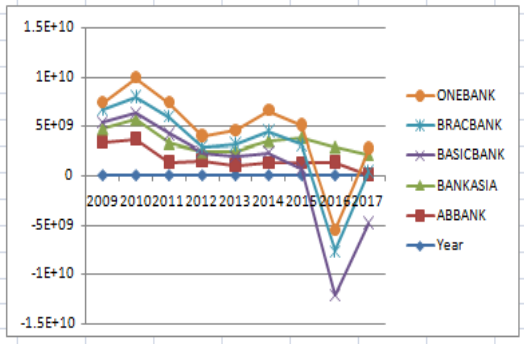
	AC	PAC	Q-Stat	Prob
1	0.051	0.051	0.1125	0.737
2	-0.173	-0.176	1.4414	0.486
3	-0.115	-0.098	2.0369	0.565
4	-0.030	-0.052	2.0797	0.721
5	-0.014	-0.050	2.0896	0.837
6	-0.060	-0.088	2.2680	0.893
7	-0.058	-0.078	2.4383	0.932
8	-0.049	-0.086	2.5643	0.959
9	-0.043	-0.091	2.6642	0.976
10	0.012	-0.039	2.6724	0.988
11	-0.126	-0.196	3.5892	0.980
12	-0.086	-0.143	4.0308	0.983
13	-0.072	-0.197	4.3505	0.987
14	-0.016	-0.178	4.3668	0.993
15	0.104	-0.075	5.0878	0.991
16	0.030	-0.156	5.1523	0.995
17	0.027	-0.130	5.2042	0.997
18	0.038	-0.133	5.3173	0.998
19	0.069	-0.109	5.7020	0.999
20	0.417	0.358	20.292	0.440

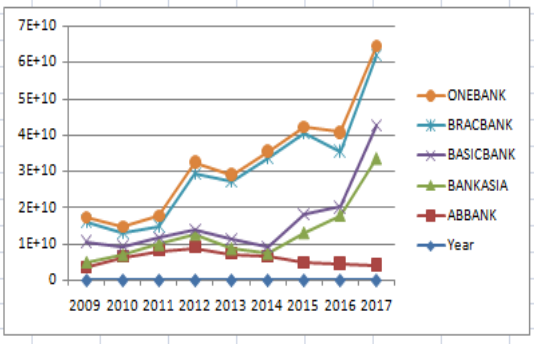
7.0 Time series performances

Now we focus on time series performance of the all variables of the conventional banks and Islamic banks:

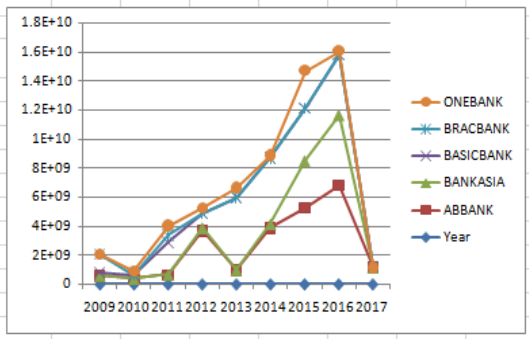
7.1 Conventional banks time series performance

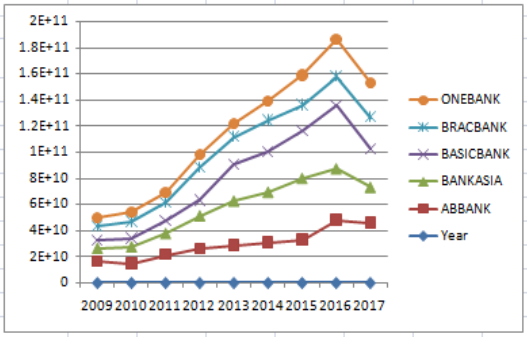
Time Series trend of Profit After Tax & Balance with other bank from time period (2010-2018)**:**



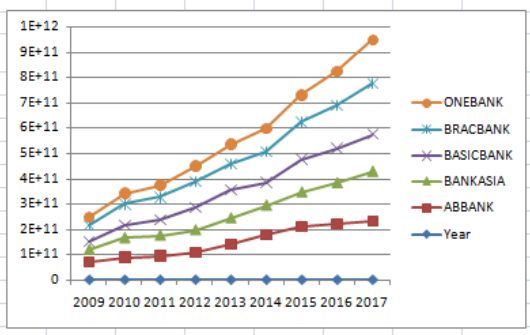


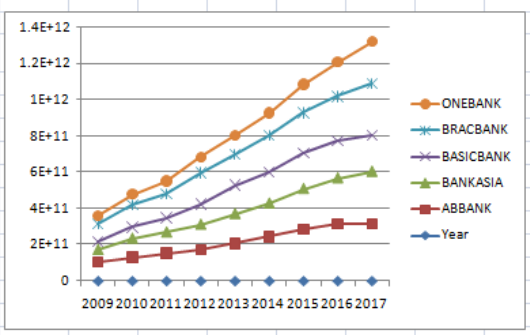
Money at Call and on Short Notice & Investments from time period (2010-2018)



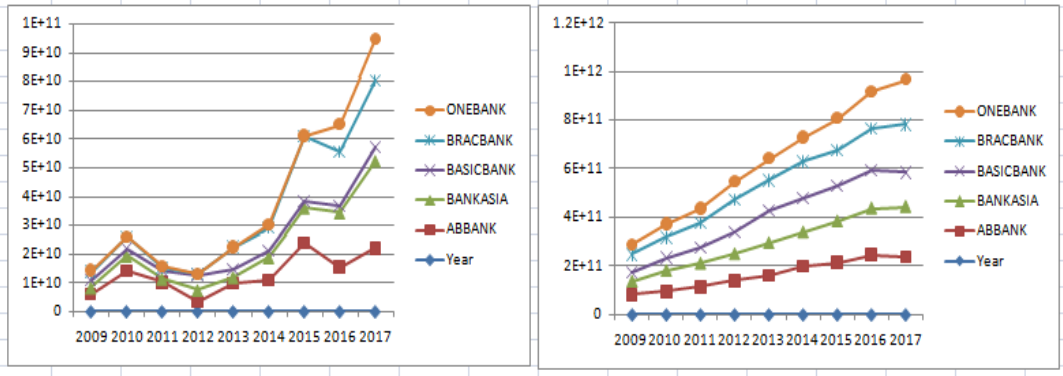


Total Loan & Total Asset from time period (2010-2018)



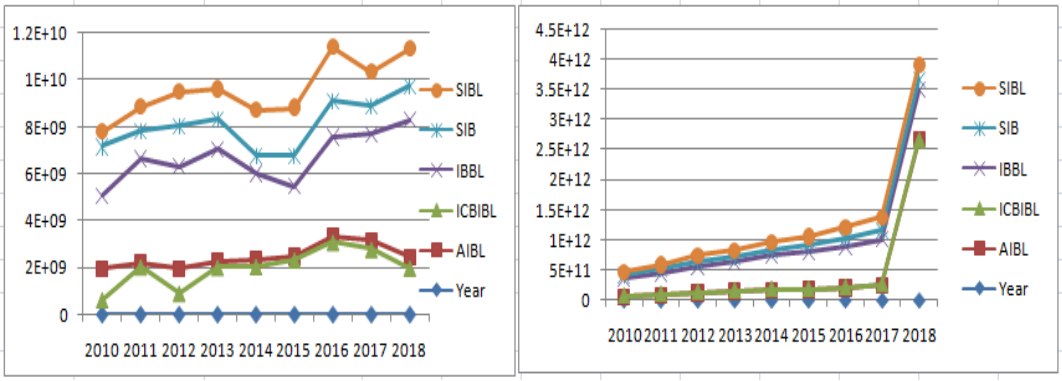


Total Loans & Total Assets from time period (2010-2018)

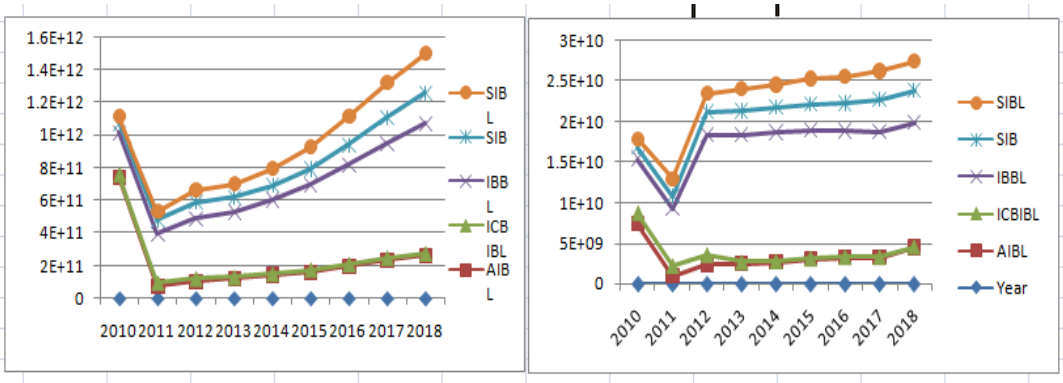


7.2 Here the time series performance of Islamic banks

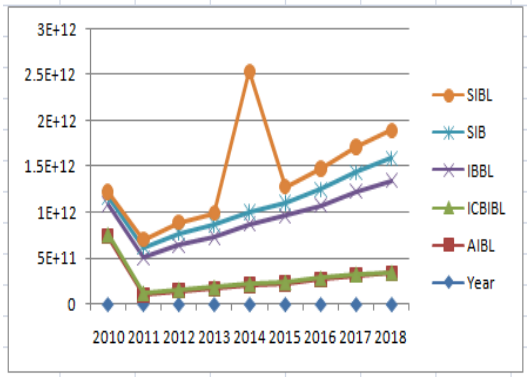
Time Series trend of Profit After Tax & Deposit from time period (2010-2018)**:**

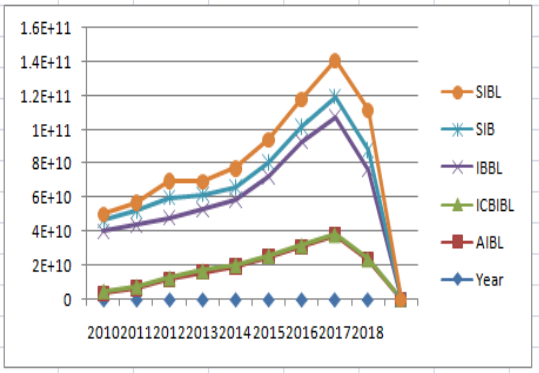


Time Series trend of Investment & Fixed asset from time period (2010-2018)

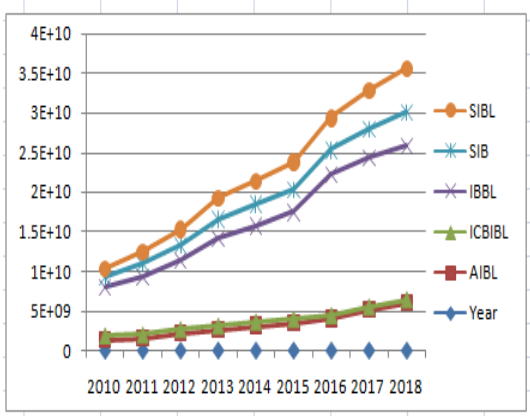


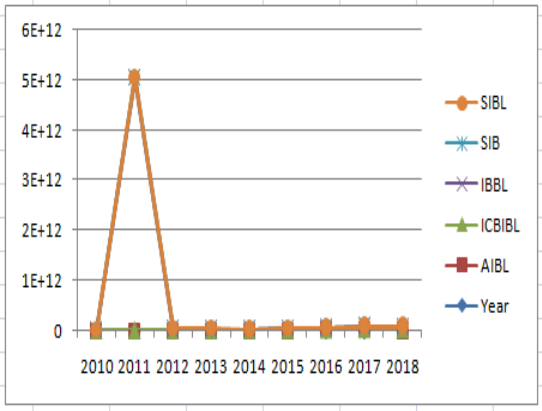
Time Series trend of Total asset & Balance with others (BB & A) from time period (2010-2018)





Series trend of Operating Expenses & Borrowing from others from time period (2010-2018)





8.0 Summary and Conclusion:

The study used seven independent variables in order to test the efficacy of them on the profits of two categories of banking systems. The outcomes showed that for conventional banks six variables such as (Balance with Other Banks, Borrowing from other Banks, Total Investments, Total Deposits, Total Loans, Money at Call and Short Notice) were found statistically significant. On the other hand for Islamic banks only three variables (Total Deposits, Total Investments and Balance with other Banks) were found statistically significant.

Therefore it is clearly showed that among those explanatory variables Total investment and Balance with other Banks have better positive effect on the profit of Islamic Bank than that of Conventional Bank. Total Deposit possessed the greater effect on the profit of Conventional Bank than that of Islamic Banking.

The explanatory variables of this model are good enough to address the dependent variable (profit) for the Conventional Banking. But in case of Islamic Banking the explanatory variables are not suitable enough to explain the profitability of Islamic Banking as four other explanatory variables found insignificant here.

Therefore this study realizes that there may be more other independent variables should have been incorporated to address the performance of Islamic Banking.

Therefore this study concludes that, the nature of the two banking systems is quite enough different. Other more factors must be included for the better judgments. In a nutshell the stipulated variables of this study are good determinants for the judgment of the profitability of Conventional Banks; but inadequate for Islamic banks in Bangladesh..

References

Alam, M. N. (2000). Islamic banking in Bangladesh: A case study of IBBL. *International Journal of Islamic Financial Services*, *1*(4), 10-29.

Ahmed, Ahmed,(2006), Performance Evaluation of Selected Private Commercial Banks in Bangladesh; Evidence from vol.04 No.04.www. ccsenet.org/journal.html

Ayub, N. Sohail, R.M., (2012). Performance Evaluation of Islamic and Conventional Banks in Pakistan. *Evidence from World Applied Sciences Journal* 20 (2): 213-220, 2012

Idris, *F.F.A., Asari, H. Taufiq, N.A.A., Salim, N.J., Mustaffa, R., & Jussof,*, (2011). Determinant of Islamic banking institutions' profitability in Malaysia. *World Appl. Sci. J*, *12*, 01-07.

Masud Rana, M. Hossain, Rekha (2016). Profitability and liquidity of conventional banking and Islamic banking in Bangladesh: A comparative study. *IJAR*, *2*(9), 318-327.

Sufian & M. S. H. (2009) Determinants of bank profitability in a developing economy: Empirical evidence from Bangladesh*, Journal of Business Economics and Management*, 10:3, 207-217, DOI: 10.3846/1611-1699.2009.10.207-217

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 30-48 (Printed in January, 2021)

Outcome-Based Approach to Tourism and Hospitality Management Education at Tertiary Level in Bangladesh

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Abstract

This study attempts to determine the status of Outcomes-Based Education (OBE) to be implemented in terms of practices and its usefulness in the tourism and hospitality management education at the university level. Information technology in higher education has received much attention today throughout the world mainly due to the changes in higher education landscape and emerging needs of the stakeholders. Therefore, it is urgent to look into the effectiveness and application of the academic programs at degree offering entities in real life scenarios. It is necessary for the graduates to explore their potential in knowledge, employment and lifelong learning. Any program offering entity at tertiary level should focus on preparing graduates with relevant knowledge, a positive mind-set and effective skills, attitudes to the environment need and competence, which would help them to be a good fit to the society of both in and out of Bangladesh. The main objective of this conceptual paper is to find out the need of outcome based education at the tertiary level for quality assurance in tourism and hospitality education. Exploratory research method has been used to find out the present use OBE in tourism related higher education culture at tertiary level. The finding of the study is mainly focused toward the need of OBE and the way to keep in practice primarily. It is seen that there is a close relationship between OBE and quality education at the tertiary level.

Keywords: *Outcome Based Approach, Tourism and Hospitality Education, Tertiary Level*

1. Introduction

In the literature it has been mentioned that Outcomes-Based Education is a process that involves the restructuring of curriculum, assessment and reporting practices in education to reflect the achievement of high order learning and mastery rather than the accumulation of number of courses and credits. In compliance to the requirement of an outcome based education at tertiary level regular curriculum design and review process should be in practice. It is seen that over the years of development educational administration has gone through changes under the neo-colonial, centralized (state-led), decentralized-sectorial, community and school-based, transformative (societal) (Cummings and Williams, 2005),

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and globalization models. Under these administrative reforms that called for quality and accountability in higher education. Outcome-based education (OBE) and policies had evolved during the 1990s (Ungar, 1996; Spady, 1995). Since then, educators worldwide from the advance countries have been focusing their efforts on what are variously being called outcomes, results, performances, competencies or standards (Spady, 2003) in OBE. In the literature there are three broad types of OBE ;i) Traditional OBE measures the learning outcomes in terms of students' understanding of the curriculum topics, ii) Transitional OBE measures the learning outcomes of students in terms of competencies such as critical thinking, problem solving, communication skills and teamwork, iii) Transformational OBE measures the learning outcomes of students of disciplinary knowledge and skills (i.e., multi-disciplined), generic competencies, attitudes and values required by the industry or society (Soady, 1995). Under the transformational or rigorous OBE, curriculum, teaching and assessment are developed jointly having the participation of multiple stakeholders such as students, employers, faculty staff, parents and community etc. Each student's needs and learning outcome are met in this approach through multiple instructional strategies and assessment tools including assignments, projects, oral presentation, traditional tests, and the totality or portfolio of the student's work (Ungar, 1996). It is also seen that common teaching and learning methods include interactive lecture, case-based learning, problem-based learning, simulation, role play, tutorial, self-directed learning, experiential learning, laboratory work, e-learning etc. In the assessment level together with a combination of different assessment methods such as objective tests, case studies, essay questions, projects, end-of-chapter type problems, reflective journals, seminar presentation, practicum, portfolio, examinations, and peer and self-assessment (Poly U, 2008a) are widely used should be directed as per OBE.

Statement of the Problem and Research Questions

In recent years, quality of higher education and outcome based curriculum has become important points of discussion in academic arena. Research findings and discussion establish importance of OBE for employability of the graduates and to make them fit for contributing in sustainable socioeconomic development. Skills, knowledge and attitudes develop the readiness to job and enable graduates to make productive contributions in achieving the objectives of the organizations (Mason et al, 2006). Graduates need to have necessary skills, which will enhance their capacity to explore the potentials and to enhance their prospects of employment (Stephen, 2000). In today's challenging economic situation it is not enough to have only the knowledge on a particular subject on which graduates complete courses to get the university certificate. The graduates must come out of the university equipped with knowledge, requisite qualifications and skills to ensure higher economic growth and prosperity in life and the society. These are ultimately the purposes of higher education. Many academics have designed a range of practices to equip students with job-related skills to ease their transition to the world of work (Washer, 2007). Thus, it is the responsibility of educational institutions to develop OBE where skills development mechanism should have been prescribed (Simon Cassidy, 2006). There is an immediate

need to integrate key skills into the curriculum and to develop a national policy on key skills in higher education, which will be effective to meet the needs of the stakeholders (Antonios, 2012).

It is observed that in recent times, quality assurance, higher education, skills development and employability of graduates at the tertiary level become the important areas of discussion. In Bangladesh, so far noticed, no study has been done on outcome based curriculum development for quality education at the program level like tourism education. There are some handouts on outcome based curriculum published from private university in other disciplines. The focus of those studies do not emphasize much on needs assessment for labor intensive industry like tourism employability and competence development of the graduates. Thus, it is very important to have some meaningful studies on development of OBE to serve the purposes of the stakeholders. As such, it is critical to explore whether the higher education institution like university clearly defined its goals to achieve? Whether the program offering entity like tourism and hospitality education is doing the right things in the right way? What have we been taught by the program offering entity? Whether the right teachers are getting appointment for teaching tourism subject where there is need to have practical experience? What is the expectation of students from the program offering entity? What qualities, do we think, the graduates of the 21st century must possess to serve the need of the employers? Are there any areas in teaching practice that teachers would like to improve? What are the mechanisms available to improve the teaching learning practice in tourism in higher education?

There are bundles of things to know for quality education in tourism and hospitality at the tertiary level. It is also very important to look at the appropriateness of the academic programs and effectiveness of the curricular to address the generic skills and professional skills, soft skills etc. In addition, critical analysis is also required on the strategic roles of co-curricular and extra-curricular activities towards the skills development of the graduates. In that consideration, any study on OBE development would have immense importance to address the issue of students learning and the application of that learning into practice. Thus the current study is focused on to find out the need of OBE for tourism and hospitality education at the university level.

Objectives of the Study

Quality education at the tertiary level is committed to achieve global excellence keeping strong relationship between the industry and students, academic and non-academic staffs, partnerships through industry collaboration and effective teaching and research. The program offering entity like tourism and hospitality management should always be supportive to its students in developing their educational qualification, managerial capacities, leadership qualities, entrepreneurial efforts, team spirit and interpersonal relationships towards the right direction in order to equip themselves with necessary qualities for facing the challenges with confidence and creativity. It only can be possible if

there is OBE not only in written but also in continuous practice. Thus, the following specific objectives have been set along with the main objective of the current study.

1. To determine considerable factors affecting the OBE in the in tourism and hospitality management education;
2. To develop a conceptual framework of an OBE for tourism and hospitality management education at tertiary level and
3. To provide recommendations on need of OBE in tourism and hospitality management education at tertiary level.

Significance of the Study

This is true that higher education institutes like universities are to culture knowledge create new knowledge and produce good citizens for the nation. At the same time it is to be remembered that universities are run by stakeholders' contribution. In that case society or other stakeholders can expect dividend against such investment in terms of competent human resource and visible contribution to the socioeconomic development. If university education does not enable to make the graduates competence to fulfill the need of stakeholders, they will be burden for the nation. As such, higher education institutions across the globe are under pressure to re-engineer the process of education in respect of the ever changing and complex needs in contemporary work place

It is highly expected that universities should be engaged in providing quality education and developing responsible citizens. But if education fails to make any contribution to the personal fulfillment of the students and society as a whole, then such education does not make any sense. Therefore, the current study discusses the significance of OBE for the development of graduates highlighting tourism and hospitality management education. In order to develop the competent graduates and reduce the competence mismatch this piece of study may be useful to the concern program offering entity to fulfill their need in work place and in the society.

Literature Review

An outcomes-based education approach clearly specifies what students expect to learn and arranges the curriculum that the intended outcomes are achieved (Harden, 2007a). Learning outcome provide the base for an effectively aligned and integrated curriculum, where instructional activities and assessment strategies are included. An outcome based curriculum organizes structures and sequences of courses around the intended learning outcomes. It is therefore essential to have intended learning outcome from the courses within the curriculum of specific subject. It requires, i) clearly articulated in a way that is contextualized within the discipline; ii) communicated broadly that can satisfy the requirement of national and international need; iii) used to inform and influence decisions about the curriculum; and, 4) monitored regularly to ensure that they remain current and accurately reflect the intent of the degree program (Manogue and Brown, 2007; Harden,

2007a). Sometimes outcome-based curriculum in higher education is seen as an approach to education as well as a type of learning process where in decisions about the curriculum are driven by the exit learning outcomes that the students should display at the end of the course (Davis, 2003; Caguimbal, et.al, 2013).

Spady (1994) stated that outcome-based education is almost structured designed by which students are equipped with the knowledge, skills and qualities in the educational system. In this system, students can excel their own interest and acquired knowledge in different ways in given period of time for the benefit for them and for the society. In practice, it is seen that the OBE concept does not follow a single idea or a set of procedures but is an accumulated process of some specific aspects (Michael et al, 2007).

The most basic OBE models consider curriculum as a structured of entity with a set of learning objectives and means of achieving those objectives. The problem is both the learning method and objectives are labeled. The starting point for most OBE efforts over the past 20 years has been the existing curriculum, not a clear picture of intended outcomes of significance for students that lie beyond the curriculum (Spady and Marshall, 1991). Therefore it is best time to prepare and practice an effective outcome based curriculum for the students.

A study of Akhmadeeva et al., (2013) has mentioned some key concepts that must be included in outcome based curriculum; a) Learning Outcomes: Learning outcome means statements of what a learner knows, understands and is able to do on completion of a learning process. It covers knowledge, skills and personal, social and/or methodological abilities that a learner should attain when successfully having finished a unit of learning, b) **Knowledge** means the outcome of the assimilation of information through learning. It is the body of facts, principles, theories and practices which are related to a practical work or study. Example: Students are able to enumerate and explain the effects of Micro and Macro Marketing Environment in tourism development**, c) Skill** means the ability to apply knowledge and use knowhow to complete tasks and solve problems, Example: Students are able to drawn a model that complies with development guidelines of the tourism industry. The student will be able to do something by applying knowledge, therefore, it is a skill, d) **Competence** means the proven ability to use knowledge and skills in work for professional and personal development. One key aspect of a competence is the degree of autonomy and responsibility with which learners are able to apply knowledge and skills. Example: students are able to review the model and usability of a given system and formulate suggestions for improvement based on relevant developed model and guidelines with minimal supervision by a teacher. Although there are many obstacles in implementation of outcome-based curriculum, there is smooth way to implement the curriculum into practice.

Tucker (2004) in international arena that, Outcome-Based Education is applied to create a competitive advantage among other countries as early as 1980's. It is a process that involves reporting reaction in education to reflect the achievement of high order learning and mastery rather than the accumulation of course credits.

Acharya (2003) mentioned that OBE focuses on what the learners should learn which is opposite to the traditional education planning. In OBE, what the learners should learn must be identified first followed by how they are going to learn these. The assessment and teaching strategies will be dependent on the desired learning outcomes unlike in the traditional planning, the lessons that should be learned will be identified first and from these lessons the outcomes will be identified.

From the brief literature review it is common that OBE helps to generate talent graduate who can run their own regular activities and can present their potentiality in an articulated manner because of having practice during the study.

Methodological Aspect

The term "research design" refers to decision about how to achieve research goals, linking theories, questions, and goals to appropriate resources and methods (Flick, 2018). In short, the research design is a plan for collecting and analyzing evidence that helps to answer the question posed (Ragin, 1994). Like any design, the research design should improve usability; a good research design is the optimal tool for addressing the research problem, and it communicates the logic of the study in a transparent way. In principle, any piece of research should be designed to deliver trustworthy answers to the question posed in a credible and justified manner.

The current research is exploratory in nature which is conducted based on primary information. The main objective of exploratory research is to provide insights into, and an understanding of, the problem provoking the researcher. This research method is usually used the problem is more precisely defined, identify relevant courses of action, or gain additional insights before an approach can be developed. The information needed is only roughly defined at the primary stage, and the research process that is adopted is flexible and unstructured. This method may consist of personal interviews or interaction with the experts. The sample, selected to generate maximum insights, is small and non-representative (Malhotra, 2004).

The primary data are qualitative in nature and are analyzed accordingly. Given these characteristics of the research process, the findings of the current research are regarded as tentative or as input to further research. Typically, such research is followed by further exploratory or conclusive research. Even though current research directly does not prescribe interview, however, the experience of the research has been used as a ground of gathering information. Contributor of this paper was engaged more than four years with quality assurance practice at the tertiary level in Bangladesh. More than 30 peer reviews were done by the contributor where physical interaction was made with different stakeholders. Each stakeholder agreed the importance of OBE at the tertiary level of Bangladesh.

Findings and Discussion

a. OBE at the Tertiary Level in Bangladesh

University Grants Commission of Bangladesh has launched a Strategic Plan for Higher Education-2026 and GoB's National Education Policy (NEP) 2010 has identified the deficiency of recognized quality assurance (QA) mechanism at the higher education level of Bangladesh. The UGC's strategic plan for higher education recommended the establishment of an independent Accreditation Council for both universities in Bangladesh and accordingly the Ministry of Education prepared and launched in mid-2009 the Higher Education Quality Enhancement Project with the financial support of the World Bank (UGC, 2014). Institutional Quality Assurance Cell (IQAC) has established in both public and private universities following guided rules and regulation in given in Self-Assessment (SA) manual 2014. The Self-Assessment exercise followed by SA report has been made a critical part of QA initiative in higher education. Taking care of the UGC's suggested instructions and guidelines different entities of the universities had completed self-assessment program and produced self-assessment report having with a lot of suggestions.

The aim of all programs offering entity of higher education institutions is to produce highly skilled graduates equipped with essential knowledge on the subject matter provided through the educational program with an ability to effectively apply the acquired knowledge in real world applications. Students are expected to demonstrate positive attitudes and values, together with the skills necessary for the twenty first century to meet the changing environment in their work place. This will ultimately assist in implementing the development plans of Bangladesh to ensure economic development and wellbeing of the people.

Assurance of quality in higher education is a process of establishing stakeholders' confidence that fulfils expectations or measures up to threshold minimum requirements. Quality assurance is an all-embracing term covering all the policies, processes and actions through which quality of higher education is maintained, developed and enhanced. Quality assurance has to be planned.

Quality assurance is the sole responsibility of the institution. It will be in practice if the OBE is followed properly. Now it is time to see the application of self-assessment at the program level guided by OBE. The accreditation council is already been formed in Bangladesh and started its regular official work but is yet to conduct field work.

b. Tourism and Hospitality Education at Tertiary Level

The tourism industry is considered as one of the largest and the most diverse industries in the world. It has been drawing attention as a modern service industry and the device to create connectivity among nations and various people across the world. This industry has the most potential in the world. One in ten jobs generating 10% of global GDP from this

industry (WTTC, 2018). It was expected (before Covid 19) that by 2022 more than 2.5 million jobs will be created in Bangladesh in this field. The estimated statistics indicate that there are many possibilities and potentials existing in our country. Unfortunately, due to the effect of Covid-19 it is tough to provide exact figure of jobs and important contribution to the GDP as it is the most heated sectors in world wide.

At present, there are innumerable local hotels and seven 5-star hotels in the country. The 5 star hotels can host about 2000 guests in their 1600 suites and rooms. Apart from tourists, a large number of foreign buyers, diplomats, government and international agency employees, and business travelers visit Bangladesh regularly. The existing 5-star hotels cannot fully accommodate these international guests. The demand for luxury accommodation facility will rise further as the government has been working to attract more foreign tourists to boost the country's tourism sector. The existing luxury hotels are inadequate to fulfill the demands of the growing number of guests in Bangladesh. Thus, 15 more 5-star hotels will be set up in Bangladesh over the next three years with having around 5000 rooms and suites to help the hospitality sector get along with the development thrust as the country pushes on plans to become a middle-income economy by 2021.

There are multiple career opportunities in this industry like managing hotels, resorts, restaurants, public houses; conference hall, accommodations, catering services, customer services, and management access a range of industries. Jobs are also available in airlines, cruises, hospitals, transportation services, spa, beauty-parlor destination planning, designing and development .The leisure industry also covers sport and entertainment as additional avenues of employment in sport and fitness centers, cinemas, and theatres as well as other leisure venues such as bowling alleys and theme parks. Other service-focused roles in retailing, human resources management and events management also could be of interest areas. Many become entrepreneur in the services industry like tour entrepreneur, club, travel, event, restaurant, hotel owner and several others.

Despite of having such exponential potential this industry is facing a big mismatch between skills demanded and supplied. A high official of a 5 star hotel opined that the country needs international standard hotel management institutions to produce and groom skilled manpower required in the sector. He also added that the traditional courses offered by universities and some institutions can't produce the required manpower. There is need to have the change in developing and practicing in the course curriculum. To be partner in fulfilling gap, some private and public universities are offering Tourism and Hospitality Education. These departments seek to develop quality tertiary education in this field. By coping up the modern developments in this specialization, graduating students will have the necessary knowledge and skills to work in bringing up this promising sector by either creating and/or involving job opportunities to meet the critical and growing need for country and wider world. There is no other alternative except having the outcome based curriculum.

At present there are 7 public and around 23 private universities offering higher degree in tourism. Unfortunately no one follows the OBE for the students so that they can prepare themselves for the benefit of the country. Whereas the OBE is committed to achieving quality and to establish an effective system that helps in elevating the educational process, in reaching tourism and hospitality education as leading position in Bangladesh. It is needed to mention that there is no department in public university where OBE is practicing. Some private universities claim that they are practicing OBE for the students. It is seen from the practical visiting at different private universities some program offering entities partially follow the OBE. Reality is public university is yet to introduction level. However if we would like to see tourism as iconic education there is no alternative except following OBE. Only OBE can balance between theoretical and practical expertise keeping aligned with the labor market to promote tourism industry in a way that goes with Bangladesh status regionally and globally.

c. OBE and Self-Assessment: OBE for quality assurance in higher education is highly essential especially in Bangladesh where so many universities emerged within a short period of time. With the changes in higher education landscape and emerging needs of the stakeholders there is an urgency to look into the effectiveness of the academic programs. Higher education must be more closely aligned to the needs of the community, and the graduates to explore their potentials in terms of employability and lifelong learning. Universities should focus on preparing graduates with positive mindset, skills and competence, which would help them to find a good fit into the social system.

In order to drive the quality assurance system towards the right direction, there is a need to have the; i) Understanding the current state of quality of education that the program offering entity is providing; ii) Identifying the areas and issues that need to be addressed and improved to enhance and maintain quality in education. iii) Integrating the concerns of major stakeholders into the educational system to provide better experience .iv) The self-assessment exercise is an effective approach to gain a clear understanding of the current situation by an informative SWOT analysis. The self-assessment exercise helps to judge the overall effectiveness of academic program and educational processes. It provides an opportunity to attain a deeper understanding of the areas that may need improvement. Thus, self-assessment becomes one of the core activities of the OBE process.

At the program level OBE comprises the four essential elements (PolyU, 2005; PolyU, 2008a; PolyU, 2008b) i.e. identification of what students should be able to perform on completing the course of study in accordance with the requirements of particular profession or industry. **Program Objectives:** Program offering entity need to define the objectives of the programs that have been offering by the entity such BBA and MBA programs etc. Through program objectives, it has identified the intended results of its curricular and activities. **Program Learning Outcomes:** It has also should have defined the program learning outcomes for the academic programs like BBA and MBA in line with mission and objectives of the program and institution. Through program learning outcomes, need specify the key knowledge, skills and attitude that the students would

possess after completion of all program requirements. **Program Mapping:** Program learning outcomes mapping should have alignment of course level outcomes with program learning outcomes where should mention; i) Generic Skills mapping: shows contribution of courses (whether major or minor) to the generic skills required by the program, ii) Professional Skills mapping: shows contribution of courses (whether major or minor) to the professional skills matching the discipline iii) Learning assessment mapping: alignment of course level learning assessment strategies with program learning assessment strategies. iv) Course types: Job/knowledge based curriculum is a solid foundation such as business courses and a wide range of General Education courses require English, IT and other allied Social Science courses. Courses should have been designed considering general education, foundation, major, electives, optional/minor courses and internship/project. General Education courses form the very foundation of the Curriculum at the higher education level.

a) The quality of education is reflects the employability of the graduates and their capacity to launch startup business and becoming successful entrepreneurs. The quality of education can also be judged by the extent of its contribution to organizations and national development as well as to local and global communities. b) Self-assessment becomes a very important exercise to the academic institutions for continuous improvement and quality assurance in education. c) The SA process allows the organization to identify the strengths and areas in which improvements are required for quality education. It also provides information to participants, allowing them to evaluate and understand the overall quality of academic programs.

d. Process of Assessment: The understanding and practice of self-assessment promote the developmental process. It enables the participants of the program and/or institution to observe the situation precisely and to identify the deficiencies between expectations and actual performances. Program level self-assessment measures the success and effectiveness of the program against the set goals and objectives of the entity. It is a cyclical process for evaluating and continuously enhancing the quality and effectiveness of the programs under assessment. Program self-assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning. It involves the thorough examination of all aspects and components of the program with respect to stakeholders opinion. It is a process of identifying the strengths and weaknesses of the program in terms of capacity of effective teaching-learning, student performance assessment, program management, ability to provide students supports services, and adequate physical facilities. In addition, program self-assessment helps the program offering entity to better understand the ongoing programs under assessment; revisit the program objectives and goals, redress the intended learning outcomes of the program, identify the areas of strengths, weaknesses, opportunities, threats (SWOT) making changes to the program to updated and need based assess the adequacy of student support services for effective teaching-learningassess the progress of improvement desired, and develop strategic plan with commitment and priorities for further improvement.

Guiding Principles: To meet the self-assessment criteria and objectives for quality education at the tertiary level, program offering entity needs to defined self-assessment exercise that includes the opinions and suggestions of its stakeholders such as students, alumni, employers, academic & non-academic staff. The criteria and objective include; i) **General Education:** Providing a broad foundation across disciplines in order to develop analytical abilities and flexibility of mind, ii) **Progressive Education**: Establishing values of tolerance, empathy and integrity in order to become citizens of the world, iii) **Sustainable Development:** Employing sustainable practices and respect for human rights in order to become responsible leaders of the future, iv) **Active Teaching and Learning:** Striking a balance between theoretical and practical learning, in order to thrive in a fast-changing knowledge economy. v) **Research:** Supporting cross-disciplinary inquiry, in order to inform education and public policies, **vi) Engaged Citizenship:** Building and serving civic communities in order to create a free and equitable society. i) to provide a strong foundation in the arts and sciences through which students gain an appreciation and understanding of the humanities, behavioral sciences, social sciences, fine arts and natural sciences, ii) to offer the fundamental concepts and theory of business practice and specialized study in business discipline. iii) to develop effective oral and written communication skills, iv) to instigate the ability to think critically, analyze problems quantitatively, and use computer technology to solve business problems, v) to grow awareness and comprehending of the global context in which business operates, vi) to advance understanding of the ethical and social issues that is a concern to the business community, vii) to prepare students to become responsible and contributing members of the community at large.

e. Internal Quality Assurance: The internal quality assurance process is the mechanism of check and balance of quality education guided by OBE. It can be categorized into internal quality assurance orientation, operation and processes. The internal quality assurance process can further be divided into policy review procedure and management of stakeholders' feedback.

Policy ratification and review process: For quality assurance, the course outlines and evaluation criteria need to have regularly reviewed monitored, and controlled if found necessary by the course coordination committee. To meet the credit hours requirement, the stipulated teaching time has been monitored by the faculty and staff combined with administrative teams. Based on the class hour monitoring report, control measure has been taken by the program offering entity chairman if found necessary to ensure quality. Furthermore, on a regular basis, academic leaders and faculty members of the in stituteneedto get orientation about quality assurance through relevant trainings, workshops and meetings on quality assurance.

The academic policies are reviewed upon recommendation from the departments and research centers. The curriculum committee takes feedback from stakeholders and places the feedback in departmental faculty meeting. Upon approval in faculty meeting, the feedback and revision on curriculum or academic policy is then placed in academic council. Academic council approves the revision accordingly. Non-academic policies are reviewed and ratified as per necessity.

f. Regular Curriculum Design and Review: The program offering entity at the university level needs to be committed to producing responsible graduates with innovative and liberal mindset who would be contributing to the development of society. The course curriculum which should be designed in such a way that starts with fundamental business and entrepreneurial courses and continues towards exposing the students in a variety of other disciplines like literature, history, science, sustainable development under general education with an opportunity of selecting courses from areas such as media, computer science and English. This helps students to think critically and see problems from varying points of view, enabling them to understand their place and purpose in the global economy. Tourism and hospitality related skills should be incorporated into the core classes. It believes that these skills should not be incorporated only into the core experience but also continually reinforced throughout the curriculum.

The program offering entity needs to aware of its role in nurturing young minds so that they can contribute responsibly in the economic prosperity of our nation. THM leadership believes that in an era when entire industries change overnight, when data volumes are growing exponentially, and an idea can touch millions in seconds, business depends on innovation and emotional intelligence. Business education can no longer be just about helping students secure their first job rather helps students to develop an intellectual framework that makes them to understand the role of business in a larger global context. THM's unique curriculum needs to design in such a way to produce not only executives but also entrepreneurs who will bring significant positive changes towards the tourism in the society.

g. Need Assessment: The tourism and hospitality management program offering entity should have close relationship for working with the industry, external academic experts, alumni and other stakeholders to understand the need and accordingly design and develop a market driven curriculum. It should conduct the need assessment, reviewing course based practical need of the information, commonly gathered through surveys and structured discussions in order to improve student learning in sustainable ways. Curriculum development committee should permanently and meticulously conduct need assessment program that addresses perceptions and desires of each of the stakeholders in the process.

h. Curriculum Mapping: For the outcome based curricular there is need to have the tourism and hospitality management program offering entity learning outcomes mapping and alignment, Generic Skills and Professional Skills. It allows the program to reflect on the level of the core competences to produce efficient graduates. The mappings and alignments help it to find out discrepancies (if any) in the overall mapping process.

f. Use of Lesson Plan: Lesson plan for every course is to be prepared by the faculty at the beginning of every term. It specifies the subject matter to be taught, learning objectives and assessment of that learning for each and every class. However, the lesson plan preparation in the program offering entity for each course should be fully functional. The entity needs to take initiative to make it as institutionalized and promote it among the faculty members for creating positive perception for preparing it into practice then it is fully be way forward in academic culture. Nonetheless, the course outline which is practicing now by few individual faculty members reflects the essence of lesson plan well but not up to the standard level. It should be developed in a prescribed form that maintains

national and international high standard and delivered to students. The course outline should be uploaded to the entity website where corresponding course students can access as per the requirement. The hard-copy of course outline should be distributed among the respective students in the first few days of the week of the term/semester. The course outline includes the basic information, faculty name and designation, office hour, contact details, course prerequisites, department offering the course, course title, course code, credit, term, number of lectures/tutorials/practical, course details, intended learning outcomes, contents, teaching and learning methods, assessment schedule, weights of assessments, grading policy, list of references. As a result, at the beginning of a session, students become very clear regarding what will be taught, how will it be taught, how will the attainment of learning be assessed and subjects they are supposed to learn.

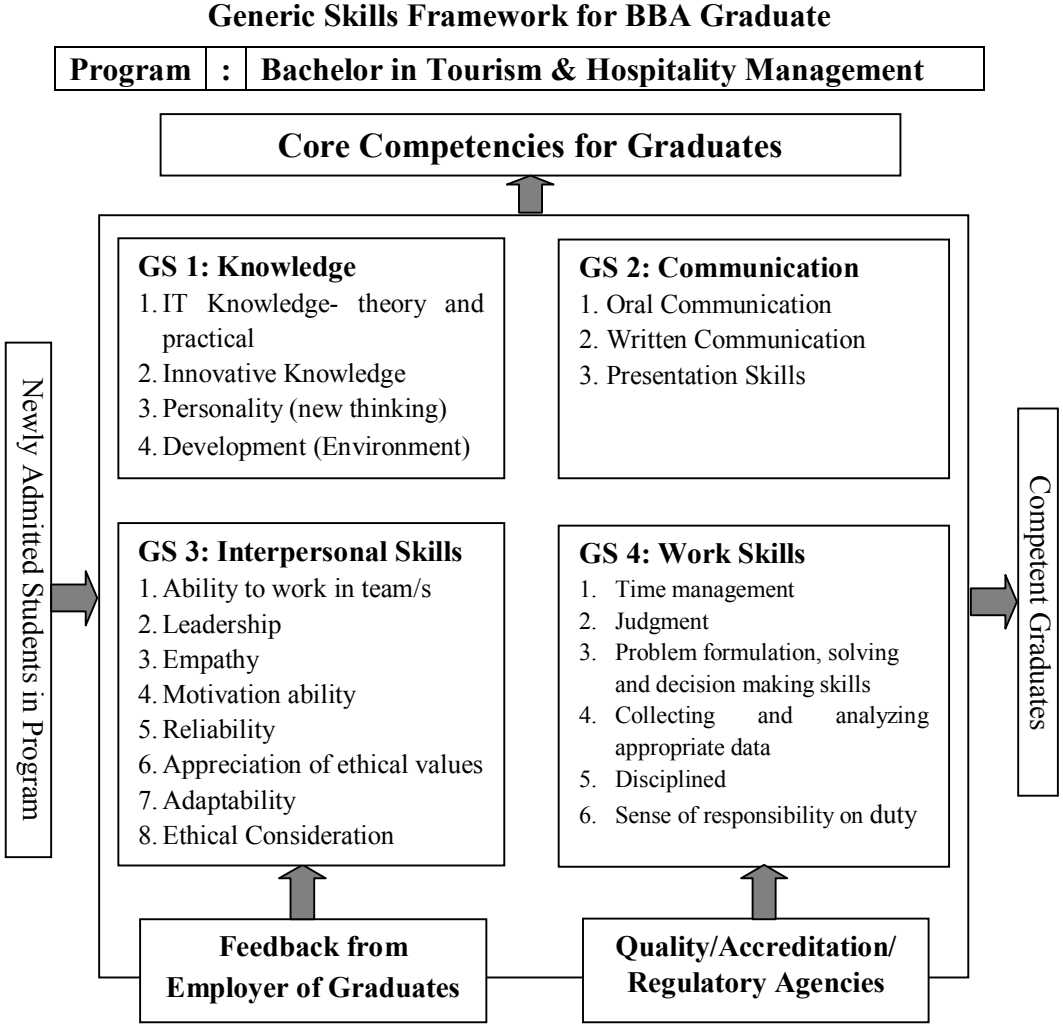

Fig .1 Alignment of Generic Skills in OBE Approach

h. Technology Integration: At present almost each work has become increasingly IT centric. As such, IT integration in teaching has also taken place for which the teaching learning is becoming a lot easier, attractive and more effective to communicate ideas and complex subjects meaningfully in classrooms. In addition, use of IT in teaching makes students IT smart and thus they become well versed with upfront IT facilities required in every walk of corporate world. Accordingly, every classroom in the program offering entity is well organized with multimedia projector along with projector screen and well connected with internet facilities for quality teaching and understanding for the students.

i. Skill Development Mechanism: A right set of relevant skills is expected to be gained by the students from education so that they can competently face the reality of life, develop the attitude of lifelong learning and contribute to the socioeconomic development of the country. To equip students of the program offering entity needs to offer the right set of relevant skills. However the program offering entity is more or less well aware that classroom learning is not enough to develop the desired skills and thus program offering entity should adopt a comprehensive skill development plan incorporating the curricular, co-curricular and extra-curricular activities. The following are the widely acceptable skills that need to have by each graduate (Figure 1).

j. Career & Placement: The graduates produced by the THM, the quality of them are mostly measured by the employability, contribution to the employer and community and/or capacities to launch startups. Graduates of different characteristics and with different skill sets are suitable for different kinds of jobs. From this understanding, the higher education institute should looks after career and placement matters and to have its Career Service Office which guides and counsels students throughout their study period and even after their graduation. Program offering entity should offer internship placement, career & soft skills development training, career counseling, and job placements. This is an important part of OBE.

k. Internship and Job Placements: Students of the Undergraduate Programs of THM, in their final term need to be placed in an organization as an intern to appreciate and experience the dynamics of working in real organization. In addition to carrying out activities required by the organization, students are required to complete a report which is assigned either by the organization or by the student internship supervisor from the concerned program offering entity. In every program offering entity there is need to have the job placement office to assists eligible students to find jobs (limited service). Local, national and international job opportunities are advertised through talent search engine. It is necessary to have the Job Board in each program offering entity so that graduates can know the requirement of employers. Students are also be notified by openings job alert via email. In most of the cases there is need to have arrangement for the students to get the

opportunity to join an organization right after completing their internship. Usually, most of the organization offer confirmed job opportunities to students due the skills and dedication if students possess. Graduated students should have the database to keep contact with career services office regularly and update their contacts (mobile no & email address), so that Career Services can send new Job Posting/ professional development opportunity to them.

l. Alumni Services: The program offering entity which have the graduates in the market need to have the alumni association. To serve the need of the students' alumni association should be functional. However, for a stronger career growth, the program offering entities which do not have the graduates in the market can have the Career Services Office. The intended alumni office is planned to engage alumni more with the university through floating a vibrant alumni association so that the university can improve its education quality further taking and considering their feedback in the light of emerging changes in the industry and working life.

Nevertheless, it is seen that the transformational OBE is now a worldwide trend in higher education, and has been adopted by many universities (PolyU, 2008a; PolyU, 2008b). At the programme level under the program offering entity, work-integrated education process are needed to link students and faculty with the industry while engaging knowledgeable workers of the industry in enriching the teaching and learning activities. Thus, the students will get professional knowledge and skills, generic competencies, social attitudes and societal values (Steve, 2009).

k. Framework for OBE Approach

For proper functioning of OBE there is need to have a strong curriculum review committee who regularly will discuss the details of the needs of the day, propose the changes, and make the suggestions to the person concern for approval. The approved curriculum is then subjected to further process i.e. Faculty, Academic Council (AC). After it is approved by AC, application can be made. As per requirement the proposed revised curriculum is sent to the UGC for its further review and final ratification. Flowchart of Curriculum Development and Review Process followed by THM has been added below:

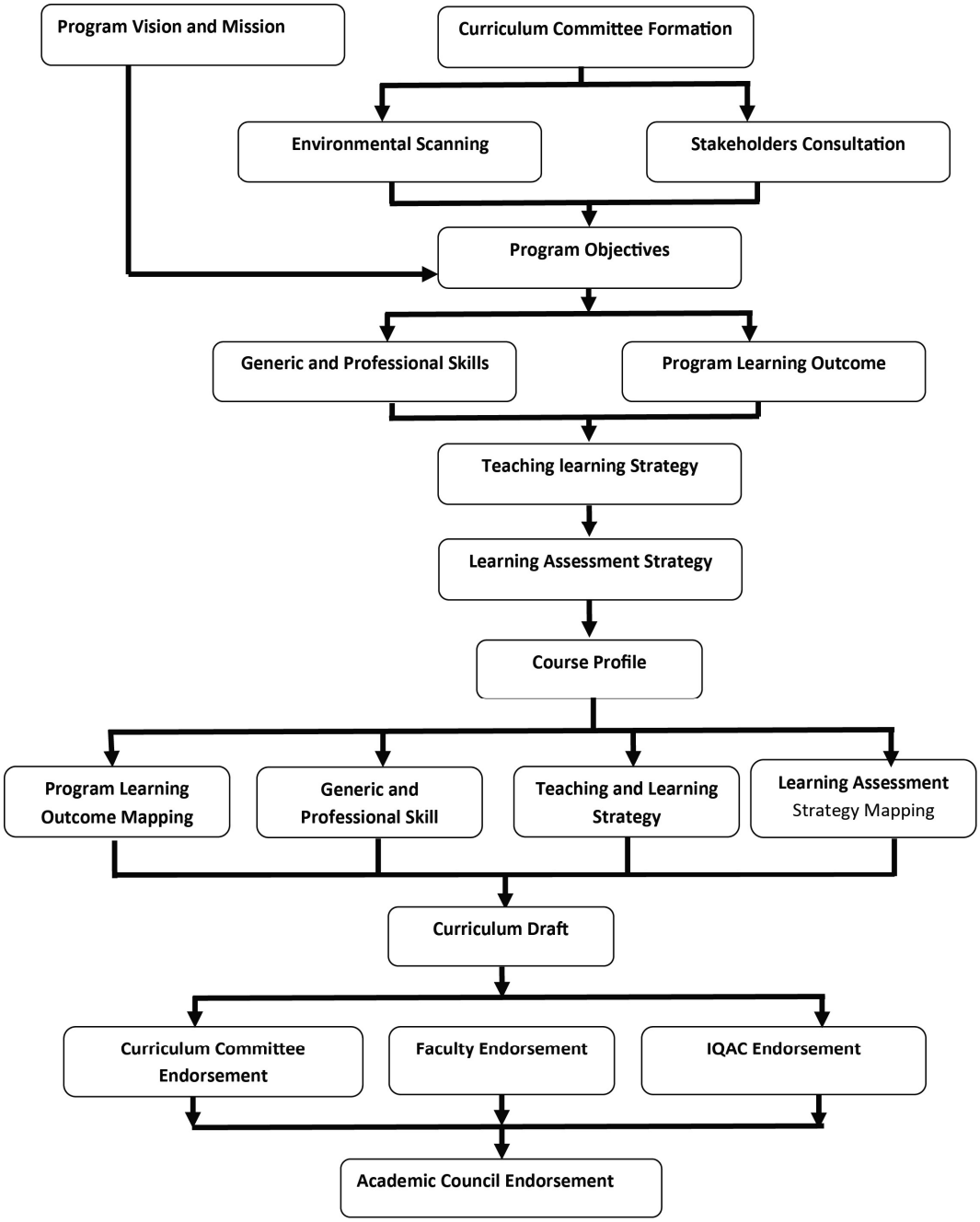

Fig. Conceptual framework for outcome based curriculum development at the program offering entity level.

Conclusion

Traditionally, it is thought that there is no difference between syllabus and curriculum. However, effective quality education at the university level is of utmost interest of the day. Without following OBE it is quite impossible to ensure the quality education at the tertiary level. It is believed that outcomes-based education is useful in terms of academics, attitude and instructions. There is a significant relationship between the status of OBE implementation and the level of usefulness competent graduate production. Practice, seminars, intensive orientation of curriculum assessment procedure and conducting field trips and training are proposed to enhance and improve the knowledge and skills of graduates to meet the requirements of employers at the present competitive day. It is the issue of competence with measurable and observable skills which is required to be ensured. It is the responsibility of higher education institutions to design the suitable competence development mechanism addressing the defined objectives, graduate profile and intended learning outcomes. The THM department should have a continuous and sustainable monitoring of the implementation of OBE through the use of data base system. Improve the monitoring system of the implementation of OBE through seminars and additional assessment examination. The curriculum must always be updated with the current trends and needs of the society and industry. The curriculum should be designed to prepare the graduates and demonstrate the core competencies expected by them in the workplace. The Faculty and students should attend seminars that will gain knowledge for the implementation of OBE to easily develop a solution or action plan for its effective implementation. There might have stakeholders' involvement and attendance in every meeting and seminar to encourage the graduates to understand the essence of OBE and to monitor their own performance. Conduct a related study about the significant relationship between the implementation and usefulness of OBE and the different program offered by entity to provide additional information and learning that will help the institute to identify possible modifications and improvements. It is necessary to have co-curricular activities that would allow maximum participation of the students to experience different challenges in in the job field towards a better appreciation of their currently enrolled degree program through Outcomes-Based Education. In fact, outcome base curriculum development and practicing in the same program properly can help to meet the need of the graduates as well as employers. The current study will help to produce an outcome based education focusing toward the tourism and hospitality education.

References

Acharya C., (2003). Outcome- based Education (OBE): A New Paradigm for Learning, available online: http://www.cdtl.nus.sg/Link/nov2003/obe.htm, Date retrieved: August 5, 2014

Akhmadeeva, L: Hindy, M; and. Sparrey,C. J; (2013).Overcoming Obstacles to implement an Outcome-based Education Model: Traditopnal Versus Transformational OBE .Canadian Engineering Education Association (CEEA13) Conf.

Antonios, P, (2012) 'Employability skills development in Greek higher education institutions (HEIs) : Implications for policy makers', *Higher Education, Skills and Work-Based Learning,* Vol. 2 Iss: 2, pp.141 – 150

Cummings, W. K. and Williams, J. (2005).International Development Models for Educational Reform. Asia Pacific Journal of Education, Vol. 25, No. 2, pp. 125-143.

Davis M. H., (2003). Outcome-Based Education, Educational Strategies, available online: http://www.utpjournals.com/jvme/tocs/303/258.pdf, Date retrieved: August 5, 2014

Flick, U. (2018).An introduction to qualitative research. London: Sage Publications.

Harden, R.M. 2007a. Outcomes-based education: the future is today. *Medical Teacher* 29:625-629.

Malhotra, N. K., Hall, Shaw, & Oppentheim. (2004). *Essentials of Marketing Research*: Person Printice Hall, Australia.

Manogue, M. and Brown, G. 2007.Managing the curriculum – for a change.*European Journal of Dental Education* 11: 75-86.

Mason G., Williams G. and Cranmer, S.(2006)'Employability Skills Initiatives in Higher Education: What Effects Do They Have On Graduate Labour Market Outcomes', *National Institute of Economic and Social Research*, London, p.2.

Michael J. Lawson and Helen Askell-Williams,(2007) "Outcome- based education". Discussion Paper Prepared for the Association of Independent Schools of SA. Centre for the Analysis of Educational Futures: Flinders University.

PolyU (2005).Guidelines for Implementation of Criterion-Referenced Assessment.

PolyU (2008a). Guide to Outcome-Based Education. Learning and Teaching Committee of The Hong Kong Polytechnic University (http://www.polyu.edu.hk/obe; accessed in December 2008).

PolyU (2008b).Developing a Programme Learning Outcomes Assessment Plan. Learning and Teaching Committee of The Hong Kong Polytechnic University.

Ragin, C. C. (1994).Constructing social research. Thousand Oaks: Pine Forge Press.

Simon Cassidy, (2006) 'Developing employability skills: peer assessment in higher education', *Education + Training*, Vol. 48 Iss: 7, pp.508 – 517.

Spady W.G and Marshall, K. J (1991), "Beyond traditional outcome-based education," Educational Leadership, vol. 49, no. 2, pp. 67–72, .

Spady, W. G. (1994). Outcome-Based Education: Critical Issues and Answers. Arlington: American Association of School Administrators.

Spady, W. G. (2003). Outcome Based Education. In Guthrie, J. W. (Editor), Encyclopedia of Education, 2nd ed., pp. 1827-1831. New York: Macmillan Reference.

Stephen Fallows, Christine Steven, (2000) 'Building employability skills into the higher education curriculum: a university□wide initiative', *Education + Training*, Vol. 42 Iss: 2, pp.75 – 83.

Steve Y. W. Lam (2009). Outcome-Based Approach to Teaching, Learning and Assessment in Geomatics Higher Education: the Hong Kong Experience. TS 7D – Good Educational Practices. Learning and Teaching Committee of The Hong Kong Polytechnic University.

Tucker B., (2004). Literature Review: Outcomes-focused Education in Universities. Learning Support Network, Curtin University of Technology, Date retrieved: August 5, 2014.

Ungar, H. G. (Editor, 1996). Encyclopedia of American Education. New York: Facts on File.

University Grants Commission of Bangladesh, (2014a) *Self-Assessment Manual*, Ministry of Education, December, p.3

University Grants Commission of Bangladesh, (2014b) *Institutional Quality Assurance Cell Manual*, Ministry of Education, August, p.xiv

Washer, Peter, (2007) 'Revisiting Key Skills: A Practical Framework for Higher Education', *Quality in Higher Education*, 13: 1, P.62.

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp.49-66 (Printed in January, 2021)

Satisfaction level on Quality of Work Life among Commercial Bank Employees in Bangladesh: A Study of Dhaka City

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Abstract

This paper caters to assess the satisfaction level of commercial bank employees with their quality of work life highlighting the banks inside the Dhaka city in Bangladesh. The study includes twenty private and public commercial banks. The research factors include compensation, job security, workload, career growth opportunity, working environment, job design, informal relationship and participation in decision-making. The study analyzed the data obtained from the self-completion questionnaire. The analysis contains some statistical measurements as, mean, standard deviation, and variance along with a frequency distribution table for each data set. The findings indicates that the employees working in banking sector neither disagree nor agree with their quality of work life initiatives by the banks and their quality of work life is tending toward the 'somewhat agree' stance. The ending up of the study highlights suggestions recommended by the respondents.

Keywords: *Demographic factors, Quality of work life, Commercial banks, Bank employees.*

Introduction

Banking sector of Bangladesh is one of the emerging sectors in the country. The banking industry of the country is one of the labor and capital-intensive industries. Because of the industry's nature, the matters relating to human resource management comes first. Quality of work life signifies the whole scenario of human resources, mainly the employees working in the commercial banks. Our work concerns mainly the employees and their quality of work life in the industry.

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Bangladesh, located in Southeast Asia, is a developing country among the third world countries. According to the United Nations Development Program, Bangladesh holds 136th position on human development index among 189 countries and territories in 2018[5]. The country has huge opportunities of growing business. Commercial banks are one of the most important one. Bangladesh has 56 banks of various types. These banks include mainly scheduled and non-scheduled banks based on their nature of commercial, Islamic (foreign and domestic), specialized banks. Total number of bank branches in Bangladesh is 10,000 and Bangladesh has about 3,000 ATM Branches (as on October'18)[6].

In the field of human resource management, the concept of quality of work life, the methods of ensuring holistic well-being of human resources or employees, is being well liked in recent times. Kashani (2012) tried to define quality of work life as a philosophy or set of principles, which say employees are trustworthy, responsible and capable to make contribution and treating employees with respect. Quality of work life mainly refers to those activities relating to the life span of an employee whiling working in an organizational setting. In other words, quality of work life emphasizes those human welfare aspects of employees, which include compensation, health and safety, growth, job design, job settings, labor-management relation, workload and related activities.

Objectives of the study

The paper has been designed to highlight the existing condition of quality of work life of the bank employees based on the predetermined factors. The objectives of the study cover:

i. To identify socio-demographic factors of the bank employees.
ii. To find out the current quality of work life scenario in commercial banks.
iii. To analyze and find out the problems of quality of work life of the bank employees.
iv. To recommend possible suggestions to get rid of the problems.

Literature Review

The literature review emphasizes on the existing concepts and theories in the related field of study. The literature review of the study has been extracted highlighting the quality of work life in different fields especially in the banking sectors from different contexts.

Hamidi and Mohamadi (2012) in their work show quality of work life of teachers in secondary schools in the Iranian context. Compensation, safety and health, career growth, security, social relevance, total life space, social integration, constitutionalism, human progress capability are the factors relying on these factors the authors tried to measure the teachers' quality of work life condition.

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5 United Nations Development Program 2018, *Table 1: Human Development Index and its components*,, [https://data.undp.org/dataset/Table-1-Human-Development-Index-and-its-components/wxub-qc5k]

6 Report from Research Department; Bangladesh Bank.

In accordance with the publication of Bolhari and others (2011), that shows a relationship between quality of work life and demographic characteristics of staffs working in information technology field in the context of Iran. The paper is based on some demographic characteristics e.g., gender, age, work experience, and salary. Quality of work life factors include social relevance, total life space, social integration, development of human capacities, adequate and far compensation, safety and health effort, growth prospectus, and constitutionalism. The paper has not found relationship between gender and quality of work life but they found a significant relationship between age factor, work experience, and income with quality of work life. At last, the author described some implications.

While studying comparatively the Quality Work Life of commercial banks Tabassum, Rahman, and Jahan (2011) focused their work on eight dimensions of quality of work life comprising adequate and compensation, work and total life space, opportunities for growth and security, development of human capacities, safety and health, work schedule and job assignment, attention to job design, and employee relations. They found that the local private commercial banks are lagged behind in connection with quality of work life or in other words foreign bank employees' exercise more qualified work life in mostly all dimensions the authors conducted their study.

Hong, Tan, and Bujang (2010) related work life quality of teaching staffs with work commitment, their stress and satisfaction in the Malaysian context. The authors emphasized on teachers' background, work life quality, work commitment, work stress, work satisfaction. The authors found that there exists a positive relationship between work life quality and work commitment and weak negative relationship between work life quality and work stress.

A paper worked by Kaur (2010) mainly concentrated on quality of work life policies and practices adopted by ICICI Bank Ltd. The factors considered by the author were compensation, safety and health, performance appraisal, training and development opportunities, and growth of employee's career. Major findings of the paper represent that the employees working for ICICI bank ltd, are satisfied with the current quality of work like the one they are provided but in some context like career growth opportunities hampered.

Another article by Rethinam and Ismail (2008) showed quality of work life's constructs in the information technology sector in the Malaysian context. The article is a descriptive one, which shows mainly the quality of work life, constructs namely, health and well-being, job security, job satisfaction, competency development, and work and non-work life balance. After a bulky discussion on the constructs of quality of work life, the authors recommended some suggestions.

In a work on quality of work life in tobacco industries in Bangladesh, Elias and Saha (2005) emphasized, firstly, quality of work life of workers of polluted tobacco industries and non-polluted tobacco industries; secondly, health, well-being, job satisfaction and

quality of working life of the workers in the polluted tobacco industries are worse than those of the non-polluted tobacco industries.

Kornbluh (1984) catered on a paper to show the work place democracy and quality of work life. In the paper, the author showed a relation of union and owner, and quality of work life through showing motive of management as are increasing productivity and quality of the work, enlarging the quality of work life of the new comers, and meeting the international contest.

Methodology

The methodology of the study comprises development of factors, population and sampling, data collection procedure, and measurement of the data using statistical tools. The methodology includes the following parts.

Development of factors for data collection

Bolhari and others (2011) as demographic factors described in their work age, gender, experience level, income. In our study, we mainly consider demographic factors such as age group, gender, marital status, education, income level, experience, and birthplace (division).

As in the work of Tabassum, Rahman, and Jahan (2011), they mentioned eight components of quality of work life in their work, e.g., fair compensation, work and total life space, opportunity to grow, opportunity to develop human capacity, health and safety, work schedule, attention to job, and employee relation. The factors in our study as indicators of quality of work life in the banking industry compromise:

i. Compensation package
ii. Job Security
iii. Work load
iv. Career growth opportunity
v. Work settings
vi. Job design
vii. Informal relationship
viii. Employee participation

Population and sampling of data

The total number of commercial banks inside the Dhaka city consists of the population of the study. The sampling process, undertaken for the study, is sample random sampling. Twenty commercial banks (BRAC Bank Limited, Dutch-Bangla Bank Limited, Dhaka Bank Limited, Eastern Bank Limited, Bank Asia Limited, EXIM Bank Limited, National Bank Limited, First Security Islami Bank Limited, Mercantile Bank Limited, Jamuna Bank Limited, Premier Bank Limited, Mutual Trust Bank Limited, Prime Bank Limited, One Bank Limited, Social Islami Bank Limited, Shahjalal Bank Limited, Southeast Bank

Limited, Standard Bank Limited, IFIC Bank Limited, United Commercial Bank Limited) have been selected at random using lottery techniques. The total number of respondents is 255.

Data collection procedure

Data, used in the study, are primary. Data have been collected using a structured questionnaire. The questionnaire is based on Likert's 5 point scale where1, 2, 3, 4, and 5 represent strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree, and strongly agree stances respectively against the statements on the questionnaire. The whole questionnaire covers mainly three areas of data that are demographic data, quality of work life dimensions, and possible way out.

Measurement of the data using statistical tools

The data analysis has done using SPSS. The frequency distribution, mean, standard deviation and variance of the data have been analyzed using the software. The presentation of the data, analyzed, has been given in three sections, first one is for demographic characteristics of the respondents, second section is for quality of work life, and the third section comprises suggestions highlighting the quality of work life factors.

Presentation, Analysis and Findings

The presentation, analysis and findings section of the study covers three main parts. First, it covers socio-demographic dimensions, second, it discusses the quality of work life of the employees in the banking industry, and at length, it recommends suggestions to overcome the problems.

Socio-demographic dimensions

The part one explores the socio-demographic factors, such as, age, gender, marital status, education, income, experience and birthplace (division). The part normally focuses on the factors in deep with frequency distribution of the concerned factors. These cover the following analysis.

Age group

Distribution of age of the bank employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<= 25	9	3.5	3.5	3.5
	26-35	180	70.6	70.6	74.1
	36-45	54	21.2	21.2	95.3
	46-55	10	3.9	3.9	99.2
	>= 56	2	.8	.8	100.0
	Total	255	100.0	100.0	

[Source: Data collected through field survey using a self-completion questionnaire.]

In banking sector, most of the employees' age range in between 26 and 35 years. About 3.5, 70.6, 21.2, 3.9, and .8 percent employees fall in <= 25, 26-35, 36-45, 46-55, and >= 56 year age ranges respectively. The age group shows about 70.6 per cent of employees' age is the dominating group among all the classes.

Gender

Distribution of gender of the bank employees under study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	222	87.1	87.4	87.4
	Female	32	12.5	12.6	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

Among the employees in the banking industry male employees are significant. Females consist only 12.6 per cent of the whole respondents from banks. About 87.4 and 12.6 per cent employees are male and female respectively.

Marital Status

Distribution of marital status of the respondents under study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	164	64.3	64.8	64.8
	Unmarried	87	34.1	34.4	99.2
	Divorced	2	.8	.8	100.0
	Total	253	99.2	100.0	
Missing	System	2	.8		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The above table shows distribution of frequency of marital status among the bank employees. Around 64.8, 34.4, and .8 per cent employees are married, unmarried and divorced respectively. Among the employees, most employees are married around 64.8 per cent, 34.4 percent of employees are unmarried and there has .8 percent divorced employees.

Education

Distribution of education level of the bank employees under study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Pass Degree	9	3.5	3.6	3.6
	Honors Degree	37	14.5	14.6	18.2
	Master Degree	201	78.8	79.4	97.6
	Doctoral Degree	2	.8	.8	98.4
	Others	4	1.6	1.6	100.0
	Total	253	99.2	100.0	
Missing	System	2	.8		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The above frequency distribution table outlines that the education level of bank employees varies. However, most of the bank employees are master degree holders. Approximately 3.6, 14.6, 79.4, .8, and 1.6 per cent of the employees working in the banking industry have their pass degree, honors degree, master degree, doctoral degree, and other related degrees required in the field of banking respectively.

Income Level

Distribution of income level of the bank employees under study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<= BDT 20,000	13	5.1	5.1	5.1
	BDT 20,001-30,000	84	32.9	33.1	38.2
	BDT 30,001-40000	67	26.3	26.4	64.6
	BDT 40,001-50,000	47	18.4	18.5	83.1
	BDT 50,001-60,000	24	9.4	9.4	92.5
	>= BDT60,001	19	7.5	7.5	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

Most bank employees have a higher salary structure from Bangladesh perspective. Most of the bank employees' income per month ranges from twenty thousand to thirty thousand. About 5.1, 33.1, 26.4, 18.5, 9.4 and 7.5 per cent of the bank employees covers their salary

per month of <= BDT 20,000, BDT 20,001-30,000, BDT 30,001-40000, BDT 40,001-50,000, BDT 50,001-60,000, and >= BDT60,001. It is seen that the salary of the bank employees is high.

Experience Level

Distribution of experience level of the bank employees under study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<=2 years	44	17.3	17.3	17.3
	2-5 years	127	49.8	49.8	67.1
	5-8 years	45	17.6	17.6	84.7
	8-11 years	20	7.8	7.8	92.5
	>11 years	19	7.5	7.5	100.0
	Total	255	100.0	100.0	

[Source: Data collected through field survey using a self-completion questionnaire.]

The frequency table above represents the experience level of the bank employees. Most of the bank employees under study have 2-5 years of experience. It indicates that around 17.3, 49.8, 17.6, 7.8, and 7.5 per cent of bank employees have <=2 years, 2-5 years, 5-8 years, 8-11 years and >11 years of experience respectively.

Birthplace

Distribution of birthplace of the respondents under study

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Barishal	26	10.2	10.2	10.2
	Chittagong	62	24.3	24.4	34.6
	Dhaka	89	34.9	35.0	69.7
	Khulna	37	14.5	14.6	84.3
	Rajshahi	30	11.8	11.8	96.1
	Rangpur	8	3.1	3.1	99.2
	Sylhet	2	.8	.8	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

Most of the bank employees have come from Dhaka division (around 35%). Most significantly, the percentage of the employees working for banking industry represents that about 10.2, 24.4, 35.0, 14.6, 11.8, 3.1, and .8 per cent of employees are from Barishal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur, and Sylhet division.

Quality of Work Life

This part of the section deals with the analysis and findings of the study. The part highlights the analysis of quality of work life and their findings. It comprises analysis of data using statistical measures such as, mean, standard deviation, and variance and findings thereof. Compensation, job security, workload, career growth opportunity, work settings,

Compensation Package

To what extent the compensation package is satisfactory to the employees.

Statistics

N	Valid	254
	Missing	1
Mean		3.29
Std. Deviation		.811
Variance		.658

[Source: Data collected through field survey using a self-completion questionnaire.]

The results from the statistics shows that most of the bank employees are in a 'neither disagree nor agree' stand but it is tending toward 'somewhat agree' stance with their compensation. This indicates that the employees are going to be somewhat satisfied with their salary and benefits. The values of standard deviation and variance, we obtained, are .811 and .658.

Distribution of consent of employees pertaining to their compensation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.4	2.4	2.4
	Somewhat Disagree	34	13.3	13.4	15.7
	Neither Agree Nor Disagree	99	38.8	39.0	54.7
	Somewhat Agree	110	43.1	43.3	98.0
	Strongly Agree	5	2.0	2.0	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The above distribution table highlights around 2.4% bank employees are strongly disagree with their compensation package, nearly 13.4% of them are 'somewhat disagree' with their compensation. Approximately 39.0% of the employees are neither agree nor disagree stand, about 43.3% of the employees are somewhat agree with their salaries and benefits, and the rest of the bank employees strongly agree with their salaries and benefits. Most significantly, the most of the bank employees are in 'somewhat agree' stand with their salaries and benefits.

Job Security

To what degree the jobs are secured.

Statistics

N	Valid	254
	Missing	1
Mean		3.39
Std. Deviation		.821
Variance		.674

[Source: Data collected through field survey using a self-completion questionnaire.]

The statistics shows that most of the bank employees are in a 'neither disagree nor agree' stand with the matters relating to job security but it is tending toward 'somewhat agree' stance. This indicates that the employees are going to be somewhat satisfied with their job security initiatives. The values of standard deviation and variance, the study found, are .821and .674.

Distribution of consent of employees pertaining to job security

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.4	2.4	2.4
	Somewhat Disagree	23	9.0	9.1	11.4
	Neither Agree Nor Disagree	105	41.2	41.3	52.8
	Somewhat Agree	106	41.6	41.7	94.5
	Strongly Agree	14	5.5	5.5	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The above distribution table highlights about the consent of the employees which found that around 2.4% bank employees are strongly disagree with their job security efforts; nearly 9.1% of them are 'somewhat disagree. Approximately 41.3% of the employees are neither agree nor disagree stand, about 41.7% of the employees are somewhat agree with their job security, and the rest of the bank employees strongly agree with their job security efforts by the banks. Most significantly, the most of the bank employees are in 'somewhat agree' stand with their job security and nearly 41.3 per cent of the bank employees are in a 'neither disagree nor agree' stand.

Work Load

To what extent the employees are under pressure with workload.

Statistics

N	Valid	254
	Missing	1
Mean		2.94
Std. Deviation		.976
Variance		.953

[Source: Data collected through field survey using a self-completion questionnaire.]

The statistics shows that the most of the bank employees are in an about 'neither disagree nor agree' stance as the mean is 2.94 on their workload or pressure. The values of standard deviation and variance, the study found, are .976 and .953.

Distribution of consent of employees pertaining to their workload

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	22	8.6	8.7	8.7
	Somewhat Disagree	56	22.0	22.0	30.7
	Neither Agree Nor Disagree	99	38.8	39.0	69.7
	Somewhat Agree	70	27.5	27.6	97.2
	Strongly Agree	7	2.7	2.8	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The frequency distribution table shows that about 8.7, 22.0, 39.0, 27.6, and 2.8 of the bank employees are in 'Strongly Disagree', 'Somewhat Disagree', 'Neither Agree Nor Disagree', 'Somewhat Agree' and 'Strongly Agree' stances. Here, around 39.0 per cent of

respondents are in a 'Neither Agree Nor Disagree' stand and a good indication is that around 27.6 per cent of respondents are in a 'somewhat agree' stance. What is most significant is that the most of the bank employees are tending to not be satisfied nor dissatisfied with their workload.

Career Growth Opportunity

To what extent the employees are satisfied with the career growth opportunity.

Statistics

N	Valid	254
	Missing	1
Mean		3.44
Std. Deviation		.777
Variance		.603

[Source: Data collected through field survey using a self-completion questionnaire.]

The results from the statistics show that the total number of respondents is 254 excluding 1 who did not respond. The table states the mean, standard deviation and variance of the data. The mean indicates that the bank employees are in 'neither dissatisfied nor satisfied' stand and are moving toward the 'somewhat agree' stance which is positive side for banks.

Distribution of consent of employees pertaining to their career growth opportunities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	2.0	2.0	2.0
	Somewhat Disagree	18	7.1	7.1	9.1
	Neither Agree Nor Disagree	103	40.4	40.6	49.6
	Somewhat Agree	116	45.5	45.7	95.3
	Strongly Agree	12	4.7	4.7	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The above distribution table outlines the consent of the employees which found that around 2.0% bank employees are strongly disagree with their career growth efforts, nearly 7.1% of them are 'somewhat disagree. Approximately 40.6% of the employees are neither agree nor disagree stand, about 45.7% of the employees are somewhat agree with their growth opportunities, and the rest of the bank employees strongly agree with their career

growth efforts by the banks. Most significantly, the most of the bank employees are in 'somewhat agree' stand with their career growth opportunities providing by the banks.

Work Settings

To what extent the employees are satisfied with work settings.

Statistics

N	Valid	253
	Missing	2
Mean		3.66
Std. Deviation		.893
Variance		.797

[Source: Data collected through field survey using a self-completion questionnaire.]

The statistics outline that the total number of respondents is 253 excluding 2 missing who did not respond. The table states the mean, standard deviation and variance of the data. The mean indicates that the bank employees are in 'neither dissatisfied nor satisfied' stand and are moving cloze toward the 'somewhat agree' stance.

Distribution of consent of employees pertaining to their working environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.4	2.4	2.4
	Somewhat Disagree	19	7.5	7.5	9.9
	Neither Agree Nor Disagree	65	25.5	25.7	35.6
	Somewhat Agree	128	50.2	50.6	86.2
	Strongly Agree	35	13.7	13.8	100.0
	Total	253	99.2	100.0	
Missing	System	2	.8		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The abovementioned table outlines the distribution of the consent of the bank employees which found that around 2.4% bank employees are strongly disagree with their working environment, nearly 7.5% of them are 'somewhat disagree. Approximately 25.7% of the employees are neither agree nor disagree stand, about 50.6% of the employees are

somewhat agree with their working environment, and the rest of the bank employees strongly agree with their working environmental settings.

Job Design

How much satisfied the employees are with their jobs designed earlier.

Statistics

N	Valid	253
	Missing	2
Mean		3.37
Std. Deviation		.769
Variance		.592

[Source: Data collected through field survey using a self-completion questionnaire.]

The statistical measurements outline that the bank employees are now in 'neither dissatisfied nor satisfied' stand and they are moving toward 'somewhat agree' stance with their jobs designed earlier. The value of standard deviation and variance of the consents of the employees are .769 and .592 respectively.

Distribution of consent of employees pertaining to their job designing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	1.2	1.2	1.2
	Somewhat Disagree	26	10.2	10.3	11.5
	Neither Agree Nor Disagree	108	42.4	42.7	54.2
	Somewhat Agree	106	41.6	41.9	96.0
	Strongly Agree	10	3.9	4.0	100.0
	Total	253	99.2	100.0	
Missing	System	2	.8		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The above table shows the distribution of consent of the bank employees pertaining to their job designing in the banks which found around 1.2% bank employees are strongly disagree with their job designing. Nearly 10.3% of them are 'somewhat disagree, approximately 42.7% of the employees are in neither agree nor disagree stand, about 41.9% of the employees are somewhat agree with their job designing, and the rest of, about 4%, the bank employees strongly agree with their job designing.

Informal Relationship

To what extent the informal relationship is practiced as a communication medium.

Statistics

N	Valid	253
	Missing	2
Mean		3.19
Std. Deviation		.900
Variance		.811

[Source: Data collected through field survey using a self-completion questionnaire.]

The statistics outline that the total number of respondents is 253 excluding 2 missing who did not respond. The table states the mean, standard deviation and variance of the data. The mean indicates that the bank employees are in 'neither dissatisfied nor satisfied' stand and are moving toward the 'somewhat agree' stance relating to informal relationship inside and outside the banks.

Distribution of consent of employees pertaining to informal relationship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	13	5.1	5.1	5.1
	Somewhat Disagree	36	14.1	14.2	19.4
	Neither Agree Nor Disagree	103	40.4	40.7	60.1
	Somewhat Agree	93	36.5	36.8	96.8
	Strongly Agree	8	3.1	3.2	100.0
	Total	253	99.2	100.0	
Missing	System	2	.8		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

The above table shows the distribution of consent of the bank employees pertaining to informal relations hipin the banks which found around 5.1% bank employees are strongly disagree with the existing informal relationship, nearly 14.2% of them are 'somewhat disagree. Approximately 40.7% of the employees are in neither agree nor disagree stand, about 36.8% of the employees are somewhat agree with their informal relationship, and the rest of, about3.2%, the bank employees strongly agree with the current informal relationship with the management.

Participation in Decision Making

To what extent the employees are satisfied with the participatory practices in the industry.

Statistics

N	Valid	254
	Missing	1
Mean		2.87
Std. Deviation		.993
Variance		.986

[Source: Data collected through field survey using a self-completion questionnaire.]

The statistical results, our study found, represent that the mean outlines the bank employees are in a 'somewhat disagree' stance and the moving close toward 'neither disagree nor agree' stance relating to participatory practice in the banks. The values of standard deviation and variance are .993 and .986. It indicates a stance apart from the middle.

Distribution of consent of employees pertaining to their participation in decision-making

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	33	12.9	13.0	13.0
	Somewhat Disagree	40	15.7	15.7	28.7
	Neither Agree Nor Disagree	114	44.7	44.9	73.6
	Somewhat Agree	62	24.3	24.4	98.0
	Strongly Agree	5	2.0	2.0	100.0
	Total	254	99.6	100.0	
Missing	System	1	.4		
Total		255	100.0		

[Source: Data collected through field survey using a self-completion questionnaire.]

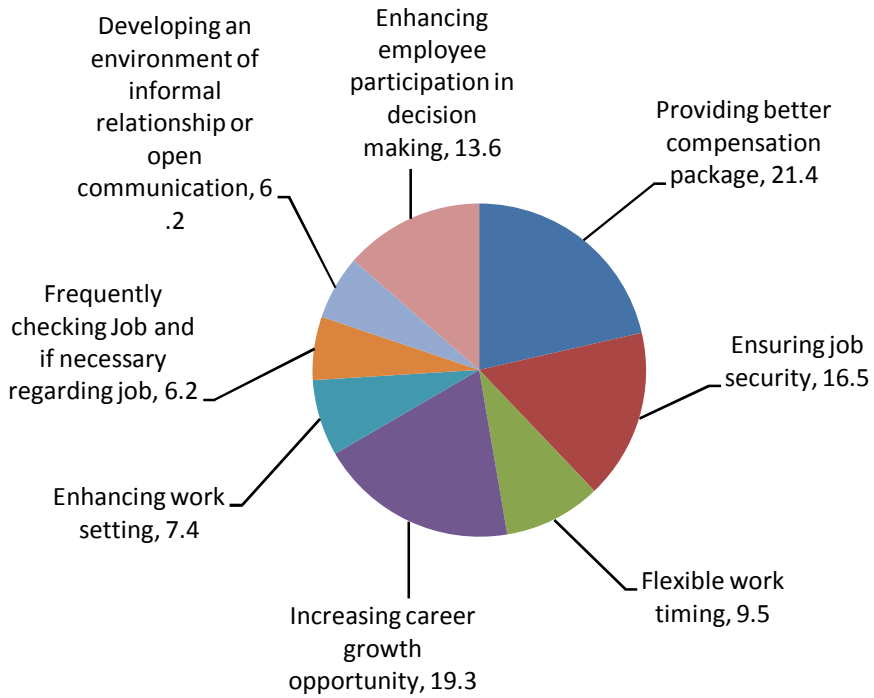
The table portrays the distribution of consent of the bank employees relating to employees' participation in decision making in the banks that points out about13.0% bank employees are strongly disagree with the existing participation scenario in management, nearly 15.7% of them are 'somewhat disagree, . Approximately 44.9% of the employees are in neither agree nor disagree stand, about 24.4% of the employees are somewhat agree with their participation in decision making, and the rest of the bank employees strongly agree with the participation in decision making providing by the banks.

Recommendations

The recommendation section of the study is drawn from the respondents suggestions found while the data were collected. Most of the respondents have highlighted compensation package for first and then come to career growth opportunities, job security and fourthly employee participation in decision-making.

Furthermore, the respondents rank the suggestions as better compensation package, ensuring career growth opportunities, ensuring job security, empowering the employees through giving them opportunities to participate in the decision making stances. However, flexible work timing, better work environment, better informal communication, and ensuring of better job designing are supported by 21.4%, 19.3%, 16.5%, 13.6%, 9.5%, 7.4%, 6.2%, and 6.2% of all the respondents respectively.

Distribution of percentage of suggestions recommended by respondents



[Source: Data collected through field survey using a self-completion questionnaire.]

Most significantly, the respondents highlight the compensation, that is, salaries and other benefits. Another significant aspect to be considered, the respondents ranked as second and third are career growth opportunities and job security respectively.

Conclusion

At winding up the work, we see that the bank employees in connection with their quality of work life initiatives are in a state where they neither disagree nor agree with the quality efforts providing by the banks and it is currently trending toward the 'somewhat agree' stance which is a positive signal for decision makers. The analysis and findings of the study were designed into three major sections, including socio-demographic section, quality initiatives and at length suggestions. Likewise, the findings indicate the stances of the bank employees at the specific parts of analysis. The focal point is that the quality of work life initiatives in the banking industry is in a balancing position.

References

Bolhari, A and others 2011, 'The Relationship between Quality of Work Life and Demographic Characteristics of Information Technology Staffs', *International Conference on Computer Communication and Management,* Proc .of CSIT vol.5 (2011) © (2011) IACSIT Press, Singapore, pp. 374-378.

Elias, MS and Saha, NK 2005, 'Environmental Pollution and Quality of Working Life in Tobacco Industries', *Journal of Life Earth Science,* Vol. 1(1), pp. 21-24.

Hamidi, F and Mohamadi, B 2012, 'Teachers' quality of work life in secondary schools', *International Journal of Vocational and Training Education*, Vol. 4 (1), pp. 1-5.

Hong, K Tan, KW and Bujang, S 2010, 'Relationships between Work Life Quality of Teachers with Work Commitment, Stress and Satisfaction: A Study in Kuching, Sarawak, Malaysia', *Journal of Technology*, vol. 52, pp. 1-15.

Kashani, FH 2012, 'A Review on Relationship between Quality of Work Life and Organizational Citizenship Behavior (Case Study: An Iranian Company)', *Journal of Basic and Applied Scientific Research*, Vol. 2, No. 9, pp. 9523-9531.

Kaur, D 2010, 'Quality of Work Life in ICICI Bank Ltd, Chandigarh', *International Research Journal*, Vol. 1, Issue 2, pp. 28-29.

Kornbluh, HY 1984, 'Work Place Democracy and Quality of Work Life: Problems and Prospects', *JSTOR*, Annals of the American Academy of Political and Social Science, 473, pp. 88-95.

Rethinam, GS and Ismail, M 2008, 'Constructs of Quality of Work Life: A Perspective of Information and Technology Professionals', *European Journal of Social Sciences*, Vol. 7, No. 1, pp. 58-70.

Sirgy, M.J. Efraty, D. Siegel, P. and Lee, D.J. 2001, 'A New Measure of Quality of Work Life (QWL) Based on Need Satisfaction and Spillover Theories', *Social Indicators Research*, Vol. 55, No. 3, pp 241-302.

Tabassum A, Rahman T, and Jahan K 2011, 'A Comparative Analysis of Quality of Work Life among the Employees of Local Private and Foreign Commercial Banks in Bangladesh', *World Journal of Social Sciences*, Vol. 1, No. 1, pp.17-33.

Reports

Report from Research Department; Bangladesh Bank, 2018

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 67-75 (Printed in January, 2021)

The Impact of Corporate Governance and Financial Leverage on Firm Value: Evidence from Non-Financial Firms Listed in Dhaka Stock Exchange

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Abstract

The present study examines the impact of corporate governance and financial leverage on the non-financial firm value listed in the Dhaka stock exchange (DSE) in Bangladesh. The study employs panel data from 2011 to 2019. The random effect model has been used to investigate the objective. Empirical results reveal that audit committee, board size, CEO duality, and financial leverage are negatively related to the firm value, whereas insider holding impacts positively. As a control variable, firm size is negatively and return on assets is positively associated with the firm value. The present study confirms that good governance and optimal level of financial leverage is related to firm value.

Key Words: *CEO duality, Board size, Audit committee, Insider holdings, Financial leverage, Firm size, Firm value, Return on Asset.*

1.0 Introduction

The study's objective is to explore the impact of corporate governance and financial leverage on the firm value of non-financial firms in Bangladesh. This study has found that corporate governance measured by audit committee, board size, chief executive officer (CEO) duality, and insider holding, has an impact on firm value. It has also found a significant relationship between financial leverage and the firm value.

Corporate governance has a significant impact on firm value. According to Gompers et al., (2003), organizations with strong corporate governance improves firm value. In contrast, Rouf (2011) identified that firm value is insignificantly related to corporate governance. He used board size and board audit committee as a proxy of corporate governance. This dissonance and the insufficiency of the research make us interested in corporate governance. In the case of financial leverage, it is an old debate whether a financial manager should go for debt financing or not. A significant relationship has been found between firm worth and financial leverage (Sharma, 2006). Research conducted in

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Bangladesh in this field is subject to further study. This paper has focused this particular field in the perspective of Bangladesh.

Extant literature shows that corporate governance, financial leverage and firm value are significantly related to many countries. John and Amarjit (2013) have found that good governance increases the firm's market value; higher financial leverage adversely affects its market value due to an increase in bankruptcy risk in American firms. Cheng and Tzeng (2011) used 645 listed firms in Taiwan Securities Exchange (TSE), and they found a significant positive relationship between a firm's financial leverage and its value. Ruan et al. (2011) researched Chinese firms. They discovered that insider holdings and the ratio of total debt to total assets are related negatively, and the market value of the firm decreases when the ratio of total debt to total assets increases.

This study uses data of the firms listed on the Dhaka Stock Exchange (DSE) and has founded a significant relationship between firm value and financial leverage. Finding infers with more certainty that financial leverage has an impact on firm value.

2.0 Literature Review

Few studies are available on the impact of governance on firm valuein Bangladesh. Every country has it's unique social, economic, and regulatory conditions. That is why the impact of corporate governance on firm value differs when the location of the study changes (Rouf, 2011). Because of different tax brackets and tax laws, the impact of financial leverage is also subject to vary for different countries.

This study has defined corporate governance as a set of processes, customs, policies, laws, and institutions that direct and control the firm (Rouf, 2011). According to Kajola (2008), the board of directors manages the firm by delegating authority and responsibilities to the CEO and other management staff. The experienced directors direct business affairs with their leadership skills, integrity, commitment to the firm and prepare its business plans to maximize long-term shareholder value.

Rouf (2011) conducted a study on Bangladeshi firms, and he found a negative relationship between board size and firm value. According to his research, a small board size improves firm value. He addressed a large board size costlier due to poor communication and decision-making process. Lipton and Lorsch (1992) and Jensen (1993) identified the factors that improved corporate governance for the USA firms and concluded that the bigger board size is less effective. According to Ramdani and Witteloostuijn (2010), when the same person acts as CEO and board chairman (CEO duality). Because it improved firm value in Indonesian, Malaysian, South Korean and Thailand where CEO duality positively affected firm's value.

Bhabra (2007) studied the firms of New Zealand. He found that insider holding increases firm value. But the effect of insider holding differs when the market changes. He addressed that corporate governance impacts firm value across the markets.

Black (2001) gathered information from Russia, and he found that a company's corporate governance has a significant impact on its market value.

Gompers et al. (2003) created a "Governance Index" that incorporated 24 governance-related rules for 1,500 large US firms during the 1990s. The index represented the rights of the shareholder. The study discovered a significant relationship between "Governance Index" and the firm's worth.

Klapper and Love (2004) studied firm-level corporate governance rankings across 14 emerging business sectors to lead corporate governance research. They recommend that organizations make up for ineffectual laws and implementation by setting up good corporate governance and by providing credible investor protection.

Mak and Kusnadi (2005) gathered information from Singapore and Malaysia, and they found a negative relationship between the firm's board size and firm value.

Sharma (2006) studied on Indian manufacturing firms and found a relation between firm worth and financial leverage.

Pattanayak (2008) inspected the impact of insider holdings on India's corporate value for the time horizon of 2000-2001 to 2003-2004, analyzing 1833 Bombay Stock Exchange-listed firms. He found that firm value (estimated by Tobin's Q) rises as insider holdings increases.

Gill and Mathur (2011) studied the Toronto Stock Exchange (TSX), and their sample included 91 manufacturing companies for the period of 2008-2010 in Canada. They found a negative relationship between board size and firm value. Besides, the positive impact existed between firm value and firm size, CEO duality, and return on assets.

Ryu and Yoo (2011) worked on Korea. They found a positive relationship between insider holdings and firm value until 42% of ownership is held by inside management. As the ownership increases further, a negative relationship appeared between them.

Ruan, Tian, and Ma (2011) utilized information on China's civilian-run firms listed on the Chinese stock market between 2002 and 2007. They found that insider holdings contrarily impact the total debt to total assets ratio; besides, the total debt ratio to total assets negatively affects the firm value.

Cheng and Tzeng (2011) gathered information from 645 firms recorded in the Taiwan Securities Exchange (TSE) from 2000 to 2009, and they found a positive connection between financial leverage and the firm value.

Adeyemi and Oboh (2011) studied the Nigerian market. They included 90 companies in their sample and extracted a positive relationship between financial leverage and the firm value.

Cuong and Canh (2012) examined the stock markets of Vietnam. Their sample included listed companies in seafood processing enterprises (SEAs) from 2005 to 2010. They found that the ideal debt ratio is 59.27%, and firm value increases when debt ration is below the ideal value.

John and Amarjit (2012) found a negative relationship between board size and firm value for American firms. Besides, they explored a positive relationship between firm value and audit committee, CEO duality, firm size, financial leverage, insider holdings, and return on

assets. They examined both the service and manufacturing industry and extracted a difference in findings as market changes.

3.0 Sample and Data

This study covers 19 non-financial institutions listed in the Dhaka Stock Exchange (DSE) from 2011 to 2019, a balanced panel with 171 observations.

This paper used the judgmental sampling method, where we selected 19 non-financial firms and collected data from each firm's web site. One of the major problems was the unavailability of required data, as all the Bangladeshi firms did not publish corporate governance-related information well. We designed the study for a sample of 270 observations, but it ended up with 171. The study covers both time series and cross-section, which leads to a panel study. Only the firms listed in the Dhaka Stock Exchange (DSE) were considered.

In this study, we have taken financial leverage as one of the explanatory variables. For that reason, financial firms like banking, insurance, leasing, and other non-bank financial firms were omitted from the sample area. Moreover, some firms' corporate governance-related data were not available on the web sites that were also omitted.

3.1 Methodology

This study consist of eight dependent, independent, and controlled variables. These variables have been used to determine the possible relationships and draw the inference about corporate governance, financial leverage, and firm value.

The Ordinary Least Squared (OLS) method has been used for specifying the relationship. We use the random effect regression model for analyzing our balanced panel. The following table shows the model in detail.

Table 1: Variables and Model Used in the Study.

Variable	Measurement
Dependent Variable	
Firm Value (FV)	Measured by "Tobin's Q" where Q = (Market value of equity + Book value of debt) / Book value of the total asset
Independent variables	
CEO Duality (CD)	A dummy variable with 1 if the same person occupied the chairman's post and the CEO and 0 for otherwise.
Board Size (BS)	Total number of directors serve on board
Audit Committee (AC)	Total number of audit committee members
Financial Leverage (FL)	Total liabilities / Total assets
Insider Holdings (IH)	Percentage of sponsor shareholdings.
Control Variables	
Size of the firm (FS)	The logarithm of total assets
Return on Assets (ROA)	Net income / Total Assets

$$\mathbf{FV = \alpha + \beta_1 CD_{it} + \beta_2 BS_{it} + \beta_3 AC_{it} + \beta_4 Fl_{it} + \beta_5 FS_{it} + \beta_6 ROA_{it} + \beta_7 IH_{it} + \mu_{it} \ldots\ldots (1)}$$

Where,

I. i = 1 to 19 companies
II. t = From the year 2011 to 2019 and
III. μ = the error term

In this study, independent variables are CEO Duality, Board Size, Audit Committee, Insider Holdings, and Financial Leverage. The Control Variables are Firm Size and Return on Asset. All of these variables will explain the Firm Value, which is the dependent variable. As a proxy of corporate governance, we used CEO duality, board size, audit committee, and insider holdings.

4.0 Findings

In regression analysis, one variable is regress and, and one or more variables are regressors. When the number of regressors is two or more, we use multiple regression to access the relationships. It helps to incorporate many factors that affect regress and (dependent variable). We have 7 regressors (independent variables) in this study which lead us to use multiple regression model. The ordinary least squired (OLS) method is used to calculate the parameters.

Table 2: OLS Regression Estimates on Factors Affecting Firm Value.

$$\mathbf{FV = \alpha + \beta_1 CD_{it} + \beta_2 BS_{it} + \beta_3 AC_{it} + \beta_4 Fl_{it} + \beta_5 FS_{it} + \beta_6 ROA_{it} + \beta_7 IH_{it} + \mu_{it} \ldots\ldots (1)}$$

Variables	Coefficient	Std. Error	"*t*" stat.	"*p*" value
AC	-0.0267	0.0371	-0.7186	0.4734
BS	-0.0055	0.0220	-0.2516	0.8016
CD	-0.2678	0.1882	-1.4233	0.1565
FL	-0.0311	0.0143	-2.1821	0.0305
FS	-0.3565	0.1155	-3.0876	0.0024
IH	0.5285	0.4147	1.2744	0.2043
ROA	7.3021	0.9670	7.5510	0.0000
Constant	4.5817	1.0989	4.1693	0.0000

Entire Sample (N = 171)

[R^2 = 0.297555; Adjusted R^2 = 0.267389; F-statistic = 9.863818; Prob. (F-statistic) = 0.00; Durbin-Watson stat = 0.99751]

Note that:

- Hausman test was performed to investigate whether a fixed or random effect model is appropriate for this study. In this test null hypothesis is "random effect is appropriate." And the probability value was 0.1265. This means the null hypothesis is not rejected at 5% level of significance. Finally, we found our model as a random effect model.

- A test for normality was performed. We found Skewnwss value "0.789375" and Kurtosis value "4.481468". The amount of Jarque-Bera was "33.39627," and the probability value was "0.00".

Firm value is negatively related to the audit committee, board size, CEO duality, financial leverage, and firm size. And positively related to insider holdings and return on assets.

Firm value is significantly related to financial leverage, firm size, and return on asset as the probability value of "t" statistics is less than the 5% level of significance for their coefficients. Audit committee, board size, CEO duality, and insider holdings do not have any statistically significant relationship with Firm Value in the present study.

The value of the goodness of fit statistics (R^2) is 0.297555 or 29.7555%. Adjusted R^2, which is the value of R^2 after adjusting for the degrees of freedom, is 0.267389 or 26.7389%. The overall goodness of fit for our model, explained by the "*F*" statistics, is 9.863818, with a probability value of 0.00. This infers that there is a combined relationship between Firm Value and other explanatory variables.

5.0 Conclusion

This study aimed to find the impact of corporate governance and financial leverage on the value of non-financial firms in Bangladesh. Overall findings show that larger board size, larger audit committee, CEO duality, financial leverage negatively affect the value of non-financial firms in Bangladesh. In contrast, we find that firm value is positively related to insider holding and return on asset. There area statistically significant relationship between firm value and financial leverage, firm value and firm size, firm value and return on assets. Our finding states with more certainty that financial leverage has an impact on the firm value.

The findings of this study are consistent with the results of Rouf (2011), Lipton and Lorsch (1992), Bhabra (2007), Mak and Kusnadi (2005), Pattanayak (2008), and Ryu and Yoo (2011). However, our results contradict with Ramdani and Witteloostuijn (2010), Cheng and Tzeng (2011), Adeyemi and Oboh (2011), and Cuong and Canh (2012). Besides, the findings of Gill and Mathur (2011) are similar for the board's size and return on asset but deny for CEO duality. The same case has been taken place for the results of John and Amarjit (2012), where the relationship of board size, insider holdings, and return on asset is consistent with our study, but contradict for CEO duality, audit committee, financial leverage, and firm size.

A negative relationship has been found between audit committee and firm value. In most of the selected firms, board members are also acting as audit committee members. That might be a reason for questioning the audit committee reports' freedom as well as clarity. Moreover, in most cases, the CEO or managing director was the chairman of the audit committee. So, it might be the case that investors do not think of the audit committee as a fair entity. The present study has found that there might be an optimal number of the audit committee, and their isolation from management may be a beneficial factor for firm value.

Firm size is negatively related to firm value with statistical significant. Which indicates that small size firms gain more market value for non-financial companies in Bangladesh.

The probable reason might be the scarcity of available stocks. Which somewhat pushes the demand and consequently the price of the stock. At the same time board size and CEO duality are also negatively related to firm value.

In our study, insider holdings positively affect firm value. This is consistent with the findings of Pattanayak (2008) and John and Amarjit (2012). According to their studies, the value of the firm increases as insider holdings increases. In addition, return on asset is also positively related to the firm's value, and our finding is similar to John and Amarjit (2012) for this variable.

Finally, financial leverage is negatively related to firm value. For Bangladeshi non-financial firms, high financial leverage decreases the firm value.

Here, the comparatively small sample size is used; the study is limited to Bangladeshi non-financial firms. So, the findings could only be generalized to firms the same to those that were included in the study.

A large sample that includes different countries can be a scope for future research. It may also have other variables such as institutional ownership, the political connection of the firm's board of directors and/or CEO, CEO tenure, etc.

References

Adeyemi, S.B. and C.S. Oboh, 2011. "Perceived relationship between corporate capital structure and firm value in Nigeria", *International Journal of Business and Social Science*, 2(19), pp. 131-143.

Bhabra, G., 2007. "Insider ownership and firm value in New Zealand", *Journal of Multinational Financial Management*, 17(2), pp. 142-154.

Black, B.S., 2001. "Does corporate governance matter: A crude test using Russian data", *University of Pennsylvania Law Review*, 149, pp. 2131-2150.

Cheng, M.C. and Z.C. Tzeng, 2011. "The effect of leverage on firm value and how the firm financial quality influence on this effect", *World Journal of Management*, 3(2), pp. 30-53.

Cuong, N.T. and N.T. Canh, 2012. "The effect of capital structure on firm value for Vietnam's seafood processing enterprises", *International Research Journal of Finance and Economics*, 89, pp. 221-233.

Gill, A. and N. Mathur, 2011a. "Board size, CEO duality, and the value of Canadian manufacturing firms", *Journal of Applied Finance and Banking*, 1(3), pp. 1-13.

Gill, A. and N. Mathur, 2011b. "Factors that influence financial leverage of Canadian firms", *Journal of Applied Finance and Banking*, 1(2), pp. 19-37.

Gompers, P.A., J.L. Ishii, and A. Metrick, 2003. "Corporate governance and equity prices", *Working Paper*. Retrieved May 22, 2012 from http:// fic.wharton. upenn.Edu/fic/papers/02/0232.pdf

Jensen, M.C. and W.H. Meckling, 1976. "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, 3(4), pp. 305-360.

Kajola, S.O., 2008. "Corporate governance and firm performance: The case of Nigerian listed firms", *European Journal of Economics, Finance and Administrative Sciences*, 14, pp. 16-27.

Klapper, L. and I. Love, 2004. "Corporate governance, investor protection, and performance in emerging markets", *Working Paper*. Retrieved May 19, 2012 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=303979

Lipton, M. and J.W. Lorsch, 1992. "A modest proposal for improved corporate governance", *Business Lawyer*, 48(1), pp. 59-78.

Mak, Y.T. and Y. Kusnadi, 2005. "Size really matters: Further evidence on the negative relationship between board size and firm value", *Pacific-Basin Finance Journal*, 13(3), pp. 301-318.

Obradovich, J. and Gill, A., 2013. "The impact of corporate governance and financial leverage on the value of American firms", *International Research Journal of Finance and Economics*

Pattanayak, M., 2008. "Insider ownership and firm value: Evidence from Indian corporate sector", *Working paper*, pp. 1-30. Retrieved May 19, 2012 from http://ssrn.com/abstract=962307

Ramdani, D. and A.V. Witteloostuijn, 2010. "The impact of board independence and CEO duality on firm performance: A quintile regression analysis for Indonesia, Malaysia, South Korea and Thailand", *British Journal of Management*, 21(3), pp. 607-627.

Rouf, M.A., 2011. "The relationship between corporate governance and value of the firm in developing countries: Evidence from Bangladesh", *The International Journal of Applied Economics and Finance*, 5(3), pp. 237-244.

Ruan, W., G. Tian, and S. Ma, 2011. "Managerial ownership, capital structure and firm value: Evidence from China's civilian-run firms", Australasian *Accounting Business and Finance Journal*, 5(3), pp. 73-92.

Ryu, K. and J. Yoo, 2011. "Relationship between management ownership and firm value among the business group affiliated firms in Korea", *Journal of Comparative Economics*, 39(4), pp. 557-576.

Sharma, A.K., 2006. "Financial leverage and firms' value: A study of capital structure of selected manufacturing sector firms in India", *The Business Review*, 6(2), pp. 70-76.

Zainodin, H.J., A. Noraini, and S.J. Yap, 2011. "An alternative Multicolinearity approach in solving multiple regression problem", *Trends in Applied Science Research*, 6(11), pp. 12411255.

Appendix: Descriptive statistics and Bivariate Correlation Analysis

Table 1: Descriptive Statistics (2011-2019)

Note: FV = Firm's Value (Measured by Tobin's Q); CD = CEO Duality; BS = Board Size, AC = Audit Committee, FL = Financial Leverage, FS = Firm Size, ROA = Return on assets, IH = Insider Holdings

	FV	AC	BS	CD	FL	FS	IH	ROA
Mean	1.45	3.73	7.13	0.05	3.18	9.70	0.43	0.05
Median	1.23	4.00	6.00	0.00	2.44	9.81	0.45	0.03
Maximum	3.88	8.00	17.00	1.00	33.02	11.09	0.74	0.19
Minimum	0.38	0.00	2.00	0.00	0.85	8.22	0.05	-0.14
Std. Dev.	0.75	1.31	3.34	0.21	3.16	0.70	0.18	0.05
Skewness	1.24	-0.21	1.05	4.29	5.89	0.08	-0.16	0.34
Kurtosis	4.11	5.04	3.33	19.42	50.43	1.98	2.00	3.73
Jarque-Bera	52.58	31.07	32.24	2447.06	17016.52	7.65	7.81	7.18
Probability	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03
Sum	248.63	637.00	1219.00	8.00	543.14	1657.96	73.30	8.25
Sum Sq. Dev.	95.90	290.08	1901.17	7.63	1699.21	84.10	5.77	0.49
Observations	171	171	171	171	171	171	171	171

Table 2: Bivariate Correlation Analysis.

Note: FV = Firm's Value (Measured by Tobin's Q); CD = CEO Duality; BS = Board Size, AC = Audit Committee, FL = Financial Leverage, FS = Firm Size, ROA = Return on assets, IH = Insider Holdings

	FV	AC	BS	CD	FL	FS	IH	ROA
FV	1.00	0.10	-0.14	-0.14	0.05	-0.25	0.20	0.57
AC		1.00	0.29	-0.06	-0.19	0.34	0.42	0.20
BS			1.00	-0.17	0.09	0.24	0.34	0.03
CD				1.00	-0.08	-0.13	-0.02	-0.18
FL					1.00	-0.15	-0.08	0.34
FS						1.00	0.09	0.08
IH							1.00	0.21
ROA								1.00

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 76-95 (Printed in January, 2021)

Factors Affecting the Audit Fee Payment of the Listed Companies in Bangladesh

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Abstract

The study examines the effects of audit firm characteristics ICAB's and audit committee factors on the level of audit fee payment for audit quality. Audit firm characteristics include the Institute of Chartered Accountants of Bangladesh (ICAB) audit fees scheduled, Big 4 auditors, audit partner, and auditor change. Audit committee factors include audit committee size, audit committee independence, audit committee financial expertise, and audit committee meeting. The study has selected 702 firm-year observations as a study sample for the period 2013-2018. The results of the study show that both the audit firm characteristics and audit committee factors have an impact on audit quality. This paper contributes to the literature on audit quality. The study results suggest that the ICAB's audit fees schedule and audit committee financial reporting expertise can influence the demand for audit quality and have effects on the level of high audit fees paid to the auditor.

Keywords: *Audit fee, Audit quality, Big 4, ICAB, Audit committee, Reporting expertise*

1. Introduction

Audit on financial statements increases the transparency of financial reporting. Transparency represents the extent to which a company provides complete and fair disclosure of clear, relevant, reliable, and understandable information about its business activities (Nurunnabi *et al.*, 2011, p.35). Financial reporting transparency mostly depends on audit quality. But the poor quality of audit is a fact in Bangladesh. It is a key consideration for auditors and a concern for the users of accounting information. Audit regulatory authorities prepare frameworks and standards for improving the audit quality (Kabir *et al.*, 2011, p.164).

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The role of audit fee payment in ensuring quality audit service to the auditor is a debatable issue. Is the fee paid to the auditor or received by the auditor enough to conduct the audit properly? As per the economic bonding theory, if the auditor receives a higher amount of audit fees, he/she may help the management create false financial reports (Choi *et al.*, 2010). If the auditor gets more audit fees, it is considered a bribe to the auditor for signing a creative financial statement. Besides, sometimes auditors get less audit fees to employ sufficient resources and time to conduct a quality audit(Jung *et al.*, 2016, p.255). That is why audit effort theory suggests paying high audit fees to the auditor for producing higher-quality audit reports (Blankley *et al.* 2012). High audit fees paid to the auditors makes them provide additional efforts to increase audit quality (Eshleman & Guo, 2014). Hence, all the situations – lack of the employment of auditors' effort, production of creative reports, and preparation of high-quality reports – are affected by the audit fees paid to the auditor.

This study provides evidence on the audit firm characteristics, including the ICAB's audit fees schedule, Big 4 auditors, audit partner, and auditor change. Audit committee factors include audit committee size, audit committee independence, audit committee financial expertise, and audit committee meeting. The following section of the study presents the motivation of the study, audit service market in Bangladesh and research objectives. Section 2 provides the review of literature and hypotheses development. Section 3 outlines research design and sample selection. Section 4 data analysis and discussion of the results, and section 5 concludes the study.

1.1 Audit Service Market in Bangladesh

Section 184(4) of the Companies Act 1994 stipulates mandatory audit of the financial statements for all the companies, to be conducted by the Chartered Accountants. The auditing profession in Bangladesh started in 1973 by the Bangladesh Chartered Accountants Order (World Bank, 2015, p.10). Before establishment of the Financial Reporting Council (FRC), ICAB was the sole regulator of the audit and accounting profession. Bangladesh Government passed the Financial Reporting Act 2015. FRC is set to oversee the audit and accounting profession, the performance of auditors, and audit firms. There are 1,616 chartered accountants (CA) registered at ICAB; among those 1,170 are fellow members, and 446 are associate members (ICAB annual report 2018, p.119). According to the list of ICAB members and firms of 2018-19, only 367 members are in practice through their 154 registered audit firms.

Corporate financial reporting and auditing in Bangladesh are outlined in several rules, laws, and ordinance, which include the Companies Act (Bangladesh) 1994, the Financial Reporting Act 2015, Bangladesh Securities and Exchange (BSEC) Rules of 1987, the Banking Companies Act 1991, the Insurance Act 2010, the Bangladesh Chartered Accountants Order 1973, and the Cost and Management Accountants Ordinance 1977.Registrar of Joint Stock Companies and Firms, BSEC, Bangladesh Bank, Insurance

Development & Regulatory Authority, ICAB, and the Monitoring Cell of the Ministry of Finance monitor and enforce the financial reporting requirements (World Bank, p.10).

Three Big 4 full member audit firms are currently providing audit services, and another Big4 firm has a country office in Bangladesh. Rahman Rahman Huq has joined as a member firm of KPMG International in the year 2006 (Kabir *et al.*, 2011).A Qasem & Co. joined as Ernst & Young Global (EY) member in February 2015 (EY, 2015). Before commenced as a member firm of EY, A Qasem & Co. was an affiliated audit firm of Price water house Coopers (PwC).Nurul Faruk Hasan & Co became the member audit firm of Deloitte Touche Tohmatsu (Deloitte) from November 01, 2018 (Deloitte Bangladesh, 2020). Before that, Hoda Vasi Chowdhury & Co. was affiliated with Deloitte. PwC established a subsidiary audit firm in Bangladesh in 2015 but had no legal right to provide external audit services to its clients (The Daily Star, 2015).

ICAB issued an audit fee schedule in the year 2016 for the audit firms to determine the minimum audit fees. The purposes of the guidelines are to enhance the services provided by the audit firm and the quality of the audit. As per the fees schedule, listed non-financial company's audit fees are determined based on the higher gross assets or gross turnover, and the minimum fee is Tk 3,50,000. BSEC has issued corporate governance guidelines for the listed companies' boards and audit committees. The guidelines emphasized on appropriate and timely actions and provide directions about the improvement of financial reporting systems and quality audit.

1.2 Motivation of the Study

There is an inverse relationship between the audit fee and the ownership structure of a firm. Firms having a more diverse ownership structure pay more audit fees in Bangladesh (Karim & Hasan, 2012). It is also found that financial companies pay significantly higher audit fees than non-financial companies in Bangladesh (Karim & Hasan, 2012). The audit committee factors also influence management, board, and auditors for quality audit service. Hence, audit committee independence and financial expertise demand a high quality of audit along with the payment of higher audit fees for the audit service (DeFond & Zhang, 2014, p. 295). Most of the listed companies in Bangladesh tend to demand less quality audits and pay lower audit fees (Khan *et al.*, 2015, p.15). So, in this study we have examined how the level of fees are affected by the audit firms' characteristics and audit committee factors of a companies.

1. 3 Research Objectives

The study's general objective is to examine the factors affecting the level of audit fee payment for the high-quality audit of the listed companies in Bangladesh. The specific objectives of the study are:

i. To evaluate the impact of audit firm's characteristics for demanding high audit fee payment for high-quality audit; and
ii. To analyze the effects of board audit committee factors on demand for a high-quality audit.

2. Literature Review and Hypotheses Development

2.1 Prior Literature on Audit Fee and Audit Quality

Previous studies evidenced the relationship between audit firm characteristics (e.g., audit fees, Big 4 auditor, audit firm size, non-audit services, and auditor tenure) and audit quality (Alareeni, 2017; Spathis, 2006). This study includes the ICAB audit fees schedule to measure its effect on audit fees and excludes non-audit services and auditor tenure because external auditors are not eligible to provide non-audit services to the same client, and they must be rotated after three years.

Saifuddin & Mohasin (2016) conducted a study on the determinants of audit fees of Bangladeshi listed companies using a sample of 50 listed companies for the years 2014 and 2015. The study results indicate that the audit fee paid to a company's auditor is significantly influenced by auditor size, client size, and client complexity. Another study was conducted by Karim & Hasan (2012) on the audit service market in Bangladesh by using a sample of 208 listed companies from 1990 to 2003. The study found that client size and their multinational affiliations have a significant positive effect on audit fees, and the ownership structure of a firm inversely affects audit fees paid to the auditor.

Pham Ngoc *et al.* (2017) use a sample of 192 listed companies of Hanoi and Ho Chi Minh Stock Exchange for 2006 to 2014. The study found that payment of high audit fees to the auditor is negatively related to audit quality. They also conclude that higher audit fee paid to the auditor decreases their independence. Another study conducted by Rahmina & Agoes (2014) using a questionnaire survey, where auditors working in a public accountant firm are the respondents. The study found that audit fee and auditor independence influence audit quality but, audit tenure with a client does not significantly influence audit quality.

Carmona & Momparler (2015) conducted their study to find the factors affecting the audit fee using a total of 444 firm-year observations from 2005 to 2010. The study found that higher audit quality provided by the audit firm is supplementary with higher audit fees. Another study conducted by Jung *et al.* (2016) attempted to determine the relationship between abnormal audit fees and audit quality using a sample of 17,017 firm-year observations for 2007-2013. This study has used economic bonding theory and found that a company's payment of a high audit fee is adversely connected with audit quality. On the other hand, abnormally low audit fee payment is not found to affect the decrease of audit quality. This result may denote that auditors may maintain high-quality audit performance

with marginal audit efforts and accept clients only when the risk factor in auditing activities is very low. Hoitash *et al.* (2007) measured audit fees as a proxy of auditor independence. The study used Standard & Poor's audit fee database for the period 2000-2003 by observing a total of 13,860 firm-year observations. The study results indicate that audit fee payment to the auditor positively correlates with auditor independence and audit quality.

Chowdhury (2018) conducted a study after fixing the minimum audit fee by the ICAB using 34 Bangladeshi banking companies' audit fees during the year 2017. The study tried to solve the debate of audit fee payment by the companies and the quality of audit. The study finds a variation between the actual fees payment by the companies and the ICAB scheduled audit fee. The study also revealed that the ICAB could compel the payment of proper audit fees to the auditors and the company's board. Hence, the board of a company's audit committee can play vital roles in increasing audit fees for high-quality audits.

Zaman *et al.* (2011) conducted a study to find the influence of board on the audit fee and used 540 firm-year observations during the period 2001-2004. The study found that the characteristics of the board of directors of a company have a significant and positive influence on audit committee expertise and audit fees. The results also expose that effective audit committees undertake more monitoring, which results in wider audit scope and higher audit fees.

Recently Ghafran & O'Sullivan (2017) have researched the audit committee's expertise impact on the audit quality using FTSE 350 UK firms as a sample during 2007-2010 and taking a total number of 991 firm-year observations. They argued that audit fee payment to the auditor measures the auditors' level of effort for a quality audit. The study found that the audit committee's accounting and financial expertise lead to greater levels of audit fees paid to the external auditor.

2.1.1 Research Gap

Audit quality is not just the outcome of the audit process; rather, client demand factors and auditor supply factors, and regulatory interventions are needed to be considered (DeFond & Zhang, 2014, p. 290). The auditor should consider client-associated risk and audit efforts to determine sufficient audit fees for high-quality audit (Khan *et al.*, 2016, p.371). Rahmina & Agoes (2014, p.329) suggest that audit firms and audit partners should be rotated as per the government regulations and follow the Code of Ethics for Professional Accountants issued by the International Federation of Accountants for the high audit quality. The audit committee's effective functioning demands a high-quality audit. ICAB's prescribed fee schedule provides guidelines to the practicing audit firms for taking a minimum audit fee from the client.

There are many rules and regulations to enforce audit firms and listed companies to create a high-quality audit demand and supply. However, most of the listed companies in

Bangladesh are family dominant firms, which tend to demand less quality audit and pay lower audit fees (Khan *et al.*, 2015, p.15). Share market collapse in the year 2011 resulted in several systematic reforms of capital market structure and corporate governance practices to protect investors' interest in Bangladesh. The reforms are also included in the fields of accounting and auditing. However, non-compliance with the rules, laws, corporate governance, and disclosures remain high (Karim & Zijl, 2013, p.253).

In this study, the factors affecting the audit fee payment level by the Bangladeshi listed companies for high-quality audit are examined. The audit fee is used as the audit quality measurement proxies (DeFond & Zhang, 2014). Whether the companies paid sufficient fees to employ quality audit and whether the audit firms received the audit fee demanded by them for their efforts to produce a high-quality audit are also examined in this study.

2.2 Hypotheses Development

According to Rahmina & Agoes (2014, p.329) the audit fee amount can vary because of the client risk assignment, complexity of services, the level of auditor expertise required, the fee structure of the audit firm, and other professional considerations. Therefore, the study found that the audit fee has a positive and significant influence on audit quality. The audit committee of a company can help the board to enhance governance quality through improving the quality of the financial reporting process and auditing. The audit committee factors may emphasize its role to increase the level of audit quality (Ghafrana & O'Sullivanb, 2017).To examine the empirical relations of the factors affecting the level of audit fee paid to the auditor, we have developed the following hypotheses:

2.2.1 ICAB Audit Fees

Previous studies show abnormal audit fees for audit quality. Abnormal audit fees are the differences between the actual audit fee paid by the company to it auditor and the expected (normal) audit fee (Jung *et al.*, 2016). ICAB is more conscious about the audit quality maintained by the audit firms. So, it instructed the audit firms not to engage with their audit client taking less amount of audit fees than the scheduled audit fees. But, most of the listed companies in Bangladesh pay audit fees less than the ICAB scheduled audit fees. The willingness to pay a low audit fee to the auditor maybe the client's bargaining power of appointing an auditor (Jung *et al.*, 2016). But audit effort theory states that the appropriate efforts of auditors are needed to improve audit quality (Eshleman & Guo, 2014). The study has tried to find out differences (if any) between the audit fee paid by the listed companies and ICAB scheduled audit fees paid to the audit firm.

*Hypothesis 1:*Audit fee payment by the listed companies is consistent with ICAB's scheduled audit fees.

2.2.2 Big 4 Audit Firm

Many companies are switching from Big 4 to non-Big 4 audit firms to cut their audit fees (Lin, 2018). Many research results find that a switch from a Big 4 to a non-Big 4 audit firm might occur because companies attempt to change auditors to cut high audit fees. The

bad clients switch to lower-quality audit firms with lower audit fees (Kitiwong & Srijunpetch, 2018). The clients may select high-quality audit firms even when these audit firms charge them higher audit fees due to ensure a quality audit or to enhance reputation (Bradbury, 2017). Big 4 audit firms add more value and charge more audit fees than those of non-big audit firms (Carmona & Momparler, 2015, p.788). So, we have tried to evaluate the impact of Big 4 audit firms on the audit fee payment.

Hypothesis 2: Selection of Big 4 audit firms has a positive impact on audit fees.

2.2.3 Auditor Change

Switching of the auditors involved additional costs and mandatory audit firm rotation would not be beneficial to the market. But, the concern is that the auditors' independence and audit quality have a greater impact on imposing mandatory rotation of the audit firm (Jackson *et al.*, 2008, p.421; Comunale & Sexton, 2005). But most of the companies in Bangladesh appoint local auditors instead of the big audit firm and pay low audit fees. So, external auditor rotation is mandatory after every three years and the appointment of a new auditor is required by the companies. ICAB has an instruction to the audit firm that the audit fee should not be less than that paid in the previous year. Hence, the change of auditor has no effect on audit fee of the new auditor. So, we would like to evaluate the relation between the audit fee and the auditor change.

Hypothesis 3: Auditor change has a positive impact on the demanding high audit fees.

2.2.4 Audit Partners

More number of audit partners of a firm can maintain a proper audit process which enhance the audit quality. If there are more partners, the audit firm can appoint separate partners for the audit process and quality control review. More audit partners can influence the audit fee and hencenumber of audit partners are proxies to measure the audit firm size (Saifuddin & Mohasin, 2016, p.119). More audit partners indicate that auditors are more conscious about professionalism and reputation. And they always try to provide quality services to their audit clients. Hence, the association between the number of audit partners and audit fees is notable.

Hypothesis 4: The number of audit partners in the audit firm has a positive impact on demanding high audit fees from the client.

2.2.5Audit Committee Size

Many companies keep their board size and audit committee as low as the regulation support, but there is a lot of opportunities to enhance the audit quality with the increase of the audit committee size. For enhancing audit quality, the audit committee should increase the audit fee (Zaman *et al.*, 2011, p.315). A large audit committee size can recommend a

high audit fee for the audit functions to maintain proper audit quality. So, we assume that the fee paid to the auditors depends on the audit committee size. Hence, the study has tried to find a relationship between the audit committee size of the board and the fee paid to the auditors for enhancing the audit quality.

Hypothesis 5: Audit committee size has a positive impact on high audit fees paid to the auditor for high-quality audit.

2.2.6Audit Committee Independence

Power exercise over management depends on the audit committee composition by all non-executive directors and they demand greater audit scope by increasing fees to ensure audit quality (Zaman *et al.*, 2011).The audit committee's independence helps to choose high-quality audit, which reduces specious threats to audit quality (DeFond & Zhang, 2014, p.307). Many Bangladeshi listed companies' audit committees contain the chairman of the board, chief executive officer, chief financial officer, or other executive directors as members of the committee. They may decrease the audit committee's independence regarding the demand for audit quality. Audit committee's independence in the board increases client demand for audit quality and suggests the payment of higher audit fees (DeFond & Zhang, 2014, p.306; Zaman *et al.*, 2011).

Hypothesis 6: Audit committee independence has a positive influence on audit fees paid to the auditor.

2.2.7Audit Committee Financial Reporting Expertise

For mitigating the agency problems and ensuring transparent information flow between the agent and the principal, agency theory suggests appointing an audit committee. The audit committee is responsible for monitoring and reviewing the significant financial reporting judgments in the financial statements. Code of Corporate Governance issued by Bangladesh Securities and Exchange Commission (BSEC) directs to appoint of at least one member of the audit committee with recent and relevant financial experience. But, many scholars investigate the audit committee's financial expertise in accounting versus non-accounting financial expertise (Ghafran & O'Sullivan, 2017). Audit committee financial experts suggest the selection of higher quality audit inputs to achieve higher quality audit (DeFond & Zhang, 2014, p.278).

Hypothesis 7: Audit committee expertise on financial reporting has a positive impact on high audit fees paid to the auditor for high audit quality.

2.2.8Audit Committee Meeting

The audit committee provides guidelines to the management and the auditors about financial reporting systems and auditing. The committee's overseeing and monitoring functions mainly depend on the audit committee meetings. Audit committee activities

through committee meetings are more likely to exercise a positive influence on audit function and its quality (Zaman *et al.*, 2011, p.171). As per BSEC corporate governance guidelines, the audit committee should arrange at least 4 meetings each year. Hence the study has tried to find the impact of audit committee meetings on the audit fee paid to the auditors for enhancing the audit quality of a company.

Hypothesis 8: Audit committee meeting has a positive impact on high audit fees paid to the auditor for high audit quality.

3. Research Design and Sample Selection

3.1 Measurement of Audit Quality

Fees below the standard are a low balling by the auditor, which impairs auditor independence and audit quality. The regulators and professional bodies in Bangladesh do not allow audit firms low balling in an audit engagement. But on the client-side, a low audit fee indicates greater bargaining power with the auditor (Jung *et al.*, 2016, p.253). Low balling provides competitive advantages to the auditor without impairing auditor independence (DeAngel, 1981).

On the supply side, the auditor would like to get more audit fees for a high-quality audit. Hence the supply of high-quality audit depends on client incentives, i.e., the board independence, audit committee expertise and effectiveness, firm characteristics, and the shareholders' pattern. So, the relationship between the demand and supply of audit quality is examined. Audit fees are determined by economic bonding theory and the demand and supply of the audit market (Jung *et al.*, 2016, p.253). DeFond & Zhang (2014, p.285) divide input-based audit quality measures into two categories: auditor-specific characteristics (selection of Big 4 audit firm) and auditor-client contracting features (audit fees).

In this study, audit fee payment by the client for appealing input-based audit quality measurement is used. High audit fee payment helps the auditor provide high efforts in the audit process and provides high audit quality. Therefore, audit fees are the proxy used for measuring audit quality (DeFond & Zhang, 2014, p.297).

3.2 Research Model

In the research model, audit fees have been used as dependent variables. ICAB scheduled audit fees, Big 4 audit firms, auditor change, and audit partners have been used as audit firm characteristics for demanding audit fees. Audit committee members, audit committee independence, audit committee financial reporting expertise, and audit committee meeting have been included as the factors of the audit committee in paying high audit fees to the auditor. The other variables, namely audit committee composition, foreign sponsor

director, sponsor shareholders, audit complexity, and return on assets have been used as control variables. To evaluate the factors affecting the level of audit fee payment by the listed companies, the following ordinary least square (OLS) regression model has been specified:

$$AFees = \beta_0 + \beta_1 ICABFees + \beta_2 Big4 + \beta_3 AChange + \beta_4 APartner + \beta_5 ACmem + \beta_6 AcInd + \beta_7 ACExpertise + \beta_8 ACmeeting + \beta_9 ACCom + \beta_{10} ForSponDir + \beta_{11} SponSH + \beta_{12} AudComplx + \beta_{13} ROA + \varepsilon$$

3.3 Variable Definition

Dependent Variable

AFees = Total audit fee payment by the listed company;

Independent variables

ICABFees = ICAB scheduled audit fees;

Big 4 = Selection of Big 4 audit firm (1 if company selects Big 4; otherwise 0);

AChange = Change of auditor (1 if the first year of engagement; otherwise 0);

APartner = The number of audit partners of the audit firm;

ACmem = The number of audit committee members from the board;

ACInd = Audit committee independence (% of independent directors of the board in the audit committee);

ACExpert = Audit committee's accounting expertise on financial reporting (1 if any audit committee member is expert on financial reporting; 0otherwise);

ACMeetting = The number of audit committee meetings conducted in a year;

Control Variables

ACCom = Audit committee member composition (1 if Chairman of the board, CEO, CFO, or executive director is included in AC; otherwise 0);

ForSponDir *Foreign Director in Board* (1 if foreign sponsor is a director on the board of a company; otherwise 0);

SponSH% = Sponsor Shareholders %;

AudComplex = Audit Complexity(1 if the client is a parent, subsidiary, or an associated company; otherwise 0); and

ROA = Returnon assets.

3.4 Data and Sample

The study has used data collected from the selected non-financial listed companies' annual reports in Dhaka Stock Exchange Ltd. (DSE) and Chittagong Stock Exchange Ltd. (CSE). The data set for this study is based on panel data for the period of 2013-2018. We have excluded 100 financial sector companies from the total 311 listed companies in the study period because of the nature of their business activities, financial disclosure requirements, regulations, and audit procedures (Imam *et al.*, 2001; Akhtaruddin & Haron, 2010). The study has also excluded the industries that contain less than 5 companies and the companies whose annual reports were not available during the study period. The study has considered 6 years' data for each company, and finally, 702 firm-year observations have been taken for the analysis.

Table 1: Study Population and Sample Distribution

Panel A Sample selection	
Number of firm years	1255
Less:	
Firm-years without necessary information/annual reports	553
Total firm-years observation used	**702**
Panel B Sample distribution	
Food & Allied	76
Pharmaceuticals & Chemicals	124
Textile	130
Engineering	112
Ceramics Sector	30
Tannery Industries	22
Cement	30
Fuel & Power	100
IT Sector	36
Miscellaneous	42
Total	**702**

4. Analysis and Discussion

4.1 Descriptive statistics

Table 2 provides descriptive statistics of the entire periods. The table also shows a comparison of ICAB's fees schedule issuing before the period of 2013 to 2015, and after the period of 2016 to 2018. Table2 reveals that after the introduction of the ICAB fees schedule, the average audit fee payment to the auditor increased in the period of 2016 to 2018 compared to the period of 2013 to 2015. But, the average audit fee payment is Tk. 3,09,180, which is only 23.79% of ICAB scheduled audit fees. The average number of audit partner increase indicates the selection of large size audit firm. Audit committee members, audit committee meetings, and sponsor shareholding percentages also increase. But, the selection of Big 4 audit firm, independent director in the audit committee, and foreign sponsor in the company decreased in the period of 2016 to 2018.

Table 2: Descriptive Statistics

	Entire Study period				Year 2013-2015		Year 2016-2018	
	Minimum	Maximum	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
AFees	12.0	1600.0	309.18	302.96	253.19	255.43	365.2	351.77
ICABFees	350.0	9934.9	1299.68	1576.10	1140.6	1306.23	1465.72	1980.24
Big 4	0.0	1.0	0.20	0.40	0.21	0.41	0.18	0.39
AChange	0	1	0.33	0.47	0.32	0.47	0.33	0.47
APartner	1.0	10.0	4.61	1.76	4.44	1.64	4.77	1.86
ACmem	2.0	6.0	3.25	.64	3.2	0.68	3.28	1.26
ACIndep	0.0	3.0	1.24	0.49	1.21	0.5	1.16	0.48
ACExpert	0.0	1.0	0.41	0.49	0.4	0.49	0.41	0.49
ACMeetting	0.0	12.0	4.18	1.26	4.19	1.87	4.3	1.13
ACCom	0.0	1.0	0.29	0.46	0.31	0.46	0.28	0.45
ForSponDir	0.0	1.0	0.12	0.32	0.12	0.32	0.11	0.31
SponSH%	0.0	100.00	45.60	20.76	46.67	20.82	44.96	20.28
AudComplx	0.0	1.00	0.66	0.47	0.66	0.47	0.68	0.48
ROA	-17.6	40.80	5.58	6.98	4.6	17.13	4.71	13.87
Valid N (listwise)	702				348		354	

4.2 Correlation Analysis

Pearson correlation matrix is presented in Table 3 using the variables of the regression model. Hence, the measure of audit quality, audit fees are positively correlated with the ICAB fees schedule. This indicates that ICAB's scheduled audit fees are significantly correlated with the audit fee payment at the 0.01 level of significance. Among the other independent variables and control variables, only auditor change is negatively correlated. Auditor change and audit committee composition are not significant at 0.01 and 0.05 levels of significance. But the other variables, namely the Big 4 audit firm, audit partner, audit committee member, audit committee independence, audit committee expertise, audit committee meeting, foreign sponsor director, sponsor shareholders, audit complexity, and ROA are positively and significantly correlated 0.01 and 0.05 levels of significance. The results show that correlations among key variables are statistically significant, whereas the correlations are not too high to flag multicollinearity issues.

Table-3: Correlation Matrix

	AFees	ICABFees	Big 4	AChange	APartner	ACmem	ACIndep	ACExpert	ACMeetting	ACCom	ForSponDir	SponSH%	AudComplx
ICABFees	.601*												
Big 4	.422*	.376*											
AChange	-.054	.005	-.022										
APartner	.323*	.252*	.253*	.005									
ACmem	.147*	.115*	.242*	-.034	.081*								
ACIndep	.110*	.010	.019	-.007	.024	.274*							
ACExpertise	.176*	.061	.124*	-.080	.149*	.101*	.057						
ACMeetting	.135*	.175*	-.010	.011	.102*	.071*	.063*	.025					
ACCom	.027	-.049	-.015	.005	-.054	.126*	-.040	.015	.119*				
ForSponDir	.338*	.185*	.446*	.007	.158*	.391*	.189*	.083*	-.076*	.031			
SponSH%	.260*	.277*	.380*	.028	.254*	.208*	-.050	.054	.071*	-.012	.185*		
AudComplx	.354*	.400*	.335*	-.008	.184*	.047	.010	.120*	.068	.014	.215*	.137*	
ROA	.348*	.214*	.419*	-.035	.199*	.173*	.071	.127*	-.021	.093*	.426*	.287*	.230*

Notes: *correlation is statistically significant at:0.01 and 0.05 levels

Table 4: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.738[a]	.545	.532	.27617	1.97

a. Predictors: (Constant), ROA %, Auditor Change, Independent Director in Audit Com, Audit Committee Composition, ICAB Scheduled Audit Fee, AC Expertise, Audit Partner, AC Meeting, Audit-client Complexity, AC Board member, Sponsor SH%, Foreign Sponsor Director, Big4

b. Dependent Variable: Audit Fee

Table 4 describes the model and shows that the value of R^2 is 0.545, which can explain the model at 54.5% of the audit quality variation with the effects of the audit firm characteristics and audit committee influence. Durbin-Watson test value 1.97is acceptable, and it indicates that there is no auto-correlation influence on regression analysis. The value of variance inflation factors (VIF) presentedin Table 5 is less than 3. The values suggest that there is no multicollinearity influence onregression analysis.

4.3 Regression Analysis

The regression results of the analysis have been reported in Table 5. The estimated results of the coefficient on ICAB audit fees are statistically significant and positive at the model's 0.05 level. The result directs positive impacts on high audit fees paid to the auditors for high audit quality. The selection of Big 4 audit firms and auditor change also significantly impacts the high audit fee paid to the auditors. Thus acceptance of the hypothesis *H1, H2*, and *H4* are proved, which indicates that the audit firm characteristics of ICAB audit fee, Big 4 audit firm, and audit partner are significantly related to the payment of the level of audit fees to the auditor for a high-quality audit. But, auditor change has no significant value and is negatively correlated with audit fees. So, we reject the hypothesis *H3*, which indicates that the change of auditor has a negative impact on the audit fee payment for high audit quality.

The coefficient results of audit committee independence and audit committee expertise on financial reporting are positive and statistically significant at the 0.05 level. Thus, the hypothesis regarding the audit committee independence *H6* and audit committee expertise on financial reporting *H7* are accepted, indicating that audit committee independence and audit committee expertise on financial reporting impact the audit fees payment for high audit quality. The coefficient of an audit committee member is negatively correlated and not statistically significant. Besides, the audit committee meeting is not statistically significant. So, we reject the hypothesis *H5* and *H8,* which indicate that the audit committee member and audit committee meeting have no significant impact on the audit fee payment.

Table 5: Regression Results

	Unstandardized Coefficients		Standardized Coefficients	t-statistics	Sig.	Collinearity Statistics	
	β	Std. Error	β			Tolerance	VIF
Constant)	.332	.138		2.405	.016		
ICABFees	.569	.040	.460	14.130	.000	.718	1.392
Big 4	.098	.036	.096	2.701	.007	.602	1.660
AChange	-.042	.024	-.048	-1.729	.084	.988	1.012
APartner	.027	.007	.117	3.918	.000	.857	1.167
ACmem	-.299	.172	-.055	-1.734	.083	.748	1.338
ACInd	.066	.025	.077	2.639	.008	.885	1.130
ACExpert	.070	.024	.083	2.938	.003	.947	1.055
ACMeetting	.154	.101	.044	1.521	.129	.916	1.092
ACCom	.042	.026	.047	1.638	.102	.938	1.067
ForSponDir	.175	.044	.138	3.986	.000	.634	1.578
SponSH%	.000	.001	.015	.485	.628	.770	1.298
AudComplx	.042	.027	.049	1.559	.119	.777	1.287
ROA	.006	.002	.100	3.063	.002	.711	1.407

Among the control variables, the coefficients of foreign sponsor director*s* and return on assets are positive and significant at the 0.05 level. This indicates that foreign sponsor director*s* and return on assets influence high audit fee payment. However, the coefficient of audit committee composition, sponsor shareholders percentage, and audit complexity is positive but statistically insignificant. Thus, the audit committee comprised of the executive directors may impair the audit committee's independence. So, they do not recommend to pay high audit fees. Sponsor shareholders and audit-clients complexity also do not recommend to pay high audit fees.

With the change of the corporate governance guidelines and the introduction of ICAB's fees schedule, the average audit fee paid to the auditors has increased significantly. The estimated used in the study, audit firm's characteristics and audit committee factors have a significant and positive impact on audit fee payment. Karim (2010) showed that the average audit fee paid by DSE-listed companies in 1991 was Tk. 40,932, and it was increased to Tk. 78,027 in 2003. The amount of audit fees has increased, but the increase rate is lower with the change of inflations and increase of the client's assets or revenue (Karim, 2010). The study finds that the average audit fee payment to the auditor has increased by Tk. 1,12,010 after the adoption of the ICAB fee schedule. The average audit fees received by the audit firms are only 23.79% of ICAB's scheduled audit fees. Hence, the matter of concern is that only 9 firm-year observations have complied with the minimum fee schedule.

5. Conclusion

The study results find that both the audit firm characteristics and board audit committee factors significantly influence the audit fees payment. However, the audit fees paid to the auditors are too low to provide a high-quality audit. The study results do not support economic bonding theory or audit effort theory for providing quality audit. Hence, audit-clients have the greater bargaining power to employ auditors at low audit fees. It may impair audit independence and decrease audit quality. So, government regulators and professional accounting bodies' rules and guidelines should be strictly followed to pay the proper audit fees for a high-quality audit.

The findings of this study have several important implications for the audit market regulation in Bangladesh. The average audit fee received by the audit firms has largely deviated from ICAB's scheduled minimum audit fees. The appointment of Big 4 audit firms and large-sized audit firms significantly influences audit fee payment. But, the audit committee factors have less influence than the audit firm characteristics. Listed companies should increase the number of audit committee members, appoint independent committee members with financial reporting expertise. Chairman of the board, chief executive officer, chief financial officer, or other executive directors should not be a member of the audit committee.

The study has some limitations. Firstly, the study has used only audit fees as the audit quality measurement proxy, but the other proxies should also be used for further research. Secondly, financial companies should also be included and compared in future research. Third, non-listed companies' audit quality is also a matter of concern for the accounting information users and the regulators. So, it should be investigated in future research.

Acknowledgments

This article is a part of a Ph.D. dissertation. Researchers would like to thank the University Grants Commission of Bangladesh (UGC) for the financial support provides under the Ph.D. fellowship program.

6. References

Akhtaruddin, M., & Haron, H. (2010). Board Ownership, Audit Committees' Effectiveness, and Corporate Voluntary Disclosures. *Asian Review of Accounting, 18*(3), 245-259. doi:10.1108/13217341011089649

Blankley, A.I., Hurtt, D.N. and MacGregor, J. (2012), "Abnormal audit fees and restatements", Auditing: A Journal of Practice & Theory, 31(1), 79-96.

Bradbury, M. E. (2017). Large audit Firm Premium and Audit Specialisation in the Public Sector. *Accounting and Finance, 57*(3), 657-679. doi:10.1111/acfi.12167

Carmona, P., & Momparler, A. L. (2015). The Relationship between Non-Audit Fees and audit Quality: Dealing with the Endogeneity Issue. *Journal of Service Theory and Practice*, 777-795. doi:10.1108/JSTP-07-2014-0163

Chowdhury, M. M. (2018). Bank Audit Fees and ICAB Fee Structure – A Comparative Study. *The Bangladesh Accountant,*(April-June), 44-47.

Choi, J.H., Kim, J.B. and Zang, Y. (2010), "Do abnormally high audit fees impair audit quality?",
Auditing: A Journal of Practice & Theory, 29(2), 115-140.

Comunale, C. L., & Sexton, T. R. (2005). Mandatory Auditor Rotation and Retention: Impact on Market Share. *Managerial Auditing Journal, 20*(3), 235-248. https://doi.org/10.1108/02686900510585582

DeANGEL, L. E. (1981). Auditor Independence, 'Low Balling', and Disclosure Regulation. *Journal of Accounting and Economics, 3*(2), 113-127.

DeFond, M., & Zhang, J. (2014). A Review of Archival Auditing Research. *Journal of Accounting and Economics, 58*, 275–326. http://dx.doi.org/10.1016/ j.jacceco.2014.09.002

Deloitte Enters Bangladesh | Deloitte Bangladesh | About Deloitte | Press Release". Deloitte Bangladesh. (2020). https://www2.deloitte.com/bd/en/pages /about-deloitte/articles/deloitte-enters-bangladesh.html.

Eshleman, J. D., & Guo, P. (2014). Do Big 4 Auditors Provide Higher Audit Quality after Controlling for the Endogenous Choice of Auditor? *AUDITING: A Journal of Practice & Theory, 33*(4), 197-219. https://doi.org/10.2308/ajpt-50792

EY. (2015). HYPERLINK "https://www.ey.com/en_gl/locations/bangladesh" https://www.ey.com/en_gl/locations/bangladesh . (accessed 22 April, 2020)

Ghafran, C., & O'Sullivan, N. (2017). The Impact of Audit Committee Expertise on Audit Quality: Evidence from UK Audit Fees. *TheBritish Accounting Review*, 578-593. https://doi.org/10.1016/j.bar.2017.09.008

Hoitash, R., Markelevich, A., & A. Barragato, C. (2007). Auditor Fees and Audit Quality. *Managerial Auditing Journal, 22*(8), 761-786. doi:10.1108/02686900710819634

IACB. Circular (List of Members and Firms for 2018-19). published on 21 October 2018. (accessed October 10, 2019). http://www.icab.org.bd/ webNewsEventNoticeCir/view/427578.

ICAB, Annual report 2018. (accessed October 10, 2019). HYPERLINK "http://icb.gov.bd/pdf/ICB_annual_" http://icb.gov.bd/pdf/ICB_annual_ report_2017-2018.pdf.

Imam, S., Ahmed, Z. U., & Khan, S. H. (2001). Association of Audit Delay and Audit Firms' International Links: Evidence from Bangladesh. *Managerial Auditing Journal, 16*(3), 129-133.

Jackson, A. B., Moldrich, M., & Roebuck, P. (2008). Mandatory audit firm rotation and audit quality. *Managerial Auditing Journal, 23*(5), 420-437. https://doi.org/10.1108/02686900810875271

Jung, S.-J., Kim, B.-J., & Chung, J.-R. (2016). The Association Between Abnormal Audit Fees And Audit Quality After IFRS Adoption: Evidence from Korea. *International Journal of Accounting and Information Management*, 252-271.

Kabir, M. H., Divesh, S., Islam, M. A., & Amirus, S. (2011). Big 4 Auditor Affiliation and Accruals Quality in Bangladesh. *Managerial Auditing Journal*, 64.

Karim, A. W. (2010). Audit Pricing, Audit Concentration, and Big-4 Premium in Bangladesh. http://dx.doi.org/10.2139/ssrn.1613454

Karim, A. W., & Hasan, T. (2012). The Market for Audit Services in Bangladesh (2012), pp. 50-66. *Journal of Accounting in Emerging Economies, 2*(1), 50-60. doi:10.1108/20421161211196120

Karim, A. W., & Zijl, T. v. (2013). Efficiency and Opportunism in Auditor Quality Choice in Emerging Audit Services Markets the Case of Bangladesh. *International Journal of Accounting and Information Management, 21*(3), 241-246. doi:10.1108/IJAIM-08-2011-0027

Khan, A., Mihret, D. G., & Muttakin, M. B. (2016). Corporate Political Connections, Agency Costs and Audit Quality. *International Journal of Accounting & Information Management, 24*(4), 357-374. doi:10.1108/IJAIM-05-2016-006

Khan, A., Muttakin, M. B., & Javed, S. (2015). Audit Fees, Auditor Choice and Stakeholder Influence: Evidence From a Family-Firm Dominated Economy. *The British Accounting Review*, 15. http://dx.doi.org/10.1016/j.bar.2015.03.002

Kitiwong, W., & Srijunpetch, S. (2018). Auditor Choices and Audit Fees: Do Clients Select Their Audit Firms or Do Audit Firms Choose Their Clients? *Journal of Accounting Professions*, 107-128.

Lin, Y.-C. (2018). The Consequences of Audit Committee Quality. *Managerial Auditing Journal, 33*(2), 192-216. https://doi.org/10.1108/MAJ-03-2016-1350

Muttakin, M. B., Khan, A., & Mihret, D. G. (2017). Business Group Affiliation, Earnings Management and Audit Quality: Evidence from Bangladesh. *Managerial Auditing Journal, 32*(4/5), 427-444. https://doi.org/10.1108/02686900510585582

Nurunnabi, M., Karim, A. W., & Norton, S. (2011). The Perceived Need for and Impediments to Achieving Accounting Transparency in Developing Countries: A Field Investigation on Bangladesh. *Int. J. Managerial and Financial Accounting, Vol. 3*(No. 1), 35.

PhamNgoc, K., Duong, H. N., Quang, T. P., & Thuy, N. H. (2017). Audit Firm Size, Audit Fee, Audit Reputation and Audit Quality: The Case of Listed Companies in Vietnam. *Asian Journal of Finance & Accounting, 9*(1), 429-447. doi:10.5296/ajfa.v9i1.10074

Rahmina, L. Y., & Agoes, S. (2014). Influence of Auditor Independence, Audit Tenure, and Audit Fee on Audit Quality of Members of Capital Market Accountant Forum in Indonesia. *International Conference on Accounting Studies* (pp. 324-331). Procedia - Social and Behavioral Sciences. doi:10.1016/j.sbspro.2014.11.083

Report, Star. "Pwc Launches Bangladesh Subsidiary". The Daily Star. (2015). https://www.thedailystar.net/business/pwc-launches-bangladesh-subsidiary-162877.

Report, World Bank. Bangladesh: Report on the Observance of Standards and Codes (ROSC) - Accounting and Auditing (Dhaka: Progressive Printers Pvt. Ltd, 2015).

Saifuddin, M., & Mohasin, M. (2016). Determinants of Audit Fees: An Empirical Study on Listed Bangladeshi Companies. *Independent Business Review, 9*(1), 116-131.

Zaman, M., Hudaib, M., & Haniffa, R. (2011). Corporate Governance Quality, Audit Fees and Non-Audit Services Fees. *Journal of Business Finance & Accounting, 38 (1)*(2), 165-197. doi:10.1111/j.1468-5957.2010.02224.x

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 96-113 (Printed in January, 2021)

Customers' Bank Selection Determinants: A Study on Selected Commercial Banks in Bangladesh

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Abstract

This research explores the determinants of bank selection for commercial bank customers in Bangladesh. The motivation behind undertaking the study is to see if the attributes of bank settings found in the context of long-term prevailing bank services under previous undeveloped Bangladesh also hold in a similar context in faster growing developing economy. Exploratory factor analysis has been employed to examine the factors with a sample of 350 bank customers as respondents chosen from selected commercial banks using a purposive sampling method in November, 2017. Data has been analyzed under the statistics of inferential analysis consisting of t-test, Pearson correlation analysis and regression analysis. It has also considered ANOVA one-way t test to determine the significant relationship between dependent and independent variables. Findings have confirmed that the attributes of convenience, service quality, price of products and services, security, and technology do impact to the bank selection in the commercial banking sector of Bangladesh with somewhat variation in its variables. The results also show that all the independent variables are more or less positively correlated with bank selection except price of products and services. The findings have significant implications for bank managers as they can use these in developing future banking strategies.

Keywords: *Bank Selection, Bangladesh*, *Commercial Banks, Determinants, Exploratory Factor Analysis.*

1. Introduction

The banking industry in Bangladesh is highly competitive with a mixed banking system comprising State-owned Commercial Banks (SCBs), Specialized Commercial Banks (SCBs), Private Commercial Banks (PCBs), Foreign Commercial Banks (FCBs), Non-schedule Banks (NSBs), Specialized Financial Institutions (SFIs) and Non-bank Financial Institution (NFIs).Among this financial system, commercial banking sector is considered as a crucial financial intermediary that ensures of rendering a bundle of different services

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like domestic resource mobilization, generation of savings, and investments. There are currently operating 60scheduled public and private commercial banks in Bangladesh and they are offering different products and services. But very few basic differences are found among them in terms of service rendering. Thus, the competitions among them are increasing day by day and marketing of financial products is now becoming an important concern. In the process of conducting its own activities to achieve its goal, i.e making profit, a commercial bank basically gives services to three main parties-(a) depositors, (b) borrowers and (c) the nation as a whole. It is the normal functions of commercial banks to collect savings from general public and to re-channelize the savings to the productive sectors in the form of loans and advances. Thus, in the course of its activities, a bank has to come in contact with two main groups of people-(1) suppliers of funds and (2) users of funds. Both these groups of people are known as customers in the banking sector (Ghosh, Sukladas & Ahmed, 1981).A commercial banker, to become successful in his own business, must try to attract both the groups of people –(1) Suppliers of funds and (2) Users of funds. In a competitive economy and also a controlled economy, it is expected that customers should consider certain factors before selecting banks. If the bank management comes to know the factors which influence customers to select a bank (both depositors and borrowers), they might have tried to improve those factors in relation to their banks' settings in order to make their banks more attractive. So, the concern of how customers choose banks has been given considerable attention in an increasingly competitive environment by researchers today.

1. Review of the Literature

The concern of how customers choose banks has been given considerable attention of researchers (for example: Anderson et al. 1976; Evans 1979; Ghosh, S. N., Sukladas, J. C., & Ahmed, M. 1981;Kaynack and Yavas 1985; Denton and Chan, 1991; Khazeh, K., & Decker, W. H. 1993; Boyd et al., 1994; Hegazi 1995; Metawa&Almossawi, 1998; Cronin, Brady, &Hult, 2000); . Exploring such information is assisting banks to recognize the appropriate marketing strategies needed to attract new customers and retain existing ones (Kaynak and Kucukemiroglu, 1992).

Consequently, some researchers (for example:Almossawi 2001; Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. 2005; Omer and Orakwue 2007; Blankson et al., 2007; Rehman and Ahmed 2008; Kamakodi and Khan 2008; Mokhlis, Mat and Salleh 2008; Mokhlis, 2009; Khawaja &Manarvi 2009; Rashid, Mamunur. and M. Kabir Hassan 2009; V. Peer 2009; Rao and Sharma 2010; Rashid, M., Bhuiyan, A. B., & Nishat, A. 2012; Parvin and Perveen, 2013; Hinson, R., Osarenkhoe, A., &Okoe, A. F.2013; Alam, Z. M. and Rana, S.S.M. 2013; Zulfiqar, Arshad, Fareed, Shahzad, & Hussain 2014; Lee, K. S., Yeoh, S. H., Ng, Z. C., Wang, Y., & Gan, T. W. 2015; Ali, M.M. and Khan, M.M.H. 2016) have also made their interest in the study on the burning issue of "how customers select banks". Such studies have contributed substantially to the literature on customer bank selection. It also notes that these findings may not be applicable to other countries due to have differences in culture, demographics, economic conditions, technological and

legal environments. So, a set of factors to bank choice that have a significant role in selecting bank to one nation may prove to be insignificant in another, Rao & Sharma (2010). It means that same marketing mix or strategies (blending of marketing mix) can not be applicable to another country for customer satisfaction and loyalty.

2.2 Rationale of the Study

A bank can differentiate itself from competitors by providing higher quality services. So, bank management must be aware of the attributes of bank settings and should improve its marketing mix according to customers' distinct needs that can increase customer attraction and retention. As a service-oriented organization, banks are challenged with the factorslike intangibility, inseparability, heterogeneity and perish ability which makes them complex to be compared with other banks by the customers. Consequently, bank management or executives must have to envisage a number of distinct marketing challenges for example:1. Advertise a bank service that no one can see (as compared to goods); 2. Price a bank service that has no cost of goods sold (as compared to goods); 3. Inventory a bank service that cannot be stored (as compared to goods); 4. Mass merchandise a bank service that needs to be performed attracting a great deal number of customers (as compared to goods). So, the management of a bank must know the exact bank selection factors and the impact of marketing mix (actually the blending of the elements of 7 Ps) that are guiding the customers to be loyal to their banks. It provides different kinds of benefits like repeat sales, more frequent sales, increased sales, positive word-of-mouth communications, and insulation from price competition, pleasant work environments for employees. The findings of the study can carry significant managerial implications for bank managers. It should help bankers to develop more precise, targeted marketing strategies in order to attract a larger number of customers and retain them with better cater to the needs of both current and potential customers.

2.3 Objectives of the Study

The research is conducted to pursue the salient objective:

To understand the commercial bank customers' actual needs and wants in Bangladesh

This objective is followed by some associated objectives:

1. To identify the factors that influence bank selection behavior for commercial bank customers.
2. To measure the relationships of the attributes of bank settings with bank selection for commercial banks' customers
3. To provide recommendations to find out appropriate marketing strategies for the commercial banks of Bangladesh.

2.3 Hypotheses

This study has drawn the following hypotheses to be investigated:

H_1: There is a positive relationship between convenience and bank selection.

H_2: There is a positive relationship between service quality and bank selection.

H_3: There is a negative relationship between price of products and services, and bank selection.

H_4: There is a positive relationship between security and bank selection.

H_5: There is a positive relationship between technology and bank selection.

2. Methodology

This study is quantitative in nature and has been undertaken to identify the factors that have impact on bank selection behavior for the customers of selected commercial banks in Bangladesh. Purposive sampling technique has been applied for drawing the sample. The logic behind to choose this sampling is for the time frame and costs constraints. It also provides a good judgment to choose the sample.

The respondents of the study are comprised of both public and private commercial bank customers in Bangladesh. Four(04) public and twenty-one(21) private commercial banks have been chosen for this study. These representative bank shaving at least 100 branches each (04 public and 21 private commercial banks)have been considered on the basis of its bank branches which poised almost the total selected number of branches between public and private commercial banks (95 branches). In this study, it has been allocated 350 samples among 95 branches of all selected commercial bank customers proportionately in November 2017.The questionnaires are organized into three parts as follows: The first part of the questionnaire sought to obtain information relating to banking behavior, second part designed for demographic information of the respondents and the last part of the questionnaire asked respondents to rate the relative importance to the twenty five (25)variables to have been reviewed the literature that customers perceive as important attributes under five factors and have significant impact on choosing banks. They are measured on a five-points Likert type scale ranging from 1 (not important at all) to 5 (most important).This study has been conducted under the statistics of inferential analysis. Inferential analysis consists of t-test, Pearson correlation analysis and regression analysis. It has also considered ANOVA one-way test to examine the significant relationship among the variables of bank settings and customer bank selection. In this research bank selection is a dependent variable and the variables of- convenience, service quality, price of product and service, security, and technology are independent variables.

3. Findings of the Study (Analysis of Results and Interpretation)

The demographic characteristics of the respondents reveal that the majority of the respondents are male (75.1%) and only 24.6% of the respondents are female. The age level of 2.9% respondents is between 18 and 21 years, 31.7% between 21 and 30 years, 41.4% between 31 and 40 years and 24% between 40 to above.

Table-01

Frequency Distribution of Major Demographics and Banking Behavior Profile of the Respondents

Characteristics	Category	Frequency	Percent
Gender	Male	263	75.1
	Female	86	24.6
	Others	1	.3
	Total	350	100.0
Age	18-21 Years	10	2.9
	21-30Years	111	31.7
	31-40Years	145	41.4
	40+ Years	84	24.0
	Total	350	100.0
Education Status	Self-educated	7	2.0
	Below SSC	28	8.0
	HSC	70	20.0
	Graduate	136	38.9
	Post Graduate	104	29.7
	Others	5	1.4
	Total	350	100.0
Job Status	Public Sector	80	22.9
	Private Sector	108	30.9
	Self Employed	83	23.7
	Semi-government Agency	9	2.6
	Wage Earners	9	2.6
	Student	35	10.0
	Others	26	7.4
	Total	350	100.0
Monthly Income	Less than 10000 Tk.	61	17.4
	Tk. 10000-40000	187	53.4
	Tk. 41000-100000	89	25.4
	Above 100000	13	3.7
	Total	350	100.0
Types of Bank use	Public Bank	156	44.6
	Private Bank	194	55.4
	Total	350	100.0

Source: Field Survey, November 2017

Maximum respondents are well educated. Here, 38.9% has passed graduation level, 29.7% are post graduate, 20 % HSC level and only 8% falls into below SSC level. The percentage of self-educated and others category is 2% and 1.4% respectively. From the above table it is noticed that private bank respondents are the most that is 194 out of 350 respondents counting in percentage 55.4%. On the other hand, public bank respondents are 156 out of 350 respondents which are in percentage 55.4%. Most of the respondents (53.4%) earn monthly Tk. 10,000-40000. Only 3.7% customers among the total respondents earn highest level of income (above 100000). This survey has also showed that 30.9% sample is from private sector which is highest. Public sector job status is 22.9% and gradually followed by self-employed, students, others, wage earners, semi-government agency.

4.1 Reliability Analysis

Reliability test is used to measure the variables consistency. In this research the reliability test has been measured by using Cronbach's Alpha. In the following Table, reliability of the collected data has been calculated by considering Cronbach's alpha. Cronbach's alpha is widely believed to indicate the degree to which a set of items measures a dimensional latent construct. Cronbach's alpha is generally increased as the inter co-relations among test items are increased. The inter co-relations among test items are maximized when all items measure the same construct. The following test showed that Cronbach's Alpha of 6 factors including bank selection as dependent variables is above the limit of 0.50 which is good enough for reliability.

Table-02

Reliability Test

	Test Actual
Convenience	0.523
Service Quality	0.755
Price of products and services	0.694
Security	0.682
Technology	0.849
Bank Selection	0.649

4.2 Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA) for individual variance is studied and it reveals that there is sufficient correlation among all the variables. To test the sampling adequacy Kaiser-Meyer-Olkin MSA is computed which is found to be 0.829 and it indicates that sample is good enough (Rao & Sharma) and can be used for further analysis. The overall significance of correlation matrices is tested with Bartlett's Test of sphericity that indicates significant high correlation among the variables with Approx. Chi-Square2003.326and 153degree of freedom at 5% level of significance. It provides the support for the validity of the factor analysis of the data set.

Table-03
Rotated Component Matrix

	Factors	Variables/Items	Components				
			1	2	3	4	5
Customer Bank Selection	Technology	Q-21	.824				
		Q-23	.799				
		Q-22	.787				
		Q-24	.731				
	Service Quality	Q-6		.749			
		Q-7		.685			
		Q-8		.651			
		Q-9		.624			
		Q-10		.621			
	Price of Products and Services	Q-11			.814		
		Q-13			.728		
		Q-12			.696		
	Security	Q-16				.814	
		Q-17				.786	
		Q-19				.661	
	Convenience	Q-2					.655
		Q-1					.618
		Q-4					.612
Eigen Value			5.164	1.795	1.566	1.437	1.115
Variance Explained (%)			16.113	13.698	11.714	10.630	9.384
Cronbach Alpha			0.523	0.755	0.694	0.682	0.649
KMO			.829				

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.a

a. Rotation converged in 6 iterations.

Factor analysis, a reduction technique, is conducted with varimax rotation. The twenty-five variables are loaded for the analysis with Eigen value greater than 1. The Eigen values represent the variation of the multivariate samples. The sum of the principal components analysis is done by correlation matrix. Eigen values for five factors are5.164, 1.795, 1.566, 1.437 and 1.115. The total cumulative variation is explained by the factor analysis of 61.540 percent. It means that more than 61% of the variance of the variables are being captured by the five extracted factors together. These are for factor 1 (**Technology**), for factor 2 (**Service Quality**), for factor 3 (**Price of Products and Services**), for factor 4 (**Security**), and for factor 5 (**Convenience**) respectively.

4.3 Pearson Correlation Analysis

Pearson Correlation is used to determine the relationship between any two variable or more in which they vary across a period. Correlation can vary from +1 to -1, where values close to +1 are highly correlated while values close to -1 are lowly correlated.

Table-04
Pearson Correlation Analysis

	V1	V2	V3	V4	V5
Pearson Correlation	0.427**	0.497**	-0.209**	0.345**	0.552**
Sig.(2-tailed)	0.000	0.000	0.000	0.000	0.000
N	350	350	350	350	350

**. Correlation is significant at the 0.01 level (2-tailed).

The above table of Pearson Correlation Analysis shows that V5 (technology) have the highest correlation (p = 0.552) while V2 (Service quality) and V1 (Convenience) have almost average correlation of (p = 0.497) and (p = 0.427) respectively. V4 (Security) have a rather low correlation (p = 0.345) but V3 (price of products and services) have negative correlation (p = -0.209). Overall, the Pearson Correlation result shows that all the independent variables are more or less positively correlated with bank selection except price of products and services.

Table-05
Regression F-values

Model		Sum of squares	Degree of freedom	Mean Square	F-value	Sig.(2tailed)
1	Regression	29.916	5	5.983	49.265	.000b**
	Residual	41.778	344	.121		
	Total	71.694	349			

a. Dependent Variable: Bank Selection

b. Predictors: (Constant), Convenience, Security, Price of Products and Services, Service Quality, Technology

** Significant at 5 percent level

The value of F-test in this model is 49.2651, which indicates high F-value. But, the p-value .000b (b=Predictors: Constant), of Convenience, Security, Price of Products and Services, Service Quality, Technology are less than 0.05 (5% level of significant) indicates that there is at least one independent variable influence the bank selection criteria. As a result, we can reject all of the null hypothesis and conclude that bank selection criteria have significant relationship with convenience, service quality, price of products and services, security and technology.

Table-06
ANOVA one-way T-test

	F-Value	Bank Selection Sig. (2-tailed)
Convenience	9.261	.000**
Service Quality	10.360	.000**
Price of products and services	3.645	.000**
Security	4.047	.000**
Technology	13.607	.000**

** Significant at 5 percent level

4.3.1 Relationship between convenience and bank selection

Based on the findings of ANOVA one-way t-test (Table-6), the relationship between convenience and bank selection has a p-value of 0.000 (less than $\alpha = 0.05$). This represents that there isa significant relationship between convenience and bank selection. Therefore, convenience is one of the most important factors to the bank consumers. Consumers would sacrifice money in order to saving time. Zineldin (1996) claimed that the convenient location of bank might not have much influence on the decision of choosing a bank by customers. However, the result is consistent with the findings of Hinson et al. (2013). They showed that a convenient service and location will have better edge against other competitors in the market.

4.3.2 Relationship between service quality and bank selection

In this paper, the relationship between service quality and bank selection has a p-value of 0.000 (less than $\alpha = 0.05$) that represents a significant relationship towards consumers preference on their bank selection (Table-6). Therefore, a better and higher quality of service provided by the banks will give positive influences and satisfaction to their customers. It will increase customer loyalty because products and services provided by the banks are almost identical. Only the quality of service can gain competitive advantages over others. The findings of this research are consistent with Clemes et al. (2007) where service quality is one of the most important increasing factors for success and survival in the banking industry. Besides, some researchers show that decision of a bank selection by customers can also be explained on the basis of the range and quality of services provided by banks (Poh, 1996; Thwaites and Vere, 1995).

4.3.3 Relationship between price of products and services and bank selection

The p-value (Table-6) relating to the relationship between price of products and services and bank selection is less than $\alpha = 0.05$. This represents that there is a significant relationship between price of products and services with bank selection. It indicates that price perception will have a direct effect on customer decision of bank selection criteria. From a view point of the customers, price is something to be sacrificed to obtain certain

kinds of product or services, Zeithaml (1996). Generally, price plays an important role to giving a reasonable amount of charges in their products or services to retain and attract consumers. The result is consistent with Clemes et al. (2000). The impact of price of products and services would affect the relationship among customer satisfaction, switching behavior and bank selection.

4.3.4 Relationship between security and bank selection

According to the findings in this paper (Table-6), the relationship between security and bank selection has a p-value of 0.000 (less than $\alpha = 0.05$). It indicates that there is significant relationship between security and bank selection. Generally, the security of a bank improves its reputation, trust and reliability. It also creates a secure feeling to do more transaction with banks for the satisfied customers. The result is consistent with Saleh, Rosman, & Nani, (2013), where consumers would prefer to have accounts in the banks that provide better security. As a result, they feel secured of their money. In addition, some researchers also finds that there is a positive relationship between bank security and decision to select a bank by customers (Hinson, Osarenkhoe, and Okoe 2013).

4.3.5 Relationship between technology and bank selection

With reference to the findings (Table-6), the relationship between technology and bank selection has a p-value of 0.000 (less than $\alpha = 0.05$). It represents that there is a significant relationship between technology and bank selection. It shows that technology brings a wide range of alternative delivery mechanism such as Internet, ATM that creates a better competitive advantage in the economy and ease of access to bank information. It changes the consumer perception on how to search and access to banking service more. As a result, they are more relied on using various technologies that often brings convenience in their daily life. The result is consistent with Dangolani (2011)- customers believe that technology has a meaningful effect to save time for their banking.

4. Recommendations and Conclusions

Bangladeshi banks are now operating under a more competitive financial atmosphere and rendering a wider range of financial services with variety of entice strategies. Various banks are working to stay ahead of their competitors by providing efficient services to customers. This study has investigated the factors of bank selection for the commercial bank customers in Bangladesh. As a study related to identifying factors of the customers of commercial banks, this study has become very important both theoretical and practical point of view. Practically, the findings of the study will assist the management of the banks to making financial and marketing strategies which will be fruitful to increase attraction and retaining existing customers. Hence, the management of banks should be able to address with intense care to these factors while making strategies. Based on the findings of the study, it adds the following recommendations.

- Banks must consider market segmentation according to the distinct bank selection criteria of the customers.

- Bank should use more physical cues that can help banks to create positive image. It confirms the firm's offers and to facilitate mutual price evaluation by the customers. The important elements of physical settings are: -Ambience: the ambience of physical setting includes temperature, lighting, noise, music, scent and color; Space: people need space around them to feel comfort; Decors and artifacts: sign, symbol and artifacts are important component of décor. It should be increased according to customer needs.

- In bank, people may play an important role by adopting the best practices. In the banking activities every service is linked with the customers. Hence to promote the products and business, it is essential to maintain the proper relations with customers. Therefore, the factors such as customer participation, degree of customer contact, location of service delivery (place) and complexity of services should consider while the bank service is designed and implemented.

- Process of rendering service is an important matter for service-oriented organization especially in banking service. Bank service is perishable which means it cannot be stored, inventoried for reuse or returned. So, the procedure, mechanisms or flows of activities by which the service is delivered to the customer should be easy, comfortable and hassle free. Because, the right process, procedure, mechanisms or flow of service activities improves the high experience of customer to the service and stands in the customer's point of view. So, the right process, procedure, and mechanisms should be designed for the customer's convenience.

The major limitation of this study is that it merely identifies the factors of customers' bank selection without establishing their relationship with different variables. It may affect them either favorably or unfavorably. Besides, the area of the study is too scattered to reach conveniently for gathering information within the specified time period and opportunity. Moreover, many respondents are skeptical about the motive of this study. Some of them may not have given authentic data that may reduce the acceptability of the study. So, the future research in this area may be done on the basis of these issues.

References

Alam, Z. M. and Rana, S.S.M. (2013). Customers' attitudes towards retail chain store services in Bangladesh-A compative study between retail chain stores and small retail stores. *Journal of Social Science and Business Studies*, Rajshahi University, Bangladesh.

Ali, M.M. and Khan, M.M.H. (2016). Impact of Product, Price and Services on Customer Satisfaction of Retail Chain Stores in Bangladesh: A Study on Agora Superstore. *Journal of Business Studies*, Dhaka University, Vol. XXXII, No. 2, pp. 63-80.

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

Anderson, W. T., Cox, E. P., & Fulcher, D. G. (1976). Bank selection decisions and market segmentation. *Journal of Marketing*, 40(1), 40-45.

Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2005). *Bank-specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability*.

Blankson, C., Ming-sung, C. J. and Spears, N. (2007). Determinants of banks selection inUSA,Taiwan and Ghana. *International Journal of Bank Marketing,* 25(7), 469-489.

Boyd, W. L., Leonard, M., & White, C. (1994). Customer preferences for financial services: an analysis. *International Journal of Bank Marketing,* 12(1), 9-15.

Clemes, M., Mollenkopf, D., & Burn, D. (2000). An investigation of marketing problems across service typologies. *Journal of services Marketing*, 14(7), 573-594.

Cronin, J. J., Brady, M. K., &Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of retailing*, 76(2), 193-218.

Dangolani, S. K. (2011). The Impact of information technology in banking system (A case study in Bank Keshavarzi IRAN). *Procedia-Social and Behavioral Sciences*, 30, 13-16.

Denton, L., & Chan, A. K. (1991). Bank selection criteria of multiple bank users in Hong Kong. *International Journal of Bank Marketing*, 9(5), 23-34.

Evans, R. H. (1979). Bank selection: it all depends on the situation. *Journal of Bank Research*, 12(243), 9.

Ghosh, S. N., Sukladas, J. C., & Ahmed, M. (1981). Choice of Banks, Customers' Service, and Credit Policy: AStudy of the Consensus Among Bank Executives, Depositors, and Borrowers of Nationalised CommercialBanks of Bangladesh: a Survey of Commercial Bank Branches in Dacca City.*Bureau of Business Research*,University of Dacca.

Haron, S., Ahmad, N., &Planisek, S. L. (1994). Bank patronage factors of Muslim and non-Muslim customers. *International Journal of Bank Marketing*, 12(1), 32-40.

Hegazy, I. A. (1995). An empirical comparative study between islamic and commercial banks'selection criteria in Egypt. *International Journal of Commerce And Management*, 5(3), 46-61.

Hinson, R., Osarenkhoe, A., &Okoe, A. F. (2013). Determinants of bank selection: a study of undergraduate students in the University of Ghana. *Journal of Service Science and Management*, 6(3), 197-205.

Kamakodi, N., & Khan, M. B. A. (2008). Customer expectations and service level in e-banking era: an empirical study. *The IUP Journal of Bank Management*, 7(4), 50-70.

Kaynak, E., &Kucukemiroglu, O. (1992). Bank and product selection: Hong Kong. *International Journal of Bank Marketing*, 10(1), 3-16.

Kaynak, E., &Yavas, U. (1985). Segmenting the banking market by account usage: an empirical investigation. *Journal of Professional Services Marketing*, 1(1-2), 177-188.

Khawaja, K. F., &Manarvi, I. (2009, July). Evaluating customer perceptions towards ATM services in financial institutions; A case study of Pakistani Banks. In Computers & Industrial Engineering, 2009. CIE 2009. *International Conference* on (pp. 1440-1445). IEEE.

Khazeh, K., & Decker, W. H. (1993). How customers choose banks. *Journal of Retail Banking*, 14(4), 41-45.

Kotler, P. (1997). "Marketing management. Analysis, Planning, Implementation and Control", 9th Edition, Prentice Hall, India.

Lee, K. S., Yeoh, S. H., Ng, Z. C., Wang, Y., & Gan, T. W. (2015). Factors that influence the consumer behavior on choices of local commercial bank for banking products and services in Perak (Doctoral dissertation, UTAR).

Lovelock, C & Wright, L. 2001. Principle of Service marketing and Management. Prentice Hall.

Martinez-Ruiz, M., Jimenez-Zarco, A.I., and Yusta, A.I. (2010). Customer satisfaction's key factors in Spanishgrocery stores: evidence from hypermarkets and supermarkets.*Journal of Retailing and Customer Services*, Vol. 17, pp. 278-285.

Metawa, S. & Almossawi, M. (1998). Customer Satisfaction with Bank Service A Multidimensional Space Analysis. *International Journal of Bank Marketing*, Vol. 7. No. 5, pp. 23.

Mokhlis, S., Mat, N. H. N., & Salleh, H. S. (2008). Commercial Bank selection: the case of undergraduate students in Malaysia. *International Review of Business Research Papers*, 4(5), 258-270.

Mokhlis, S. (2009). Relevancy and measurement of religiosity in consumer behavior research. *International Business Research*, 2(3), 75.

Omar, O., &Orakwue, E. (2007). Gender-based choice of retail banking in Nigeria. *Journal of Business & Retail Management Research (JBRMR)*.

Parvin, A., &Perveen, R. (2013). Commercial Bank Selection Process Used by Individual Customers: Factor Analysis on Banks of Bangladesh. *Journal of Business and Technology (Dhaka*), 7(2), 19-35.

Peer, V. (2009), Bank Choices in Economic Recession: A study of the influence of the financial crisis on customer choice behavior in the banking sector, Erasmus School of Economics, Master Thesis.

Poh, B. L. (1996). Tertiary level students in Singapore and their banking relationships (Doctoral dissertation, Nanyang Technological University, School of Accountancy and Business).

Rashid, M., Bhuiyan, A. B., & Nishat, A. (2012). Bank selection criteria in developing country: Evidence from Bangladesh. *Asian Journal of Scientific Research*, 5(2), 58-69.

Rashid,Mamunur, and M. Kabir Hassan. Customer demographics affecting bank selection criteria, preference, and market segmentation: study on domestic Islamic banks in Bangladesh. *International journal of Business and Management* 4.6 (2009): 131.

Rao, S., & Sharma, D. R. (2010). Bank selection criteria employed by MBA students in Delhi: An empirical analysis. *Journal of business studies Quarterly*, 1(2), 56-69.

Redwanuzzaman, M. (2018). Bank Selection Criteria in a Customers' Perspective (Doctoral dissertation, Pabna University of Science and Technology, Bangladesh, Department of Business Administration).

Rehman, H. U., & Ahmed, S. (2008). An empirical analysis of the determinants of bank selection in Pakistan: A customer view. *Pakistan Economic and Social Review*, 147-160.

Saleh, M. S., Rosman, M. R. M., & Nani, N. K. (2013). Bank selection criteria in a customers' perspective. *Journal of business and management*, 7(6), 15-20.

Thwaites, D., & Vere, L. (1995). Bank selection criteria student perspective. *Journal of Marketing Management*, 11(1-3), 133-149.

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *The Journal of Marketing*, 31-46.

Zineldin, M. (1996). Bank strategic positioning and some determinants of bank selection. *International Journal of Bank Marketing*, 14(6), 12-22.

Zulfiqar, B., Arshad, H. M., Fareed, Z., Shahzad, F., & Hussain, S. (2014). Criteria of selecting bank in Pakistani banking sector: Study of banking customers in Sahiwal, Pakistan. *International Journal of Managing Value and Supply Chains*, 5(4), 19.

Appendix

Research Questionnaire on

Customers' Bank Selection Determinants: A Study on Selected Commercial Banks in Bangladesh

Dear Respondent

This questionnaire is designed to gather information about the major factors that determine customers' bank selection in Bangladesh. I am inviting you to be part of my research entitled "Customers' Bank Selection Determinants: A Study on Selected Commercial Banks in Bangladesh" relating to "How customers select banks" will help banks to identify the appropriate marketing strategies needed to attract new customers and retain existing ones. I need your help by filling up four pages of written questions candidly and honestly. I would appreciate it very much if you take a few minutes and complete this questionnaire. The chance of completing my study lies in your hands. Please answer these questions completely, accurately and honestly. Your response will be kept in strict confidence. I am grateful for your cooperation in advance!

Partone: Bank Related Information

Name of the Bank:	**Branch Address:**
Your Type of Bank use: ☐ PublicBank ☐ PrivateBank	**Your Type of Bank Account as:** ☐ Depositor ☐ Borrower ☐ Others

Please indicate your answers by filling tick in the box, if you make a mistake do cross tick

PARTTWO: DEMOGRAPHIC INFORMATION (Please Tick)

Your Gender	**Your Age:**	**Your Marital Status**	**Your Home Division**	**Your Type of Residence:**
☐ Male ☐ Female ☐ Others	☐18-21 ☐21-30 ☐31-40 ☐ 40+	☐ Married ☐ Unmarried ☐ Others	☐ Dhaka ☐ Barisal ☐ Chittagong ☐ Sylhet ☐ Rajshahi ☐ Khulna ☐ Rangpur ☐ Mymensingh	☐ Urban ☐ Rural

Your Education Status	**Your Occupation:**	**Your Monthly Income:**	**Your Monthly Expenditure:**	**Your Monthly Savings:**
☐ Self-educated ☐ Below SSC ☐ HSC ☐ Graduate ☐ Post graduate ☐ Others	☐ Public sector ☐ Private sector ☐ Self employed ☐ Semi-government Agency ☐ Wage earners ☐ Student ☐ Others(Please specify}	☐ Less than 10000TK ☐ TK 10000 to TK 40000 ☐ TK 41000 to TK 100000 ☐ More than TK100000 **Your Religion:** ☐ Islam ☐ Hindu ☐ Buddhist ☐ Christian ☐ Others	☐ Less than 10000TK ☐ TK 10000 to TK 40000 ☐ TK 41000 to TK 100000 ☐ More than TK100000	☐ Less than 5000 TK ☐ TK 5000 to TK20000 ☐ TK 21000 to TK50000 ☐ More than TK 50000

PART THREE: BANK SELECTION CRITERIA (Please Tick)

Please weigh the bank facilities or bank's possession on following dimensions which provide bank. Rate them from 1 to 5. „1= represents "Strongly Disagree" and „5= represents for "Strongly Agree" based on their degree of importance. First, read each item/ factor of the dimension carefully. Then think in terms of your bank activities you did consider by choosing a specific bank. Mark the factor which is most appropriate to you according to the following scale ranging from"5=most important" to "1=not important at all".

	DIMENSION 1 CONVENIENCE (Provided by Bank	**Level of Importance**				
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	The convenient location of the bank	1	2	3	4	5
2.	Available parking facilities and space nearby	1	2	3	4	5
3.	Ease of opening account and granting loan formalities	1	2	3	4	5
4.	Sufficient and available bank branch	1	2	3	4	5
5.	Available and variety of bank's products & services (with remittance facilities)	1	2	3	4	5

	DIMENSION 2 SERVICE QUALITY (Provided by Bank)	**Level of Importance**				
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	Friendly and courteous manner of the employees	1	2	3	4	5
2.	Easy, fast, efficient, accurate and available service to access	1	2	3	4	5
3.	Employees dress, appearance and knowledge/skill of documentation	1	2	3	4	5
4.	Willingness to listen and respond to your needs	1	2	3	4	5
5.	Good complaint handling and satisfied with the feedback given by the bank	1	2	3	4	5

	DIMENSION 3 **PRICE OF PRODUCTS AND SERVICES (Provided by Bank)**	**Level of Importance**				
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	Reasonable services charges	1	2	3	4	5
2.	Bank provides good interest rate on deposit	1	2	3	4	5
3.	Low interest rate on loan	1	2	3	4	5
4.	Acceptable product price difference between banks	1	2	3	4	5
5.	Acceptable interest rate charged on overdue and credit cards	1	2	3	4	5

	DIMENSION 4 **SECURITY (Provided by Bank)**	**Level of Importance**				
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	Good reputation of the bank	1	2	3	4	5
2.	Sound financial performance of the bank	1	2	3	4	5
3.	Ownership of the bank	1	2	3	4	5
4.	Sound capital management and adequate size of the bank's capital	1	2	3	4	5
5.	Protected customer personal information	1	2	3	4	5

	DIMENSION 5 **TECHNOLOGY (Provided by Bank)**	**Level of Importance**				
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	Accessibility to online banking and adequate E- banking service	1	2	3	4	5
2.	Convenient ATM locations and credit card/debit card facility	1	2	3	4	5
3.	Availability of 24/7 ATM services and response time to the downtime of the ATMs	1	2	3	4	5
4.	Secured E-banking service	1	2	3	4	5
5.	Ease of access to bank information	1	2	3	4	5

Please choose the suitable answer and circle the number given.
Bank Selection (overall):

	PROVIDED BY BANK	Level of Importance				
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	Convenience affects your decision in selection a bank	1	2	3	4	5
2.	Service quality is a factor when choosing a bank	1	2	3	4	5
3.	Price of products and services offered attract you to a certain ban	1	2	3	4	5
4.	Security offered is important when selecting a bank	1	2	3	4	5
5.	Technology used by the bank attracts you	1	2	3	4	5

Thank you for your kind cooperation. This questionnaire survey is conducted for only the research purpose, confidentiality will be strictly maintained.

Respondent's Signature (Optional) :….……

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp.114-132 (Printed in January, 2021)

Impacts of CAMELS on Bank Performance: A Study on Private Commercial Banks in Bangladesh

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Abstract

Banking sector of Bangladesh has been facing several challenges for last few years. Capital inadequacy, excessive NPLs, cost inefficiency, declining earnings and liquidity shortages are common features of our banks. Therefore, it is essential to analyze the performance of this industry as it is running in the right track. CAMELS rating system is known the most preferred approach for analyzing the above existing problems of our banks which hindrance their performance and financial soundness as well. Hence, the objective of the study is to explain the impact of CAMELS components on the performance of the private commercial banks (PCBs) of Bangladesh as in terms of holding total assets and total deposits PCBs are dominating the whole industry. The study is predominantly based on secondary data. Data have been collected from the annual reports of 21 DSE and CSE listed PCBs comprising the panel data from the year 2008 to 2018. Both descriptive and inferential statistics tools have been used to analyze and interpret the data. In this study, performance of the PCBs is considered as dependent variable which is proxied with Return on Asset (ROA) while six CAMELS components are used as independent variables. The study has employed a linear regression model to identify the impacts of CAMELS components on banks' performance. The result of the study reveals that simultaneously CAMELS components have significant impact on the performance of the PCBs. The components are also found individually significant except sensitivity. The study findings may provide insight to shareholders and investors about the key factors that affect the banks' performance. It is expected that banks will be able to use the model to analyze and forecast their performance trend.

Keywords: PCBs, Performance Analysis, CAMELS components, bank specific variables.

1.1 Introduction

There are several factors that have implications on banks profitability. These factors are mostly classified into two parts: internal and external. Al-Tamimi (2010) and Aburime (2005) have classified the determinant factors of banks as internal and macroeconomic

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variables. The internal factors are those which fall under the control of bank management. On the other front, the external factors include sector or country wide factors and appear outside the control of the management but have impact on performances of banks. The present study provides focus on bank specific variables that have impact on their performance. Several models have been derived to test the impact of these factors. Regulatory bodies in the world use different approaches and methods like DEA, AHP, EVA, etc. to measure and analyze the impact on bank performance and financial soundness of the banks. However, among those approaches, CAMELS rating system is the most preferred approach used by the regulators and scholars due to its effectiveness. Because, under this system, each banking institutions is evaluated on the basis of six critical dimensions relating to the bank's operations and performance (Sahajwala and Van den Bergh, 2000). These are capital, asset quality, management, earnings, liquidity and sensitivity to market risk. The factors are known as internal or bank specific factors too.

The banking sector of Bangladesh is divided into four types of scheduled banks. These are- State-Owned Commercial Banks (SCBs), Government Owned Development Financial Institutions (DFIs), Private Commercial Banks (PCBs), and Foreign Commercial Banks (FCBs). It is seen from Table-1 that the number of banks in Bangladesh has been increased to 59 and the number of bank branches increased to 10286 in 2018. However, PCBs have been dominating the whole banking industry in terms of holding total assets and total deposits. From Table-1, it is observed that PCBs' deposits in 2018 amounted to BDT 7127.2 billion or 66 percent of the total deposit and its share in the total assets reached to 67 percent in 2018. Therefore, it is necessary to analyze the factors which have impact on PCBs performance as they are running in the right track.

Table-1: Banking Structure in Bangladesh (2018–in billion Tk.)

Bank Type	Number of Banks	Number of Branches	Total Assets	% of Industry Assets	Deposits	% of Deposits
SCBs	6	3746	3732.2	25.6	2868.4	26.4
DFIs	3	1412	324.0	2.2	286.0	2.6
PCBs	41	5060	9769.7	67.0	7127.2	66.0
FCBs	9	68	747.1	5.2	517.2	4.8
Total	59	10286	14572.9	100	10798.7	100

Like other global economies, the banking industry of Bangladesh is becoming exposed to newer challenges, financial crimes and competitions. Numerous forms of banking scams like money laundering are the most vital issues now. Capital inadequacy, excessive NPLs, cost inefficiency, declining earnings and liquidity shortages are common scenario of our banks. For instance, in line with the BASEL III requirement and according to Bangladesh Bank's guidelines on risk-based capital adequacy, banks have to maintain a minimum capital adequacy ratio (CAR) of 12% by 2019.

Accordingly, it is seen from Table-2 that at the end of December 2018, the banking sector of Bangladesh has achieved that target as the CAR shows 12.06 percent. However, some banks still have been facing capital shortfalls and failed to maintain that target requirement. The NPL of the banking sector during the same period was BDT 939.2 billion. The gross and net NPL ratios were also showing increasing trends weakening the health of our banks.

The cost efficiency level of the banking industry of Bangladesh stood at 76.6 percent at the end of December 2018 which was at 74.7 percent in previous year. Because of high NPLs, banks experience huge stress to earn profit and their financial stability become weakens day by day. Among other key financial indicators, profitability of our banks has gradually declined in the recent years. From Table-2, it is seen that the ROA of our banks came down to 0.25 percent in December 2018 from 0.74 percent a year earlier. Their ROE also fell to 3.86 percent from 10.60 percent during the period, the Table showed. Banking sector of Bangladesh are also facing difficulties at maintaining healthy liquidity due to increasing amount of NPLs. The banks of Bangladesh seemed to have been involved in aggressive lending as overall advance deposit ratio (ADR) in the banking sector stood at 77.5 percent in June 2019 and their SLR dropped to 18.2 percent in 2018 from 19.9 percent of the previous year. The above scenario reflects negatively in the capital market of Bangladesh as PE ratio of the banking sector shows falling trend during the period of study. Investors are no more interested to invest their money in this sector. These constraints create hindrances towards the development of banking sector in Bangladesh. However, as banking sector is still the leading component of overall financial system in Bangladesh, so it is essential to find out the responsible factors which have impact on the performance of our banking sector

Table-2: Performance Indicator of the Banking Sector of Bangladesh

Indicators (%)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CAR	10.1	11.6	9.31	11.35	10.46	11.52	11.35	10.84	10.80	10.83	12.06	11.74
Gross NPL	10.8	9.2	7.3	6.1	10.0	8.9	9.7	8.8	9.2	9.3	10.3	11.7
Net NPL	2.8	1.7	1.3	0.7	4.4	2.0	2.7	2.3	2.3	2.2	2.2	2.5
NPL (BDT bn)	224.8	224.8	227.1	226.5	427.4	405.8	501.6	594.0	621.8	743.1	939.2	1124.2
EIR	87.9	72.6	70.8	68.6	74.0	77.8	76.1	76.3	76.6	74.7	76.6	81.3
ROA	1.2	1.4	1.8	1.5	0.64	0.90	0.64	0.77	0.68	0.74	0.25	0.30
ROE	15.6	21.7	21.0	17.0	8.20	11.10	8.09	10.51	9.42	10.60	3.86	4.68
SLR	24.8	20.6	23.0	25.4	27.1	32.5	32.7	26.5	24.9	19.9	18.2	18.7
PE Ratio	14.54	18.17	25.24	10.5	8.68	10.01	8.63	7.4	8.14	11.17	9.09	7.84

Source: Department of Off-site Supervision (DOS), Bangladesh Bank (2018-19).

Performance analysis of banks is significant for all stakeholders including depositors, investors, bank managers and regulators. It is usually related to how well

the banks are able to utilize their assets, shareholders' equities and liabilities, revenues and expenses, etc. Hence, this study intends to analyze the performance of commercial banks in Bangladesh by using CAMELS approach as it is used for evaluating the performance of banks through ranking the banks and also for identifying those institutions requiring special supervisory attention (Rahman and Islam, 2017). Bangladesh Bank introduced CAMEL Rating System in 1993. Accordingly, most previous studies on the subject done around the world are based on rating and ranking of financial institutions using the CAMELS. However, any study on the relationship between the performance of banks and the CAMELS components has not yet been done in Bangladesh to assess its adequacy as a performance measuring tool. Therefore, the present study focuses mainly the performance of the banks and its drivers. It makes use of financial ratios based on the CAMELS approach and correlates those components with the performance of the banks.

The next sections present the review of literature that is related and relevant to the bank-specific factor based bank's financial performance measure opted for this study (i.e. CAMELS), the research methodology applied to this study, the results and discussions followed by the conclusions and recommendations that are driven from the research findings.

2. CAMELS Approach

The CAMELS approach measures financial performance of banking institutions. According to this approach, banking institutions are evaluated on the basis of six critical dimensions relating to the bank's operations and performance (Sahajwala and Van den Bergh, 2000). These are capital adequacy, asset quality, management efficiency, earnings ability, liquidity performance and sensitivity to market risk are seen to reflect the financial performance, financial condition, operating soundness and regulatory compliance of the banking institution (Mulualem, 2015).

Capital Adequacy

Capital adequacy measures the adequacy of the amount of capital to meet any unfortunate shocks that the bank may experience (Kosmidou, 2009), **(**Baral, 2005). Mulualem, (2015) used capital to risk weighted asset (CRAR) and leverage ratio to measure the capital adequacy of the bank.

Asset Quality

The quality of asset held by the individual bank affects the health of the bank. As stated by Grier (2007), poor asset quality is the major cause of the most bank failures. The ratio that is used to evaluate the asset quality is nonperforming loans to total loans (NPL) Mulualem (2015).

Management Efficiency

This component shows how efficient a bank's management is at keeping costs low while generating income. To measure the efficiency of managers the ratio of operating expenses to net operating income (EIR) was used by Olweny (2011).

Earnings Ability

Earning ability mainly measures the profitability and productivity of the bank, explains the growth and sustainability of future earnings capacity (Ahsan, 2016). Sangmi and Nazir, (2010) used the ratio of net profit to total income (NPM) to measure the earnings ability of banks.

Liquidity Performance

Liquidity ratio measures the bank's ability to meet its current obligation. The fund management practices should ensure an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner; and capable of quickly liquidating assets with minimal loss (Mulalem, 2015). Advance to deposit ratio (ADR) is used to measure liquidity of banks.

Sensitivity to Market Risk

Sensitivity to market risk indicators measure how macroeconomic variables such as interest rates, the exchange rates and equity prices influence the earnings and capital of banks. The component reflects an idea of what the market is willing to pay for the company's earnings. Therefore, Nurazi & Evans (2005) and Aspal & Dhawan (2016) used price earnings (PE) ratio to measure the sensitivity to market risk components of CAMELS.

3. Literature Review

The study reviewed various studies in the area of performance evaluation of banks using CAMELS rating which were conducted in Bangladesh and in abroad.

Jha and Hui (2012) aimed to evaluate the performance of the banks in Nepal for the period (2005-2010) by the financial ratios, which were based on CAMEL model. The study used the multiple regression analysis, and its findings indicated the capital adequacy ratio, interest expenses to total loan had a negative effect on ROA, and the capital adequacy ratio had a positive effect on the ROE.

Karim and Alam (2013) intended to measure the performance of five selected private banks by employing multiple regression analysis they also attempted to apprehend the impact of bank size, credit risk, operational efficiency and asset management on financial performance and found the impact was significant. It had also created a regression model to predict the future financial performance of the selected banks using secondary data for the period of 2005 to 2009.

Jaseviciene, et al. (2013) aimed to analyze the basic indicators used in bank's performance evaluation by principle components analysis (PCA) during the pre-crisis and after crisis period. The main results of the study indicate that commercial banks in Lithuania have been affected by different factors, and help the banks to improve their financial ratios and understand the structure of main components of banking sector.

Zheng (2014) aimed to evaluate the performance of China's commercial banks using economic value added (EVA) based on CAMEL model. The study concluded that the EVA can measure the bank's performance, and that it is necessary to evaluate applying the EVA because it reflects changes of bank's value in an accurate way, as it considers the cost of capital.

Muhmad and Hashim (2015) highlighted the evaluation of bank performance, including both domestic and foreign banks in Malaysia using the CAMEL framework for the period 2008 to 2012. Using regression analysis, the results of the study showed that capital adequacy, asset quality, earning quality and liquidity have a significant impact on performance of Malaysian banks.

Mulualem (2015) analyzed the financial performance of 14 Ethiopian commercial banks for the period 2010-14 and used CAMEL factor measurements. Results indicated that capital adequacy, asset quality and management efficiency had negative relationship, whereas earnings and liquidity showed positive relationship with both profitability measures with strong statistically significance except for capital adequacy which was significant for ROA and for ROE.

Majumder and Rahman (2016) provided a comprehensive analysis on CAMEL ratios. Here, the author gave in-depth analysis on each ratio separately and ranked them to test the relationship by one way ANOVA test. The ANOVA test signifies that there is a significant difference in the performance of the selected banks in Bangladesh assessed by the CAMEL model.

Ishaq, et al. (2016) studied the financial performance of ten commercial banks in Pakistan for the period 2007-2013 using CAMEL model, descriptive statistics, correlation and regression analysis. The results indicated that capital adequacy, asset quality, management efficiency, liquidity were all significantly but negatively correlated. On the other hand, earnings (ROA and ROE) were significantly but positively correlated.

Abu Wadi and Nahil (2016) aimed to analyze the performance of the Jordanian commercial banks using ROE ratio and EVA indicator during the period 2000-2013. The results showed that the EVA gave better results than the rate of ROE in the interpretation of the added market value of Jordanian commercial banks. The study recommended the need to disclose the economic indicators in the financial reports of the banks.

Iheanyi and Sotonye (2017) assessed the performance of banks in Nigeria using CAMEL rating. The data that was used was for a period covering 19 years and analysis was done through ordinary least squares. Their findings suggested that management efficiency, earnings and liquidity have no significant impact on the profitability of banks. They researchers also found that asset quality has a negative impact on the profit of the banks.

Munir and Bustamam (2017) focused on the comparison between Malaysian and Indonesian banks with the help of regression equation. Overall the research works provided justifications to use CAMEL as estimators and develop a model with bank's performance. From the results of regression, it is found that the CAMEL analysis has a significant relationship to the bank profitability.

Alemu and Aweke (2017) analyze the overall performance of private commercial banks in Ethiopia using CAMEL rating approach. Panel regression model was used to measure the impact of CAMEL elements on bank performance i.e. ROA and ROE. The study revealed that asset quality ratios, management efficiency, earning ability and liquidity were the key drivers on profitability of PCBs in Ethiopia.

Zafar et al. (2017) investigated the Pakistani banking sector performance using the CAMELS ratio framework. Fixed effect panel data analysis indicated that capital adequacy ratio, management quality, and sensitivity were all found to be positive and insignificantly related to performance. Assets quality, liquidity, and earnings, however, found to affect performance of Pakistani banks negatively and significantly.

Al-Qaisi (2017) used samples of the banks listed in Amman stock exchange during the period (2009-2014). It used two variables, ROA and ROE, to measure the bank's performance. The results of the study indicated that capital adequacy, asset quality, management efficiency, and profitability were the most important factors that affect the performance of the banks.

Zagherd and Barghi (2017) performed an empirical study on the performance evaluation of Iranian banking industry through CAMELS framework. Pooled and Panel hybrid regression model with fixed effects were used to analyze the research data and test the hypotheses. Based on the results of research model, the impact of capital adequacy, asset quality, management quality, liquidity quality, and sensitivity to market risk indicators found direct and significant on the ROA of banks in the Iranian banking industry.

How bank specific and macroeconomic variables affected the profitability of savings and loans (S&L) companies in Ghana was analyzed in the study of Nagaraju and Boateng (2018). The outcome of the research showed that profitability of savings and loans companies in Ghana was negatively influenced by capital adequacy, non-performing loans, bank size, inflation and GDP growth rate.

Al-abedallat (2019) aimed at assessing the performance of the Jordanian banks using CAMELS model for the period (2003 to 2017) and identified the impact of

CAMELS components on the banks' performance measured by ROA, ROE, and net income. The results show that the independent variables (capital adequacy ratio, asset quality, management efficiency ratio, earnings, liquidity and sensitivity to market risk) had impacted on ROA, ROE and net income.

From the above literature review it could be noted that CAMEL/CAMELS model has been used for decades to evaluate the performance of banks all over the world. Therefore, the above reviews have helped the current study to develop an appropriate model for analyzing the selected PCBs of Bangladesh.

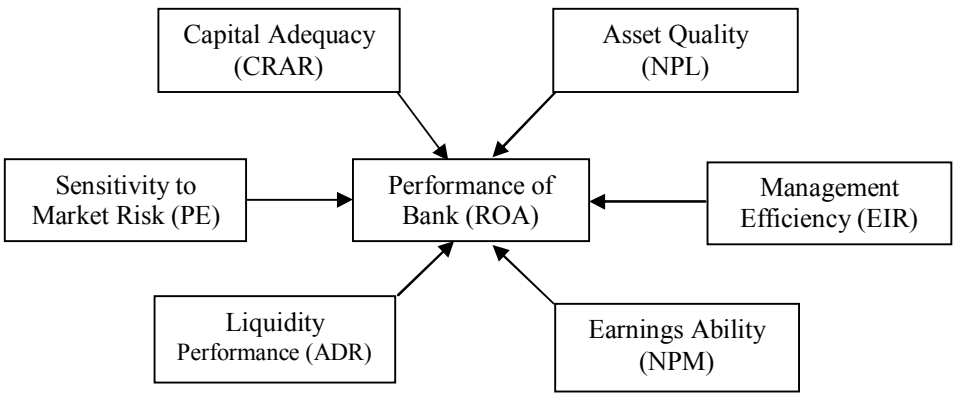
3.1 Research Gap

In Bangladesh, very few research works carried out by utilizing CAMELS model. Scholars used this model as ratio analysis by comparing one bank to another bank or one sector to another sector to find out the performance of the banks. It is found from previous studies of Iqbal (2012), Islam, et al. (2014), Akhter (2014), Majumdar and Rahman (2016), Huq (2017) and Rahman and Islam (2018) that CAMEL is used for assessing and rating the performance of our banks. However, focus of the present study is not only to analyze the impact of different components of the CAMELS model on the performance of PCBs operating in Bangladesh but also the relationship of those basic indicators with each other. Again, this study is different from the earlier studies in the sense that it covers 'S' -an important component of CAMELS. The present study has used PE ratio to represent 'sensitivity to market risk' component of CAMELS. Considering the research gap the authors undertake this study to measure the impact of financial performance of commercial banks of Bangladesh using the CAMELS.

3.2 Conceptual Framework of the Study

Depending upon the existing theoretical and empirical evidences on the impact of CAMELS components on the performance of the PCBs of Bangladesh the conceptual framework of this study is portrayed in Figure 1. The following conceptual model is framed to summarize the main focus and scope of this study in terms of variables included.

Figure 1: Conceptual Framework



4. Methodology of the Study

4.1 Sample Selection and Data Collection

Population of the study is all the PCBs of Bangladesh which are enlisted in the Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE). The number of listed banks is 30. However, Sharia-based 8 Islamic banks have been excluded from the study as their operating systems are not similar to the conventional banks. Again, NBL is also been excluded from the study because the bank has not adequate data available for the period of study (2008-2018). Finally, the study has selected 21 PCBs to evaluate the performance on the basis of CAMELS components. Data has been collected from the annual reports of respective banks for the period of 2008 to 2018. Besides, the researcher visited the websites of DSE, CSE, Bangladesh Bank and Bangladesh Securities and Exchange Commission (BSEC) for required data when necessary.

The collected data has been analyzed using both descriptive and inferential statistics tools. Besides, panel regressions have estimated to look the relationship among dependent and independent variables.

4.2. Research Variables

In this study, performance of bank is considered as dependent variable which is presented with Return on Asset (ROA). On the other hand, six components of CAMELS model (capital adequacy, asset quality, management efficiency, earnings ability, liquidity performance and sensitivity to market risk) are used as independent variables of this study. It is important to note that the study considers only the CAMELS components (which are called internal factors) as explanatory variables of banks performance. External factors like GDP, inflation, etc. were not included in this model. Performance of banks is also impacted by these factors. The following table shows variables, indicators and measures used in the study.

Table-3: Indicators and Measurement of Study Variables

Variables		Indicators	Measure
Dependent	Performance of Banks	ROA	Net Income / Total Assets
Independent	Capital Adequacy	CRAR	Capital / Total Risk Weighted Credit Exposure
	Asset Quality	NPL	Non-Performing Loan / Total Loans
	Management Efficiency	CIR	Total Operating Expense / Total Operating Income
	Earnings Ability	NPM	Profit after Tax / Total Operating Income
	Liquidity Performance	ADR	Total Advance / Total Deposit
	Sensitivity to Market Risk	PE	Market Price / EPS

4.3 Empirical Model

The study has employed a multiple regression model to test the significance of variables and impacts of CAMELS components on banks' performance. It follows a functional model employed by Khrawish (2011) and Freahat (2009). The model was used and tested earlier by Muhmad and Hashim (2015) on cross-sectional bank level data in the context of Malaysian banks. It is written as:

$$ROA = \beta_0 + \beta_1 C + \beta_2 A + \beta_3 M + \beta_4 E + \beta_5 L + \beta_6 S + \varepsilon_i$$

Where:

ROA = Return on Asset (performance measure),

C = Capital Adequacy,

A = Assets Quality,

M = Management Efficiency,

E = Earnings Ability,

L = Liquidity Performance,

S = Sensitivity to Market Risk,

β_0 = Constant term.

β_1, β_2, β_3, β_4, β_5, β_6 are the coefficients of the respective independent variables and ε = the error term.

4.4 Techniques of Data Analysis and Hypothesis Testing

The collected panel data has analyzed using descriptive statistics, correlations and linear regression analysis. Mean values and standard deviations have used to analyze the general trends of the data from 2008 to 2018. A multiple linear regressions model and t-static has used to determine the relative importance of each independent variable in influencing bank performance. The study has conducted regression analysis using EViews-9 econometric software package, to test the casual relationship between the banks' performance and six determinant factors.

Different statistical techniques and measures like descriptive statistics, correlation matrix, regression analysis, hausman test etc. have been used by the study for data analysis and hypothesis testing. The data has been interpreted on the basis of analytical results. The study has applied OLS to identify the impact of independent variables on dependent variable. Before applying OLS, explanatory variables are checked for the multicolliearity by using correlation matrix. The multicollinearity problem arises because of the high correlation between any explanatory variables.

5. Research Findings

5.1 Descriptive Statistics of Research Variables

Descriptive statistics of study variables are presented in Table-4. The table has displayed data for sample means, medians, maximums, minimums and standard deviations to the data of the PCBs of Bangladesh for the period from 2008 to 2018.

From the results of data analysis, the mean and the standard deviation of ROA of sample PCBs are 0.013 and 0.006 respectively. Mean CAR of 21 PCBs is 11.89% which is more than the required amount. Mean NPL is 4.6% which is greater than the international standard. PCBs have an increasing trend in efficiency (cost to income) ratio over the years. It is a bad sign for the industry. The more the cost to income ratio the lower will be the chances to capitalize the funds. NPM has also shown decreasing trend during the study. Liquidity position (ADR) of the banks is also not consistent throughout the periods. PE ratio has a negative relation with the banks performance in recent years. It indicates that market performance of a bank has a significant relation with the bank performance or vice versa.

Table-4: Descriptive Statistics of Research Variables

Sample: 2008-2018							
	ROA	CAR	NPL	CIR	NPM	ADR	PE
Mean	0.01	0.12	0.05	0.46	0.25	0.82	15.47
Median	0.01	0.12	0.04	0.45	0.23	0.83	9.34
Maximum	0.04	0.17	0.33	0.82	0.73	1.00	566.02
Minimum	0.00	0.06	0.01	0.18	0.00	0.58	1.27
Std. Dev.	0.01	0.01	0.03	0.12	0.13	0.08	48.84
Observations	231	231	231	231	231	231	231

5.2 Correlation among the Variables

Table 5 shows the correlations among the variables.

Table-5: Correlation among the Variables

Sample: 2008- 2018							
Included observations: 231							
Covariance							
Correlation	ROA	CAR	NPL	CIR	NPM	ADR	PE
ROA	1						
CAR	-0.149	1					
NPL	-0.450	0.055	1				
CIR	-0.421	0.112	0.253	1			
NPM	0.404	0.002	-0.232	-0.408	1		
ADR	0.289	-0.037	-0.167	-0.089	0.038	1	
PE	-0.171	-0.119	0.516	0.104	-0.183	0.109	1

Source: Researcher's Analysis

It is observed that ROA is negatively correlated with CAR, NPL, CIR and PE but positively correlated with NPM and ADR. It is important to perceive that none of the independent variables have strong correlation between them, except NPL and PE having a downward modest correlation of 0.516. However, the correlation is negligible due to their theoretical significance in the model. According to Nagaraju and Boateng (2018), a correlation coefficient of not more than 0.80 between any two variables is an indication of the absence of multicollinearity. Therefore, there is no serious multicollinearity problem exists in this model and all the variables can be used here.

5.3 Regression Analysis

The impact of the independent variables i.e. capital adequacy (CAR), asset quality (NPL), management efficiency (CIR), earnings ability (NPM), liquidity management (ADR) and sensitivity to market risk (PE) on the dependent variable return on asset (ROA) of the selected PCBs in Bangladesh could be measured through the regression model. At the stage, two alternative techniques have been applied to develop regression model from panel data.

5.4 Panel Fixed Effect Model and Panel Random Effect Model

A fixed effect model is a statistical model in which the model parameters are fixed or non-random quantities. A random effect model, also called a variance components model, is a statistical model where the model parameters are random variables. In this study, two alternative techniques have been applied to develop regression model from panel data such as panel fixed effect model and panel random effect model. The following Table 5 and 6 are showing statistical values of the panel fixed effect model and panel random effect model respectively.

Table-6: Panel Fixed Effect Model

Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 2008 2018				
Periods included: 11				
Cross-sections included: 21				
Total panel (balanced) observations: 231				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	0.010	0.005	1.930	0.055
CAR	-0.049	0.022	-2.206	0.029
NPL	-0.074	0.015	-4.938	0
CIR	-0.019	0.003	-5.793	0
NPM	0.022	0.003	6.720	0
ADR	0.019	0.005	3.618	0.000
PE	0.000	0.000	1.031	0.304
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.600	F-statistic		11.807
Adjusted R-squared	0.550	Prob(F-statistic)		0

Theoretically, as a time invariant model the fixed effect model is more appropriate, as the model allows for heterogeneity and individuality among the banks by allowing its own intercept value. But for clarification, other model was also applied and then compared to choose the best one for the study.

Table-7: Panel Random Effect Model

Dependent Variable: ROA				
Method: Panel EGLS (Cross-section random effects)				
Sample: 2008 2018				
Periods included: 11				
Total panel (balanced) observations: 231				
Swamy and Arora estimator of component variances				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	0.010	0.005	2.102	0.037
CAR	-0.048	0.021	-2.254	0.025
NPL	-0.077	0.014	-5.364	0.000
CIR	-0.015	0.003	-5.039	0.000
NPM	0.016	0.003	5.732	0.000
ADR	0.018	0.004	4.093	0.000
PE	0.000	0.000	0.745	0.457
	Weighted Statistics			
R-squared	0.479	Adjusted R-squared		0.465
F-statistic	34.357	Prob(F-statistic)		0.000

Source: Researcher's Calculation

5.5 Best Fitted Model Selection

At the stage, both the developed models have been tested to select the best fitted model. In panel data analysis, the Hausman test can help to choose the best one between fixed effect model and random effect model.

The hypothesis:

Null Hypothesis: H_0: Random Effect Model is appropriate.

Alternative Hypothesis: H_a: Fixed Effect Model is appropriate.

Table-8: Correlated Random Effect

Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	35.51531	6	0

Source: Researcher's Calculation

It is observed through the statistical analysis that at 5% significance level, the null hypothesis has been rejected. Therefore, comparing the statistical results of fixed effect and random effect model, the study may conclude that fixed effect model is the best fitted model.

5.6 Model Quality Testing

The selected model has a R^2 = 60% (Table 5), which indicates that the model or the CAMELS components which are considered as internal factors of banks have explained the performance indicator of the banks, ROA by 60%. The remaining 40% can be explained by other external factors that not included in this multiple regression model. Therefore, it can be said that it is a strong model. The adjusted R^2 = 55% (Table 5), which is only 5% less than the R^2 value. It indicates that the model contains good estimators. The chances of taking insignificant estimator/s is very low or nil. So, the goodness of fit of the estimated model has been tested as well.

It is observed from the Table 5, Value of F Statistics = 11.81 and Probability = 0.00000. So, at 5% level of significance, the alternative hypothesis is accepted. So, a statistically significant relationship exists between the performance and the CAMELS components. The finding is consistent with previous research undertakings (Jha and Hui, 2012; Muhmad & Hashim, 2015; Munir & Bustamam, 2017, Alemu & Aweke, 2017; Zafar et al., 2017; Nagaraju & Boateng, 2018).

5.7 Findings from the Model

Proposed Equation

The model provides the given linear equation to calculate banks performance:

$$ROA = 0.0101 - 0.0486CAR - 0.0740NPL - 0.0190CIR + 0.0218\ NPM + 0.0185ADR + 0.0000081\ PE.$$

This equation can be set as a standard for the PCBs of Bangladesh.

The study has found that CRAR, NPL and CIR are negatively related to the ROA. The coefficient of CRAR in the model is –0.0092; it means that a change in CRAR by 1 percent has made a change in the ROA by 0.0092 percent in opposite direction, remaining all other things constant. This is probably because the capital owned by the banks is only used to meet the requirements of the Bangladesh Bank. Another thing that might happen is that banks invest more capital in non-productive assets, and they are less cautious in channeling funds to real sector, and provide less supervision to bad debts. This finding of a negative relationship between capital adequacy and bank performance agrees with the findings of (Jha and Hui, 2012; Alemu & Aweke, 2017; Nagaraju & Boateng, 2018).

As predictable, the highest negative value of the coefficient in NPL indicates that quality of the asset is the prime concern for the banks. In recent years, the **PCBs** experienced several extreme incidents of big loan defaults. So, the industry seems to be highly vulnerable based on the current scenario. This significant negative relationship between earnings ability and performance agrees with the findings of Iheanyi and Sotonye (2017), Muhmad & Hashim (2015) and Zafar et al. (2017).

The study has also explored that the impact of efficiency ratio or cost to income ratio is significant. Cost is always adversely related to the profit. So, the more the bank spends, the less profit it earns and vice versa. The finding is consistent with previous research by Muhmad & Hashim (2015), Zafar et al. (2017) and Ermias (2016). However, the remaining three components of CAMELS show positive relationship with bank performance.

As foreseeable, NPM helps the PCBs to generate more return. The greater the NPM achieved by the bank, the higher the income on earning assets managed by the banks, thereby increasing the bank's performance (ROA). The result of this hypothesis is inconsistent with findings of research by Iheanyi and Sotonye (2017) and Muhmad & Hashim (2015).

The research reveals a weak but positive relation between the liquidity (ADR) and the performance of PCBs. However, the positive association between liquidity and bank performance is consistent with previous research works of Muhmad & Hashim, 2015; Mulualem, 2015; and Alemu & Aweke, 2017 but contradict the findings of Zafar et al. 2017. It is important that PCBs manage their liquidity very well.

The model also finds a weak and positive relation between the PE and the performance of PCBs. The coefficient of PE in this model is lowest and very poor. The model has also shown that impact of sensitivity to market risk is insignificant on the performance of PCBs. Zafar et al. (2017) also found a positive and insignificant relationship between sensitivity and performance.

6. Conclusion and Recommendation

This study evaluated the performance of selected PCBs operating in Bangladesh. The study uses the CAMELS framework to examine the relationship between CAMELS components and performance of PCBs in Bangladesh. This framework is known to be the best technique for evaluating bank performance. The study has constructed a Classical Linear Regression Model using the CAMELS components and provides a linear equation of performance with those components.

The study has found a significant impact of CAMELS components on the performance of the PCBs. Individually, capital adequacy, asset quality and management efficiency components are negatively related with the PCBs' performance. So, if necessary steps are not taken, ROA of the PCBs will be dwindling continuously. Therefore, it is suggested

that PCBs should modify their strategies to keep adequate capital with a minimum CAR. Focus should be more on their asset quality to overcome the recent downward trend in ROA. More efficient management is required to reduce the operating cost. The banks should increase their earnings by improving their net profit margin and maximize the income of loan product. They should continue to manage their liquidity as well.

Therefore, it is very important to monitor the performance and contribution of the PCBs from time to time. Finally, the management of the PCBs, the Bangladesh Bank and the Ministry of Finance of Bangladesh need to formulate short, medium and long-term strategies for coming out of this present crisis as well as ensuring a sustainable development in the banking sector of Bangladesh.

7. Limitations of the Study and Scope for Further Research

*T*he study is not free from limitations. All the PCBs were not included in the study. Again, the banks which are not listed in the capital markets of Bangladesh i.e., in DSE or CSE were excluded from this study. The study has used only one ratio for evaluating the impact of CAMELS components. Performance of the banks is also evaluated by ROA only. PE ratio is used to measure the sensitivity to market risk. For appraising bank performance, the study has used the CAMELS components only. But other related macro and microeconomic factors may be included in this model. The study, therefore, may further be extended to develop a more sophisticated model with other significant variables. More advance statistical tools and techniques could also be employed to appraise bank performance and forecast it trends.

References

Abu Wadi, R. & Sagfalhit, N. (2016). Economic Value Added as a Complementary tool to evaluate the Performance of the Jordanian Commercial Banks. *An-Najah Journal,* 30 (12): 2493-2520.

Aburime, U. (2005) *Determinants of Bank Profitability: Company-Level Evidence from Nigeria.* Nigeria: University of Nigeria, Enugu Campus.

Ahsan, M. K. (2016). Measuring Financial Performance Based on CAMEL: A Study on Selected Islamic Banks in Bangladesh. *Asian Business Review,* vol. 6, no: 13, pp. 47-56.

Akter, R. (2016). Health Check-up of the Commercial Banks in Bangladesh: An Application of CAMELS Model. *International Journal of Business and Economics Research*, Vol. 5, No. 2, pp. 19-28.

Al-abedallat, A. Z. (2019). The Factors Affecting the Performance of the Jordanian Banks using Camels Model. *European Journal of Scientific Research,* Vol. 152 No 2, pp. 116-127.

Alemu, M. & Aweke, M. (2017). Financial performance analysis of private commercial banks of Ethiopia: camel ratings. *International Journal of Scientific and Research Publications,* Volume 7, Issue 10.

Al-Qaisi, F. A. (2017). Analyzing the factors affecting the performance of the Jordanian commercial using the components of Camels model an applied study, *Jordan Journal of Business Administration*, the University of Jordan 13(4):461-474.

Al-Tamimi, H. & Hassan, A. (2010) Factors Influencing Performance of the UAE Islamic and Conventional National Banks. *Department of Accounting, Finance and Economics,* College of Business Administration, University of Sharjah.

Aspal, P. K., & Dhawan, S. (2014). Financial performance assessment of banking sector in India: A case study of old private sector banks, *The Business and Management Review* 5(3).

Baral, K. J. (2005). Health Check-Up of Commercial Banks in the Framework of CAMEL: A Case Study of Joint Venture Banks in Nepal. *Journal of Nepalese Business Studies*, 2(1).

Derviz, A., & Podpiera, J. (2008). Predicting Bank CAMELS and S&P Ratings. *Emerging Markets Finance & Trade*, 44, 117-130.

Ermias, M. (2016). *Financial Performance of Private Commercial Banks in Ethiopia: CAMEL Approach.* (Master thesis). Addis Abeba University.

Freahat, K. I. A. A. (2009). *Evaluating Performance of Commercial Banks: An Empirical Study in Jordan (2004-2008)*. PhD diss, Universiti Utara Malaysia.

Gaytán, A., & Johnson, C.A., (2014). A review of the literature on early warning systems for banking crises. *Central Bank of Chile*, Working Paper no. 183.

Grier, Waymond, A. (2007). *Credit Analysis of Financial Institutions.* 2nd ed. Euromoney Institution Investor PLC. 8-10.

Hou, Y. (2001). The Non-Performing Loans: Some Bank-level Evidences. *Journal of Banking and Finance,* (2001): pp. 25-46.

Huq, S. M. (2017). Performance of banking industry in Bangladesh: Insights of CAMEL rating. *International Journal of Financial Engineering*, Vol. 04, No. 02 n 03.

Iheanyi, I. H. & Sotonye, I. (2017). Assessing the performance of Nigeria's Bank through the Camel Model. *Journal of Accounting and Financial Management*, 3 (1), pp14-22.

Iqbal, M. J. (2012). Banking Sector's Performance in Bangladesh: An Application of Selected Camels Ratio. *Asian Institute of Technology School of Management*, Thailand.

Ishaq AB., Karim A., Ahmed S., & Zaheer A. (2016). Evaluating Performance of Commercial Banks in Pakistan: An Application of Camel Model. *Journal of Business and Financial Affairs*, 5: 169.

Jaseviciene, F., Povilaitis, B. & Vidzbelyte, S. (2013). Commercial Banks Performance 2008-2012. *Business, Management and Education*, 11(2)189-208.

Jha, S. & Hui, X. (2012). A comparison of financial performance of commercial banks: a case study of Nepal. *Africana Journal of Business Management*, 6(25):7601-7611.

Karim, R. A., & Alam, T. (2013). An evaluation of financial performance of private commercial banks in Bangladesh: ratio analysis. *Journal of Business Studies Quarterly*, 5 (2), 65-77.

Khrawish, H. A. (2011). Determinants of Commercial Banks Performance: Evidence from Jordan. *International Research Journal of Finance and Economics*, no. 81, 148-59.

Kosmidou, K. (2008). The determinants of banks profits in Greece during the period of EU Financial integration. *Journal of Managerial Finance,* 34(3).

Majumder, T. & Rahman, M. (2016). A camel model analysis of selected banks in Bangladesh. *International Journal of Business and Technopreneurship*, Volume 6, No.2.

Misra, S. K., & Aspal, P. K. (2013). A Camel Model Analysis of State Bank Group Misra & Aspal, *World Journal of Social Sciences,* 3(4), 36–55.

Muhmad, S. N. & Hashim, H. A. (2015). Using the camel framework in assessing bank performance in Malaysia. *International Journal of Economics, Management and Accounting*, 23, no. 1: 109-127.

Mulualem, G. (2015). *Analyzing Financial Performance of Commercial Banks in Ethiopia: CAMEL Approach* (Doctoral dissertation, AAU).

Munir, M. & Bustaman, U. (2017). Camel ratio on profitability banking performance (Malaysia versus Indonesia. *International Journal of Management, Innovation and Entrepreneurial Research*, EISSN: 2395-7662, Vol.3.

Nagaraju, Y. (2018). Profitability Determinants of Savings and Loans Companies in Ghana: Evidence on Bank Specific and Macroeconomic Determinants. *International Journal of Management Studies*, Vol.–V, Issue –2(2).

Nurazi, R., & Evans, M. (2005). An Indonesian Study of the Use of CAMEL Ratios as Predictors of Bank Failure, *Journal of Economic and Social Policy*, vol. 10, no. 1, pp. 1-23.

Olweny, T., & Shipho, T.M. (2011). Effects of banking sectoral factors on the profitability of commercial banks in Kenya. *Journal of Economic and Finance*, 1(5), 01-30.

Pasiouras F., Liadaki A., & Zopounidis C. (2008). Bank efficiency and share performance: evidence from Greece. *Applied Financial Economics*, 18, 1121- 1130.

Rahman, M. Z. & Islam, M. Shohidul (2018). Use of CAMEL Rating Framework: A Comparative Performance Evaluation of Selected Bangladeshi Private Commercial Banks. International Journal of Economics and Finance, 10(1):120.

Raju, B. H. (2017). Cost and Profit Efficiency of Bangladeshi Commercial Banks: A Stochastic Frontier Approach. *International Journal of Economic Behavior and Organization,* vol. 5, Issue 6, Pages: 131-142.

Sahajwala R & Van den Bergh P. (2000). Supervisory risk assessment and early warning systems. *Working Paper* no. 4, Basel Committee on Banking Supervision.

Sangmi, M., & Nazir, T. (2010). Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model. *Pakistan Journal Commerce and Social Science,* 4(1), 40–55.

Zagherd, M. K. W. & Barghi M. (2017). Performance Evaluation of Iranian Banking Industry through CAMELS Framework. *Journal of Accounting & Marketing*, 6:2.

Zawadi, A. (2013). Comparative analysis of financial performance of commercial banks Tanzania. *Research Journal of Finance and Accounting,* 4(19).

Zheng, X. (2014). The application of economic value added on performance evaluation of listed banks in China. *Journal of Academic in Economics*, 6 (1):103-118.

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 133-154 (Printed in January, 2021)

Roles of International Buyers in Industrial Relations in Ready-Made Garment Industry of Bangladesh

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Abstract

Bangladesh is the second largest exporting country of ready-made garment (RMG) with the world's largest number of green RMG factories. The main objective of this study is to identify the actors active in the maintenance of IRs in RMG industry of Bangladesh and the roles of international buyers (IB) in creating industrial relations (IRs) in RMG industry of Bangladesh along with trade unions (TUs), employers and government agents (GAs). A semi-structured questionnaire was used for interviewing 8 participants from the TU leaders, employers, government representative and IBs using the qualitative approach. In addition, secondary sources became the basis for understanding this issue, e.g., papers, journals, books, etc. Using qualitative content analysis, the collected data were transcribed and analyzed. The study found that the actions taken by the IBs characterized regarding the intensity of their roles in the IRs in RMG industry of Bangladesh. This study could specify the enable of IBs as the actor to appear in an IRs in RMG industry of Bangladesh. This study help to researchers, academicians and RMG stakeholders to have a clear understanding about IBs and their roles in building IRs in this identical sector. This study recommended that the collective efforts from not only the employers, TUs, GAs but also the IBs influence this sector for building the avenue of sound IRs.

Key words: Ready-made Garment, Industrial Relations, International Buyers, Qualitative Method

1. Introduction

Industrial relations derive essentially from economic relationships that develop when people work together for the purpose of production in a cooperative way (Hom, Tsui, Wu, Lee, Zhang, Fu & Li, 2009). Good IRs means industrial harmony,

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which is vital for better and higher outputs (Arumugam & Balasundaram, 2010; Hyman, 1975). The relationship among TUs, employers and GAs in industry is associated with the IRs (Hyman, 1975), the creation of a convention that has been followed to this day by scholars and practitioners in the field.

Among the three actors, employers who possess certain rights vis-a-vis employees and hire them (Goldberg, 1968; Hanami, 2013; Rogers & Streeck, 2009; Rousseau, 1990). TUs as the representative of the employees who seek to improve the terms and conditions of their employment (Weiler, 2009). GAs control and govern employee relations through laws, regulations, settlements, court awards (Hyman, 2008). TUs are to represent workers; however, they have a wider role of protecting the interests of employees. Kochan (2004) advanced the idea of multilateral collective bargaining (among employees, employee delegates, administrative and elected officials) has been promoted with a view to examining the negotiating process of industrial enterprises (Bellemore, 2000).

The expression end-user is meant to be a standardized concept that encompasses the numerous designations contained in the literature and relies inevitably on the context with which the end-user deals with the entity. The client, customer, receiver and a person are some examples (Gadrey 1996). Heery and Frege (2006) have argued that IRs participants are end-users (client and business organizations) to the degree that they have a persistent and important effect on the type of the working partnership and the actions of employees, employers and GAs.

In Bangladesh after the Rana Plaza disaster IBs are playing a vital roles and influencing the RMG sector, the 34 billion US dollar exporting industry of Bangladesh in the fiscal year 2018-19 (Hossain, Kabir & Latifee, 2019). As the clients of the sector, IBs have given more attention towards the healthy environment because it establishes productive employee relationships, reduces staff attrition rates and workplace strife, improves workplace morale, raises the attention of outsiders, and establishes the company's desirable image.

Studies of Ahamed (2013); Mohibullah, Hosen, Abir, Takebira, Jannat and Shakil (2019) and Yunus and Yamagata, (2012) argued that in the environment, the actions carried out by IBs should not be viewed as a mere operating factor. Their actions may be easily defined because now they are demanding sound environmental conditions in the workplace before placing their orders into the RMG of Bangladesh according to their own Codes of Conduct (CoC). Therefore, in order to maintain the industry, Bangladesh needs to pay full attention to the IBs (Hasan, Mia, Rahman, Ullah & Ullah, 2016). They are primarily intended to

maintain and optimize the workplace environment by their inclusion in the IRs system in RMG, as the IBs identifies it, rather than being specifically addressed at the IRs system itself, which may be the case with unions, employers and government.

The IRS model developed by John Dunlop in his landmark 1958 volume, described IRs consisting of three actors: unions, employers and the government. The call to build upon the notion of actors in the IRs world has been more and more popular over the past few years. To investigate the interactions with the IRs, Bellemare (2000) recommended an empirical model of the characters. Healy and Oikelome (2007) explored four forms of national and foreign actors in equity and diversity and the degree to which these actors can be used as the influential parties in shaping and sustaining IRs.

The RMG sector has been selected for this study because of its firmest and fastest growth fetching biggest volume of foreign currency. Apart from this, it is contributing to the country economy by generating huge employment opportunities and thereby alleviating poverty and empowering women. The actions of IBs are persistent and have been going on at the level of the workplace particularly in the RMG industry of Bangladesh. IBs can also be seen as essential actor along the aspect of an actor's strength (Bellemere, 2000) but no one has yet suggested integration of IBs as the actor of IRs with the theoretical model by John Dunlop. This study is therefore expected to explore the roles of IBs in relation to other IRs actors. The study will also help the policy makers to know the roles of IBs in RMG industry in Bangladesh along with the roles of TUs, employers and GAs, and as well discussion on the implications of the findings and puts forward some suggestions for future research.

2. Problem Statement

The industrial development process propels the economic growth in Bangladesh offering high-wage jobs to large numbers of employees and thereby increasing social productivity through mass-production of high-value products (Islam, Rakib & Adnan, 2016). Though Bangladesh has been quite successful in ensuring safe and healthy work environment and conditions for factory workers in the RMG industry (Kurpad, 2014), Bangladesh has relatively organized legislative structure for IRs (Berik & Rodgers, 2010). The Bangladesh Labor Act (BLA) 2006 and its amends in 2013, 2015, and 2018 are being applied in the field of IRs of Bangladesh covering the roles of the actors in IRs (Al Faruque, 2009; Mia, 2016). The RMG sector is suffering from a lack of proper roles of actors in the issue of

IRs due to the absence of proper legislative measures (Ahamed, 2013). The absence of legislative measures has put the IRs in the RMG industry in Bangladesh under a rigorous scrutiny with a view to finding out a proper way the various actors involved should be playing their roles (Mausumi & Rahman, 2018). The IBs also express their serious concerns over the workplace environment, particularly, compliance issues relating to labor standards and workplace safety in the RMG industry and this put the sector to be on high alert subject to continuous scrutiny (Mausumi, 2017).

Sound IRs, among others, is very important condition for ensuring a productive RMG sector and a sustained growth, and it can be made possible through maintaining harmonious interactions and relationships between the actors involved in the IRs process (Al Faruque, 2009; Rahman & Kashem, 2017). For maintaining harmonious IRs Bangladesh government has formulated legislative structures for labor, working environment and IRs (Berik & Rodgers, 2010). Previous studies explored the roles of three actors contributing to improvement of overall IRs process in RMG in Bangladesh but the roles of IBs are not well documented. It is not clear about the extent of the role of IBs in the IRs system in RMG industry of Bangladesh. The previous literature did not have study embodying to address the roles of IBs in building IRs in RMG industry of Bangladesh. Therefore, there is the need to increase understanding of the roles of IBs in IRs in the RMG industry of Bangladesh. In view of the above problem, this study will investigate the following questions:

1. Who are the actors in creating industrial relations in RMG industry of Bangladesh?

2. What kind of role do international buyers play as the actor of industrial relations in RMG industry of Bangladesh?

3. Objective of the Study

For the above identified research problem and questions, the objectives of this study are:

i. To identify the actors active in the maintenance of IRs in RMG industry of Bangladesh.
ii. To investigate the roles of international buyers in creating industrial relations in RMG industry of Bangladesh.

4. Literature Review

Ready-Made Garment becomes the lifeline of the economy of Bangladesh (Hoshen, 2014; Rahman, Habibullah & Masum, 2017). Exports from Bangladesh are highly concentrated in the garments market, which has been a major driver of development and poverty alleviation (Rahman & Siddiqui, 2015; Uddin & Jahed, 2007). The industry plays a vital role in creating jobs and supplying income to the vulnerable (Karmaker & Saha, 2016). Close to four and a half million employees are directly hired, and more than 10 million people are now indirectly affiliated with the industry (EPB, 2019).

The role of the RMG industry in the field of industrialization is very prominent in both developed and developing countries (Akterujjaman, 2013; Rakib & Adnan, 2015). The economy of Bangladesh offers a unique competitive advantage, which encourages productive expansion into new strategic markets (Hoshen, 2014). The RMG industry is Bangladesh's main export earning market, from spinning to weaving, from knitwear to leisurewear, and high street fashions (Gaffar Khan, Ul Huq & Islam, 2019; Islam et al., 2018). RMG industry has played such a significant part in the industrialization and economic development cycle (Hasan, Mia, Rahman, Ullah & Ullah, 2016). The RMG industry has provided employees from rural areas with job opportunities who historically had little ability to be part of the formal workforce (Saha & Islam, 2017).

An actor in IRs environment is identified as a person, a community, or an entity that, through its intervention, has the potential to directly affect the IRs mechanism, including the ability to influence the causal forces employed in the IRs environment by other actors (Bellemare, 2000). One must not only take action, but also have the opportunity to encourage other actors to consider one's actions and to react favorably to any of one's desires or demands in order to be a legitimate actor.

The involvement of an actor in the IRs typically attempts to develop a range of results, which from a structural viewpoint can be of greater or lesser importance (Heery & Oikelome, 2007). In order to be considered an agent, an individual must be able, on occasion, to accomplish its goals or to create transitions in the IRs framework in which it functions (Heery & Frege, 2006). John Dunlop never thoroughly set out the notion of an actor, and the drawbacks of a study focused on just three actors. The concept actor has been the focus of renewed interest, confronted with the inability of the structural method in IRs to justify many recent developments in the sector and the emergence of new partnerships among the IRs actors (Bellemare, 2000).

Trade unionism is the core of IRs (Ferdous, 2011). In establishing jovial relationships between owners and employees in the Bangladesh RMG sector, TUs play a valuable role (Hasan, Parven, Khan, Mahmud & Yajuan, 2018). TUs help owners solve their employees' issues, make them aware of their rights and obligations, and create a healthier working environment within the factories. It bargains with management over the privileges and rewards of the workers (Ullah, 2015). If the management does not respect their argument, the TUs will grow and draw interest from the society, government and other stakeholders (Klasen, 2019).

An employer is a person or entity hiring another to perform service under an express or implied agreement (Clark, 1968). The employer is the party, which will typically define the terms of employment and write the contract (Summers, 2000). An employer is also the party legally responsible for working practices, for the enforcement of labor laws and for any disciplinary action; an employee can undertake (Noe, Hollenbeck, Gerhart & Wright, 2015). The employers provide not just employment to labor but good practice guidelines on equity, diversity, corporate social responsibility and other topics are formulated, frequently with a view to preempting legal enforcement. Employer motivates the employees to give their best and gaining their trust and commitment (Cappelli, Bassi, Katz, Knoke, Osterman & Useem, 1997). The employer also deals with the issues of TUs, together with the bargaining of terms and conditions of employment with that employee representative, in order to allow for a sound IRs (McCleary, Goetzel, Roemer, Berko, Kent & Torre, 2017).

The third actor is government and its agents, which comprise not only labor law and dispute resolution structures, long studied by IRs scholars, but also the larger range of organizations that regulate the economy and form labor policy there. There is an increasing research interest in the ties between IRs and historically ignored government officials, whether they are central banks, company law or other corporate governance characteristics (Gospel & Palmer, 1993).

Bellemare (2000) concluded that end-users (buyers) also constitute stakeholders within IRs in an essential contribution, to the degree that they have a persistent and substantial influence on the type of the working relationship and the actions of employees, employers and state institutions. There is also new space for exploring the role of third parties in settling conflicts. The combined consequences of the system as a part of the working arrangement and the outsourcing of conflict settlement have created new entrants with resources. IBs might also be considered bonafide actors in the IRs if they control the IRs process or the causal forces employed by other actors in the IRs directly or indirectly by their actions.

Table 1: Literature about Actors in Industrial Relations

Authors &Year	Article/Journal/Title	Key Findings
(Ungku Abdul Aziz 1967)	Government and industrial relations in Malaysia	This paper systematic presented the various roles that GA plays in IR in developing countries.
(Passey & Passi 1990)	Role of Trade Unions: Need for New Attitudes, Beliefs and Practices	The article emphasized on the active role of TU in the formulation of a structural policy to accelerate IR instead of their traditional roles.
(Adams 1992)	The role of the state in industrial relations	This book discussed that government is an actor of IR system and its action has been treated almost exclusively as an independent variable and only rarely as the phenomenon to be explained.
(Marshall 1992)	The government's potential position in industrial relations	The paper described the potential position of policy in labor relations depends on the choices taken by companies, employees, and particularly GA.
(Dundon & Eva 1998)	Trade unions and bargaining for skills	This paper suggested the role and influence of TU toward a new bargaining skill for prevailing IR climate.
(Deery, Iverson & Erwin 1999)	The atmosphere of industrial relations, attendance behavior and the position of trade unions	The factors influencing the creation of a cooperative IR climate have been established in this paper.
(Faini 1999)	Trade unions and regional development	This paper focused on the role that TU play in the context of IRs.
(Traxler 2004)	Employers, institutions and economic change: a cross-national comparison	The paper analyzes how the employers have actively tried to adjust themselves to the changing IRs situations.
(Havard, Rorive & Sobczak 2009)	Client, owner and employee: Dynamic triangulation mapping	This paper suggested a description of the triangular working arrangement situations between employers, workers, and the government.

Authors &Year	Article/Journal/Title	Key Findings
(Baral 2010)	Comparative analysis in Bangladesh on compliant & non-compliant RMG factories	The study found that compliance is a vital prerequisite for all global buyers, so in order to sustain the dynamism of their business, Bangladeshi manufacturers must equip themselves with these resources.
(Batt, Nohara& Kwon 2010)	Employer strategies and compensation in new service activities: contrast of the markets of the organized and open economy	The authors showed the relationship between employer strategies and wage outcomes in the IRs systems.
(Rahman & Hossain 2010)	Compliance practices in the Dhaka City garment industry	The paper proposed enhancing factory processes by compliance and found a near correlation between compliance and efficiency.
(Hossan, Sarker & Afroze 2012)	Recent instability in Bangladesh's RMG sector: Is this an outcome of weak labor practices?	The study noted that RMG companies in Bangladesh have faced tremendous pressure from IBs to conform with their codes of ethics to focus on improving the working conditions in factories.
(Rayhan, Saha & Hassan 2014)	Factors influencing the purchasing behavior of consumers in relation to readymade garments in Bangladesh	The researchers found that understanding the IBs' behavior is the basic for marketing strategy formulation that leads success or failure congenial environment for the expansion of the RMG business.
(Uddin 2014)	Role of Labor Administration Departments in Protecting Labor Rights: Bangladesh Perspective	The article examined the structural and legal weakness of the labor department of Government and suggests something new which can the fate of the laborers in Bangladesh.
(Islam &Asaduzzaman 2015)	Legal framework for trade unionism in Bangladesh	This study emphasized the trade union activities as a means of maintaining a sustainable employment relationship for the benefit of smooth IR between workers and employers.

Authors &Year	Article/Journal/Title	Key Findings
(Hauptmeier 2015)	Employer and Employee activism: A Comparative Analysis by Andrew Lawrence of Germany, South Africa, and the United States	The author focused on employer power and attempt to identify the various factors that matter IR.
(Hossain & Arefin 2015)	The role of Buyer Enforcement in Bangladesh in improving the working environment of garment factories	This study found compliance with IB plays an important role in improving the workplace environment.
(Sheldon & Thornthwaite 2016)	Employer matters in 2000	The paper examined employers' responses to collective bargaining in IR using strategic choice and resource dependence theories.
(Hossain & Roy 2016)	Supply chain management in Bangladesh for sustainable RMG growth	The study found that RMG decision-makers and planners should conform to the IB's code of ethics.
(Ahammad, Shanta, Hossain & Naim 2017)	Trade Unions and Industrial Relations in Bangladesh: Human Resource Aspect	This research work discussed that the most common purpose of employers in maintaining or improving the conditions of their employment.
(Alam, Alias & Azim 2018)	Social compliance in Bangladesh's ready-made garment industry: problems for staff in HR	The study aims at identified the effect of social compliance factors on employee productivity in the RMG industry in Bangladesh from garment workers' viewpoint.
(Wibberley, Bennett, Jones & Hollinrake 2018)	The role of trade unions in helping occupational victims of domestic abuse	The paper explored the responses and effects of TU in the workplace.
(Mausumi & Rahman 2018)	Impact of Stakeholder Initiatives: Bangladesh Garment Industry	The researchers mentioned the roles of GA, in improving the overall factory working conditions and worker rights in the RMG industry in Bangladesh.
(Chowdhury 2019)	The legal aspect of industrial relations practice in Bangladesh	This paper aimed to narrow the gap between existing laws and the real scenario relating to industrial practices in Bangladesh.
(Rahman 2019)	Replies from Post-Rana Plaza: The changing position of the government of Bangladesh	This study provided unique insights into the factors that GA foster and prevents change in workplace policies designed to improve labor standards in RMG factories.

Source: adapted by the authors

Faced with anti-sweatshop campaigns and exposure of child labor and depressing working conditions in their supply chains, many IBs have come to adopt CoC and monitoring procedures in the factories. Recent research has brought an increased focus on viewing the IBs as an actor in the IRs field. A large, mostly qualitative and descriptive literature has studied by Appelbaum and Gereffi (1994), Bernard, Moxnes, and Ulltveit-Moe (2018b), Cajal-Grossi, Macchiavello & Noguera (2019) argued that as a key actor in the RMG industry, IBs produce more demand for a safe, productive, innovative work environment than other actors because it develops meaningful employee relationships. It decreases employee attrition rates and workplace strife, boosts employee morale, raises outsider involvement, develops desirable business prestige. IBs audit plays an important part in changing the workplace, as RMG owners strive to obey laws and regulations throughout buyers auditing to please them and preserve their order (Hasan & Arafin, 2015).

Baral (2010) addressed that a basic and essential prerequisite for the social enforcement of RMG factories for almost all international RMG buyers which ensure labor rights based on buyer's CoC. RMG factories should adopt compliance issues just not for profitability but also for human rights protection. Ahmed (2009) showed that the future sustainability of the RMG industry relies on IBs' fulfillment and satisfying stakeholder demands. IBs are playing a vital role in the RMG industry of Bangladesh after the Rana Plaza disaster in 2013. The IBs have given more attention towards the environment of RMG industry of Bangladesh because it builds positive employee relationships, reduces employee turnover rates and civil strife, boosts employee morale, raises the attention of investors, generates valuable company prestige.

There have been a huge number of articles and research done on the issue of IRs giving emphasis mainly to studying the roles of three actors and some main processes like collective bargaining process, dispute resolution process, ignoring the impact of buyers' roles until recently. There have been a few sporadic researches done to address individually each of the issues mentioned above. For better planning's sake, and considering the position of our RMG sector in the global market, a research should be done taking into account of the roles of IBs in building IRs in RMG industry of Bangladesh.

5. Methodology

The study presented in the qualitative approach pertaining to academic literatures among to identify the IBs and their roles in IRs in RMG sector in Bangladesh. The current study aimed to obtain an in-depth and systematic understanding of the reasons for the IB's active position as their home buying destination in IRs in RMG of Bangladesh.

This study used a case study approach that requires the collection of a sample that offers the most detailed understanding in the form of rich details on the subject and includes components representing the population's most representative characteristics (Fraenkel and Wallen, 2008; Patton, 2008; Rubin and Babbie, 2009). The case study is a discussion that relies on the structure of the question-and-answer and the researcher strongly promotes and pays attention to the participation of the person. This qualitative data collection approach is focused on the premise that people are a significant source of information about themselves, their perceptions, perspectives, views, values, feelings and the problems that influence their lives and that they can express their thoughts and feelings (Best and Kahn, 2006).

Total 8 interviews were carried out for the purpose of this study. The respondents were union leaders, employers and the government representatives and foreign buyers who are directly or indirectly involved with the RMG as actors and experienced with the RMG industry of Bangladesh. The key respondents were from Dhaka City, and Gazipur, Savar and Ashulia were the remaining respondents. The interview was held face-to-face after the scheduled time.

The discussions were audio taped and immediately after each interview concluded, the researcher completed the transcription. The clarity and legitimacy of the conversation was improved by the audiotaping of the interview (Fraenkel & Wallen, 2008). The transcripts were used for qualitative data analysis using Microsoft Word. This program helped the researcher to coordinate and examine complex details and patterns that were evolving. The data coding was carried out using thematic analysis, which is a qualitative methodological tool for the data recognition, analysis and evaluation of trends (themes). It organized, explained in depth the data set and analyzed different aspects of the subject of the study (Braun and Clarke, 2006: 79).

Evidence was grouped into codes from the different databases and codes were grouped into larger themes. To address the research questions and represent the patterned answers within the data collection, the patterns that captured the related data from the interview transcripts were generated (Braun & Clarke, 2006). The

theme developed around the forces that pulled the IBs to establish IRs unique to their performing research in the RMG industry. The extracts quoted are described as they are without any alteration in order to preserve the true meaning of the comments from the IBs.

6. Result and Discussion

The field study shows that there were six most important factors from the interviewees, which need more concentration to maintaining a sound IRs in RMG industry of Bangladesh. As a pressure group the IBs always prescribed the guidelines to the industry regarding labor law practice, working environment, organizing association, collective bargaining, dispute resolution and their compliances issues in which the actors needs to more focus on developing a sound RMG. Particularly, from the interviews with the participants the roles and actions of IBs are clearly identified. The involvement of IBs can be characterized regarding the intensity of their present roles in the IRs in RMG industry of Bangladesh. The new relationships that have developed between the IRs and the IBs along with TUs, employers and GAs compel us to consider the idea that IBs indeed constitute a unique actor in IRs particularly in the RMG industry of Bangladesh. Examples of links identified by the interview participants are given in the quotations from the transcripts below.

Regarding the labor law practices, working environment safety and maintaining compliance all participants mentioned that, "*the factories are better than the 6 years ago particularly after the Rana Plaza collapse because of the pressure of foreign buyers. After the tragedy now the factory are giving more attention to the proper labor law practice for safety working environment because without safety environment according to the codes of conduct of the foreign buyers the factory will lose their orders and bound to shut down."* They informed that, "*The changing situations after the Tazreen and Rana Plaza disaster the foreign buyers are the key players. Their compliances bound the employers to make the factories safe and good for working."* During the interview, all respondent mentioned, "*The factories try to comply the compliances issues prescribed by the foreign buyer because if the audit report of the representative of the buyers will bad then the buyers cancel their orders."*

Regarding the freedom of association and collective bargaining issues, the respondents stated that, "*The buyers have given more attention towards the International Labor Organization (ILO) convention 87 and 98 where provision of freedom of association and collective bargaining issues are prescribed. As one of*

the key parties of the industry now foreign buyers are very much serious regarding the uphold of these conventions and they think that it builds positive employee relations and create valuable reputation for the company." The respondents described that "*We believe that after the Rana Plaza tragedy, we changed many things which were the pressure from our buyers particularly we could make our working place safe for the workers. If such changed will be carried on in future and the sector will be the very smart sector in the country."*

Almost respondents mentioned that "*The whole condition of the Garments sector have been changed because the buyers give their attention on working condition of workers, health and safety, labor right, proper dispute solution and the Wages of Garments workers. Moreover, government also has taken some steps for improving the working condition, health and safety, labor right, wages of garments worker of Bangladesh".* These respondents highlighted that, "*Buyer is the pressure group for the employer of the sector so that no rights will be violated in the industry. The international buyers don't compromise the workplace safety issues regarding the workers."*

Taking into consideration the above claims and quotations from participants of the field study, it can identify a number of items to emphasize the roles of IBs in building IRs in the RMG industry of Bangladesh. After scrutiny and combination, the results presented in Table 2 shows the frequency of the views mentioned by the participants during the field study.

Table 2: Participants' Opinion about the Roles of International Buyers in Industrial Relations

Items	Participants							
	1	2	3	4	5	6	7	8
International buyers promote labor law practices to protect the unfair treatment in the RMG industry.	√	√	√	√	√	√	√	√
International buyers make sure that everyone is safe in work environment.	√	√	√	√	√	√	√	√
International buyers encourage all parties to participate in their respective associations.	√	√		√	√	√	√	√
International buyers encourage collective bargaining.	√	√	√	√	√	√		√
International buyers are satisfied in dispute resolution procedure.	√		√	√	√	√	√	√
International buyers are very much alert regarding their codes of conduct maintenance.	√	√	√	√	√	√	√	√

Source: adapted by the authors

The table 2 shows that the state of IRs and roles of IBs are strongly correlated. In this study, the participants (100 percent) preferred fair labor law practices; working environment safety and maintaining compliance are the main concern of IBs. The other important factors for IBs opined by the respondents were freedom of association, collective bargaining and dispute resolution procedure (87.50%) regarding the maintenance of sound IRs in the sector under study.

The complexity of buyer-industry relations and the importance of mutual adaptations mean that the analysis of relationships must be the overall relationship among the actors of IRs (Ford, 1980). There is broad consensus that large IBs play a key role in global business (Gereffi, 1999; Antras, 2015).The role-played by IBs adopting radically different in the field of the industry (Taylor & Wiggins, 1997). The empirical evidence on the relationship between the IBs and the industry would improve our understanding of the roles of IBs in the IRs (Goldberg & Pavcnik, 2007). The participants of the interview opined that buyers are considered as a fundamental factor in industrial field. They also mentioned that in absence of effective government regulation and a global regulatory framework, IBs give their attention towards the working conditions for having a sound IRs.

The finding of this study shows that one of the main challenges in Bangladesh is maintaining stable workplaces with a huge population that is supported by Hossain and Arefin (2015). For sound IRs in RMG in Bangladesh, IB's external pressures are important. This study finds that the strain from the IBs has moved to adequate RMG functions. The significant increase in the discourse of legitimating based on the IBs. The new relationships that have developed between the IBs and the business firm and the ever-growing organization of end user (buyer) associations compel us to consider the idea that IBs may indeed constitute a unique group of actors in IRs. It is playing a vital role in creating sound industrial relations in RMG industry of Bangladesh by ensuring fair labor law practice, working environment, organizing association, collective bargaining, dispute resolution and complying their codes of conduct.

7. Conclusion

In the economic or political climate, the acts performed by IBs cannot be viewed as a mere operative element. Their acts are easily visible. It is important to describe the presence of IBs regarding the intensity of their present roles in the IRs in RMG industry of Bangladesh. They are influencing the employers to follow laws and regulations for improving the workplace to impress the clients and keep their orders. The actions of IBs are persistent and have been going on at the standard of

the workplace and the organization after the Rana Plaza tragedy the incident when more than 1100 workers were died due to the eight-storied building collapse. Such roles of the IBs provide the sector to leverage in the IRs. In addition to the paradigm developed by John Dunlop in his 1958 volume consisting of three actors: unions, workers and the government, the current study highlighted another actor to participate in an IRs system in the RMG industry of Bangladesh. IBs can thus be considered as significant actor of the IRs particularly in the RMG industry of Bangladesh.

The outcome of the study will have important policy impact on the RMG industry in Bangladesh and issues related to IRs. As the study has identified the IBs as the influential actor involved and examined its roles along with the other three actors TUs, employers and GAs resulting in a state of IRs in RMG industry in Bangladesh. The government of Bangladesh and the Bangladesh Garments Manufactures and Exporters Association, in coordination with the ILO, should undertake more programs to aware and promotes the employers, employees, TU leaders on the constructive roles of IBs in building a sound IRs in RMG industry of Bangladesh. In the present study, the model by John Dunlop is refined by using another actor IBs has the scope to justify further study in the field of IRs. In order to complete, the formulation of this proposition, further case studies, theoretical study and quantitative studies needed in future.

References

Adams, R. J. (1992). The role of the state in industrial relations. *Research frontiers in industrial relations and human resources*, 489-521.

Ahamed, F. (2013). Background of History of Bangladesh and Ready-made Garment Industry: Key challenges in the RMG Industry. *Middle East Journal of Business*, *8*(1).

Ahammad, T., Shanta, F., Hossain, M. M., & Naim, M. J. (2017). Trade Unions and Industrial Relations in Bangladesh: Human Resource Aspect. *International Journal of Latest Engineering and Management Research (IJLEMR)*, *2*(10), 1-7.

Ahmed, N. (2009). Sustaining ready-made garment exports from Bangladesh. *Journal of Contemporary Asia*, *39*(4), 597-618.

Akterujjaman, S. M. (2013). Export Performance of Readymade Garments Sector of Bangladesh: An Analysis. *Available at SSRN 2642828*.

Alam, M. N., Alias, R. B., & Azim, M. T. (2018). Social Compliance Factors (SCF) Affecting Employee Productivity (EP): An Empirical Study on RMG Industry in Bangladesh. *Pac. Bus. Rev. Int*, *10*, 87-96.

Antras, P. (2015). *Global production: Firms, contracts, and trade structure*. Princeton University Press.

Appelbaum, R. P., & Gereffi, G. (1994). Power and profits in the apparel commodity chain. *Global production: The apparel industry in the Pacific Rim*, 42-62.

Arumugam, S., & Balasundaram, N. (2010). Industrial Relation System: Lessons for Bangladesh and Sri Lanka from Japanese Perspective. *Petroleum-Gas University of Ploiesti Bulletin, Economic Sciences Series*, *62*(1).

Baral, L. M. (2010). Comparative study of compliant & non-compliant RMG factories in Bangladesh. *International Journal of Engineering and Technology*, *10*(2), 108602-7272.

Baral, L. M. (2010). Comparative study of compliant & non-compliant RMG factories in Bangladesh. *International Journal of Engineering and Technology*, *10*(2), 108602-7272.

Batt, R., Nohara, H., & Kwon, H. (2010). Employer strategies and wages in new service activities: a comparison of co□ordinated and liberal market economies. *British Journal of Industrial Relations*, *48*(2), 400-435.

Bellemare, G. (2000). End users: actors in the industrial relations system?. *British Journal of Industrial Relations*, *38*(3), 383-405.

Berik, G., & Rodgers, Y. V. D. M. (2010). Options for enforcing labour standards: Lessons from Bangladesh and Cambodia. *Journal of International Development: The Journal of the Development Studies Association*, *22*(1), 56-85.

Bernard, A.B., A. Moxnes, and K. H. Ulltveit-Moe (2018b): "Two-Sided Heterogeneity and Trade," Review of Economics and Statistics, 100, 424–439.

Best, J.W. and Kahn, J.V. (2006), Research in Education, 10th ed., Pearson, Boston, MA.

Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", Qualitative Research in Psychology, Vol. 3 No. 2, pp. 79-82.

Cajal-Grossi, J., Macchiavello, R., & Noguera, G. (2019). International Buyers' Sourcing and Suppliers' Markups in Bangladeshi Garments.

Cappelli, P., Bassi, L., Katz, H., Knoke, D., Osterman, P., & Useem, M. (1997). *Change at work*. Oxford University Press on Demand.

Chowdhury, T. M. (2019). The legal aspect of industrial relations practice in Bangladesh. *UUM Journal of Legal Studies*, *9*, 205-220.

Clark, C. E. (1968). Definition of Discrimination: Employers' Hiring. *Mercer L. Rev.*, *19*, 334.

Deery, S., Iverson, R., & Erwin, P. (1999). Industrial relations climate, attendance behaviour and the role of trade unions. *British Journal of Industrial Relations*, *37*(4), 533-558.

Dundon, T., & Rollinson, D. (2004). *Employment relations in non-union firms* (Vol. 12). Routledge.

Export Promotion Bureau (2019).*Readymade Garments Industry of Bangladesh*, http://epb.gov.bd/site/view/epb_export_data/2019-2020/July-June/6659.

Faini, R. (1999). Trade unions and regional development. *European Economic Review*, *43*(2), 457-474.

Ferdous, A. (2011). Working conditions in the Bangladesh readymade garments industry: is social compliance making a difference?.

Ford, D. (1980). *Buyer/seller relationships in international industrial markets. Industrial Marketing Management, 13(2), 101–112.*

Fraenkel, J.R. and Wallen, N.E. (2008), How to Design and Evaluate Research in Education, 7th ed., McGraw-Hill International Edition, New York, NY.

Gadrey, J. (1996). Services: la productiviteÂ en question. Paris: DescleÂe de Brouwer.

Gaffar Khan, A., Ul Huq, S. M., & Islam, N. (2019). Job Satisfaction of Garments Industry in a Developing Country. *Management Studies and Economic Systems*, *4*(2), 115-122.

Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, *48*(1), 37–70.

Goldberg, P. K., & Pavcnik, N. (2007). Distributional effects of globalization in developing countries. *Journal of economic Literature*, *45*(1), 39-82.

Goldberg, S. B. (1968). Labor Law Obligations of a Successor Employer. *Nw. UL Rev.*, *63*, 735.

Gospel, H. F., & Palmer, G. (1993). *British industrial relations*. Routledge.

Hanami, T. A. (2013). *Labour law and industrial relations in Japan*. Springer.

Hasan, K. F., Mia, M. S., Rahman, M. M., Ullah, A. A., & Ullah, M. S. (2016). Role of textile and clothing industries in the growth and development of trade & business strategies of Bangladesh in the global economy. *International Journal of Textile Science*, *5*(3), 39-48.

Hasan, M. M., Parven, T., Khan, S., Mahmud, A., & Yajuan, L. (2018). Trends and impacts of different barriers on Bangladeshi RMG industry's sustainable development. *Int. Res. J. Bus. Stud.*, *11*, 245-260.

Hauptmeier, M. (2015). Employer and Worker Collective Action: A Comparative Study of Germany, South Africa, and the United States-by Andrew Lawrence. *ILR Rev.: J. Work & Pol'y*, *68*, 969.

Havard, C., Rorive, B., & Sobczak, A. (2009). Client, employer and employee: Mapping a complex triangulation. *European Journal of Industrial Relations*, *15*(3), 257-276.

Healy, G., & Oikelome, F. (2007). Equality and diversity actors: a challenge to traditional industrial relations?. *Equal Opportunities International*.

Heery, E., & Frege, C. (2006). New actors in industrial relations. *British Journal of Industrial Relations*, *44*(4), 601-604.

Hom, P. W., Tsui, A. S., Wu, J. B., Lee, T. W., Zhang, A. Y., Fu, P. P., & Li, L. (2009). Explaining employment relationships with social exchange and job embeddedness. *Journal of Applied Psychology*, *94*(2), 277.

Hoshen, M. (2014). Brand and Quality Control of Garment Products in the Bangladesh Garment Industry, Karelia University of Applied Sciences, Finland.

Hossain, M. A., & Arefin, S. (2015). The Role of Buyers Compliance to Improve Workplace Environment of Garments Factories in Bangladesh. International Journal of Humanities and Management Sciences (IJHMS) Volume 3, Issue 4.

Hossain, M. U., & Roy, I. (2016). Supply chain management for sustainable RMG growth in Bangladesh. *International Journal of Science and Research*, *5*(4), 1242-1248.

Hossain, S., Kabir, R., & Latifee, E. H. (2019). Export Competitiveness of Bangladesh Readymade Garments Sector: Challenges and Prospects. *International Journal of Research in Business and Social Science*, *8*(3), 45-63.

Hossan, C. G., Sarker, M. A. R., & Afroze, R. (2012). Recent unrest in the RMG sector of Bangladesh: is this an outcome of poor labour practices?. *International Journal of Business and Management*, *7*(3), 206-218.

Hyman, R. (2008). The state in industrial relations. *The Sage handbook of industrial relations*, 258-83.

Hyman, R. 1975. Industrial Relations: A Marxist Introduction. London: Macmillan.

Islam, F., & Asaduzzaman, M. (2015). Legal framework for trade unionism in Bangladesh. *Annual Report of the Ministry of Labour and Employment*, *2012*(13), 21.

Islam, M. S., Rakib, M. A., & Adnan, A. (2016). Ready-made garments sector of Bangladesh: Its contribution and challenges towards development. *Stud*, *5*(2).

Karmaker, C. L., & Saha, M. (2016). A case study on constraints affecting the productivity of readymade garment (RMG) industry in Bangladesh. *International journal of managing value and supply chains (IJMVSC)*, *7*(3), 69-78.

Klasen, S. (2019). What explains uneven female labor force participation levels and trends in developing countries?. *The World Bank Research Observer*, *34*(2), 161-197.

Kochan, T. A. (2004). Collective actors in industrial relations: what future?. *Industrielle Beziehungen: Zeitschrift für Arbeit, Organisation und Management*, *11*(1/2), 6-14.

Kurpad, M. R. (2014). Made in Bangladesh: challenges to the ready-made garment industry. *Journal of International Trade Law and Policy*.

Marshall, R. (1992). The future role of government in industrial relations. *Industrial Relations: A Journal of Economy and Society*, *31*(1), 31-49.

Mausumi, N., & Rahman, M. (2018). Impact of Stakeholder Initiatives: Bangladesh Garment Industry. *SCMS Journal of Indian Management*, *15*(2), 31-41.

Mausumi, N. (2017). Stakeholder Roles In Improving Occupational Health and Safety (OHS): A Case Study of Bangladesh Garment Industry. *International Journal of Business Research and Management*.

McCleary, K., Goetzel, R. Z., Roemer, E. C., Berko, J., Kent, K., & De La Torre, H. (2017). Employer and employee opinions about workplace health promotion (wellness) programs: results of the 2015 Harris Poll Nielsen Survey. *Journal of occupational and environmental medicine*, *59*(3), 256-263.

Mia, A. R. (2016). Rights of women workers in the Ready-Made Garment (RMG) sector of Bangladesh: Law and Practice. *Sonargaon University Journal*, *1*(1).

Miles, M.B. and Huberman, A.M. (1994), Qualitative Data Analysis: An Expanded Sourcebook, Sage, Beverly Hills, CA.

Mohibullah, A. T. M., Hosen, M., Abir, I. H., Takebira, U. M., Jannat, F., & Shakil, I. K. (2018). Improvement of forward linkage to sustain the global apparel market of Bangladesh. *Journal of Textile Engineering & Fashion Technology*, *4*(4).

Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2015). Human resource management. *Gaining a Competitive*.

Oka, C. (2010). Channels of buyer influence and labor standard compliance: the case of Cambodia's garment sector. In *Advances in Industrial and Labor Relations*. Emerald Group Publishing Limited.

Passey, S. L., & Passi, S. L. (1990). Role of Trade Unions: Need for New Attitudes, Beliefs and Practices. *Indian Journal of Industrial Relations*, 387-392.

Patton, M.Q. (2008), Qualitative Research and Evaluation Method, Sage, Newbury Park, CA.

Rahim, M. M., (2017). "Improving Social Responsibility in RMG Industries through a New Governance Approach in Laws", in Journal of Business Ethics, 143(4), 807-826.

Rahman, M. A., & Hossain, M. S. (2010). Compliance practices in garment industries in Dhaka city. *Journal of Business and Technology (Dhaka)*, *5*(2), 71-87.

Rahman, M. M., & Kashem, M. A. (2017). Carbon emissions, energy consumption and industrial growth in Bangladesh: Empirical evidence from ARDL cointegration and Granger causality analysis. *Energy Policy*, *110*, 600-608.

Rahman, M. H., & Siddiqui, S. A. (2015). RMG: prospect of contribution in economy of Bangladesh. *International Journal of Scientific and Research Publications*, *5*(9), 1-8.

Rahman, M. T., Habibullah, M., & Masum, M. A. (2017). Readymade garment industry in Bangladesh: growth, contribution and challenges. *IOSR Journal of Economics and Finance (IOSR-JEF)*, *8*(3), 01-07.

Rahman, S. (2019). Post-Rana Plaza responses: Changing role of the Bangladeshi government. In *Labor, Global Supply Chains, and the Garment Industry in South Asia* (pp. 131-148). Routledge.

Rakib, M. A., & Adnan, A. (2015). Challenges of ready-made garments sector in Bangladesh: Ways to overcome. *BUFT Journal*, *3*, 77-90.

Rayhan, S. J., Saha, S., & Hassan, M. M. (2014). Factors Affecting the Customer Buying Behavior in Relation to Readymade Garments in Bangladesh. *International Research Journal of Marketing*, *2*(2), 36-42.

Rogers, J., & Streeck, W. (Eds.). (2009). *Works Councils: consultation, representation, and cooperation in industrial relations*. University of Chicago Press.

Rousseau, D. M. (1990). New hire perceptions of their own and their employer's obligations: A study of psychological contracts. *Journal of organizational behavior*, *11*(5), 389-400.

Rubin, A. and Babbie, E.R. (2009), Essential Research Methods for Social Work, Cengage Learning, Stamford, CT, p. 150.

Saha, A. K., & Islam, M. S. (2017). Experience in Readymade Garments Export: A Study on Global Context. *The Millennium University Journal*, *2*(1), 25-36.

Sheldon, P., & Thornthwaite, L. (2001). Employer matters in 2000. *The Journal of Industrial Relations*, *43*(2), 219-242.

Summers, C. W. (2000). Employment at will in the United States: The divine right of employers. *U. Pa. J. Lab. & Emp. L.*, *3*, 65.

Taylor, C. R., & Wiggins, S. N. (1997). Competition or compensation: Supplier incentives under the American and Japanese subcontracting systems. *The American Economic Review*, 598-618.

Uddin, M. (2014). Role of Labour Administration Departments in Protecting Labour Rights: Bangladesh Perspective. *Indian JL & Just.*, *5*, 47.

Uddin, M.S. and Jahed, A.M. (2007). "Garments Industry: A Prime Mover of the Socio Economic Development of Bangladesh", The Cost and Management, Volume 35 No.1, January-February, 2007, pp. 59-70, ISBN 1817-5090

Ullah, A. (2015). Garment Industry in Bangladesh: An Era of Globalization and Neo-Liberalization. *Middle East Journal of Business*, *55*(2031), 1-13.

Weiler, P. C. (2009). *Governing the workplace: The future of labor and employment law*. Harvard University Press.

Wibberley, G., Bennett, T., Jones, C., & Hollinrake, A. (2018). The role of trade unions in supporting victims of domestic violence in the workplace. *Industrial Relations Journal*, *49*(1), 69-85.

Yunus, M., & Yamagata, T. (2012). The garment industry in Bangladesh. *Dynamics of the Garment Industry in Low-Income Countries: Experience of Asia and Africa (Interim Report). Chousakenkyu Houkokusho, IDE-JETRO*, *6*, 29.

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 155-165 (Printed in January, 2021)

Examining the Level of Employees' Commitment, Productivity and Work Life Balance in Theory X and Theory Y Type of Leadership Behavior

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Abstract

The X-type and Y-type leadership behavior are the behaviors of managers suggested in the Theory X and Theory Y. The theory indicates that, some of the managers possess negative (X-type behavior)and some others possess the positive (Y-type behavior)perception about their subordinates. This study has tested whether the level Employees Commitment, Productivity and Work Life Balance vary in the above two situations: when their managers possess X-type leadership behavior(thinks them negatively) and when their managers possess Y-type leadership behavior(think them positively). The findings reveal that with the X and Y-type leadership behavior of managers the level of commitment, productivity and work-life balance of employees significantly vary. Another finding of the study is that, the Y-type leadership behavior of managers increases the level of commitment and promote better work-life balance of the employees and on the other hand, the X-type leadership behavior of managers lead to the situation of increased productivity of employees. The respondents' opinion says that, they dislike the negative mentalities (X-type leadership behavior) of their managers even if they get satisfactory salary and increment, timely promotion or the handsome monetary and non-monetary benefits along with salary. On the other hand, the respondents will embrace the negative mentality of managers if they get enough supports from the organization for career development; have friendly relationship with the colleagues and get a good social status for their job. The findings of this study will bring a new insight to the academics and the researchers. It will also help jobholders be aware about their jobs and related issues and the mentalities of their Managers/supervisors. The study will also draw an attention to the employers/decision makers to be concerned about how they will think about their employees to get better from them.

Keywords: *X-type leadership behavior, Y-type leadership behavior, Commitment, Work-life balance, Productivity.*

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1. Introduction

The body of the literature is almost filled by the extensive study of managerial and leadership behavior towards employee. Douglas McGregor(1960) suggested a philosophical view of humankind in his book "The Human Side of Enterprise" 1960 with his Theory X and Theory Y. These are two opposing perceptions (mentalities) about how managers think about their employees. It encapsulated a fundamental distinction between management (leadership behavior) styles based on the two perceptions. The two opposing views shown in the Theory X and Theory Y are considered as the Theory X-Type Leadership Behavior and the Theory X-Type Leadership Behavior in this study.

1.1 Theory XType Leadership Behavior:

It is an authoritarian style and it highly emphasizes on the productivity and possesses a common perception about the employees that they dislike work so they need to be strongly supervised and controlled. (Hasan and Alam, 2015; Tim, 2003). Latterly Theory X type leadership behavior has been considered as a negative way of dealing with employees. In this theory it is assumed that employees are by nature, reluctant to fulfill the obligations of their job and instead will find ways to avoid work or otherwise reduce their work output in a bid to expend the least amount of effort possible. In this theory, managers possess negative mentality about their subordinate regarding their performance and personality.

1.2 Theory Y Type Leadership Behavior:

It is a behavior of leadership which is concerned with the positive thinking about employees and assumes that people will exercise self-direction and self-control in the achievement of organizational objectives to the degree that they are committed to those objectives. It is management's main task in such a system to maximize that commitment (Tim, 2003). In many ways, Theory Y is, the diverse of that of Theory X. Theory Y states that employees actually become more productive when more trust and responsibility is delegated to them. According to Theory Y, employees do wish to work ad be productive and the act of doing well at work is itself a strong motivator. According to Charles (2005), McGregor's theory Y stands in a unique place in managerial history and advocated a heightened awareness of management responsibility for the human side of employer-employee relations. In this theory managers possess positive mentality about their subordinate regarding their performance, personality thinking.

2. Literature Review

A very few number of researches have been conducted relating to the study topic. So this study has reviewed the closely related literature to the research topic.

Employee's commitment to his or her organization and the willingness to perform beyond expectations is one of the most a focus areas of management. Likewise, commitment of the employees is much widely researched comparing to the other related issues (Hasan & Alam, 2015).A committed employee isalways considered to be motivated to work and dedicated to the organization. Organizational commitment is an individual's willingness to

dedicate efforts and loyalty to an organization (Jalonen et.al. 2006 and Wagner 2007). It means the members of an organization have active and highly positive inclination toward the organization, and such inclination includes identification with an organization's goals and values, dedication to job, and loyalty to an organization (Trimble 2006). Commitment also leads to improvement in retention levels. Employees who are committed take pride in their work, support organization and are less likely willing to change jobs for a minor increase in salary. It is important to note that fully committed employees express feelings of enthusiasm, empowerment confidence, and value based on their interactions with their direct managers (Dale 2012).

Another important and crucial issue the work-life balance is now a day much more concern of the employers and managers. Work-life balance refers to a situation that an employee is able to better manage and maintain a balance with his/her work as well his/her family life (Hasan & Alam, 2015).

Now a day, most of the managers possess the intention to maximize the level of productivity of the employees which is labeled as the task oriented leadership/management behavior. There is a close relationship and between the task oriented behavior of managers and the level of productivity of employee (Hasan and Alam, 2015).

McGregor's (1960) Theory X and Theory Y type leadership behavior have a strong and significant influence on the commitment (Hasan and Alam, 2015), work-life balance and the productivity (Bass & Stogdill, 1990;Meyer 1968;Lewin & Lippitt 1938) of employees. Meyer (1968) investigated the effect of leadership perceptions regarding theory X and Theory Y. He explored these theories by studying two plants of employees, one managed according to theory X and the other according Theory Y. Findings revealed that workers who were exposed to Theory Y leadership behaviors had a more positive experience and as a result felt greater responsibility, more warmth, and personality rewarded. Lewin & Lippitt (1938) undertook a study of several groups from democratic (relations-oriented) groups. They found that authoritarian/autocratic (x-type) leadership behaviors involves a focus on goals and tasks, as well as denying others involvement in the decision making process and hence increase productivity. Contrarily, democratic (y-type) leadership behaviors includes praise, invitation to participate, and encouragement. These findings are also supported by the findings of Nelson (1949; 1950), Fleishman (1953) and Stogdill (1963).Jermier & Berkes (1979) discovered that employees who were allowed to participate in decision making had higher levels of commitment to the organization. DeCotiis & Summers (1987) found that when employees were treated with consideration, they displayed greater levels of commitment (Bycio, Hackett & Allen, 1995; Reyes 1990; Riehl & Sipple 1996; Rosenholtz & Simpson 1990; Shaw & Reyes 1992) and work-life balance. Other researches such as Kent & Chelladuarai (2001) stated that positive and consideration thinking of managers has positive influence on both affective commitment and normative commitment. (Eisenberger et al. 2002; Kottke & Sharafinski 1988; Armstrong 1988and Hutchison 1997) found out that supervisors' positive thinking and

support had strong relationship with job satisfaction and it will lead to the better work-life balance. Ogilvie (1986) confirmed that supervisors' perceptions about their employees had an impact on the commitment of employees. When supervisors communicate positive emotions, the employee feels good about the organization as a whole. Likewise, negative reactions cause a decrease in productivity and morale, leading to less commitment and poor work-life balance (Hasan and Alam, 2015). Effective managers estimate the need level of their people and apply the appropriate approach to capitalize on employees' motivation and commitment.

Many studies were carried out on employees' commitment, work-life balance and productivity but a few of them shown the comparative analysis the two distinct mentality of managers in an organization. Since each and every managers possesses either positive or negative perceptions about their subordinates so this also crucial to examine which one is better for both the organization and the employees and which one is suitable for the long run success of an organization. The present study will measure the level of subordinate's commitment, productivity and work-life balance in the X and Y-type leadership behavior of managers.

3. Objective of the study

The objectives of the study are

1. To examine the variation of commitment, productivity and work-life balance of employees in two distinct situations (theory X and theory Y type leadership behaviors);
2. To show the level of commitment, productivity and work-life balance of employees in the theory X and theory Y type leadership behaviors;
3. To show the perceptions of the respondents regarding the theory X type leadership behavior of managers.

4. Framework and hypothesis:

The study is conclusive in nature. In this study the researchers will examine the level of commitment, productivity and work-life balance of employees in two distinct situations: Theory-X and Theory-Y type leadership behavior of the managers. For this, the study draws the following hypotheses:

Ha1: There is a significant difference between the level of commitment of employees in Theory X and Theory Y type leadership behavior of the managers;

Ha 2: There is a significant difference between the level of work-life balance employees in Theory X and Theory Y type leadership behavior of the managers;

Ha 3: There is a significant difference between the level of productivity of employees in Theory X and Theory Y type leadership behavior of the managers.

5. Methodology of the study

5.1 Data collection, technique and questionnaire design

The study used questionnaire-survey method to collect data. The questionnaire included two parts: first - the respondents' demographic information, second - the statements relating to the perception of the respondents regarding the x-type leadership behavior in their organizations. The Likert-type scale, where 5= excellent, 4=good, 3=average, 2=poor and 1=very poor was used to summarize the responses.

5.2 Pre-Test and Piloting

Before conducting the survey, 15 questionnaires were sent to the respondents (possess the same characteristics to the sample) to conduct a pilot survey. It reveals some important guidelines for modification of the questionnaire such as interpretation of the key and technical terms, and some possible areas of confusion or ambiguity.

5.3 Respondents and sample size

The survey of the study was carried out among the employees of both private and public sector organizations majorly in Dhaka city along with the different districts of Bangladesh using questionnaire mailing option. A random sampling method had been adopted for choosing the respondents from differen to rganizations. After collecting the filled questionnaire, the study found 158 usable responses and hence used as sample.

5.4 Data analysis and tools applied

The participants' responses were analyzed with the SPSS 17 software. Descriptive statistics was used to show the perception of the respondent regarding the X-type behavior of the managers in organizations and T-test was used to test the hypotheses.

5.5 Reliability of data

The reliability of the questionnaire was assessed by computing the Cronbach's alpha. The following table 1 shows the value of the alpha which is .722. The value is much higher than acceptable alpha value (.6; George and Mallery, 2003). So the questionnaire had the adequate reliability.

Table 1: Reliability Statistics

Cronbach's Alpha	No. of Items
.722	14

5.6 Ethical Considerations

The researchers paid the utmost attention regarding human interest and dignity and considered the harm and risk of revealing and reporting individual data. So they maintained the highest confidentially of the responses. Besides, the researchers ensured neutrality and objectivity that helped the findings to be the true opinion of the respondents.

6. Results and Discussion:

6.1 Demographic information of the respondents:

The table below (table 2) shows the demographic information of the respondents:

Table 2: Demographic information of the respondents

Particulars	Percentage	Particulars	Percentage
AGE		**JOB NATURE**	
20-30	40.7	Permanent	93.3
30-40	40.0	Contractual	6.7
40-50	13.3	Total	100.0
50-60	6.00	**EXPERIANCE**	
Total	100.0	Below 3 Years	40.0
SALARY		3-6 Years	46.7
Below 50000	77.3	6-9 Years	13.3
50000-60000	15.7	Total	100.0
60000-70000	08.0	**MARITAL STATUS**	
EDUCATION		Unmarried	26.7
Graduate Level	10.0	Married	66.7
Postgraduate Level	90.0	Divorced	6.7
Total	100.0	Total	100.0

The above table 2 shows that most of the respondents are in the age of 20-40 (80.7%), majority of them get the salary below 50000 (77.3%) per month, almost all (90%) of them have completed the post-graduation and engaged in the permanent jobs (93.3%). The table also reveals that most of the respondents (86.7%) have the job experience of 1-6 years and the majority of them are married (66.7%).

6.2 Hypothesis testing:

Following table 3 shows the results of the t=test for testing the hypothesis:

Variables	t	df	P	Mean Difference	Std. Error Difference
Commitment	2.845	156	.005	.58158	.20442
Productivity	4.130	156	.003	.06667	.51096
Work-Life Balance	2.093	156	.006	.01794	.19268

(The level of commitment, Productivity and Work-life balance represent the self-reported values of the respondents)

The above table shows that p values for three different variables in two different situations: x-type leadership behavior and y-type leadership behavior. Since the p values for all the variables are less than .05 so it can be said that the commitment, productivity and work-life balance of respondents significantly vary for the x-type leadership behavior and y-type leadership behavior of their managers. That means all of the alternative hypotheses are accepted.

6.3 The level of commitment, productivity and work-life balance for the x and y-mentalities of managers:

Following table 4 shows the mean values of the level of commitment, productivity and work-life balance of the respondents for x type leadership behavior of their managers respectively:

Table 4: Examining the level of commitment, productivity and work-life balance

Variables	Leadership Behavior	n	Mean	Std. Deviation	Std. Error Mean
Commitment	Y=type	125	4.3576	1.04776	.09371
	X-type	33	1.3260	1.03169	.17959
Work-Life Balance	Y=type	125	3.4936	.98098	.08774
	X-type	33	1.2540	.99810	.17375
Productivity	Y=type	125	1.3333	2.88489	.25803
	X-type	33	3.4031	.98953	.17225

Scale 5=excellent, 1=very poor, N=158 (125+33) (the level of commitment, Productivity and Work-life balance represent the self-reported values of the respondents)

The above table shows that the mean value of the commitment of the respondent is 4.3576 when their managers possess the Y-type leadership behavior upon them and which is much higher than value (1.3260) when their managers possess X-type leadership behavior upon them. On the other hand, the value of productivity shows that, it is higher (3.4031) for the X-type leadership behavior of the managers and lower (1.3333) for the Y-type leadership behavior of the managers. The value of work-life balance is 3.4936 when the managers have Y-type leadership behavior and 1.2540 when the managers have X-type leadership behavior upon their respondents. Since the negative mentality of managers leads them to the excessive supervision and control to the subordinates it may increase the level of productivity of the subordinates. The above results reveal the following conclusions that the Y-type leadership behavior of managers increases the level of commitment and promote better work-life balance of the employees and on the other hand, the X-type leadership behavior of managers lead to the situation of increased productivity of employees.

6.4 Perception of the respondents regarding the X-type leadership behavior of managers:

Following table 5 shows the Perception of the respondents regarding the X-type leadership behavior of managers:

Table 5: Respondents perceptions regarding the X-type leadership behavior of managers

Sl. No.	Statements	Mean	Std. Deviation
1	Managers negative mentality does not matter if **salary is satisfactory**	3.9937	2.04876
2	I am concerned about personal development and growth, Managers negative mentality does not matter if the **increment is high**	3.1962	2.75417
3	I am concerned about personal development and growth, Managers negative mentality does not matter if I **get promotion timely**	3.9684	1.21257
4	I do not bother about Managers negative mentality if I get **sufficient monetary and non-monetary benefit** with a **handsome salary**	3.4227	1.26182
5	High salary along with other monetary and nonmonetary benefits is truly important but if I am not being **treated as a human being rather than a machine** I will never be satisfied.	1.2646	2.57526
6	Managers negative mentality does not matter if I my **contribution is recognized**	2.6139	1.12145
7	If my **job is secured** I will embrace Managers negative mentality	2.9494	1.18266
8	If I get **enough supports** from my organization for **career development** I will embrace Managers negative mentality	1.6962	1.22972
9	If I have **friendly relationship with my colleagues**, Managers negative mentality will not affect me so much	1.8354	1.24594
10	If I get a **good social status** for my job, Managers' negative mentality does not matter	1.7278	1.29008
11	I think with negative mentality of managers, the productivity may increase because of the managers' aggressiveness and excessive supervision but **quality** may decrease	1.4620	1.01978

*1=Strongly Agree, 5=Strongly Disagree, X-type leadership behavior is expressed as negative mentality in the statements

The above table 5 shows that, the mean value of the statements 1, 2, 3, and 4 are 3.9937, 3.1962, 3.9684 and 3.4227 respectively. Which indicates that the respondents dislike the negative mentalities of their managers even if they get satisfactory salary and increment, timely promotion or the handsome monetary and non-monetary benefits along with salary. Accordingly, the mean value of the statement 5 (1.2646)indicates that the respondents expect to be treated as a human being rather than a machine. The mean value of the statements 8 (1.6962), 9 (1.8354) and 10 (1.7278) indicate that the respondents accept the negative mentality of managers if they get enough supports from the organization for career development; have friendly relationship the colleagues and get a good social status for the job. The statement 11 says that with the negative mentality of managers, the productivity may increase because of the managers' aggressiveness and excessive supervision but quality may decrease (mean value 1.4620).

7. **Conclusion:**

The x and y-type leadership behavior the negative and positive mentalities of managers come from the Theory X and Theory Y. The theory indicates that, some of the managers possess negative and some others possess the positive perception about their subordinates. This study has tested whether the level of in the above two situations: when their managers have X-type leadership behavior(thinks them negatively) and when their managers have Y-type leadership behavior(think them positively). The findings reveal that with the X and Y-type leadership behavior of managers the level of commitment, productivity and work-life balance of employees significantly vary. Another finding of the study is that, the Y-type leadership behavior of managers increases the level of commitment and promote better work-life balance of the employees and on the other hand, the X-type leadership behavior of managers lead to the situation of increased productivity of employees. The respondents' opinion says that, they dislike the negative mentalities (X-type leadership behavior) of their managers even if they get satisfactory salary and increment, timely promotion or the handsome monetary and non-monetary benefits along with salary. On the other hand, the respondents will accept the negative mentality of managers if they get enough supports from the organization for career development; have friendly relationship the colleagues and get a good social status for their job.

8. Implications

Since a few researches are conducted in this field in Bangladesh, the findings of this study will bring a new insight to the academics and the researchers. It will also help jobholders be aware about their jobs and related issues and the mentalities of their Managers/supervisors. The study will also draw an attention to the employers/decision makers to be concerned about how they will think about their employees to get better from them.

9. Suggestions for further research

A few researches has been conducted in Bangladesh relating to the research problem of this study, so it will definitely establish a milestone for the students, academics and researchers by contributing the body of knowlegde. The researchers of this study suggest the further researchers to be concerned about the following issues:

- Maximizing the size of the sample to have maximum accuracy of result;
- The researchers should directly be involved in the whole data collection process;
- The researches may go through the observation method along with the questionnaire method to get actual scenario.

References

Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications*. Simon and Schuster.

Bycio, P., Hackett, R.D. and Allen, J.S., 1995. Further assessments of Bass's (1985) conceptualization of transactional and transformational leadership. Journal of applied psychology, 80(4), p.468.

Dale C., 2012. Enhancing employee engagement: The Role of the Immediate Supervisor, *Dale Carnegie Training White Paper*. [Available at: www.dalecarnegie.com/ white-papers/improving-employeeengagement]

DeCotiis, T.A. and Summers, T.P., 1987. A path analysis of a model of the antecedents and consequences of organizational commitment. Human relations, 40(7), pp.445-470.

Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P.D. and Rhoades, L., 2001 .Reciprocation of perceived organizational support. Journal of Applied Psychology, 86(1), pp.42-51.

Fleishman, E.A., 1953. The description of supervisory behavior. Journal of applied psychology, 37(1), p.1.

Hasan, M. M., &, Alam, M. J. (2015), "Douglas McGragor Theory X and Theory Y Mentalities of Managers and Its Impact on Subordinate's Organizational Commitment", *Management Development*, vol. 29, no. 3 & 4.

Hutchison, S., 1997. A path model of perceived organizational support. Journal of Social Behavior and Personality, 12(1), p.159.

Jalonen, P., Virtanen, M., Vahtera, J., Elovainio, M., & Kivimaki, M. (2006). Predictors of sustained organizational commitment among nurses with temporary job contracts. *JONA: The Journal of Nursing Administration*, *36*(5), 268-276.

Jermier, J.M. and Berkes, L.J., 1979. Leader behavior in a police command bureaucracy: A closer look at the quasi-military model. Administrative science quarterly, pp.1-23.

Kent, A. and Chelladurai, P., 2001. Perceived transformational leadership, organizational commitment, and citizenship behavior: A case study in intercollegiate athletics. Journal of sport management, 15(2), pp.135-159.

Kottke, J.L. and Sharafinski, C.E., 1988. Measuring perceived supervisory and organizational support. Educational and Psychological Measurement, 48(4), pp.10751079.

Lewin, K., & Lippitt, R. (1938). An experimental approach to the study of autocracy and democracy: A preliminary note. *Sociometry*, *1*(3/4), 292-300.

McGregor, D. (1960). Theory X and theory Y. *Organization theory*, pp. 358-374.

Meyer, M.W., 1968. The Two Authority Structures of Bureaucratic Organizatino. Administrative Science Quarterly, pp.211-228.

Nelson, C. (1949). The development and evaluation of a leadership attitude scale for foremen. Unpublished Doctoral Dissertation, University of Chicago, Chicago.

Nelson, C. (1950). Differential concepts of leadership and their function in an industrial organization. Paper presented at the Paper, American Psychological Association, State College, PA.

Ogilvie, J.R., 1986. The role of human resource management practices in predicting organizational commitment. Group & Organization Management, 11(4), pp.335-359.

Reyes, P., 1990. Individual work orientation and teacher outcomes. The Journal of Educational Research, 83(6), pp.327-335.

Riehl, C. and Sipple, J.W., 1996. Making the most of time and talent: Secondary school organizational climates, teaching task environments, and teacher commitment. American Educational Research Journal, 33(4), pp.873-901.

Shaw, J. and Reyes, P., 1992. School cultures: Organizational value orientation and commitment. The Journal of Educational Research, 85(5), pp.295-302.

Stogdill, R.M., 1963. Manual for the leader behavior description questionnaire-Form XII: An experimental revision. Bureau of Business Research, College of Commerce and Administration, Ohio State University.

Tim, H., 2003. Guide to Management Ideas and Gurus. The Economist (Profile Books; 322 pp.20).

Trimble, D. E. (2006). Organizational commitment, job satisfaction, and turnover intention of missionaries. *Journal of Psychology and Theology*, *34*(4), 349-360.

Wagner, J. (2007). Exports and productivity: A survey of the evidence from firm-level data. *World Economy*, *30*(1), 60-82.

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 166-185 (Printed in January, 2021)

Factors Affecting Credit Accessibility of Small and Medium Enterprises (SMEs) in Bangladesh

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Abstract

The purpose of the study is to establish the determinant of factors influencing credit accessibility of SMEs based on Trade off Theory, Information Asymmetry Theory and Pecking Order Theory. Quantitative approach has been used in this research. A conceptual model was molded and a random sample survey of 385 SMEs' owner or manager was conducted from entire SME population. Only 25.97 percent SME firms uses commercial banks' loan in Bangladesh. Determinants factors of debt accessibility of SME firms of are owner's capital, collateral, financial leverage, firms' attributes, owner's features. The rate of interest, profitability, taxation, and ownership style are also the determinant factors of SME loan. The research will be helpful in filling the research gap and will give a great contribution to the policy makers to find out the limited access to bank loan by the SME firm. The research paper uses detached approach from the previous studies with large sample and Ramsey's Tests for Model Specification Error to rummage the SME in different ways.

Keywords: *SME, financial leverage, accounting statement, financing difficulties, adverse selection*.

1. Introduction

Small and Medium Enterprises (SMEs) universally have been playing a significant role in exacerbating economic development, reducing hunger and poverty, contributing potentially to the overall industry, attaining millennium development goals through employment generation and removing gender inequality. The contribution of SMEs to GDP is 23 percent and is 80 percent jobs in the industry sector in 2017-18 Fiscal Year (Dhaka Tribune. 8 April 2018). But in 2019, this contribution to GDP was only 20.25 percent whereas whereas it was 80 percent in India, 60 percent in China and 69.50 in Japan. The 80 percent enterprises of Bangladesh is SMEs whereas 97.60 percent in India, 99 percent in China, 99.70 percent in Japan (The daily star, 30 September 2019). So the contribution is lower than the other countries of Asia.

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The formal external source of fund is bank loan but due to the asymmetric information and other factors, banks follow credit rationing and create adverse selection and moral hazard (Huang et al. 2014; Berger and Frame 2007).

2. Statement of the problem

SMEs have been recognized as the principal driving force of the economy by generating huge employment opportunities and creating innovative ideas. They create a larger percentage of the businesses operated in Bangladesh (Ahmed, 2006). The SME sector produces 40 percent of gross manufacturing products. This sector also contributes 80 percent employment of the industrial sector and twenty five percent of all labor force. Not only that they contribute 20.25 percent of GDP (The daily star, 30 September 2019). In spite of significant contribution in economy of this sector, they have been seriously suffering from the limited access to financial services. The most crucial problem to SME is the shortage of adequate capital required to run the business. Most of the firms have to begin with their own capital or by borrowing from relatives, and then bank finance. Bangladesh Bank annual report (2006-07) expressed that higher growth of SME sector can eliminate the poverty to a pleasing level by deleting different prejudices against labor intensive sector like SMEs. On the others hand, commercial banks generally choose large enterprise because of lower transition costs, available information, and greater availability of collateral (Nehereen 2010). The financial information of the firms is unaudited and do not provide quality information. So, due to asymmetric information, bankers create credit rationing following by adverse selection or moral hazard. Against these backdrops, this research is, therefore, appropriate and timely as it gave attention on the examination of the determinants of credit accessibility by SMEs in Bangladesh.

3. Research Objectives

To examine the factors influencing credit accessibility of SMEs based on Trade off Theory, Information Asymmetry Theory and Pecking Order Theory.

4. Theory, literature and hypotheses development

4.1 Review of Theories

A firm's capital structure is the composition or 'structure' of its internal liabilities. The total capital of a firm is described as a combination of equity and debt capital used to run their operation. The theories of capital structure are the trade-off theory (TOT) developed by Modigliani and Miller in 1958 and 1963; the agency theory (AT) developed by Jensen & Meckling in 1976 and extended by Stiglitz and Weiss in 1981 and the pecking order theory (POT) by Myers (1984). The Modigliani- Miller (MM) theory in 1958 outlines the basis for capital structure. The theory affirms that, the capital structure is immaterial to its value in a perfect market. But in the real world firms' value is affected by their capital structure. The other reasons are bankruptcy costs, agency costs, taxes and information asymmetry. As interest on debt is tax deductable, so, it helps the firms minimize their cost

of capital and maximize owner's wealth (MM theory, 1963). So a mix of debt with comparatively expensive equity reduces a firm's cost of capital and this is called leverage effect. If firms are not able to fulfill their debt requirements they are forced into bankruptcy and incurs associated costs. The pecking order theory states that optimal leverage ratio can remove the above problems but there is no well-defined optimal capital structure.

The inadequacy of owners' capital for new SMEs makes dependent on debt financing at the early-stage. But commercial banks scruple to lend to start-up SMEs in developing countries (Mazanai & Fatoki 2011). The commercial banks argue for credit rationing due to asymmetric information and agency problems (Stiglitz and Weiss 1981). Only the firms know the expected risk and return of the project but the lenders know average return and risk of project due to asymmetric information. As per agency theory, the bankers are the agent of shareholders and approving credit ensure that benefits of shareholders are not compromised. The banker provides credit to a particular borrower depending on sufficient information regarding borrower's reliability and on being sure that borrowed money will be used effectively and principal will be paid with interest (Mazanai & Fatoki 2011). So, due to asymmetric information, bankers create credit rationing following by adverse selection or moral hazard.

4.2 **Empirical Review**

Owner's Capital

Pecking Order Theory (POT), firstly developed by Donaldson (1961) and then customized by Myers and Majluf (1984), developed from the concept of asymmetric information and the management of the enterprise is better informed about the true value of the firm than the outsider investors. The management of the organization holds better information related to performance, risks and potential prospects of the firm than the external investor. As a result the investor claims higher return to compensate for asymmetric information. So management firstly wants to use internal capital and then debt finance and lastly equity finance (Serrasqueiro & Caetano, 2014; Serrasqueiro, et al. 2011; Adair & Adaskou 2015).

Opposed to the POT, Trade off theory describes the optimum capital structure identifies the ratio the debt finance and equity finance by trading off cost and benefits. It means a balance between the dead-weight costs of bankruptcy and the tax saving benefits of debt (Sogorb-Mira & Lopez-Gracia, 2003; Serrasqueiro & Nunes 2014; López-Gracia & Sogorb-Mira 2008).

H_{01}: There is a significant relationship between internal capital and debt accessibility of SME firm.

Financial Information

Based on the above mentioned theories, information asymmetries is one of the key arguments in determining SME financial structure (Van Caneghem & Van Campenhout 2010; Hutchinson 2004; Brealey et al.1977). Information asymmetry is more severe in

SMEs context than the large organization due to shortage of available accounting information. Besides these account keeping procedures are different from firm to firm and the quality of financial statement is very poor since the financial statements are mostly unaudited (Estifania, et al. 2017; Van Caneghem & Van Campenhout 2010).

Information quality has a positive influence on approving credit to SME firms. The loan officer of the bank is positively influenced by the financial information quality to give access to bank credit and negatively influenced by the appreciated default risk. Audited firm's information is qualified. Audited accounting information appreciates the risk of the firm (Estifania, et al. 2017). The number and quality of financial statement have positive influence on access to bank credit and asymmetric information creates limited access to bank credit (Van Caneghem & Van Campenhout 2010; Moro, Fink, & Maresch, 2015). As the asymmetric information reduces, the credit accessibility of SME firm increases.

So we can assume that there is a positive relationship between debt accessibility and quality of information.

H_{02}: Financial information has a significant relationship with debt accessibility.

Firms' features

The management of the SMEs always tries to select optimal capital structure that enhances the value of the firm. So, they need different types of internal and external funding. For debt financing it obliges the repay of the loan with interest and this repay is distinguished from the flourishing investment of borrowed money (Adair & Adaskou 2015; Ang 1991; Harris & Raviv 1991; Holmes & Kent 1991). Equity investment is the better option in compared to debt financing but it compound control and ownership. But equity investment is costly than debt financing due to its features of deductible interest.

Here, trade off theory states the way of selecting the optimal structure considering tax benefits of debt along with bankruptcy cost. But pecking order theory does not support the former theory and states that internal financing is the first priority and debt financing is the last priority (Adair & Adaskou 2015). Shyam-Sunder& Myers in 1999 support the POT but Frank & Goyal in 2003 did not support the POT where there is a problem of asymmetric information.

Larger firms have lower probability of bankrupt compared to smaller firm. Furthermore larger firms have more available information than that of small firms and the former have less asymmetric information (Van Caneghem & Van Campenhout 2010; Wangmo 2016). So according to POT, a positive relation exists between size and financial leverage.

Limited access to bank credit occurs first and foremost as a result of information asymmetries (Palazuelos et al. 2017; Moro et al.2015; Binks & Ennew 1996). Reduction in asymmetric information between SME borrowers and lenders reduces SMEs' chance of credit denial and cost of debt (Cassar et al. 2014). The asymmetric information is less acute in older firms in compared to new firms. The older firms have put in good repute in relating to solve financial burden timely (Van & Van 2010). So firm's age and financial

leverage are positively related with each other. Even so, the younger firms are less productive and profitable (Majumdar 1997).

Industry (Trade, Service, and Manufacturing) does not directly decide the firms' capital structure but do so indirectly via the nature and composition of the firm's assets (Michaelas, 2000; Myers 1984). There is a relationship between financial leverage and industry classification and industry classification is a proxy for business risk (Fatoki & Asah 2011). Manufacturing industry largely depends on long term credit compared to trade sector and service. Firm's sector or industry type is significant in selecting the capital structure of SMEs (Joshua Abor 2007).

H_{03}: There is a significant relationship between Firms' features (Size, Sector and age of the firm) and financial leverage or accessibility to debt.

Collateral

The banks are more likely to disburse collateralized lending for the three major theoretical reasons: curtailment of loan loss in case of default, moral hazard and adverse selection (ONO & UESUGI 2009). The problem of adverse selection is not solved by the collateral due to positive relationship between collateral and risk premium, nor moral hazard, as mortgaged loans are not related with a lower probability of moral hazard behavior (Blazy & Weill 2013). The issue of collateral is not related to credit accessibility, interest rates of the loan and credit risk of SMEs (RAHMAN et al 2016; Hanedar et al. 2013). The risky borrowers are to mortgage collateral and the SME firms with asymmetric information needs collateral to access bank loan. Long term Loans are more likely to be collateralized than short matured loans (Rahman et al. 2017).

H_{04}: Collateral is connected with a affirmative perception of access to bank finance.

Managerial ownership

Managerial ownership indicates the ownership style (Solo-proprietorship, partnership) of the firm. Debt finance and equity finance have a positive effect and significant influence on ownership style and managerial style of SME (Kongmanila & Kimbara 2007). There is a relation between financial leverage and managerial ownership. Solo- proprietorship managerial style firm is more acceptable in compared to partnership managerial style (Daily and Thompson, 1994).

H_{05}: Managerial ownership is connected with a affirmative perception of access to bank finance.

Profitability of the firm

The SME firms earned more profit have a better conception of access to bank finance because of their ability of generating higher cash flows that enhances the chance to pay the loan with interest (Ferrando and Mulier 2013). The researcher gives confirmation that firms with lower profitability have the possibility to face financial obstacles. Profitability,

one of the key factors of financial performance, influences in accessing bank credit (Kaplan and Zingales 1997; Quartey et al. 2017). In consistence with the statement, financial obstacles are higher for the firms that earn lower profit (Bougheas et al. 2006).

The researcher thus suggests the hypotheses:

H_{06}: Profitability of the firm affects positively on access to debt finance.

Age of the owner

The owners' age has influence on firm's future growth and it has significant influence on determining SMEs accessibility to bank loan. The age of the owner affects positively on the SMEs' accessibility to bank loan. The young owners or professional managers antagonize difficulties to get debt financing. As a result, policy makers and banks encourage young owners (Ogubazghi and Muturi 2014; Chowdhury & Alam 2017; Nguyen 2014).

H_{07}: The age of the owner has a significant impact on access to debt finance.

Education level of the owners of the SME firms

The education level of the owner affects significantly on getting accessibility to bank loan. Most of the SME firms managed by professional manager encounter problems to accessibility to debt financing. The banks promote professional managers (Ogubazghi and Muturi 2014). Among the owners' characteristics, the trained, skilled and educated entrepreneurs with the capacity to create relationship with banks get access to bank credit. The trained entrepreneurs are capable of managing the borrowed money for the actual purposes of the business (Chowdhury & Alam 2017).

H_{08}: The education level of the owner has a significant impact on access to debt finance.

Interest rate of the loan

The relationship between banks' lending terms and SMEs' accessibility to bank credit is positive and significant. Among the lending terms, interest rate is the most important (Korutaro et al. 2014). High interest rate and collateral problem are some of the major problems faced by SMEs in accessing bank credit (Chowdhury & Alam 2017). For the new SME project in manufacturing or construction sector the rate of interest is high (Nguyen 2014).

H_{09}: The rate of interest has a significant impact on access to debt finance.

Gender

The gender of the owner/ entrepreneur affect on the SMEs' financial performance, cost of bank loan and accessibility to bank loan (Simo Kengne, 2016; Hsiao, Yu-Jen and Chou, N 2015). Male owners/entrepreneurs alleviate financial risks of the firm by the bank's support whereas female owners/entrepreneurs accentuate the role of society (Kozubíková,

Homolka, Kristalas, 2017). In Australian SMEs, female are not discouraged to take SME loan from commercial bank (Watson, Newby, & Mahuka, 2009).

H_{010}: Gender of the owner is connected with a affirmative perception of access to bank finance.

Taxation status of the firm

The capital structure of SME firms is the combination of debt and equity to continue its operation. The advantage of using debt in SME firm's capital structure is interest on debt is tax-deductible. As a result, it reduces the cost of capital and exploits shareholders' wealth by using debt. Tax saving benefit creates debt finance cheaper than equity finance. Lower cost of capital makes the firm profitable and banks are also interested to provide loan to successful business. So taxation and debt accessibility to bank loan is positively related.

H_{011}: taxation and financial leverage are positively related.

5. Model and the Variables

FL= α+ β_1Internal finance+β_2 Financial Information+β_3 Firm features+ β_4 owners' features+β_5 interest rate + β_6 collateral+ β_7 ownership style +β_8Taxation+ $\beta_9$profitability +□

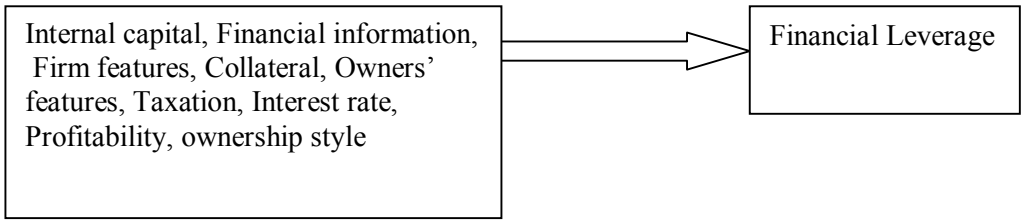
Dependent variable

Financial leverage (FL) or debt accessibility = total debt / total asset

Independent Variables

Internal finance, Financial Information, Firm features, Owners' features, Interest rate, Collateral, Ownership style, Taxation, Profitability.

6. Conceptual framework



7. Data and Methodology

A pilot survey has been done covering 25 SME firms to explore not only the common problems identified in the research questionnaire but also to integrate respondent's opinion

that improved the excellence of the questionnaire that meet up the purpose of the study. This research scrutinizes the influencing factors of credit accessibility of SME firms in Bangladesh. A quantitative approach has been used in this research. This research uses amalgamation of primary data originating from semi structured questionnaire surveyed on SME firms and opinion survey of credit officers of commercial banks, professional accountants and academicians to suggest meaningful commentary on loan accessibility of SME firms. A random sample of 385 SME firms (Cochran formula) was surveyed with structured questionnaire among all SME establishments. Another set of 5 points likert scale questionnaire was prepared for the credit officer of different commercial banks, professional accountants and academicians of different universities in Bangladesh. Another 100 questionnaires are from credit officers, professional accountants and academicians. Simple regression analysis and factor analysis were used to decide the influencing factors of credit accessibility. The statistical model expressed the financial leverage as dependent variable and firm and personnel characteristics as independent variable.

8.1 Normality test

The research uses normality tests to ensure that the data are normally distributed. Therefore, the result shows that owner's capital, profitability of the firm, tax paid by the firm and age of the firm are not normally distributed. So the data are transformed into logarithm function to distribute normally.

Table 1: The Table shows minimum, maximum, mean, St. deviation, skewdness and kurtosis of some independent variables.

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Internal Fund	5.45	1300.00	125.1587	287.88750	2.860	7.028
Ln_Intfinan	1.70	7.17	3.4452	1.38668	1.415	1.234
Ln_Age of Firm	.69	3.43	2.3422	.56468	1.463	2.413
Age of the Firm	2.00	31.00	11.7800	5.10215	.476	1.608
Profit	5.00	1000.00	42.0282	101.96527	8.595	80.611
Ln_Profit	1.61	6.91	3.1307	.94606	.759	1.281
Tax	.08	10.00	.5424	1.36766	5.983	37.506
Ln_Tax	-2.48	2.30	-1.3420	.95243	1.419	2.845

Source: Survey Data

8.2 Reliability test

Here, average inter-item correlation and Cronbach's alpha test justify the internal consistency reliability for the 12 items. The average inter-item correlation value is 0.21 and Cronbach's Alpha is 0.758. So the result of study is reliable and valid.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items[a]	N of Items
.695	.758	12

8.3 Generating dummy variable

The dummy variable obtains the value 0 or 1 and it indicates the nonexistence or existence of several categorical effects that may be estimated to change the outcome.

8.4 Ramsey's RESET Tests for Model Specification Error

H0: The model suffers from no omitted variable

T value	0.254
Beta	2.802
Prob>F =	0.629

The regression specification error test (RESET) which was recommended by Ramsey (1969) and which is planned to identify a nonzero mean of the disturbance in a model of linear regression (Thursby, J. G., & Schmidt, P. 1977). By using powers of the fitted values of the Debt Accessibility, RESET test is run to ensure that the model do not endure any variable omission bias. Here t value is 0.254 and p value (Prob > F) is 0.629. So, the null hypothesis is accepted. So the model has no omitted variables.

8.5 Homoscedasticity Test

Homoscedasticity affirms a situation in which the error term (that is, the "noise" in the association between the dependent and independent variables) is the alike across all values of the independent variables. Heteroscedasticity is the violation of homoscedasticity. The result of Breusch-Pagan and Koenker indicates that the residuals to be normally distributed. The model does not suffer heteroscedasticity.

Breusch-Pagan and Koenker test statistics and sig-values

H_0: Heteroscedasticity not present (homoscedasticity).

	LM	Sig
BP	4.600	0.949
Koenker	5.220	0.920

Since the significance level 0.949 and 0.920, the null hypothesis is accepted. So heteroscedasticity is not present here.

8.6 Multicollinearity Test

The research utilized multicollinearity test to identify whether the independent variables of the study are correlated. Whether the value of Variance Inflation Factor (VIF) is between 1 and 10 then there is absence of multicollinearity.

Table 2: The Table shows the variance inflation factor.

Model	Collinearity Statistics	
	Tolerance	VIF
Gender	.891	1.123
Age of Owner	.447	2.239
Academic Quali	.815	1.226
Ownership Style	.710	1.409
Sector	.586	1.706
Ln_Profit	.276	3.617
Ln_Tax	.201	4.985
Interest Rate	.623	1.605
Mortgage Rate	.599	1.669
Ln_Intfinan	.161	6.223
Ln_Agef	.796	1.257
Financial Information	.897	2.598

Source: Survey Data

8.7 Pearson Correlation Analysis

Correlation is a statistical method for examining the relationship between two continuous variables. Pearson's correlation coefficient assesses the power of the relationship between the two variables.

Table 3: The Table shows Correlation Matrix

	Gender	Academic Quali	Owner Style	Ln_Agef	Interest Rate	Age of Owner	Sector	Mortgage Rate	Ln_Tax	Ln_Profit	Ln_Intfinan	Financial Inform
Gender	1.000	.200	.027	.219	.157	.063	.112	.031	.107	.116	.108	.035
Academic Quali		1.000	.078	.171	.137	.084	.252	.142	.108	.124	.029	.125
Ownership style			1.000	.169	.029	.174	.056	.435	.057	.049	.091	.054
Ln_Agef				1.000	.185	.149	.011	.031	.124	.052	.075	.012
Interest Rate					1.000	.146	.133	.035	.145	-.290	.135	.175
Age of Owner						1.000	.304	.074	.090	.191	.506	.245
Sector							1.000	.113	.068	.030	.264	.054
Mortgage Rate								1.000	.072	.013	.168	.241
Ln_Tax									1.000	-.668	.023	.027
Ln_Profit										1.000	.223	.124
Ln_Intfinan											1.000	.425
Financial Inform												1.000

Source: Survey Data

Table 4: Beta , T value and significant level

R	**.751**
R Square	**.564**
Adjusted R Square	**.425**
Df 1	**24**
Df2	**75**
Sig F. Change	**.000**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.198	.257		4.656	.000
Ownership Style					
Dummy Solepropietorship	.031	.043	.065	.730	.468
Dummy Partnership	.167	.129	.145	1.292	.200
Education Qualification					
Dummy BSC	.103	.055	.443	1.863	.046
Dummy HSC	.133	.056	.551	1.977	.030
Dumm SSC	.083	.056	.303	2.691	.000
Age of the owner					
Dummy 46-55	.034	.046	.105	2.753	.004
Dummy 36-45	.004	.049	.013	2.084	.001
Dummy between 35	.009	.043	.038	2.198	.000
BusinessType of the firm					
Dummy Trade	.114	.037	.493	.102	.103
Dummy Manufacturing	.189	.046	.813	.101	.090
Firm Type					
Dummy Small	.177	.067	.630	2.623	.011
[1]**Duration of the loan**					
Dummy Less 1-2	.002	.043	.010	.054	.957
Dummy 3-5	.034	.044	.145	.783	.436
Financial Statement					
Dummy Profit and loss a/c	.039	.044	.132	.884	.380
Dummy fin pl+bs	.041	.063	.098	.656	.514
Dummy fin pl+bs+cf	.158	.074	.302	1.149	.095
Mortgage					
Dummy Equal	.050	.043	.132	1.180	.242
Dummy Double	.063	.074	.107	.850	.398
Ln_Internal Capital	.041	.024	.495	1.705	.092
Ln_Age of the firm	.051	.019	.253	2.694	.009
Ln_Tax	.019	.030	.160	.637	.526
Ln_Profit	.024	.029	.202	.829	.410
Interest Rate of Loan	.039	.016	.257	-2.406	.069
Gender	.053	.051	.091	1.037	.303

a. Dependent Variable: debt accessibility

Ownership style (solepropietorship and partnership), Business type of the firm, duration of the loan, preparation of the financial statement, mortgage of the loan, internal capital of the firm, taxation of the firm, interest rate of the loan and gender of the owner have significant relationship with debt accessibility of the firm. But age of the firm, firm type, age of the owner and education qualification have no relationship with debt accessibility of the firm. At the same time age of the firm and owner have significant relationship with debt accessibility (Wangmo, C 2016).

9. Findings

Among the 385 respondents, 100 (25.97%) have taken bank credit from the commercial banks in Bangladesh. The outcomes point out that accessibility to bank loan for the SME firms is difficult. Here, the researcher has used 100 questionnaires (Respondents who have taken bank credit). Based on the above analysis, owner's capital, mortgage, interest rate of the loan, tax paid by the firms, profitability of the firm, gender of the owner and financial information have significant influence on getting access to bank credit. At the same time age of the firm, firm type, age of the owner and education qualification have no significant influence on getting access to bank credit.

To ensure the result, the researcher has conducted the opinion survey of the credit officer of the commercial banks, professional accountants and academicians. The respondents gave their opinions in five point's Likert scale questionnaire. Their opinions are different. Based on the different opinion, the researcher has developed a null hypothesis H_{010} "There is no significant difference of opinions regarding the influencing factors in accessing bank credit".

Table 4: The Table shows the Chi square value and ANOVA of respondent opinion.

Items	Chi Square		ANOVA	
	T value	Sig level	F value	Sig level
Serious inherent structural defeats make them high risky borrower	22.157	0.000	3.753	0.026
Inadequate funding by the owner creates barrier to success	34.137	0.000	10.840	0.000
Due to shortage of technical and technological infrastructures, the quality of products is lower compared to that of large organization	60.376	0.000	4.342	0.015
Expanding distribution channels are another factor for growth and survival of SMEs	23.244	0.001	1.111	0.332
Government has developed mortgage and guarantee system for the loan disbursement	8.325	0.215	4.490	0.013
Financial incentive schemes (Such as grace period, easing loan installment) for SMEs through a ranking system are vital for their sound business growth	14.710	0.023	7.024	0.001
Asymmetric information is the key to limited access to external fund	40.730	0.000	10.269	0.000
The firm's financial inability increases specialized employees turnover	2.238	0.897	0.291	0.748
Cost of accessing fund (High interest rate) is another limiting factor	14.863	0.062	1.821	0.166

Items	Chi Square		ANOVA	
	T value	Sig level	F value	Sig level
Prior work experience of entrepreneur is vital for success	12.433	0.014	2.068	0.130
Owner's characteristics (age, education and gender) are important influencing factors in access to finance	18.535	0.018	3.548	0.031
Time between loan application and disbursement of loan of SME entrepreneur including woman is somewhat lengthy	5.753	0.451	0.844	0.432
Loan disbursement procedure is full of different formalities.	48.282	0.000	6.489	.002
Govt. rules framed by Bangladesh Bank for financing SMEs are adequate and comprehensive	26.044	0.000	2.964	.055
Taxation is an influencing factor in SME financing	14.414	0.072	1.783	0.172
Location of the Business is influencing factor for financing	8.169	0.226	2.552	0.082
Profitable firms are encouraged to take loan from financial institutions	32.943	0.000	8.887	0.000
Employee turnover rate is high for poor working environment	14.961	0.060	2.935	0.057
The SME sector has usually been neglected in terms of access to government attention as compared with large enterprises	18.060	0.021	1.500	0.227
Nature of Business is another limiting factor for access to finance	52.913	0.000	4.045	0.020
Firm's features (sector, size and age of the firm) have positive influence in access to external fund	11.173	0.083	1.280	0.281

Source: Survey Data

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.927
Bartlett's Test of Sphericity	Approx. Chi-Square	3464.716
	df	120
	Sig.	.000

Source: Survey Data

Table 6: Pattern Matrix

Items	Component	
	1	2
1. Inadequate funding by the owner creates barrier to success	.835	
2. Government has developed mortgage and guarantee system for the loan disbursement		.787
3. Asymmetric information is the key to limited access to external fund	.843	
4. Prior work experience of entrepreneur is vital for success		1.005
5. Cost of accessing fund (High interest rate) is another limiting factor	.865	
6. Owner's characteristics (age, education and gender) are important influencing factors in access to finance.		.728
7. Profitable firms are encouraged to take loan from financial institutions	.923	
8. Taxation is an influencing factor in SME financing.	.841	
9. The ownership style of the firm is vital for financial leverage.		.999
10. The SME sector has usually been neglected in terms of access to government attention as compared with large enterprises	.872	
11. Firm's features (sector, size and age of the firm) have positive influence in access to external fund.		.715

Source: Survey Data

Discussion of the Findings

The latest structural of accessibility to bank loan (ABL) was examined by Principal Axis Factoring with Promax rotation. The primary examination of the R matrix confirms a substantial number of coefficients, were higher than 0.30. Kaiser-Meyer-Olkin index was 0.927 exceeding the recommended value of 0.60 (Kaiser, 1970). Bartlett's Test of Sphericity (Bartlett 1954) reached statistical significance (Chi square value = 3464.716 and $P < 0.000$), indicating that our data is suitable for factor analysis. However, the Scree plot recommends a clear break after the second factor proposing a potential two factor solution for identifying the factors affecting financial leverage. Following the best practices of item retention outlined at the outset, eleven items were finalized for the final accessibility to bank loan with two latent factors. Six items (Number 1, 3, 5, 7, 8, 10) loaded for factor one and five items (Number 2, 4, 6, 9, and 11) loaded on factor 2.

Conclusion and Recommendation

It was concluded that SME firms' determinant factors of debt accessibility are owner's capital, collateral, financial information, firms' attributes, owner's features. The other determinant factors are rate of interest, profitability, taxation, and ownership style.

Commercial banks prefer collateral based lending but relationship lending can be introduced. Mandatory SME loan for the banks, alternative to bank loans, flexible requirements for SME loan and central database are the recommendations that improve the access of credit by SMEs as well as economic development of Bangladesh.

References

Abeywardhana, D.K.Y (2015), Capital Structure and Profitability: An Empirical Analysis of SMEs in the UK, Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB) An Online International Research Journal (ISSN: 2306-367X) 2015 Vol: 4 Issue: 2

Adair, P., & Adaskou, M. (2015). Trade-off-theory vs. pecking order theory and the determinants of corporate leverage: Evidence from a panel data analysis upon French SMEs (2002-2010). Cogent Economics & Finance, 3(1). doi:10.1080/23322039.2015.1006477 url to share this paper:sci-hub.tw/10.1080/23322039.2015.1006477

Ahmed, S. (2006), Some Issues on SME finance in Bangladesh, *The New Nation*, Dhaka.

Ang, J. S. (1991). Small business uniqueness and the theory of financial management. Journal of Small Business Finance, 1(1), 1–13.

Ashiqur Rahman, Jaroslav Belas, Tomas Kliestik & Ladislav Tyll (2017) Collateral requirements for SME loans: empirical evidence from the Visegrad countries, Journal of Business Economics and Management, 18:4, 650-675, DOI: 10.3846/16111699.2017.1357050

Baloch Q.B., Ihsan A., Kakakhel S. J. Sethi S. (2011) Impact of Firm Size, Asset Tangibility and Retained Earnings on Financial Leverage: Evidence from Auto Sector, Pakistan, Abasyn Journal of Social Sciences. Vol: 8 Issue: 1

Berger, A. N., & Frame, W. S. (2007). Small Business Credit Scoring and Credit Availability. Journal of Small Business Management, 45(1), 5–22. doi:10.1111/j.1540-627x.2007.00195.x url to share this paper:sci-hub.tw/10.1111/j.1540-627X.2007.00195.x

Binks, M.R., Ennew, C.T. (1996), Growing firms and the credit constraint. Small Bus Econ 8, 17–25 (1996). https://doi.org/10.1007/BF00391972

Bose, U., MacDonald, R., & Tsoukas, S. (2016). Policy initiatives and firms' access to external finance: Evidence from a panel of emerging Asian economies. Journal of Corporate Finance. doi:10.1016/j.jcorpfin.2016.09.008 [Crossref], [Web of Science ®], [Google Scholar]

Bougheas, S., Mizen, P., & Yalcin, Y. (2006). Access to external finance: Theory and evidence on the impact of monetary policy and firm-specific characteristics. Journal of Banking and Finance, 30(1), 199–227. doi:10.1016/j.jbankfin.2005.01.002 [Crossref], [Web of Science ®], [Google Scholar]

Brealey, R., Leland, H. E., & Pyle, D. H. (1977). Informational Asymmetries, Financial Structure, And Financial Intermediation. The Journal of Finance, 32(2), 371–387. doi:10.1111/j.1540-6261.1977.tb03277.x url to share this paper:sci-hub.tw/10.1111/j.1540-6261.1977.tb03277.

Cassar G., Ittner C. D., Cavalluzzo K.S. (2014), Alternative Information Sources and Information Asymmetry Reduction: Evidence from Small Business Debt, Journal of Accounting and Economics, http: //dx.doi.org/10.1016/j.jacceco.2014.08.003

Chowdhury, M., & Alam, Z. (2017). Factors Affecting Access to Finance of Small and Medium Enterprises (SMEs) of Bangladesh. USV Annals of Economics and Public Administration, 2 (26), 55-68. Retrieved from https://touroscholar.touro.edu/gsb_pubs/12

Daily, C.M. and Thompson, S.S., (1994), Ownership structure, strategy posture and firm growth: An empirical examination. Family Business Review, Vol. 7, No. 3, pp. 237- 49.

Dao, H. T. T., Mai, N. T., & Kim, N. T. (2016). Accessibility to credit of small medium enterprises in Vietnam. Afro-Asian J. of Finance and Accounting, 6(3), 241. doi:10.1504/aajfa.2016.079291 url to share this paper:www.sci-hub.ren/10.1504/AAJFA.2016.079291

Degryse, H., Goeij, P., Kappert, P. (2010), "The impact of firm and industry characteristics on small firms capital structure", Small Bus Econ, Vol. 38, No. 4, pp. 431-447.

Dhaka Tribune (2018), Industries sector driving record GDP growth, Published at 10:47 pm April 8th, 2018

Estefanía P.C; Angel H. C; Javier M.D.C (2017), Are credit risk analysts concerned about the audit of the financial statements of SMEs?, UNIVERSIA BUSINESS REVIEW | FIRST QUARTER 2017 | ISSN: 1698-5117, http://hdl.handle.net/10902/10894DOI: 10.3232/UBR.2017.V14.N1.04

Fatoki, O & Asah F.(2011), The Impact of Firm and Entrepreneurial Characteristics on Access to Debt Finance by SMEs in King Williams' Town, South Africa, International Journal of Business and Management Vol. 6, No. 8; August 2011, P 170 -179

Ferrando, A., & Mulier, K. (2013). *Firms' financing constraints: Do perceptions match the actual situation?* (Working Paper No. 1577). Frankfurt: European Central Bank. [Google Scholar]

FLANNERY, M. J. (1986). Asymmetric Information and Risky Debt Maturity Choice. The Journal of Finance, 41(1), 19–37. doi:10.1111/j.1540-6261.1986.tb04489.x url to share this paper:sci-hub.tw/10.1111/j.1540-6261.1986.tb04489

Frank, M. Z., & Goyal, V. K. (2003). Testing the pecking order theory of capital structure. Journal of Financial Economics, 67(2), 217–248. doi:10.1016/s0304-405x(02)00252-0 url to share this paper:sci-hub.tw/10.1016/S0304-405X(02)00252-0

Hall, T. W. (2012). The collateral channel: Evidence on leverage and asset tangibility. Journal of Corporate Finance, 18(3), 570–583. doi:10.1016/j.jcorpfin.2011.12.003 url to share this paper:sci-hub.tw/10.1016/j.jcorpfin.2011.12.003

Halabi, A. K., Barrett, R., & Dyt, R. (2010). *Understanding financial information used to assess small firm performance. Qualitative Research in Accounting & Management, 7(2), 163–179.* doi:10.1108/11766091011050840 url to share this paper: sci-hub.tw/10.1108/11766091011050840

Hanedar E.Y. , Broccardo E.& Bazzana F. (2013), Collateral requirements of SMEs: The evidence from less-developed countries, Journal of Banking & Finance 38 (2014) 106–121, url to share this paper:sci-hub.tw/10.1016/j.jbankfin.2013.09.019

Harris, M., & Raviv, A. (1991). The theory of capital structure. The Journal of Finance, 46, 297–355. http://dx.doi.org/10.1111/j.1540-6261.1991.tb03753.x

Holmes, S., & Kent, P. (1991). An empirical analysis of the financial structure of small and large Australian manufacturing enterprises. Journal of Small Business Finance, 1, 141–154.

Hsiao, Yu-Jen and Chou, Nien-Tzu, Owner Characteristics and the Cost of Bank Loan: Evidence from Small Business (February 10, 2015). Available at SSRN: https://ssrn.com/abstract=2562981

Huang, C et al. (2014) Analysis on Financing Difficulties for SMEs due to Asymmetric Information, Global Disclosure of Economics and Business, Volume 3, No 2 (2014) ISSN 2305-9168,pp 28-32

Hutchinson, P. (2004). How Much Does Growth Determine SMEs' Capital Structure? Small Enterprise Research, 12(1), 81–92. doi:10.5172/ser.12.1.81 url to share this paper:sci-hub.tw/10.5172/ser.12.1.81

Joshua Abor, (2007),"Industry classification and the capital structure of Ghanaian SMEs", Studies in Economics and Finance, Vol. 24 Iss 3 pp. 207 - 219 Permanent link to this document: http://dx.doi.org/10.1108/10867370710817392

Joshua Abor, (2008)," Determinants of the Capital Structure of Ghanaian Firms", The African Economic Research Consortium P.O. Box 62882 - City Square Nairobi 00200, Kenya

Kaplan, S. N., & Zingales, L. (1997). Do investment-cash flow sensitivities provide useful measures of financing constraints? *The Quarterly Journal of Economics*, *112*(1), 169–215. doi:10.1162/003355397555163 [Crossref], [Web of Science ®], [Google Scholar]

Kira, A. R., & He, Z. (2012). The Impact of Firm Characteristics in Access of Financing by Small and Medium-sized Enterprises in Tanzania. International Journal of Business and Management, 7(24). doi:10.5539/ijbm.v7n24p108 url to share this paper:sci-hub.tw/10.5539/ijbm.v7n24p108

Koksal, B., Orman, C., Oduncu, A. (2013), "Determinants of capital structure: evidence from a major emerging market economy", Available at: http://mpra.ub.uni-muenchen.de/48415/ (Accessed on: September 23, 2014)

Kongmanila, X & Kimbara, T (2007), Corporate financing and performance of SMEs: The moderating effects of ownership types and management styles, The Journal of the Malaysian Institute of …, 2007 - africres.org

Korutaro Nkundabanyanga, S., Kasozi, D., Nalukenge, I., & Tauringana, V. (2014). *Lending terms, financial literacy and formal credit accessibility. International Journal of Social Economics, 41(5), 342–361.* doi:10.1108/ijse-03-2013-0075

Kozubíková L., Homolka L., Kristalas. (2017). The Effect of Business Environment and Entrepreneurs' Gender on Perception of Financial Risk in The Smes Sector. Journal of Competitiveness, 9(1), 36-50. https://doi.org/10.7441/joc.2017.01.03

López-Gracia, J., & Sogorb-Mira, F. (2008). Testing trade-off and pecking order theories financing SMEs. Small Business Economics, 31(2), 117–136. doi:10.1007/s11187-007-9088-4 url to share this paper:sci-hub.tw/ 10.1007/s11187-007-9088-4

Majumdar, S.K. (1997) The Impact of Size and Age on Firm-Level Performance: Some Evidence from India. Review of Industrial Organization 12, 231–241 (1997). https://doi.org/10.1023/A:1007766324749

Mateev et al. (2013), On the determinants of SME capital structure in Central and Eastern Europe: A dynamic panel analysis, Research in International Business and Finance 27 (2013) 28–51

Mazanai, M., & Fatoki, O. (2011). The Effectiveness of Business Development Services Providers (BDS) in Improving Access to Debt Finance by Start-Up SMEs in South Africa. International Journal of Economics and Finance, 3(4). doi:10.5539/ijef.v3n4p208 url to share this paper:sci-hub.tw/10.5539/ijef.v3n4p208

Moro, A., Fink, M., & Maresch, D. (2015). REDUCTION IN INFORMATION ASYMMETRY AND CREDIT ACCESS FOR SMALL AND MEDIUM-SIZED ENTERPRISES. Journal of Financial Research, 38(1), 121–143. doi:10.1111/jfir.12054 url to share this paper:sci-hub.tw/10.1111/jfir.12054

Nehereen N. (2010), SME FINANCING AND ITS IMPACT ON FINANCIAL PERFORMANCE: A CASE STUDY ON DHAKA BANK LTD, MANAGEMENT DEVELOPMENT (ISSN 0378-7532) 4 Volume 27 July – December, 2010, Number 3 & 4

Nguyen N. (2014), Credit Accessibility and Small and Medium Sized Enterprise Growth in Vietnam, https://core.ac.uk/download/pdf/35469037.pdf

Odit, M., & Gobardhun, Y. (2011). The Determinants Of Financial Leverage Of SMEs In Mauritius. *International Business & Economics Research Journal (IBER)*, *10*(3), 113-126. https://doi.org/10.19030/iber.v10i3.4107

Ogubazghi S. K. and Muturi W. (2014)The Effect of Age and Educational Level of Owner/Managers on SMMEs' Access to Bank Loan in Eritrea: Evidence from Asmara City, American Journal of Industrial and Business Management, 2014, 4, 632-643.

ONO A.& UESUGI I. (2009), Role of Collateral and Personal Guarantees in Relationship Lending: Evidence from Japan's SME Loan Market, Journal of Money, Credit and Banking, Vol. 41, No. 5 (August 2009), url to share this paper:sci-hub.tw/10.1111/j.1538-4616.2009.00239.x

Palazuelos, E., Herrero Crespo, Á., & Montoya del Corte, J. (2017). Effect of perceived default risk and accounting information quality on the decision to grant credit to SMEs. Risk Management, 20(2), 121–141. doi:10.1057/s41283-017-0030-z url to share this paper:sci-hub.tw/10.1057/S41283-017-0030-Z

Palazuelos, E., Crespo, Á. H., & del Corte, J. M. (2017). Accounting information quality and trust as determinants of credit granting to SMEs: the role of external audit. Small Business Economics. doi:10.1007/s11187-017-9966-3url to share this paper:sci-hub.tw/10.1007/s11187-017-9966-3

Quartey, P., Turkson, E., Abor, J. Y., & Iddrisu, A. M. (2017). Financing the growth of SMEs in Africa: What are the constraints to SME financing within ECOWAS? *Review of Development Finance*, *7*(1), 18–28. doi:10.1016/j.rdf.2017.03.001 [Crossref], [Web of Science ®], [Google Scholar]

RAHMAN, Ashiqur, Mosiqure Twyeafur RAHMAN a Aleksandr KLJUČNIKOV (2016). Collateral and SME financing in Bangladesh: An analysis across bank size and bank ownership types. *Journal of International Studies* [online]. 2016, vol. 9, iss. 2, s. 112-126. [cit. 2020-05-24]. ISSN 2071-8330. Dostupné z: http://www.jois.eu/?274,en_collateral-and-sme-financing-in-bangladesh-an-analysis-across-bank-size-and-bank-ownership-types

Régis Blazy & Laurent Weill (2013) Why do banks ask for collateral in SME lending?, Applied Financial Economics, 23:13, 1109-1122, DOI: 10.1080/09603107.2013.795272

Roza, M., Van den Bosch, F. A. J., & Volberda, H. W. (2011). Offshoring strategy: Motives, functions, locations, and governance modes of small, medium-sized and large firms. International Business Review, 20(3), 314–323. doi:10.1016/j.ibusrev.2011.02.002url to share this paper:sci-hub.tw/10.1016/j.ibusrev.2011.02.002

Saarani A.N. & Shahadan F (2013), The Determinant of Capital Structure of SMEs in Malaysia: Evidence from Enterprise 50 (E50) SMEs, Asian Social Science; Vol. 9, No. 6; 2013 ISSN 1911-2017 E-ISSN 1911-2025 Published by Canadian Center of Science and Education

Serrasqueiro, Z., & Nunes, P. M. (2014). Financing behaviour of Portuguese SMEs in hotel industry. International Journal of Hospitality Management, 43, 98–107. doi:10.1016/j.ijhm.2014.09.001 url to share this paper:sci-hub.tw/10.1016/j.ijhm.2014.09.001

Serrasqueiro, Z., & Caetano, A. (2014). TRADE-OFF THEORY VERSUS PECKING ORDER THEORY: CAPITAL STRUCTURE DECISIONS IN A PERIPHERAL REGION OF PORTUGAL. Journal of Business Economics and Management, 16(2), 445–466. doi:10.3846/16111699.2012.744344 url to share this paper: sci-hub.tw/10.3846/16111699.2012.744344

Serrasqueiro, Z. S., Armada, M. R., & Nunes, P. M. (2011). Pecking Order Theory versus Trade-Off Theory: are service SMEs' capital structure decisions different? Service Business, 5(4), 381–409. doi:10.1007/s11628-011-0119-5 url to share this paper:sci-hub.tw/10.1007/s11628-011-0119-5

Shyam-Sunder, L., & C. Myers, S. (1999). Testing static tradeoff against pecking order models of capital structure1This paper has benefited from comments by seminar participants at Boston College, Boston Unsiversity, Dartmouth College, Massachusetts Institute of Technology, University of Massachusetts, Ohio State

University, University of California at Los Angeles and the NBER, especially Eugene Fama and Robert Gertner. The usual disclaimers apply. Funding from MIT and the Tuck School at Dartmouth College is gratefuly acknowledged. We also thank two reviewers, Richard S. Ruback and Clifford W. Smith, Jr., for helpful comments.1. Journal of Financial Economics, 51(2), 219–244. doi:10.1016/s0304-405x(98)00051-8 url to share this paper:sci-hub.tw/10.1016/s0304-405x(98)00051-8

Simo Kengne, B. D. (2016). Mixed-gender ownership and financial performance of SMEs in South Africa. International Journal of Gender and Entrepreneurship, 8(2), 117–136. doi:10.1108/ijge-10-2014-0040 url to share this paper:sci-hub.tw/10.1108/IJGE-10-2014-0040

Sogorb-Mira, F., & Lopez-Gracia, J. (2003). Pecking Order versus Trade-off: An Empirical Approach to the Small and Medium Enterprise Capital Structure. SSRN Electronic Journal. doi:10.2139/ssrn.393160 url to share this paper:sci-hub.tw/10.2139/ssrn.393160

The daily Star (2019), SME contribution still negligible: study, LAST MODIFIED: 12:21 AM, September 30, 2019

Van Caneghem, T., & Van Campenhout, G. (2010). Quantity and quality of information and SME financial structure. Small Business Economics, 39(2), 341–358. doi:10.1007/s11187-010-9306-3 url to share this paper:sci-hub.tw/10.1007/s11187-010-9306-3

Watson, J., Newby, R., & Mahuka, A. (2009). Gender and the SME "finance gap." International Journal of Gender and Entrepreneurship, 1(1), 42–56. doi:10.1108/17566260910942336 url to share this paper: sci-hub.tw/10.1108/17566260910942336

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 186-204 (Printed in January, 2021)

The Effects of Word of Mouth on Trust and Customers' Destination Choice Intention: An Empirical Investigation on Medical Tourism

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Abstract:

Medical tourism is relatively a new form of tourism under the umbrella of the tourism industry. From the very ancient ages, people tend to pursue medical treatment from home and abroad. It has been widely believed that patients from underdeveloped or developing countries usually adopt medical services from developed countries. But in recent decades, there has been seen a paradigm shift in the medical tourism market. Countries like India, Turkey, Malaysia, Indonesia, Brazil, Costa Rica, South Korea, Mexico and Venezuela are getting popularity and becoming global hotspots for medical tourists worldwide. In the context of Bangladesh, especially the affluent patients prefer to take treatment from India or some other neighboring countries rather than from Bangladesh. For this, Word of Mouth communication plays a very significant role to build trust among the potential patients in Bangladesh to choose a destination for medical services. Therefore, this study is an attempt to investigate the impact of word of mouth on trust and customers' destination choice intention of the potential medical tourists in Bangladesh. By employing the structural equation modeling technique, this study reveals that there exists a strong significant positive relationship between word of mouth and customers' destination choice intention; word of mouth and trust; and finally, trust and customers' destination choice intention. Thus, in short, it can be said that Word of Mouth is somehow shaping customers' future destination choice intention especially in the medical service sector. Finally, this paper concludes with some managerial and policy implications in the healthcare sector of Bangladesh.

Keywords: *Word of Mouth, Trust, Customers' Intention, Medical Tourism.*

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1. Introduction:

The medical tourism (med-tour) industry is a relatively new segment under the tourism industry, offering a diversified service and optimal opportunities, and has become one of the quickest growing industries in the recent decades globally (Yeoh, Othman, & Ahmad, 2013). Though the term medical tourism pop-up in a new form in recent decades but medical tourism exists worldwide in different forms and people all around the world traveled to foreign lands for having a better treatment from the ancient ages (Smith, Álvarez, & Chanda, 2011). In general, medical tourism is the act of taking medical services from outside one's own country. It is a holistic procedure of combining products and services from the medical industry and the tourism industry together (Hunter, 2007; Lee, Han, & Lockyer, 2012). For many years, peoples from developing and under-developed countries traveled to developed countries, i.e. USA, United Kingdom, France, Germany Australia for taking modern medical services (Tsoi, 2008). But traveling from developed countries to developing countries is a new phenomenon (Johnson, Youngquist, Garman, Hohmann, & Cieslak, 2015; Lee et al., 2012). This trend has a growth rate of between 15 and 20 percent annually (Yeoh et al., 2013). And the countries like India, Turkey, Malaysia, Indonesia, Brazil, Costa Rica, South Korea, Mexico and Venezuela are getting a good number of patients from all over the world especially from the developed countries (Burns, 2015; Ehrbeck, Guevara, & Mango, 2008; Fisher & Sood, 2014; Hunter, 2007; Kirchner, Carroll, & Nious, 2013; MacReady, 2007; Ormond, Mun, & Khoon, 2014; Turner, 2010). The main reason behind this boom is a relatively low cost for treatment and have ample opportunities for the tourist to roam around. Besides cost savings, there are a number of reasons for this growing trend worldwide, for instance, waiting for a long time, shortage of insurance coverage, seeking for better quality treatment, patients' privacy, lack of belief or trust on the medical staffs, options for roaming in the tourist spots and cultural, religion and linguistic similarities between nations etc. (Carabello, 2008; Cohen & Hill, 2007; Connell, 2006; Ehrbeck et al., 2008; Esiyok, Çakar, & Kurtulmuşoğlu, 2017; Hopkins, Labonté, Runnels, & Packer, 2010; Hunter, 2007; Johnson et al., 2015; Keckley & Underwood, 2008; Lee et al., 2012; Liu & Chen, 2013; Marlowe & Sullivan, 2007; Smith et al., 2011; Yeoh et al., 2013; Zarei, Feiz, Maleki Minbashrazgah, & Maleki, 2018).

On the other hand, Word of Mouth (WOM) communication has long been a major influential factor in consumers' decision-making process (Abubakar & Ilkan, 2016; Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). WOM is the passing of information from person to person through oral communication (Wikipedia, 2018). WOM communication has different dimensions influencing in a diversified way on the mind of a customer. After the invention and widespread use of the internet technology, the rise of Electronic Word of Mouth (eWOM) has seen a drastic boom in recent years. The easiness and the speed of distributing information via the internet lead to an empowerment of the customer (Edelman & Singer, 2015) and lead to the formation of eWOM (Kreis & Gottschalk, 2015). WOM, both online and offline, nowadays has become one of the proven information sources for the customers and has been considered as a mainstream

advertising and promotional medium than traditional advertising channels used by organizations (Hung & Li, 2007; Mayzlin, 2006). Besides, Casalo, Flavian, Guinaliu, and Ekinci (2015) and Jalilvand, Samiei, Dini, and Manzari (2012) stated that online WOM has a strong influence in the tourism industry to build tourists' destination image, attitude and travel intention primarily because of the intangible nature of tourism (Lovelock, Patterson, & Wirtz, 2015). Potential tourists usually consult with his/her near and dear once or go through online reviews to gather information regarding the place to be visited because the tourism product and service cannot be experienced until the moment of its consumption (Abubakar & Ilkan, 2016). Thus, it is assumed from previous studies that, WOM communication has a significant impact on trust building and at the same time on shaping customers' destination choice intention, furthermore perceived trust has also a major impact on customers' choice intention (Abubakar & Ilkan, 2016; Abubakar, 2016; Ng, 2013; Stewart, 2003). This study based on the theme of theory of trust transfer, which hypothesized that, trust transfer can be happen when, "the unknown target [is] being perceived as related to the source of the transferred trust" (Stewart, 2003).

In the context of Bangladesh, with the rising of the economic status, the affluent people use to travel to neighboring countries, especially in India, for their medical tourism purpose (Ali, 2012; Ali & Medhekar, 2018; Trading Economics, 2020). Due to backward healthcare system, overcrowded healthcare service providing mechanism, unethical practices, lack of trust on medical staffs (doctors and other staffs), etc. patients/medical tourists are choosing countries outside Bangladesh for their medical treatment (Ali & Medhekar, 2018; Chaity, 2017; Lightcastle Analytics Wing, 2015). Though India ranked top of the list, some other neighboring countries of Bangladesh like Singapore, Thailand, and Malaysia are attracting a significant number of patients from Bangladesh for medical tourism purposes (Ali & Medhekar, 2018; Star Business Report, 2018). More than 1,000 patients and their attendants travel to India every day for the purpose of medical tourism and this number is growing significantly every day due to low costs of treatment, and cultural and linguistic similarities and so on (Ali, 2012; Ali & Medhekar, 2018; High Commission of India, 2019; Star Business Report, 2018). In recent years, Bangladesh became one of the topmost revenue-earning countries in the medical tourism sub-segments for India (more than fifty percent of the total revenue of health tourism generated from Bangladesh) (Ali & Medhekar, 2018; Chaity, 2017; Kumar, 2018). The medical tourists visiting India and some other neighboring countries used to share their experiences through WOM among their surrounding peoples and to some extent, people share their experiences in different social media platforms also. At least 05 prominent public and private Facebook groups (i.e. Treatment Community; India Treatment Community; India Treatment Community+; CMC Hospitals Vellore Treatment Community, Bangladesh; Bangladesh, India & Thailand Treatment Help BD; etc.) exists having more than one hundred thousand active members. This WOM (offline and online) basically somehow builds positive or negative trust among the people, who have not visited India or somewhere else for medical purpose. Thus, this study is an attempt to find out the answer to the following research questions in the context of Bangladeshi potential medical tourists' destination choice intention.

i. Does Word of Mouth have any impact on building trust and customers' destination choice intention? and;
ii. Does trust, built by Word of Mouth, have any impact on customers' destination choice intention?

The rest of the paper organized as follows: the purpose of the research, followed by related literature reviews attached to the research hypothesis and research methodology. The subsequent sections present the empirical analysis, discussion and findings. The article concludes with managerial and policy implications.

Purpose of the research:

Based on the research questions, this study focuses on the objectives to identify the impact of Word of Mouth (WOM) on trust and customers' destination choice intention and in addition the impact of trust, built through WOM, on customers' destination choice intention for the potential medical tourists from Bangladesh in India.

Literature review and hypothesis development:

1.1 Medical Tourism and driving factors:

A number of motivators influence medical tourists to travel over international boundaries. These motives truly differ from locations to locations. For example, the medical tourists from the USA, UK or other developed countries mainly become a medical tourist due to the absence of insurance coverage, long waiting queue and high treatment cost without that medical coverage (Beladi, Chao, Ee, & Hollas, 2015; Hanefeld, Lunt, Smith, & Horsfall, 2015). On the other hand, medical tourists from underdeveloped and least developed countries became a medical tourist to get advanced and quality medical care facilities (Abubakar & Ilkan, 2016; Alsharif, Labonté, & Lu, 2010; Han & Hyun, 2015; Woodman, 2009). Connell (2006) conducted a study on medical tourism titled 'Medical tourism: Sea, sun, sand and…surgery' where he identified that higher costs and long waiting lists at home, new technology and skills in destination countries, reduced transport costs and internet marketing have all played a significant role in adopting medical tourism in recent days. From the research, it was found that, some Asian countries i.e. Thailand, India, leading the medical tourism sector in recent days. In line with this, Hopkins et al. (2010) did a study titled, 'Medical tourism today: what is the state of existing knowledge?'. This qualitative study identified medical tourism as a generic issue and revealed that, high health-care costs, long waiting periods, or lack of access to new therapies in developed countries drive the most medical tourists (largely from the United States, Canada, and Western Europe) to seek care in Asia and Latin American countries. The trend is increasing in recent decades in a positive manner. On the other hand, Johnson et al. (2015) conducted a study titled, 'Factors influencing medical travel into the United States' and identified that the people from all over the world visited the USA for the purpose of getting high-quality treatment. Although the cost of getting treatment from the USA is comparatively higher. Even then, some other factors like, economic factors, social factors, and health system factors influence the patients most for taking treatment from the USA. Subsequently, Lee et al. (2012) studied the issue of medical tourism which attracting

Japanese tourists from a medical tourism experience perspective. The study noted that the Korean tourism industry practitioners should put effort into attracting Japanese medical tourists. This research also revealed that authorities should influence WOM information exchange and should seek feedback to develop marketing strategies in the medical tourism sector in that country.

1.2 Hypothesis Development:

Word of Mouth and customers' destination choice intention:

Customers' choice intention can be defined as to choose a desired product or services for the purpose of consumption or further use (Chen, Shang, & Li, 2014); when it comes to the tourism purpose, especially in the medical tourism purpose, customers' destination choice tend to heavily depend on WOM, including online and offline once (Chen et al., 2014). As the medical tourism services fall under the service industry, their intangible nature leads a medical tourist to rely on the WOM attestation of the services previously owned by other customers (Arsal, Backman, & Baldwin, 2008; Filieri & McLeay, 2014; Yeoh et al., 2013). Based on the previous studies, the following hypothesis is proposed:

H_1: Word of Mouth has a significant impact on customers' destination choice intention.

Word of Mouth and trust:

Form previous literature it is found that there is a strong influence of WOM on building trust among the customer's mind but a hand full of literature found on the impact of eWOM on trust-building. According to Morgan, Pritchard, and Piggott (2003), portrait WOM of the tourists helps share their satisfaction or dissatisfaction regarding their experience. This has a great impact on building trust on other tourists. Dennis, Merrilees, Jayawardhena, and Tiu Wright (2009) further extended the idea that positive attitude impact positively and negative attitude impacted negatively on the customers' mind. Zhu and Lai (2009) studied online WOM and its impact on tourism destination choice. This study reveals that there exists a positive relationship between WOM and building up tourist perception. Trust is actually the state of customer's confidence where a customer has no hesitation to avail of the product or services. For the medical tourism perspective, this trust has a significant impact on medical tourists' final decision making (Roodurmun & Juwaheer, 2010). In order to get a whole range of trust, medical tourists usually consult and seek information from previous medical tourists or experienced people in the healthcare field (Gretzel, Yoo, & Purifoy, 2007; Sparks & Browning, 2011). Based on the literature studied, the following hypothesis can be formed:

H_2: Word of Mouth has a significant impact on building trust for medical tourists.

Trust and customers' destination choice intention:

The success of service marketing is somehow related to customer satisfaction. Without having a strong feeling regarding service, it is not possible to retain the customer for further purchase (Lovelock, Wirtz, Keh, & Lu, 2002). Having a strong positive perceived image regarding a product leads customer to make purchase decisions (Han & Hyun, 2013; Pavlou, Liang, & Xue, 2007). In the tourism industry, particularly in the medical tourism sector, it is highly recommended to have positive perceived trustworthiness and

dependability. Because medical tourism particularly deals with personal healthcare-related services (Roodurmun & Juwaheer, 2010). Thus, it is assumed that, trusted medical tourism destination shape and reshape the customers' destination choice intention. Therefore, the following hypothesis can be formed based on the above assumption:

H_3: Perceived trust, build through WOM, has a significant impact on customers' destination choice intention.

2. Methodology:

2.1 Conceptual Model:

Based on the literature and hypothesis the proposed conceptual model for the study is as follows.

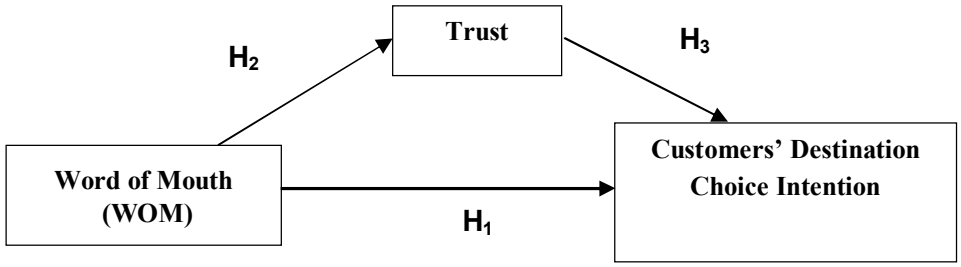


Figure 1: Conceptual Model

2.2 Selection of Sample:

To attain the study objectives a survey was conducted with the potential outbound medical tourist who is suffering from diseases and have a plan to visit India for their medical treatment in the future. The study employs a purposive sampling technique.

2.3 Questionnaire design and development:

A structured questionnaire was used to collect the desired data for assessing the latent constructs in the developed model (Illustrated in Figure 1). A questionnaire was designed and developed based on an intensive review of the literature (Churchill, 1979; DeVillis, 1991). In designing research works, a panel of reviewer was arranged which consisted of experts from different fields i.e. researchers, academicians and medical tourism experts for evaluating, correcting and justifying the latent constructs and its statements. The questionnaire was primarily developed in English, but the valid questionnaire was then translated into Bengali by the expert translator including a panel of English language teachers and Bengali language teachers at university level in order to ensure the translation validity of the questionnaire for a proper understanding of the respondents. Because the Bengali language is the mother tongue in Bangladesh. The questionnaire is divided into two parts Part-A covers the demographic information of the respondents. On the other hand, Part-B contains questions regarding three dimensions on the research topic in

developed research model using a 05-point Likert scale from (1) "strongly disagree" to (5) "strongly agree". The survey method is used to collect data through this questionnaire.

2.4 Data Collection:

A total of 350 self-administered questionnaires were distributed to the respondents in different districts of Bangladesh. Out of 350 questionnaires, 257 were returned resulting in a response rate of 73 percent (approximately). 39 incomplete questionnaires were dropped from the analysis. Finally, 218 questionnaires were selected to proceed for the final analysis.

2.5 Data Analysis:

IBM SPSS v23 and Smart-PLS v3.2.9 software were employed to analyze data and adopting 'partial-least square-structural equation modeling (PLS-SEM)'. In the first step, the adequacy of the hypothesized measurement model based on the criteria of overall fit, convergent validity, discriminant validity, and reliability is examined. In the second step, the structural model is examined to investigate the strength and direction of the relationships among the theoretical constructs.

Result and Discussion:

2.6 Demographic Information:

Table 1: Demographic profile

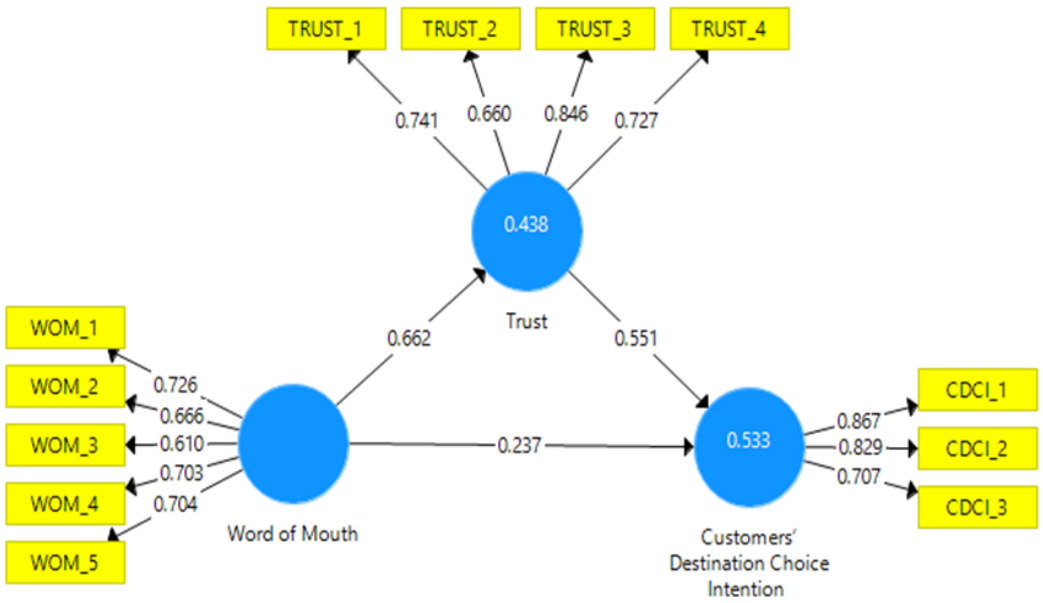
Characteristics and its category		Percentage (%)
Gender	Male	68.3
	Female	31.7
Marital status	Married	83
	Unmarried	17
Age range	Less than 25	12.8
	25-40	31.7
	41-55	41.7
	56-70	11.9
	More than 70	1.9
Education	Less than Secondary	2.3
	Secondary	4.6
	Higher Secondary	15.1
	Undergraduate	33.9
	Post Graduate	44.1
Occupation	Government job	16.1
	Teacher	17.4
	Banker	6.0
	Farmer	0.9
	Businessman	22.0
	Self-employed	4.6
	Retired officials	3.2

Characteristics and its category		Percentage (%)
	Private service	1.8
	Student	8.3
	Others	19.7
Monthly income	Less than 30,000	32.1
	30,000-50,000	39.4
	50,000-75,000	19.3
	More than 75,000	9.2

Table-1 shows the respondents' demographic profile. Demographic information of the respondents shows that 68.3 percent are male respondents and 31.7 percent are female respondents. From the surveyed information, the majority of the respondents belong to the age range of 41-55. 78% of the respondents are highly educated. In case of occupation, maximum respondents belong to Business persons followed by teachers and government employees. Finally, most of the respondents' income level is between thirty thousand to fifty thousand takas.

2.7 Data Analysis using Structural Equation Modelling:

Demonstrates results using the PLS Algorithm technique for the hypothesized model are shown below:



Source: Smart PLS 3.2.9 Output

Figure 2: Structure Model and Results on PLS Algorithm

Table 2: Construct Reliability and Validity

	Cronbach's Alpha (α)	Composite Reliability	Average Variance Extracted (AVE)
Customers' Destination Choice Intention	0.725	0.845	0.647
Trust	0.735	0.833	0.557
Word of Mouth	0.714	0.813	0.466

Source: Smart PLS 3.2.9 Output

Significant path coefficients, good construct reliability, and acceptable R^2 values indicate a strong model fit in PLS (Gefen, Straub, & Boudreau, 2000). Internal consistency is typically measured using Cronbach's Alpha (α). Cronbach's alpha ranges from 0 to 1, with higher values indicating greater internal consistency (and ultimately reliability). Common guidelines for evaluating Cronbach's Alpha are: $\alpha < 0.5$ = Unacceptable, 0.5 to 0.6 = Poor, 0.6 to 0.7 = Questionable, 0.7 to 0.8 = Acceptable, 0.8 to 0.9 = Good, $\alpha > 0.9$ = Excellent. For the evaluation of reliability, composite reliability and average variance extracted (AVE) are suitable for measuring the reliability (Hair Jr, Hult, Ringle, & Sarstedt, 2016). Composite reliability does not guess that all indicators are equally weighted which advises that composite reliability might be more appropriate to assess the reliability (Chin, 1998). The composite reliability range between 0 and 1, higher values representing higher levels of reliability. Values from 0.60 to 0.70 are acceptable for composite reliability in exploratory research, while in more advanced stages of research, values between 0.70 and 0.90 can be viewed as satisfactory. Values above 0.90 (and definitely >0.95) are not desirable (Hair Jr et al., 2016). The other measurement, the average variance extracted (AVE) is a common measure to determine the convergent validity of the construction level. AVE value of 0.50 or higher specifies that, on average. Conversely, an AVE of less than 0.50 indicates that, on average, more error remains in the items than the variance explained by the construct. (Hair Jr et al., 2016). The study found that the values of the Cronbach's Alpha of Word of Mouth, Trust and Customers' Destination Choice Intention is in acceptable range. The composite reliability and average variance extracted have achieved the requirements.

Table 3: Discriminant Validity-Fornell Larcker criterion

	Customers' Destination Choice Intention	Trust	Word of Mouth
Customers' Destination Choice Intention	**0.804**		
Trust	0.708	**0.747**	
Word of Mouth	0.602	0.662	**0.683**

Source: Smart PLS 3.2.9 Output

According to Fornell and Larcker (1981), the square root of the average variance extracted (AVE) in every latent variable can be used to establish discriminant validity, if this value is larger than other correlation values among the latent variables. Hair Jr et al. (2016)

describes a measure of discriminant validity that compares the square root of each construct's average variance extracted with its correlations with all other constructs in the model. Discriminant validity is measured by cross-loading; as well as the relationship between the correlations among first-order constructs and the square roots of the AVE (Chin, 1998; Fornell & Bookstein, 1982). Statistical correlation is measured by what is called the coefficient of correlation (*r*). Its numerical value ranges from -1.0 to +1.0. It gives an indication of both the strength and direction of the relationship between variables. Here it is seen that there is a strong positive linear relationship among the variables. Table 3 demonstrates the discriminant validity level using the Fornell-Larcker criteria for each construct which satisfies the criteria and can be termed discriminate validity as significant.

Table 4: R Square and Adjusted R Square

	R Square	R Square Adjusted
Customers' Destination Choice Intention	0.533	0.529
Trust	0.438	0.435

Source: Smart PLS 3.2.9 Output

For the measurement of how closely the data are to the fitted regression line, R square and for testing goodness of fit Adjusted R Square is used. The predictability and strength of a model are reflected by the R square values which are another vital determinant of the model (Chin, 1998). This coefficient is a measure of the model's predictive accuracy and is calculated as the squared correlation between a specific endogenous construct's actual and predicted values. The R^2 value ranges from 0 to 1 with higher levels indicating higher levels of predictive accuracy. R^2 values of 0.25, 0.50, 0.75 for endogenous latent variables can, as a rough rule of thumb, be respectively described as weak, moderate, substantial (Hair Jr et al., 2016). Table 4 indicates that Customers' Destination Choice Intention is 0.533 and trust is 0.438 which is significant.

Table 5: Outer Loadings-Cross Loading Matrix

	Customers' Choice Intention	Trust	Word of Mouth
CDCI_1	0.867		
CDCI_2	0.829		
CDCI_3	0.707		
TRUST_1		0.741	
TRUST_2		0.660	
TRUST_3		0.846	
TRUST_4		0.727	
WOM_1			0.726
WOM_2			0.666
WOM_3			0.610
WOM_4			0.703
WOM_5			0.704

Source: Smart PLS 3.2.9 Output

(CDCI=Customers' Destination Choice Intention, TRUST=Trust, WOM=Word of Mouth)

Convergent validity is a scale's capability to come or load together as a single construct and is measured by examining each loading for each block of indicators (Osman & Sentosa, 2013). The values of outer loadings should be greater than 0.7, revealing that the indicators share more variance with their respective latent variable (LV) than with error variance. A lower limit ranging from 0.50 to 0.60 may also be acceptable in exploratory research (Chin, 1998). In this analysis, the value of convergent validity using the cross-loading matrix is given in Table 5 which fulfills the mentioned criteria.

2.8 The structural model and Discussion:

The structural model used to check the hypothetical relationship among variables (Hair, Black, Babin, Anderson, & Tatham, 1998) and reveal the interaction between dependent and independent variables (Lowry & Gaskin, 2014). The hypotheses in the research were tested using a structural model after assessing and confirming reliability and validity of the constructs PLS algorithm and bootstrapping methods were used to test the relationship between endogenous and exogenous variable by path coefficient (β) and t-statistics were appraised through 05 and 01 percent level of significance.

Table 6: Path Coefficients

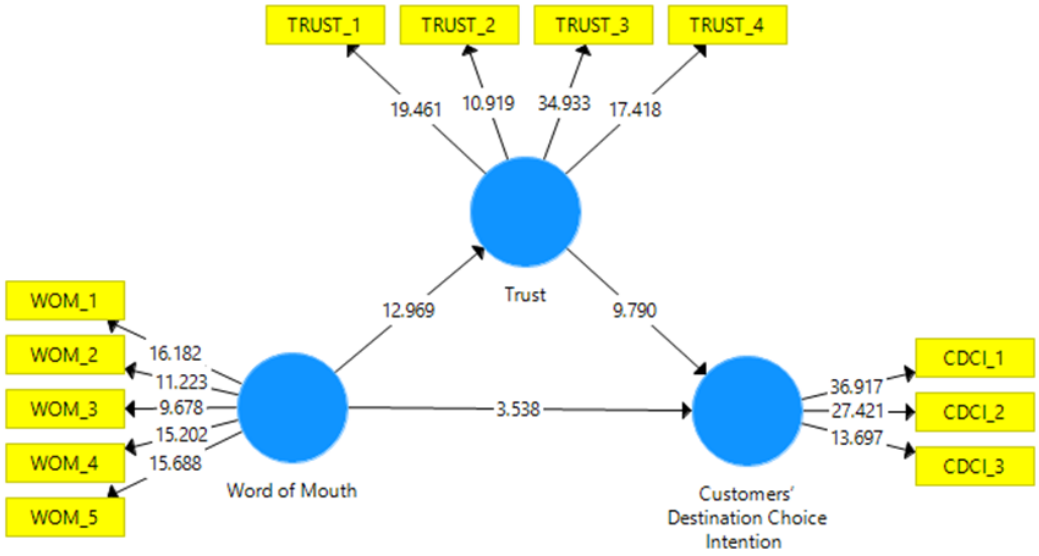
Hypotheses	Paths	Original Sample (O)	Sample Mean (M)	Beta Value (β)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Value	Decision
H_1	WOM -> CDCI	0.237	0.241	0.237	0.067	3.538	0.000**	Supported
H_2	WOM -> Trust	0.662	0.667	0.662	0.051	12.969	0.000**	Supported
H_3	Trust -> CDCI	0.551	0.548	0.551	0.056	9.790	0.000**	Supported

Source: Smart PLS 3.2.9 Output

[Notes: *p-value < 0.05. **p-value<.001]

(WOM=Word of Mouth, CDCI=Customers' Destination Choice Intention, Trust= Trust)
Table 6 shows the path relationship between variables. The level of significance (p-values) and t-values exposed the acceptance and rejection of the hypothesis and demonstrated the interaction between dependent and independent variables where t-values were near or greater than 2 (Lowry & Gaskin, 2014) and p-values were less than 0.05. The ranges of beta value (β) and t-values are from 0.237 to 0.662 and 3.538 to 12.969. The study reveals a significant and positive relationship between Word of Mouth and Customers' Destination Choice Intention (t=3.538, β=0.237, p<0.001), Word of Mouth and Trust (t=12.969, β=0.662, p<0.001), and Trust and Customers' Destination Choice Intention (t=9.790, β=0.551, p<0.001). So, H_1, H_2, and H_3 are found supported in this study. Thus it can be conclude that H_1, that is, word of mouth has a significant impact on customers' destination choice intention; H_2, that is, word of mouth has a significant impact on building trust for medical tourists and H_3, that is, perceived trust has a significant impact on customers' destination choice intention, all are supported.

The following figure demonstrates the whole results using the Bootstrapping technique (5,000 subsamples at 0.05 significance level) for the hypothesized model shown below.



Source: Smart PLS 3.2.9 Output

Figure 3: Hypothesized model structure and result using Bootstrapping technique

The current study mainly focuses on whether WOM, as a medium of promotional tool of marketing, has any impact on trust-building and at the same time on customers' destination choice intention. Furthermore, perceived trust influences customers' destination choice intention. Statistical analysis shows that there exists a strong significant positive relationship between WOM and customers' destination choice intention; WOM and trust and finally, perceived trust and customers' destination choice intention which are giving similar kinds of results by, Abubakar and Ilkan (2016), Ksouri and Abdellatif (2015), Duverger (2013), Abubakar (2016) and Hung and Li (2007) etc.

3. Managerial and policy implication:

The study hypothesis and the statistical result show that WOM, as a promotional tool of marketing, has a strong influence on customers' destination choice intention especially in the healthcare sector. Because of the special characteristics of medical services, medical tourists always prefer to consult with the persons who have already gone through a similar process. So, this study result is a novel work for the healthcare sector of Bangladesh that, without up-gradation and building trust among the patients and their friends and families, the development of the healthcare system of Bangladesh is not possible. If this outgoing trend of Bangladeshi patients and, at the same time, the unethical practices by the medical staff continues in Bangladesh, then there is a strong possibility to collapse the entire

healthcare system, which is obviously not desirable. So, policymakers and the medical service practitioners of Bangladesh should come forward and reengineer the entire healthcare system as a trustworthy one. If that, happens, the positivity of the Bangladeshi healthcare system will be flourished through positive Word of Mouth and patients (customers) will only then prefer to take treatment inside Bangladesh.

4. Conclusion:

This study provides statistical evidence of the existing relationship between Word of Mouth and trust building among prospective patients by Word of Mouth and their destination choice intention. The empirical result reveals that there exists a strong significant positive relationship between Word of Mouth and customers' destination choice intention; Word of Mouth and trust-building and finally perceived trust developed by Word of Mouth and customers' destination choice intention. Thus, it can be concluded that Word of Mouth, as a communication medium, has a great impact on customers' destination choice intention especially in the medical tourism sector. India, Singapore, Malaysia, and other neighboring countries of Bangladesh, getting a great chunk of medical tourists from Bangladesh through their world-class medical services. The medical tourists, taken treatment from those countries, then become agents for promoting those countries' medical services and in these consequences, the affluent people travel to those countries for the purpose of taking medical treatment. Medical tourists tend to visit those countries for better medical care and at the same time tourism purposes. As such, the concerned authorities of Bangladesh should take this phenomenon very seriously and develop our county's healthcare as a world-class one for the purpose of the development of the nation.

References:

Abubakar, A. M., & Ilkan, M. (2016). Impact of online WOM on destination trust and intention to travel: A medical tourism perspective. *Journal of Destination Marketing & Management, 5*(3), 192-201.

Abubakar, M. A. (2016). Does eWOM influence destination trust and travel intention: a medical tourism perspective. *Economic Research-Ekonomska Istraživanja, 29*(1), 598-611. doi: 10.1080/1331677X.2016.1189841

Ali, M. M. (2012). Outbound medical tourism: the case of Bangladesh. *World Review of Business Research, 2*(4), 50-70.

Ali, M. M., & Medhekar, A. (2018). Healthcare quality of Bangladesh and outbound medical travel to Thailand. *Экономика региона, 14*(2).

Alsharif, M. J., Labonté, R., & Lu, Z. (2010). Patients beyond borders: A study of medical tourists in four countries. *Global Social Policy, 10*(3), 315-335. doi: 10.1177/1468018110380003

Arsal, I., Backman, S., & Baldwin, E. (2008, 2008//). *Influence of an Online Travel Community on Travel Decisions.* Paper presented at the Information and Communication Technologies in Tourism 2008, Vienna.

Beladi, H., Chao, C.-C., Ee, M. S., & Hollas, D. (2015). Medical tourism and health worker migration in developing countries. *Economic Modelling, 46*, 391-396. doi: https://doi.org/10.1016/j.econmod.2014.12.045

Burns, L. R. (2015). Medical tourism opportunities and challenges: Illustration from US–India trade*. *International Journal of Healthcare Management, 8*(1), 15-26. doi: 10.1179/2047971914Y.0000000091

Carabello, L. (2008). A medical tourism primer for US physicians. *The Journal of medical practice management: MPM, 23*(5), 291.

Casalo, L. V., Flavian, C., Guinaliu, M., & Ekinci, Y. (2015). Do online hotel rating schemes influence booking behaviors? *International Journal of Hospitality Management, 49*, 28-36. doi: 10.1016/j.ijhm.2015.05.005

Chaity, A. J. (2017, 30 November 2017). Bangladeshis flock to Indian, Thai hospitals in huge numbers. *Dhaka Tribune*. Retrieved from https://www.dhakatribune.com/feature/health-wellness/2017/11/30/doctor-trust-bangladesh

Chen, Y.-C., Shang, R.-A., & Li, M.-J. (2014). The effects of perceived relevance of travel blogs' content on the behavioral intention to visit a tourist destination. *Computers in Human Behavior, 30*, 787-799. doi: https://doi.org/10.1016/j.chb.2013.05.019

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research, 295*(2), 295-336.

Churchill, G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research, 16*(1), 64-73. doi: 10.1177/002224377901600110

Cohen, A. B., & Hill, P. C. (2007). Religion as Culture: Religious Individualism and Collectivism Among American Catholics, Jews, and Protestants. *Journal of Personality, 75*(4), 709-742. doi: 10.1111/j.1467-6494.2007.00454.x

Connell, J. (2006). Medical tourism: Sea, sun, sand and… surgery. *Tourism Management, 27*(6), 1093-1100.

Dennis, C., Merrilees, B., Jayawardhena, C., & Tiu Wright, L. (2009). E-consumer behaviour. *European Journal of Marketing, 43*(9/10), 1121-1139. doi: 10.1108/03090560910976393

DeVillis, R. F. (1991). Scale development: Theory and applications: Newbury Park, CA: Sage.

Duverger, P. (2013). Curvilinear Effects of User-Generated Content on Hotels' Market Share:A Dynamic Panel-Data Analysis. *Journal of Travel Research, 52*(4), 465-478. doi: 10.1177/0047287513478498

Edelman, D. C., & Singer, M. (2015). Competing on Customer Journeys. *Harvard Business Review*.

Ehrbeck, T., Guevara, C., & Mango, P. D. (2008). Mapping the market for medical travel. *The McKinsey Quarterly, 11*.

Esiyok, B., Çakar, M., & Kurtulmuşoğlu, F. B. (2017). The effect of cultural distance on medical tourism. *Journal of Destination Marketing & Management, 6*(1), 66-75. doi: https://doi.org/10.1016/j.jdmm.2016.03.001

Filieri, R., & McLeay, F. (2014). E-WOM and Accommodation:An Analysis of the Factors That Influence Travelers' Adoption of Information from Online Reviews. *Journal of Travel Research, 53*(1), 44-57. doi: 10.1177/0047287513481274

Fisher, C., & Sood, K. (2014). What Is Driving the Growth in Medical Tourism? *Health Marketing Quarterly, 31*(3), 246-262. doi: 10.1080/07359683.2014.936293

Fornell, C., & Bookstein, F. L. (1982). Two Structural Equation Models: LISREL and PLS Applied to Consumer Exit-Voice Theory. *Journal of Marketing Research, 19*(4), 440-452. doi: 10.1177/002224378201900406

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research, 18*(1), 39-50. doi: 10.1177/002224378101800104

Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the association for information systems, 4*(1), 7.

Gretzel, U., Yoo, K. H., & Purifoy, M. (2007). Online travel review study: Role and impact of online travel reviews.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5): Prentice hall Upper Saddle River, NJ.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications.

Han, H., & Hyun, S. S. (2013). Image Congruence and Relationship Quality in Predicting Switching Intention:Conspicuousness of Product Use as a Moderator Variable. *Journal of Hospitality & Tourism Research, 37*(3), 303-329. doi: 10.1177/1096348012436381

Han, H., & Hyun, S. S. (2015). Customer Retention in the Medical Tourism Industry: Impact of Quality, Satisfaction, Trust, and Price Reasonableness. *Tourism Management, 46*, 20-29. doi: https://doi.org/10.1016/j.tourman.2014.06.003

Hanefeld, J., Lunt, N., Smith, R., & Horsfall, D. (2015). Why do medical tourists travel to where they do? The role of networks in determining medical travel. *Social Science & Medicine, 124*, 356-363.

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet? *Journal of interactive marketing, 18*(1), 38-52.

High Commission of India. (2019). Medical Treatment in India Without Medical Visa [Press release]. Retrieved from http://www.ivacbd.com/Medical-treatment-in-India-without-medical-visa

Hopkins, L., Labonté, R., Runnels, V., & Packer, C. (2010). Medical tourism today: what is the state of existing knowledge? *Journal of public health policy, 31*(2), 185-198.

Hung, K. H., & Li, S. Y. (2007). The influence of eWOM on virtual consumer communities: Social capital, consumer learning, and behavioral outcomes. *Journal of advertising research, 47*(4), 485-495.

Hunter, W. C. (2007). Medical tourism: A new global niche. *International Journal of Tourism Sciences, 7*(1), 129-140.

Jalilvand, M. R., Samiei, N., Dini, B., & Manzari, P. Y. (2012). Examining the structural relationships of electronic word of mouth, destination image, tourist attitude toward destination and travel intention: An integrated approach. *Journal of Destination Marketing & Management, 1*(1-2), 134-143.

Johnson, T. J., Youngquist, J. S., Garman, A. N., Hohmann, S., & Cieslak, P. R. (2015). Factors influencing medical travel into the United States. *International Journal of Pharmaceutical and Healthcare Marketing, 9*(2), 118-135.

Keckley, P. H., & Underwood, H. R. (2008). Medical tourism: Consumers in search of value. *Washington: Deloitte Center for Health Solutions*.

Kirchner, E., Carroll, J., & Nious, K. (2013). US Insurance Companies Expanding Medical Tourism Coverage. Retrieved 02 February, 2019, from https://www.nbcbayarea.com/news/local/ medical-tourism-the-future-of-healthcare/1931661/

Kreis, H., & Gottschalk, S. A. (2015). Relating eWOM Motives to eWOM Channel Choice. *Schmalenbach Business Review, 67*(4), 406-429.

Ksouri, R., & Abdellatif, T. (2015). Exploration of the tourism destination image's determinants on the revisit Intention: The case of Tunisia. *Available at SSRN 2572018*.

Kumar, N. (2018). Over 50% medical tourists to India are from Bangladesh. Retrieved 06 February, 2020, from https://www.sundayguardianlive.com/news/50-medical-tourists-india-bangladesh

Lee, M., Han, H., & Lockyer, T. (2012). Medical tourism-attracting Japanese tourists for medical tourism experience. *Journal of Travel & Tourism Marketing, 29*(1), 69-86.

Lightcastle Analytics Wing. (2015). Market Insight: Bangladesh Healthcare Sector Overview. Retrieved 10 February, 2020, from https://www.lightcastlebd.com/ insights/2015/05/26/market-insight-bangladesh-healthcare-sector-overview

Liu, I.-C., & Chen, C.-c. (2013). Cultural issues in medical tourism. *American Journal of Tourism Research, 2*(1), 78-83.

Lovelock, C., Patterson, P., & Wirtz, J. (2015). *Services marketing* (6th ed.): Pearson Australia.

Lovelock, C. H., Wirtz, J., Keh, H. T., & Lu, X. (2002). *Services marketing in Asia: managing people, technology, and strategy*: Prentice Hall Singapore.

Lowry, P. B., & Gaskin, J. (2014). Partial Least Squares (PLS) Structural Equation Modeling (SEM) for Building and Testing Behavioral Causal Theory: When to Choose It and How to Use It. *IEEE Transactions on Professional Communication, 57*(2), 123-146. doi: 10.1109/TPC.2014.2312452

MacReady, N. (2007). Developing countries court medical tourists. *The Lancet, 369*(9576), 1849-1850.

Marlowe, J., & Sullivan, P. (2007). Medical tourism: the ultimate outsourcing. *People and Strategy, 30*(2), 8.

Mayzlin, D. (2006). Promotional chat on the Internet. *Marketing Science, 25*(2), 155-163.

Morgan, N. J., Pritchard, A., & Piggott, R. (2003). Destination branding and the role of the stakeholders: The case of New Zealand. *Journal of Vacation Marketing, 9*(3), 285-299. doi: 10.1177/135676670300900307

Ng, C. S.-P. (2013). Intention to purchase on social commerce websites across cultures: A cross-regional study. *Information & Management, 50*(8), 609-620. doi: https://doi.org/10.1016/j.im.2013.08.002

Ormond, M., Mun, W. K., & Khoon, C. C. (2014). Medical tourism in Malaysia: how can we better identify and manage its advantages and disadvantages? *Global Health Action, 7*(1), 25201. doi: 10.3402/gha.v7.25201

Osman, Z., & Sentosa, I. (2013). Mediating effect of customer satisfaction on service quality and customer loyalty relationship in Malaysian rural tourism. *International Journal of Economics Business and Management Studies, 2*(1), 25-37.

Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and Mitigating Uncertainty in Online Exchange Relationships: A Principal-Agent Perspective. *MIS Quarterly, 31*(1), 105-136. doi: 10.2307/25148783

Roodurmun, J., & Juwaheer, T. (2010). *Influence of trust on destination loyalty-an empirical analysis-the discussion of the research approach.* Paper presented at the International research symposium in service management.

Smith, R., Álvarez, M. M., & Chanda, R. (2011). Medical tourism: a review of the literature and analysis of a role for bi-lateral trade. *Health Policy, 103*(2-3), 276-282.

Sparks, B. A., & Browning, V. (2011). The impact of online reviews on hotel booking intentions and perception of trust. *Tourism Management, 32*(6), 1310-1323. doi: https://doi.org/10.1016/j.tourman.2010.12.011

Star Business Report. (2018, 04 May 2018). Bangladesh a key source market for medical tourism. *The Daily Star*. Retrieved from https://www.thedailystar.net/business/tourism/bangladesh-key-source-market-medical-tourism-1571314

Stewart, K. J. (2003). Trust transfer on the world wide web. *Organization science, 14*(1), 5-17.

Trading Economics. (2020). Bangladesh GDP Growth Rate. Retrieved 10 February, 2020, from https://tradingeconomics.com/bangladesh/gdp-growth

Tsoi, G. (2008). TDC seeking cut of Asia medical tourism. *The Standard*, P07.

Turner, L. (2010). "Medical Tourism" and the Global Marketplace in Health Services: U.S. Patients, International Hospitals, and the Search for Affordable Health Care. *International Journal of Health Services, 40*(3), 443-467. doi: 10.2190/HS.40.3.d

Wikipedia. (2018, 8 July). Word of mouth. Retrieved 05 November, 2018, from https://en. wikipedia.org/wiki/Word_of_mouth

Woodman, J. (2009). *Patients beyond borders: Everybody's guide to affordable, world-class medical travel*: Healthy Travel Media.

Yeoh, E., Othman, K., & Ahmad, H. (2013). Understanding medical tourists: Word-of-mouth and viral marketing as potent marketing tools. *Tourism Management, 34*, 196-201. doi: https://doi.org/10.1016/j.tourman.2012.04.010

Zarei, A., Feiz, D., Maleki Minbashrazgah, M., & Maleki, F. (2018). Factors influencing selection of medical tourism destinations: A special niche market. *International Journal of Healthcare Management*, 1-7. doi: 10.1080/20479700.2018.1492764

Zhu, M., & Lai, S. (2009). *A study about the WOM influence on tourism destination choice*. Paper presented at the International Conference on Electronic Commerce and Business Intelligence (ECBI), Beijing. http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber¼ 05189500

Appendix 1: Measurement items.

Reference	Constructs	Items	Questions Description
Abubakar and Ilkan (2016) and Abubakar (2016)	Word of Mouth	WOM	I always care about the other patients' experience who got medical treatment from abroad.
			I often read/watch other medical tourists' online travel reviews to know what destinations make good impressions on others.
			I often consult other medical tourists' online/offline travel reviews to help me choose a good medical destination.
			I frequently gather information from medical tourists to enrich my knowledge regarding medical treatment abroad.
			I think that when I travel to a medical destination, tourists' online/offline travel reviews make me confident in travelling to the destination.
	Trust	Trust	I feel confidence with Indian hospitals.
			Indian hospitals guarantee satisfaction.
			I could rely on Indian hospitals to solve my medical problems.
			I will not be disappointed with India's health care services.
	Customers' Destination Choice Intention	CDCI	I predict I will visit Indian hospitals in the future.
			I would visit India rather than any other medical destination.
			If I need medical attention I think, I will visit Indian hospitals in the future.

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 205-215 (Printed in January, 2021)

Food, Service and Physical Environment in Restaurant Business: An empirical Study on Barisal City

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Abstract

This study investigates consumer response toward three quality dimensions of restaurant (food, service and physical environment) in Barisal. The results of this study provide insights regarding customers' perceptions toward restaurant's dimensions where restaurants have opportunities to improve customer response. A survey of restaurant customers has showed positive associations between quality dimensions of restaurants and of revisit intention, price fairness perception, and word of mouth influence. In addition, all three dimensions are significant predictors of revisit intention, price fairness perception, and word of mouth influence.

Keywords: Food quality, Service Quality, Physical environment, Revisit intention, Price fairness, Word of mouth influence.

1. Introduction

It is vital for restaurants to meet customer demand to sustain in competitive market environment in Bangladesh. Positive consumer response is essential in restaurant business because it can help the firm to maintain overall profitability, business expansion and goodwill among the valuable customers and stakeholders. (Kotler & Keller, 2012) Food industry is one of the most fast growing sectors in Bangladesh and competition in this sector has become very acute. As a result of intense competition fast-food restaurants are increasingly recognizing the importance to continuously improve their customer

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hospitality to retain and attract customers. Barisal city has a rapidly growing consumer market and due to a large population base, the demand for food products is always on the rise. Over the last decade many restaurants have entered the food business of Barisal. Many restaurants see a lot of potential in the growth of the food market of Barisal. However, the aware consumers in this city are inclined toward having a good product at the right price.

Several studies have been conducted on the separate influence of restaurant experience that include food quality, service quality and quality of the physical environment on response of customer (Abdullah, Hamir, Nor, Krishnaswamy, &Rostum, 2018;Ha & Jang, 2010; Namkung& Jang, 2008; Ryu& Jang, 2008; Wall & Berry, 2007; Matzler, Renzl&Rothenberger, 2006). However, no study has been conducted on customer response toward restaurant features in the context of Barisal city of Bangladesh. Therefore, the present study has been conducted to fill this gap.

The main purpose of this study is to investigate consumer's response towards food quality, service quality and physical environment of Restaurant in Barisal by answering the following research questions:: Does food quality affect price fairness, revisit intention, and positive word of mouth influence of restaurant business in Barisal? Does service quality affect price fairness, revisit intention, and positive word of mouth influence of restaurant business in Barisal? : Does physical environment affect price fairness, revisit intention, and positive word of mouth influence of restaurant business in Barisal?

The article has been laid as follows; after introduction section, the literature review of previous related research works has been presented. Then the methodology section of the study has been discussed. After that the results of the study have been presented with discussion. The managerial implications and limitations of the study have been discussed at the end of the research paper.

Literature Review

In a restaurant setting, there are many quality aspects that could influence customers' response of their restaurant experience. Previous research has suggested that food quality, service quality and the physical environment are the three major dimensions of the restaurant (Antun, Frash, Costen & Runyan, 2010; Ha & Jang, 2010; Ryu & Han, 2010; Namkung & Jang, 2008). In addition, food quality, service quality and the physical environment are the major elements in increasing the accuracy of customer assessments of their restaurant experience. (Andersson & Mossberg, 2004:171).

One of the crucial matters in customer food choice decisions is the quality itself .Generally, customers' evaluation of food quality is based on their expectation and actual consumption experience. Food quality is perceived as a main restaurant product that significantly influences the dining experience (Ryu & Lee, 2013:7 & Sulek & Hensley, 2004). Grunert (2005) stated that food quality is linked to consumers food choice and demand. While there is no consensus concerning the individual elements that represent food quality, a review of the literature reveals that the common depiction of food quality

among researchers focuses on presentation, healthy options, taste, freshness, and temperature and portion size. Presentation may be defined as how attractively the food is presented and garnished. This serves as a tangible indicator of customer perception of quality (Namkung & Jang, 2008:144). Healthy options refer to nutritious and nourishing food options. Taste is seen as a core attribute in food that greatly influences customer satisfaction and future behaviour intentions (Antun et al., 2010:373; Ha & Jang, 2010:528; Namkung & Jang, 2008:144). Freshness refers to the fresh state of the food and is associated with its crispness, juiciness and aroma (Namkung & Jang, 2008:144). Temperature, together with other sensory properties, including taste, smell and sight, affects how the flavour of the food is evaluated (Namkung & Jang, 2008:145). The portion size of the meal can greatly influence customer satisfaction (Antun et al., 2010:373; Ha & Jang, 2010:521). Abdullah et al . (2018) showed that food quality, service quality, and price fairness influence customer satisfaction. In addition, customer satisfaction also leads to re-patronage intention. Mattila and Wirtz (2001) also stated that food quality is the key determinant of customer loyalty in casual-dining restaurants.

Service quality is the customer's personal evaluation, formed by comparing expectations and perceived performance (Ha & Jang, 2010:521) that comes from the customer's judgment of the overall excellence of the service. Service quality has been regarded an antecedent of customer satisfaction (Kim, Hertzman, & Hwanng, 2010), which in turn results in customer retention (Boonlertvanich, 2011). Studies also found a positive relationship between service quality, customer satisfaction and behavioral intention (González, Comesaña, & Brea, 2007). Superior service quality has the aptitude to improve customer loyalty. Evidently, empirical studies in restaurant setting demonstrate that improving service quality positively influences customer loyalty (Carranza, Díaz, & Martín-Consuegra, 2018; Mhlanga, 2018).

Physical environment consists of all the tangible and intangible elements that exist inside and outside a restaurant. Therefore, an attractive and unique physical environment design is extremely noticeable and viewed as common signature of an upscale restaurant (Ryu& Lee, 2013:8). The aspects of physical environment include facility layout, facility aesthetics, ambiance and lighting (Ryu & Han, 2011:2).

The perceptions of price fairness refer to consumers overall assessments of whether the offered price of a product or service of a seller is really reasonable, can be accepted or justified (Xia et al, 2004). Customers perceptions of unfair prices lead to negative outcomes, such as: higher degree of dissatisfaction, lower levels of repurchase behavior, negative word of mouth, and increased customers complaints (Rothenburger, 2015).

Hellier et al. (2003) defined re-patronage intention as an individual's decision to revisit the same place or service provider. When a customer satisfied with the service provider, the probability for the customer to use the service again will high. A customer who has intention to repurchase and recommend to others has higher chance to remain with the restaurant (Kandampully & Suhartanto, 2000). Abdullah et al. (2016) stated that good customer feedback can influence customers' intentional behavior.

Methodology & Conceptual framework

Population

The target population for this study was restaurant customers of PSTU who take food in prominent restaurants of Barisal city.

Research Method

This study is a descriptive research and quantitative in nature. The study has been conducted to test the influence of food, service and physical environment of restaurant business on revisit intention, price fairness and positive word of mouth intention through conducting a survey.

Sampling and Data Collection

In this research, simple random sampling technique was used and data were collected from 100 customers. The respondents are not in the same age group and consist of both male and female. In this study a questionnaire form was used as a tool for collecting primary data. Data has been collected from the customers who have visited three restaurants recently. A group of students from the BAM faculty of PSTU has been properly trained and sent to those customers with the survey questionnaire from March, 2019 to April, 2019.

Questionnaire Design

In this study, self-administered Questionnaires have been used in the data collection, and the questionnaire is specially designed to meet the requirements of the research. A category scales and Likert type scale questions have been used where respondents had to make their level of agreement such as; Strongly Disagree, Disagree, Neither agree nor Disagree (neutral), Agree and Strongly Agree. Scores of 1, 2, 3, 4, and 5 were assigned respectively for above mentioned categories. The questionnaire form has been made by adapting from the studies of (Walt, R.V & Kotze, T.G., 2014).

Hypotheses of the Study

H1: There is significant association between food quality, service quality, physical environment and revisit intention, price fairness and positive word of mouth.

H2: There is significant influence of food quality, service quality, and physical environment on revisit intension.

H3: There is significant influence of food quality, service quality, and physical environment on price fairness.

H4: There is significant influence of food quality, service quality, and physical environment on positive word of mouth.

Conceptual Framework

Based on the hypotheses of the study the researchers have proposed the following conceptual framework.

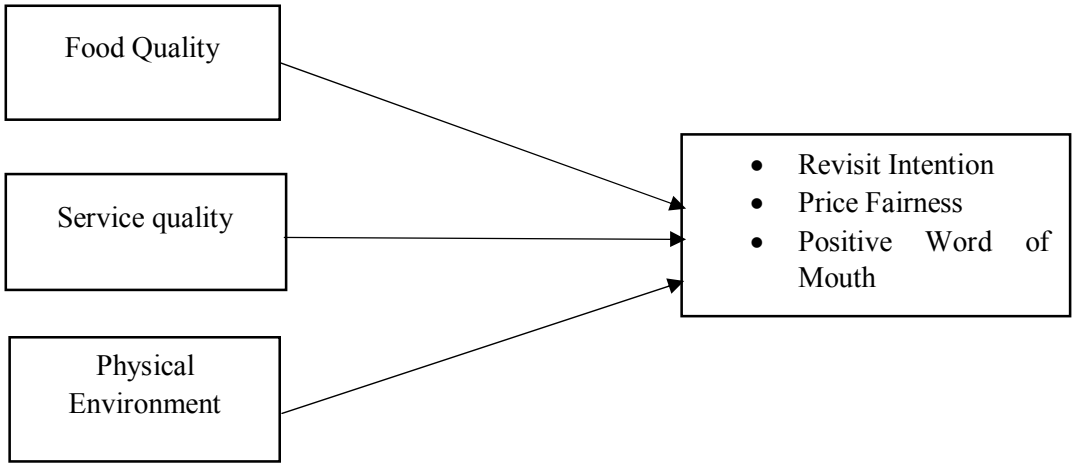

Figure 1: Conceptual framework

Results

Table 1

Correlation Table

		Revisit Intention	Price Fairness	Positive Word of Mouth
Food Quality	Pearson Correlation	.571	.376	.412
	Sig.	.000	.000	.000
Service Quality	Pearson Correlation	.676	.469	.438
	Sig.	.000	.000	.000
Physical Environment	Pearson Correlation	.340	.251	.066
	Sig.	.001	.012	.511

Table 1 shows that the relationships between revisit intention and restaurant dimensions are positive and statistically significant (Food quality, R = 0.571 and P = 0.000 < 0.05, Service Quality, R=.676 and P = 0.00 < 0.05. Physical environment R= .340 and P=.001<0.05). The relationships between price fairness and restaurant dimensions are

positive and statistically significant (Food quality, R = 0.376 and P = 0.000 < 0.05; Service Quality, R=.469 and P = 0.00 < 0.05; Physical environment, R= .251 and P= .012<0.05. R = 0.412 and P = 0.000 < 0.05). The relationship between positive word of mouth and restaurant dimensions are also positive and statistically significant except physical environment (Food quality, R = 0.412 and P = 0.000 < 0.05; Service Quality, R=.438 and P = 0.00 < 0.05; Physical environment, R= .066 and P= .511>0.05. R = 0.412 and P = 0.000 < 0.05.)

However, H_1 is accepted with the exception of the relationship between Positive Word of Mouth and Physical Environment. Therefore, H_1 is accepted with a single exception.

Table 2

Influence of Food quality, Service Quality and Physical Environment on Revisit Intention

Dependent variable	Independent Variable	R Square	Adjusted R Square	F value	Significance	Hypotheses Tested
Revisit Intention	Food Quality	.325	.319	47.287	0.000	Accepted
	Service Quality	.458	.452	82.658	0.000	
	Physical Environment	.116	.107	12.842	0.001	

As presented in Table 2, the first regression equation indicates that all three variables namely food quality, service quality and, physical environment have significant effect on revisit intention with R^2 value of 0.325, 0.458, and 0.116. Also, the overall models are significant with the p-value < 0.05. Thus, the three variables have significant influences on revisit intention. Therefore, H2 (There is significant influence of food quality, service quality, and physical environment on revisit intension.) is accepted.

Table 3

Influence of Food quality, Service Quality and Physical Environment on Price fairness

Dependent variable	Independent Variable	R Square	Adjusted R Square	F value	Significance	Hypotheses Tested
Price fairness	Food Quality	.142	.133	16.154	0.000	**Accepted**
	Service Quality	.220	.212	27.561	0.000	
	Physical Environment	.063	0.053	6.581	0.012	

Table 3 indicates that all three variables namely food quality, service quality and, physical environment have significant influence on price fairness with R^2 value of .142, .220, and.063. Also, the overall model is significant ranging from significance value of 0.00 and 0.012 with the p-value < 0.05. Thus, these three dimensions have significant influence on perception toward price fairness and H_3 (There is significant influence of food quality, service quality, and physical environment on price fairness.) is accepted.

Table 4

Influence of Food quality, Service Quality and Physical Environment on Positive Word of Mouth

Dependent variable	Independent Variable	R Square	Adjusted R Square	F value	Significance	Hypotheses Tested
Positive Word of Mouth	Food Quality	.170	.161	20.002	0.000	**Partially Accepted**
	Service Quality	.192	.184	23.261	0.000	
	Physical Environment	.004	-.006	.434	.511	

The third regression equations indicate that among three variables namely food quality, service quality and, physical environment, the two variables food quality and service quality have significant influence on positive word of mouth influence with R^2 value of .170 and .192 and the other variable physical environment is insignificant with R^2 value of .004. The overall model is significant with food quality and service quality at 0.000 with the p-value < 0.05 and physical environment is insignificant at significance value 0.511 with the p-value > 0.05. Thus, the two dimensions have practically a significant influence on positive word of mouth and the other variable physical environment has a insignificant influence on positive word of mouth by. 004 (.4%). Therefore, H^4 (There is significant influence of food quality, service quality, and physical environment on positive word of mouth) is partially accepted.

Managerial Implications and Conclusions

In this study, it has been found that the relationship between food quality, service quality, and physical environment with revisit intention, price fairness and positive word of mouth is positive and statistically significant. The findings revealed that food quality, service quality and physical environment have positive influence on revisit intention. According to the findings of the study the service quality of the restaurant has most significant impact on revisit intention of the customers. However, physical environment has showed least impact in comparison to service quality and food quality. Thus food quality, service quality and physical environment are significant predictors that keep customer to revisit the restaurant. Moreover, the study showed that food quality, service quality and physical environment have significant influence on price fairness perception. Service quality has

showed the highest impact on price fairness perception of the restaurants. The result also showed that positive word of mouth is significantly influenced by food quality and service quality but physical environment is not significantly influential factor to predict positive word of mouth. Hence, service quality of the restaurants is the most significant determining factor of revisit intention, price fairness perception and positive recommendation of the restaurant business.

The findings of the study are consistent with Majid et al, (2018), Mattila and Wirtz (2001), Abdullah et al . (2018), (Rothenburger, (2015) and Carranzaet al (2018) .

A restaurant is not just composed of food or menu it is offering, rather it is a combination of many factors which in turn paves the way to create satisfaction who visit these restaurants. If even of the factor is not adequately met, or poorly implemented, the customers would visit once, but will not refer it to others and themselves will not visit again. The study has tested one hypothesis by correlation analysis and three hypotheses by regression analysis. The entire four hypotheses were supported, indicating that the restaurant dimensions can positively influence overall customer response. The results suggest that restaurant authorities must take proper actions to improve their performance on all three dimensions.

Findings in this study revealed that the essentials aspects of restaurant such as food quality, service quality and physical environment are significant predictors of positive customer response and future behavioral intentions, which involve customer's willingness to revisit, recommend and spread positive thing about restaurant to others. So, restaurant managers should focus on all three of the dimensions to elicit positive consumer response. Food quality is considered an important factor that influences customer response mostly. So, the restaurant should serve foods in a fresh manner which the customer will find hygienic and tasty. Moreover, restaurants and restaurant operators who already have a regular customer base must protect their service quality to increase revisit intention. Restaurant authorities must take necessary steps to provide well decorated physical environment where customers will feel comfortable. To improve the physical environment, the restaurant managers should invest substantially on interior designs; decorations, floor cleanness, and other accessories, because such expenditures are the most important investments for attracting customers (Azim et al., 2014). The owner committee should also arrange training programs to improve their staff performance and responsiveness toward the consumer.

The study has several limitations. Firstly, it has been conducted on few variables. Hence, future studies can include some other variables and try to explore the moderating variables. Secondly, data has been collected from the customers of only three specific restaurants in Barisal city. Hence, future studies should include more restaurants which will be more representative of the original scenario. Thirdly, the sample size is small. Future studies should include large sample size to provide more accurate result.

References

Abdullah, D., Hambali, M. E. R. M., Kamal, S. B. M., Din, N., & Lahap, J. (2016). Factors influencing visual electronic word of mouth (e-WOM) on restaurant experience. In S. M. Radzi, M. H. M. Hanafiah, N. Sumarjan, & Z. Mohi (Eds.), *Proceedings of the 3rd International Hospitality and Tourism Conference (IHTC 2016) & 2nd International Seminar on Tourism (ISOT 2016)* (pp. 519–523). Bandung, Indonesia: CRC Press.

Abdullah, D., Hamir, N., Nor, N. M., Krishnaswamy, J., &Rostum, A. M. M. (2018). Food Quality, Service Quality, Price Fairness and Restaurant Re-Patronage Intention: The Mediating Role of Customer Satisfaction. *International Journal of Academic Research in Business and Social Sciences*, 8(17), 211–226.

Azim, A., Shah, N. A., Mehmood, Z., Mehmood, S., &Bagram, M. M. M. (2014). Factors effecting the customer's selection of restaurants in Pakistan. *International Review of Management and Business Research,* 3(2), 1003-1013.

Antun, J.M., Frash, R.E., Costen, W. & Runyan, R. (2010). Accurately assessing expectations most important to restaurant patrons: the creation of the DinEX scale. *Journal of Foodservice Business Research,* 13(4):360-379.

Andersson, T.D & Mossberg, L. (2004). The dining experience: do restaurants satisfy customer needs? *Food Service Technology*, 4(4):171-177.

Boonlertvanich, A. (2011). Effect of Customer Perceived Value on Satisfaction and Customer Loyalty in Banking Service: the Moderating Effect of Main-Bank Status. *International Journal of Business Research,* 11(6), 40-54.

Chang, D.Y. (2009). Service quality assessment of a chain steakhouse in Taiwan. *Journal of Quality Assurance in Hospitality and Tourism,* 10(4):255-278.

Carranza, R., Díaz, E., & Martín-Consuegra, D. (2018). The influence of quality on satisfaction and customer loyalty with an importance-performance map analysis: Exploring the mediating role of trust. *Journal of Hospitality and Tourism Technology.*

Dube, L., Renaghan, L. M., & Miller, J. M. (1994). Measuring customer satisfaction for strategic management. *Cornell Hotel and Restaurant Administration Quarterly*, 35(1), 39-47.

González, M. E. A., Comesaña, L. R., & Brea, J. A. F. (2007). Assessing tourist behavioral intentions through perceived service quality and customer satisfaction. *Journal of Business Research*, *60*(2), 153–160. http://doi.org/10.1016/j.jbusres.2006.10.014

Grunert, K. G. (2005). Food quality and safety: Consumer perception and demand. *European Review of Agricultural Economics*, *32*(3), 369–391. http://doi.org/10.1093/eurrag/jbi011

Ha, J. & Jang, S. (2010). Effects of service quality and food quality: the moderating role of atmospherics in an ethnic restaurant segment. *International Journal of Hospitality Management*, 29:520-529.

Hellier, P. K., Geursen, G. M., Carr, R. A., & Rickard, J. A. (2003). Customer repurchase intention, a general structural equation model. *European Journal of Marketing*, *37*(11/12), 1762–182.

Ideris, M. S. K. (2015). The Influence of Service Quality and Food Quality towards Customer Fulfillment and Revisit Intention. *Canadian Social Science*, 11(8), 110–116.

Kandampully, J., & Suhartanto, D. (2000). Customer loyalty in the hotel industry: The role of customer satisfaction and image.International Journal of Contemporary Hospitality Management,12(6), 346-351.

Kim, Y., Hertzman, J., & Hwang, J. (2010). College Students and Quick-Service Restaurants: How Students Perceive Restaurant Food and Services. *Journal of Foodservice Business Research*, 13(4), 346-359.

Kotler, P., & Keller, K. L. (2012), "Marketing Management", Global Edition 14e,

London: Pearson Education Limited 2012

Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences,* 1(2):172-198.

Mattila, B. A. S., & Wirtz, J. (2001). Anna-Congruency of Scent and Music As a Driver of in Store Evaluation and Behavior. *Journal of Retailing*, *77*(2), 273–289.

Matzler, K., Renzl, B. & Rothenberger, S. (2006). Measuring the relative importance of service dimensions in the formation of price satisfaction and service satisfaction: A case study in the hotel industry. *Scandinavian Journal of Hospitality and Tourism*, 6(3):179-196.

Majid, M. A. A., Samsudin, A., Noorkhizan, M. H. I., Zaki, M. I. M., & Bakar, A. M. F. A. (2018). Service Quality, Food Quality, Image and Customer loyalty: An Empirical Study at a Hotel Restaurant. *International Journal of Academic Research in Business and Social Sciences*, 8(10), 1432–1446.

Mhlanga, O. (2018). Measuring restaurant service quality in East London, South Africa: A comparison of restaurant customer expectations and perceptions. *African Journal of Hospitality, Tourism and Leisure,* 7(2), 12.

Namkung, Y. & Jang, S. (2008). Are highly satisfied restaurant customers really different? A quality perception perspective. *International Journal of Contemporary Hospitality Management,* 20(2):142-155.

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing,* 63(4), 33-44.

Rothenberger, S. (2015). Fairness through Transparency: The Influence of Price Transparency on Consumer Perceptions of Price Fairness. Working Papers CEB,15.

Ryu, K., & Lee, J. S. (2013). Examination of Restaurant Quality, Relationship Benefits, and Customer Reciprocity from the Perspective of Relationship Marketing Investments. *Journal of Hospitality & Tourism Research,* 20(10):1-27.

Ryu, K. & Han, H. (2011). New or repeat customers: how does physical environment influence their restaurant experience? *International Journal of Hospitality Management*, 30(2):1-13.

Ryu, K. & Han, H. (2010). Influence of the quality of food, service, and physical environment on customer satisfaction and behavioural intention in quick-casual restaurants: moderating role of perceived price. *Journal of Hospitality & Tourism Research*, 34(3): 310-329.

Ryu, K. & Jang, S. (2008). DINESCAPE: a scale for customers' perception of dining environments. *Journal of Foodservice Business Research*, 11(1):2-22.

Sulek, J. M., & Hensley, R. L. (2004). The relative importance of food, atmosphere, and fairness of wait: The case of a full-service restaurant. *Cornell Hotel and Restaurant Administration Quarterly,* 45(3), 235–247.

Shariff, S. N. F. A., Omar, M., Sulong, S. N., Majid, H. A. M. A., Ibrahim, H. M. I., Jaafar, Z., & Ideris, M. S. K. (2015). The Influence of Service Quality and Food Quality towards Customer Fulfillment and Revisit Intention. *Canadian Social Science*, 11(8), 110–116.

Walt,R.V & Kotze, T.G.(2014). Customers' perceptions of restaurant experience in Gauteng. *Contemporary Management in Theory and Practice.*

Wall, E.A. & Berry, L.L. (2007). The combined effects of the physical environment and employee behavior on customer perception of restaurant service quality. *Cornell Hotel and Restaurant Administration Quarterly,* 48(1):59-69.

Xia, L., Monroe, K. B., & Cox, J. L. (2004). The price is unfair! A conceptual framework of price fairness perceptions. Journal of marketing, 68(4), 1-15.

Journal of Business Studies
JBS-ISSN 2303-9884
Volume 12, No. 2, pp. 216-232 (Printed in January, 2021)

Factors Influencing Ethical Behavior and Their Impact on Performance of Private Commercial Banks in Bangladesh

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Abstract

The purpose of this article is to identify the factors that influence ethical behavior in private commercial banks of Bangladesh. The research also tried to verify the positive influence of ethical behavior on organizational performance. The samples were taken on a random basis from thirty private commercial banks of Bangladesh. A 20-item questionnaire with the Likert-type scale was used for collecting data. Data for this study was collected from 395 employees who were working at top, middle and lower level management positions in organization. Collected data were analyzed by using the principal component analysis (PCA) and regression analysis. The study has revealed six dimensions of employee's ethical behavior based on factor loadings named as: execution of ethical standard, implementing code of conduct, establishment of legal and professional standard, valuation of personal ethics, rewarding ethical behavior, and ethical role of top management. Ethical behavior was found positively related with banks performance. Since the study used samples only from private commercial banks of Bangladesh. Therefore the findings cannot be generalized for all kinds of banks. Besides banks performance may be also affected by other variables which were not covered here. It is expected that the study will help the policy makers ensuring enhanced practices of ethical behavior in private commercial banks of Bangladesh. This study identified overall factors that can improve ethical behavior as well as corresponding organizational performance for the private commercial banks of Bangladesh.

Key Words: *Ethics, behavior, Private, Bank, Performance, Bangladesh*
JEL classification: G21, G28

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1. Introduction

In 2009, World Bank constructed a business ethics measurement based on ten different components/factors for about 180 countries. It showed that Singapore having the best ranking while Bangladesh was ranked quite disappointedly in 119thposition. However, the ranking did not indicate what kind of improvements in behavioral, situational, structural and policy environments are instrumental to improve bank performance. Therefore, in this study, the researcher tried to identify the factors that influence an employee's ethical behavior for improving their organizational performance.

Due to greediness for quick income and profit banks become highly vulnerable place for unethical practices both from insides or outsiders. Ethical behaviors of bank employees are the only solutions to safeguard the interest of the stakeholders. Several examples are available regarding banks' employees in Bangladesh engaging in unethical practices in connection with personal greed, sponsors, directors, politicians, bureaucrats, unscrupulous businessmen etc. Commerce and Investment bank tried to get huge deposits by offering usually high rate of interests on investment which created the demise of the bank within seven years of its inauguration. That bank eventually sold to the a foreign company and renamed as ICB Islamic Bank which still troubling to get back reputation it lost before. In May 10, 2016, the Wall Street Journal mentioned that FBI suspected that at least on insiders in involved in the renowned $101 million cyber heist of Bangladesh Bank in that year. Hallmark-Sonali Bank Loan Scam (2010-2012) occurred when one branch of Sonali Bank illegally gave out $454 million in loans, including nearly $344 million to Hallmark Group, a textile business due to fraudulent letters of bank managers. In 2016 the finance minister of Bangladesh in a statement described the state of the bank as weak due to graft by top officials of the bank and would require some time for improvement.

As a result, many companies in Bangladesh now are showing active interest in the encouragement of ethical behavior and discouragement of unethical behavior among their employees. Business has been found enjoying many benefits as a result of instituting ethical behavior. Some of these benefits are increased employee satisfaction and productivity, increased and sustainable profitability, improved social status, and customer/ shareholder loyalty and appreciation (Wickham O'Donohue 2012;Vitel and Singhapakdi, 2008).Thus, this study will contribute to literature by making an in-depth study on "Factors influencing Ethical Behavior in Private Commercial Banks of Bangladesh".

2.0 Objectives of the Study:

In order to meet the active interest of the banks this research try to explore the variables relating to ethical behavior of private banks of Bangladesh from the employee perspective. The rationale of the study lies in the fact that no comprehensive research regarding ethical behavior of private banks from employee perspective has been undertaken in Bangladesh. The objectives of the study are:

1. To identify the factors responsible for employee's ethical behavior in private commercial banks of Bangladesh.

2. To generate the dimensions of ethical behavior for the bank employees in Bangladesh.
3. To explore the relationship between ethical behavior and performance of Banks.
4. To provide suggestions to the policy makers for ensuring ethical behavior of employees in private banks of Bangladesh.

3.0 Literature Review

Three types of literatures were found on ethical behavior and its impact on organizational performance. Some literature tried to identify the factors that constitute ethical behavior. Some other literature tried to identify the factors that affect ethical behavior in the organization. And there are some literature too that tried to relate ethical behavior with organizational performance. Mixes of those three types of literatures were also found. Our intent relates with all those types.

Table 1: Summary of Literature Review on Factors influencing ethical behavior

Authors (Year)	Factors
Trevino (1986)	Employee's ego strength, field dependence, locus of control, moral development, immediate job context, organizational culture, and characteristics of the work performed
Bommer et al. (1987)	Social, governmental, legal, work, professional, personal environments.
Trevino and Youngblood (1990)	Cognitive moral development and locus of control, outcome expectancies, Explicit reward
Leslie (1997)	Public specification of objectives and methods, the use of functional analysis, social validity measures, values of clients are protected by organizations
Painter Morland (2001)	Individuals moral decision making skills, religion, culture, peer in group pressure, personality, of a person's position in an organization
Omolewu (2002)	Morality among employees, levels of supervision and accountability, administrative structure, awareness of the public and employees, and monitored declaration of employee assets. Author's solutions were establishments of codes of business conduct, a whistle-blowing mechanism and a commitment by management.
Naude (2005)	Morality, honesty, fairness, and sense of right or wrong
Kaptein (2007)	Organizational culture, reward ethical conduct
Daveninderak (2009)	Top management support for ethical behavior, ethical climate in the organization, the association between ethical behavior and career success, and moral awareness with job satisfaction
Hendriks (2011)	Interactional justice and ethical leadership
Mumtaz et al. (2011)	Top management ethical behavior
Palomino and Martinez (2011)	Ethics training
Suresh (2011)	Human resource practices

Authors (Year)	Factors
Khan (2012)	Institutionalize ethical practices
Chun, et al. (2013)	Organizational commitment, organizational citizenship, code of ethics
Iqbal, Bhatti and Zaheer (2013)	Freedom to make ethical decisions, ethical values and group creativity positively, clear code of conduct, proper ethics training, open communication and colleague's influence
Saeed, et al. (2013)	Ethical guidance and ethical values
Thomas (2013)	Personal values, organizational values, and the congruence of these value
Moor and Moor (2014)	Organizations ability to meet the stakeholder's expectations
Huang and Paterson (2017)	Ethical leadership, ethical culture and group ethical voice efficacy
Moghrabi et al. (2017)	Organizations set ethical standards, providing environment of trust and commitment, providing leadership

Therefore, at first literatures were reviewed to identify the factors that influence (constitute/affect) ethical behavior in the organization. Secondly, articles that relates ethical behavior with organizational performance were summarized. **Table 1** summarizes the factors influence ethical behavior. These factors are found in 21reviewed literatures that.

The papers that found significant relationships between ethical behavior and organizational performance are summarized in **Table 2**. The table includes the context, study field, and tools used for analysis.

Table 2: Summary of Literature Review that found significantly positive relationship between ethical behavior and organizational performance

Authors (Year)	Field	Context	Tools used for Analysis
Naude (2005)	Overall	South Africa	Summarized literature
Victor and Soutar (2005)	Across industries	Singapore	SEM & CFA
Daveninderak (2009)	Various industry	Malaysia	Correlation and Regression
Kehinde (2010)	Service company	Lagos, Nigeria	Correlation and Chi-square
Mumtaz et al. (2011)	Banking	Pakistan	Correlation and regression
Palomino and Martinez (2011)	Banking	Spain	Descriptive statistics & correlation
Kott (2012)	Manufacturing	USA	Correlation and Regression
Sabir, Iqbal and Reham (2012)	Overall	Pakistan	Correlation and Regression
Chun et al. (2013)	Various Pvt. Co.	South Korea	Confirmatory Factor Analysis
Iqbal, Bhatti and Zaheer (2013)	Telecom Industry	Pakistan	Structural Equation Model (SEM)
Msanze (2013)	Utility	Tanzania	Descriptive statistics &

Authors (Year)	Field	Context	Tools used for Analysis
			correlation
Saeed, et al. (2013)	Education Sector	Pakistan	Regression
Thomas (2013)	Counselor	Iowa, Indiana,	Correlation and Regression
Salaudin et al. (2016)	Textile SMEs	Malaysia	Confirmatory Factor Analysis
Moghrabi, Sabhurwal and Berman (2017)	State agencies	Few states of USA	Percentile analysis and OLS regression

In general, articles review revealed that, there are various reasons for ethical behavior in the organization and the result of the ethical behavior were found positive relationship with organizational performance. However, most of the case, those researchers were not focusing on banking industry let alone private commercial bank. Those few focused on banking industry were not done in Bangladesh context. Therefore, this literature survey indicates that no comprehensive and detailed study has yet been made in order to identify, analyze and to interpret the factors of ethical behavior in private banking industry of Bangladesh and their impact on organizational performance. This gap was chosento be addressed in this research. Thus the successful completion of this study would hopefully add new dimensions to the literature with regards to the important aspects of ethical behavior in Bangladesh.

4.0 Theoretical Discussion and Development of the Hypothesis

This section explained ethical behavior and method of measuring ethical behavior practices in the context of private commercial banks in Bangladesh. Then the meaning of organization performance in the context of private commercial banks and it measuring methods were elaborated. Lastly a model was developed with hypothesis regarding the relationship between ethical behavior and banks' overall performance.

4.1 Ethical Behavior at Commercial Banks in Bangladesh

Ethics can be defined as standards of morality that guides individuals and organization in certain norms of conduct when dealing with each other. Ethical behavior is characterized by honesty, fairness and equity in interpersonal, professional and academic relationship. It respects the dignity, diversity and the right of individual and groups of people (Legan, 2000). There are lots of theoretical and empirical studies, which explain the factors and variables influence employs ethical behavior and their ethical decision-making in the organization (Trevino, 1986 and Brass, Butterfield, & Skaggs, 1998).In Bangladesh, currently, there are 41 local private commercial Banks (Bangladesh, Nov, 2019). These commercial banks are financial institutions that normally perform four kinds of functions. First, It intermediates between savers and borrowers. Secondly, it extends maturity by taking deposits payable on demand and making it long term loan. In third, it allocates credits to different sectors and in the fourth, it facilitate payment flow being trustworthy partner of transactions. Depositors put their money in bank on trust that it will be returned on demand with promised profit. Borrowers borrow from bank on trust that no unseen

charge or excuse will be imposed. However, commercial banks can be exposed to unethical practices by telling depositors ambiguous profit rate and hiding charges. It may have hidden charge and clause for loan and may lend to people not credible justifiably. Bank can over invest or under invest in different sectors and can also exercise nepotism and favoritism. Commercial bank can even fabricate its financial statements. In order make banking business sustainable, we have to ensure that bank takes its decisions ethically. According to Islam (2012), commercial banks must comply with all laws, rules and regulations; must ensure fair and equitable treatment of all stakeholders; must ensure full, truthful and transparent disclosure of their financial health, and must behave as socially responsible corporate citizens.

Generally ethical behavior is measured based on the morality of human being. In a commercial bank, ethical behavior of employee's is measured on the basis of code of conduct, professional rules regulation and individual personal moral belief. In order to measure the ethical behavior of employee's in an organization, Trevino et at., (1986) has adopted twenty questions for his study. Some of the questions were - "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.? Same questionnaire was used to measure ethical practice level in the commercial banks of Bangladesh.

4.2 Organizational Performance

Mwita (2000) defined performance as a multi-factor characteristic that has major connection with the organizational objectives. It comprise of financial performance, product performance in market, and shareholder's return (Richard, 2009). Performance is evaluated comparing actual outputs with intended output. It is true that most of the organizations are dependent on its employees, but one or two employee cannot change the organization's destiny. For measuring the organizational performance of employee's in a bank, Tsui et al., (1997) has used eleven-item questionnaire. Same questions were used in this research to measure commercial bank's performance. Example of same questions 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.

4.3 Ethical Behavior and Organizational Performance

Literature review has elaborated that there are several factors that can influence ethical behavior and eventually can produce better organizational performance. Those factors were first examined to verify their use in the private commercial banks of Bangladesh. A factor analysis condensed those factors into different distinct dimensions that impacts on ethical behavior. Ethical behavior of the commercial banks increase stakeholders trust on bank and trust will induce more depositors to deposit, more debtors to lend money, and more businessmen to extend their transactions with the bank. Therefore overall

performance of the bank will improve. Moreover, several researchers have found positive relationship between ethical behavior and organizational performance (Naude (2005); Victor and Soutar (2005); Daveninderak (2009); Kehinde (2010); Mumtaz et al. (2011); Palomino and Martinez (2011); Kott (2012); Sabir, Iqbal and Reham (2012); Chun et al. (2013); Iqbal, Bhatti and Zaheer (2013); Msanze (2013); Saeed, et al. (2013); Thomas (2013); Salaudin et al. (2016); Moghrabi, Sabhurwal and Berman (2017). Therefore it is highly expected that this research will also find a positive relationship between ethical behavior and private commercial bank's performance in Bangladesh. As a result the researchers have taken the following hypothesis regarding the relationship between ethical practices in private commercial and their performance:

Hypothesis: ***An ethical behavior practice at the private commercial banks of Bangladesh has positive relationships with their organizational performance.***

A regression analysis of the private commercial banks' performance on the identified ethical behavior dimensions will reveal the legitimacy and extent of such positive relationships. The analysis model has been shown in the **Figure 1** for better understanding of the research process.

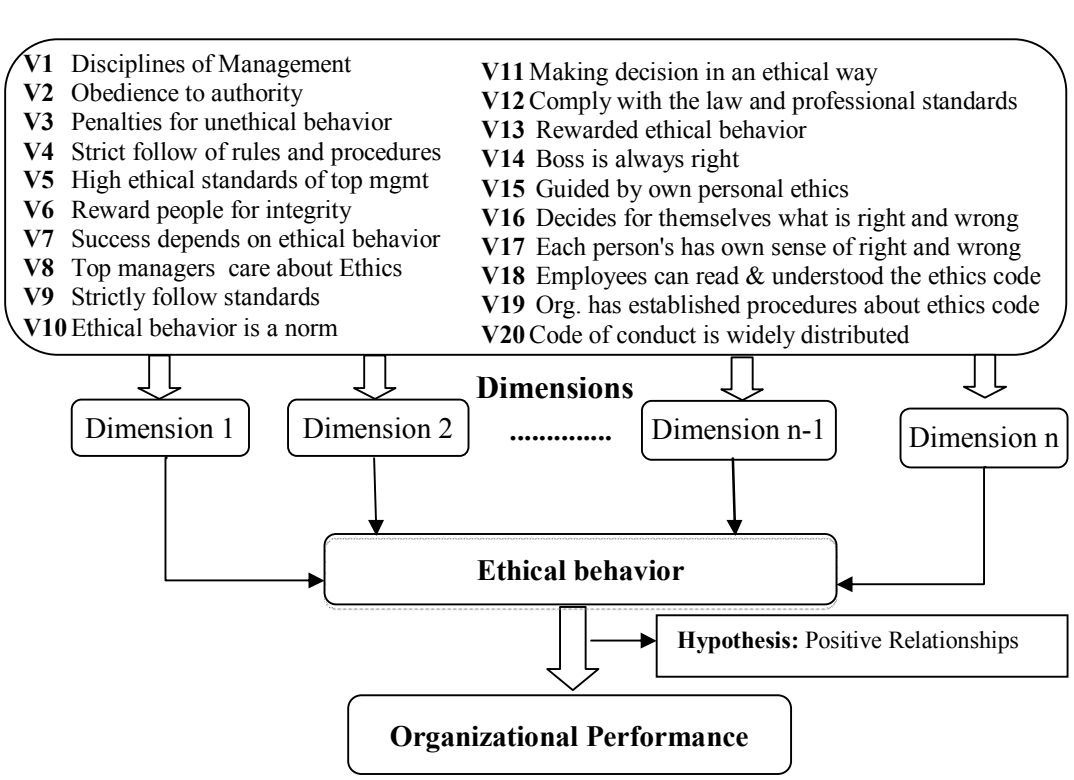

Figure 1: Research Process and hypothesis

5.0 Research Methodology

In order to fulfill the first objective of the research, researchers first tried to identify the factors influencing ethical behavior in the private commercial banks of Bangladesh. That was done by collecting pool of potential factors found in literature review. Though the researchers took maximum caution to avoid same factor to be counted more than once, there is a possibility that differently named factors in different literature are actually measuring same influence. Therefore a factor analysis was necessary to accumulate similar factors into one dimension. The second objectives of the research focused on this. Principle component analysis (PCA) is one of types of factor analysis that is very much popular to be used in such situations. Therefore, the principle component analysis (PCA) is used to identify the dimensions of ethical behavior that impact on organizational performance. Revealing the magnitude of impact of the ethical dimensions on organizational performance was the third objectives of this research.The researchers used correlation and multiple regression analysis on the found dimensions to elucidate the individual and combined impacts of the ethical dimensions on organizational performance. Sample selection methods, questionnaire design, administering and testing methods for collecting data for the factor analysis, correlation and regression analysis are mentioned in the following sections.

5.1 Sample Design

In this research, the respondents are those, who were serving in different private banking organizations in Dhaka and Chittagong city, who have sufficient qualification, knowledge and experience in their job fields. There are 40 private commercial banks operating their business in Bangladesh. Out of them only 30banks are selected for this study. Most of the banks have branches situated in Dhaka and Chittagong division. Judgment sampling method is applied for this study in order to get best responses within short time. 395 respondents were selected comprising both male and female. The respondents were lower level, middle level or top level managers. All respondents were motivated enough to fill up the questionnaire in full.

5.2 Questionnaire design and data collection

For the PCA, the dependent variable was ‘ethical behavior’ and independent variables were twenty (20). These variables were chosen based on the literature review and brainstorming sessions with the employees of private commercial banks of Bangladesh. List of those variables has been given in the theoretical model. For the correlation and regression analysis the dependent variable was organizational performance and independent variables were the dimensions found in PCA analysis. A structured 20-item questionnaire is designed by the researchers to gather primary data. The respondents are asked to rank each item on a 5-point Likert scale (ranging from 1 to 5 such as strongly disagree, disagree, neutral, agree and strongly agree) to identify key forces of employee’s ethical behavior. Personal direct interviews and field investigation techniques were adopted for collecting data / information from primary sources. A brief description of the

research intention and an assurance of confidentiality on identity of the participants were included with the questionnaire. These essential relevant data for analyzing employees' behavior have been collected during the period of 2016, 2017 and 2018 (up to July 2018).Full demographic data is given in **Table 3**.

Table 3: Demographic Characteristics of the Respondents

Characteristics	Categories	Percentage
Age distribution	Between 25 to 35	49.4%
	Between 35 to 45	39.5%
	Below 25 or above 45	11.1%
Education Qualification	Diploma Holders	4.6%
	Bachelor Graduate	5.3%
	Masters Graduate	89.6%
	Others	0.5
Experience	Between 1 to 5 years	15.9%
	Between 5 to 10 years	40.0%
	Between 10 to 20 years	34.4%
	Above 20 years	5.3%
Gender	Female	7.6%
	Male	92.4%
Marital Status	Married	84.6%
	Single	14.9%
Managerial Position	Top level	2.8%
	Mid level	74.7%
	Lower level	2.8%
	First line employee	8.6%

5.3 Validity and Reliability Testing

The validity of the factors used in the questionnaire have no doubt since they were taken from previously published literature. However, reliability of the questionnaire can be an issue since the researchers prepared their own questionnaire. Therefore, reliability test become necessary to the questionnaire. According to Hair et al., (2006), Cronbach's Alpha is one of the most common internal constancy (reliability) measures, to be used to test the items of measurements for research variables. According to Malhorta and Peterson (2006), when Cronbach's Alpha coefficient of variable is between 0.6 to 0.8, it is classified as moderate strong. Nevertheless, if a variable's Cronbach'sAlpha coefficient score falls between 0.8 to 1.0,this indicates that this variable has a very strong reliability. The Cronbach's Alpha reliability analysis for this study. Shown in in **table 4** clearly indicate that the scale is reliable (Cronbach's Alpha value = 0.692 at N=20).

Table 4: Reliability of the scale

Scale	Cronbach's Alpha	N of items
Ethical Behavior	0.692	20

6.0 Findings and Analysis

At first, factors that constitute and execute ethical behavior in private commercial banks (PCB) of Bangladesh were tried to identify by using principal component analysis and then regression is used to justify the impact of ethical behavior on the private commercial bank's performance.

6.1 Variables influencing Ethical Behavior at PCBs of Bangladesh (Principal Components Analysis)

PCA is a statistical tool that converts a set of possibly correlated variables into a set of linearly uncorrelated variables called principal components. In order to collapse similar variables that influence ethical behavior and to reduce them to distinctive dimensions the researchers has conducted Principal Components 'Varimax Rotated Method' for data analysis.

At first Data adequacy was tested by KMO (Kaiser-Meyer-Olkin) and Bartlett's Test of Sphercity. KMO value closer to 1 indicates data will be useful for PCA. In our data KMO indicator is 0.768 i.e. data is adequate. Bartlett's Test of Sphericity is used to test whether variables are unrelated and therefore creating an identity matrix and thus unsuitable for structured analysis such as PCA. Small significance level (such as 0.05) for such hypothesis proves usefulness of data. Here, Chi-Square value of Bartlett's Test of Sphericity is 1927.402 with 190 degree of freedom at the 0.05 level of significance. Hence the appropriateness is justified.

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.768
Bartlett's Test of Sphericity	Approx. Chi-Square	1927.402
	Df	190
	Sig.	.000

When the original twenty variables (Figure 1) were analyzed by the PCA with varimax rotation, six factors were extracted from the analysis with an Eigen value of greater than one. Those six factors explained 58.432 (**Table 6**) percent of the total variance. This implies that 41.568% variations could be explained by other factors, which are not included in the analysis model of this study. The six dimensions of employee's ethical behavior are named accordingly and result of the factor analysis is discussed as follows:

Table 6: Principle Component Analysis with Rotated Component Matrix and Communalities

Dimensions	Variables	Components						Communality
		1	2	3	4	5	6	
Execution of ethical standard	V5	.713						.558
	V6	.659						.509
	V8	.641						.556
	V7	.537						.554
	V4	.531						.495
	V11	.472						.521
Implementing code of conduct	V2		.712					.558
	V3		.653					.625
	V18		.637					.533
	V20		.617					.575
Establishment of legal and professional standard	V9			.762				.700
	V10			.699				.598
	V1			.432				.630
Valuation of personal ethics	V17				.745			.586
	V16				.737			.674
	V15				.607			.645
Rewarding ethical behavior	V19					.760		.652
	V13					.615		.621
Ethical role of top management	V12						.778	.662
	V14						.496	.434
Eigenvalues		4.598	1.978	1.605	1.277	1.126	1.101	11.685
% of Variance explained		22.991	9.892	8.024	6.387	5.632	5.506	58.432

Dimension 1: *Execution of Ethical Standard*

Dimension 1 was named as 'Execution of ethical standard' consisted of six variables. The variables (loading) are high ethical standards of top management(0.713), rewarded people for integrity (0.659), top managers are care about Ethics (0.641), success depends on ethical behavior (0.537), strictly follow the organization's rules and procedures (0.531), and making decision in an ethical way (0.472). The Eigen value of this factor is 4.598 and this factor is responsible for 22.991% variance in employee's ethical behavior (see Table 4). Thus execution of ethical standard is very important for employee's ethical behavior in banking organization.

Dimension 2: ***Implementing Code of Conduct***

Dimension 2 was named as 'Implementing code of conduct', which explain 9.892% of the variation in employee's ethical behavior. This principle component was constituted by four variables. Variables (loading) are obedience to authority (0.712), penalties for unethical behavior (0.653), employees can read and understood the ethics code (0.637) and code of conduct is widely distributed (0.617).Thus implementing code of conduct is also very significant for employee's ethical behavior in banking organization.

Dimension 3: ***Establishment of legal and professional standard***

Dimension 3 was named as 'Establishment of legal and professional standard' which is formed by three variables such as strictly follow the legal or professional standards (0.762), ethical behavior is a norm (0.699) and disciplines of Management (0.432)). This factor accounts for 8.024% of the variance and Eigen value is 1.605 (see Table 4).

Dimension 4: ***Valuation of personal ethics***

Dimension 4 included three variables and was named as 'Valuation of personal ethics'. This factor is measured by each person's has own sense of right and wrong (0.745), decides for themselves what is right and wrong (0.737), and guided by own personal ethics (0.607). This factor is responsible for 6.387% of the variance in ethical behavior. The Eigen value of this factor is 1.277.

Dimension 5: ***Rewarding Ethical Behavior***

Dimension 5 named as 'Rewarding ethical behavior', which accounts for 5.632% variance of ethical behavior. This factor consisted of two variables such as organization has established procedures about ethics code (0.760) and rewarded ethical behavior (0.615). The Eigen value of this factor is 1.126.

Dimension 6: ***Ethical role of top management***

The last dimension named as 'Ethical role of top management' which consisted of two variables such as comply with the law and professional standards (0.778) and boss is always right (0.496).The Eigen value of this factor is 1.101. This principle component accounts for 5.506% of variance in employee's ethical behavior in private commercial banks of Bangladesh.

6.2 Ethical behavior and performance at PCBs in Bangladesh

In order to verify and explain the relationship between ethical behavior and organizational performance a regression was run. The values of the impact were found significant and positive. **Table 7** explains the relationship between ethical behavior and organizational performance in private banking organizations in Bangladesh.

Table 7: Regression Model Summary[b,] ANOVA[a and] Co efficients[a]

Model	R	R Square	Adjusted R Square	Durbin-Watson	Sum of Squares	F	Unstandardized Coefficients		t	Sig.
							B	Std. Error		
1	.496[a]	.246	.244	1.819	Regression = 27.114 Residual =82.969	128.433	(Constant) 1.721. EB 0.625	(Constant) 0.216 EB 0.055	7.958	.000

a. Dependent Variable: Organizational performance

b. Predictors: (Constant), Ethical behavior (EB).

The coefficient of determination (The R square value) shown in the table is 0.246. That means 0.246 percent of the average organizational performance is explained by the ethical behavior. Durbin-Watson in the analysis is comes out to be 1.819 which is near to 2 proving the result is significant. The result of ANOVA shows that 110.083 (27.114+ 82.969) squared error will occur if the prediction for dependent variable only uses the mean of organizational performance. In other words, by using the independent variable ethical behavior the squared error will be reduced by 24.630 percent (27.114 ÷ 110.083). This is statistically significant since F ratio is 128.435 which is greater than 5 and a significance level of P=0.000< 0.05.The values of beta shows the impact of independent variable on dependent variable. So, it can be interpreted that 1 unit change in ethical behavior brings will 0.625units positive change in employee's organizational performance. The t-value (7.958) should be greater than 1.96 and p-value (0.000) should be less than 0.05 to be significant. Considering both t-values and p-values of this analysis it can be commented that regression coefficient is also significant.

7.0 Recommendations

The major challenges in promoting ethical behavior in Bangladesh includes concerned about survival uprightness, integrity, and competitiveness, removing fraud and forgery, enhancing investments in social sectors like agriculture, small enterprises, health, education, expanding sustainable banking activities and attainment of cost efficiency in service delivery. Based on this recommendations following policy options may be derived for promoting ethical behavior in Bangladesh.

First, banks must ensure that employees' values, norms and morality persist to the all level of employees in organization at the time of making business decisions.

Second, banks must comply with all laws, rules and regulations to ensure soundness of operations and to enhance confidence of the society.

Third, banks must ensure fair and equitable treatment of all stakeholders- shareholders, depositors, borrowers and employees.

Fourth, the banks must ensure full, truthful and transparent disclosure of their financial health so that stakeholders get transparent picture of the true financial health and the risks that were being assumed.

Fifth, banks must increase investment in green projects for protection of environment and in social sectors, like agriculture, small enterprises, health and education, for promoting financial inclusion.

Sixth, banks must behave as socially responsible corporate citizens. Banks social responsibility must include the impact of its activities on growth, employment and poverty alleviation.

Seventh, bank staffs need to be trained properly on fair pay and other incentives.

Eighth, Islamic banks need to undertake measures for promoting welfare-oriented banking further.

Ninth, Top management should act as a role model for improving the ethical behavior in banking organizations.

At last, banking sector of Bangladesh should be free from illegal Government and political influence at the time of making banking decisions.

8.0 Conclusion

The primary objective of this study is to find out the factors that influence ethical behavior of employees at all level of private commercial banks' located in Dhaka and Chittagong city. The research also took a hypothesis that such ethical behavior also improves bank's performance. The factors are identified, the hypothesis was proven and also recommendation for better solutions has given. Therefore, in general, this study has achieved its objectives.

However, limitations of this research creates new avenue for future research. Future research should extend coverage of sample area, sample size, should focus on diverse geographical areas, bank types (such as metropolitan city vs. rural, public sector banks, specialized banks, local vs. foreign banks etc.). The study can be expanded to other industries like health services sector, IT industry, hotel and catering industry, education sector etc. It will enhance the applicability and generalize ability of the findings for fruitful results.

Although in this research, we collected data keeping convincing balance among all races, ages, and genders, the results can be different when studies exclusively for specific race, age range, religion or gender such as males or females employees. Besides, organizational culture can also affect the performance in the work place, ethics can influence culture and inversely culture can also influence ethics. Therefore those relationships should be studied further.

The main point here is to go to other areas in Bangladesh which are far apart from this research study and where very few studies have been conducted. Any kind of advancement will definitely contribute towards research work.

References

Bommer, M., Gratto, C., Gravander, J. et al. (1987). A behavioral model of ethical and unethical decision making. *Journal of Business Ethics,* 6: 265–280 doi:10.1007/BF00382936

Brass, D.J., Butterfield, K.D. and Skaggs, B.C., (1998). Relationships and unethical behavior: A social network perspective. *Academy of management review*, 23(1):14-31.

Chun, J. S., Shinn, Y., Choi, J. N. and Sim, M. S. (2013, May). How Does Corporate Ethics Contribute to Firm Financial Performance? The Mediating Role of Collective Organizational Commitment and Organizational Citizenship Behavior. *Journal of Management.*Vol.39, No. 4, 853-877.

Daveninderak, K. A/P. (2009, May). The relationship between organizational ethics and job satisfaction: Astudy of managers in Malaysia. *University of Malaya*.

Elise Hendriks (2011). Ethical leadership and moral behavior of employees – The moderating role of interactional justice. Masters Thesis. Tilburg University.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., &Tatham, R.L. (2006).*Multivariate data analysis (6th Ed.)*. Pearson Education International, Upper Saddle River.

Hoque, N. and Uddin, M. S. (2014). Quality of private business schools in Bangladesh: An exploratory study from the customer perspective. *Journal of Business Administration.*The Chittagong University. Vol. 24, 2009, pp. 285-302.

Huang, L. and Paterson, T. A. (2017, April). Group Ethical Voice: Influence of Ethical Leadership and Impact on Ethical Performance. *Journal of Management*. Vol. 43, No. 4, 1157–1184.

Iqbal, N.,Bhaatti, W. A. and Zaheer, A.(2013).Corporate ethical values, Group creativity, Job commitment and performance: The effect of work response on work context. *Management and Marketing.* Challenges for the Knowledge Society. Vol. 8, No. 1, pp. 79-94. Issue- 2.

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.

Kehinde, O. J. (2010). Effects of ethical behaviour on organizational performance: Evidence from three service organizations in Lagos, Nigeria. *Journal of research in National Development*, *8*(1).

Khan, M. A. (2012). Ethical values and work related outcomes: An empirical study of Pakistani organizations. African Journal of Business Management, 6(11):3977-3987

Kott, J. K. (2012). The role of ethics in employee behavior, University of Tennessee at Chattanooga. Available at: https://scholar.utc.edu/theses/43

Leslie, J. C. (1997). Ethical implications of behavior modification: historical and current issues. *The Psychological Record*. School of Behavioral Science, University of Ulster at Jordanstown, 47, 637-648.

Malhotra, N. K., and Peterson, M. (2006). Basic Research Marketing: A Decision-Making Approach (2nd Ed.). New Jersey: Pearson Education, Inc.

Mirza, A. I. (2012, January 11). Ethics in banking: Part 1 & part 2. *The Daily Star*. Retrieved from https://www.thedailystar.net/news-detail-217793

Moghrabi, I.H., Sabhurwal, M. and Berman, E. M.(2017). The Importance of Ethical Environment to Organizational Performance in Employment at Will States**.** *Administration & Society* . Vol. 49(9), 1346–1374.

Moor, H. L. and Moor, T. W. (2014, December). The effect of ethical climate on the organizational commitment of faculty members. *Journal of academic and business ethics*, Volume 9.

Msanze, S. N. (2013). An assessment on the impact of employees ethical conducts to organization performance: Acase of Dawasco. *Open University of Tanzania*.

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, 2(3), 114-120.

Mwita, J. I. (2000). Performance management model. International Journal of Public Sector Management, 13(1), 19-37.

Naude, I.(2005).Factors impacting on ethical behavior in organizations. University of Pretoria. Study leader: Prof. Dr. J.S. Basson. Submitted in partial fulfillment of the requirements for the degree Magister Commerce (Human Resources Management).No. 1, p-245-263.

Omolewu, G. Strategies for improving ethical behavior in organization. *Forum on public policy.* Wilberforce University.

Painter-Morland, M.J., (2001). Weaving the moral fabric of the South African workplace: personal and institutional factors. In: Strengthening the moral fabric of the South African workplace: strategies, resources and research. Konard Adenauer Stiftung.

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*,

Rahman, M. S, Akther, S. and Uddin, M. K. (2013). Investigating the reasons of employee turnover in Bangladesh: An analysis. *Journal of Business Administration.* The Chittagong University. Vol. 24, 2009, pp. 73-86.

Richard. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. Journal of Management. 22 (1), 51 – 75.

Sabir, M. S., Iqbal, J. J., Rehman, K. U., Shah, K. A., & Yameen, M. (2012). Impact of corporate ethical vaulues on ethical leadership and employee performance. International Journal of Business and Social Science, 3(2)..

Saeed, R., Shakeel, M., & Lodhi, R. N. (2013). Ethical behavior and employees job performance in education sector of Pakistan. *Middle-East Journal of scientific research*, 18(4): 524-529.

Salahudin**,** S. N. B., Alwi, M. N. R.B., Baharuddin, S. S. B. and Halimat, S. S. B (2016,21-23 September).The Relationship between Work Ethics and Job Performance.*3rd International Conference on Business and Economics*. University Tenaga Nasional, Malaysia.

Saleem, F. (2014). Impact of corporate ethical values on employee's behavior: Mediating role of organizational commitment. *Pakistan journal of psychological research*, Vol. 29, study of Pakistani organizations. *African Journal of Business Management*. Vol. 6(11), pp. 3977-3987.

Suresh, S. (2011, November).Ethical Issues in Human Resource Management. *Management and labor studies.* Vol. 36, No. 4, pp. 367-370.

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.

Trevino, L.K., (1986). Ethical decision making in organizations: A person-situation interactionist model. Academy of management Review, 11(3): 601-617.

Trevino, L. K. and Youngblood, S. A. (1990).Bad Apples in Bad Barrels: A Causal Analysis
of Ethical Decision-Making Behavior. *Journal of Applied Psychology.*Vol.75, No. 4, 378-385.

Trevino, L. K., Weaver, G. R. and Reynolds, S. J.(2006, December).Behavioral ethics in organization: A review. *Journal of management.*

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

Victor, G. Y. & Soutar, G. (2005). The Role of Ethical Behaviours in the Relations between Leadership Styles and Job Performance. In S. Purchase (Ed.), Broadening the Boundaries (Fremantle ed., Vol. n/a, pp. CR 24-33). Perth, Australia: Promaco Conventions Pty. Ltd..

Vitell, S.J. and Singhapakdi, A., (2008). The role of ethics institutionalization in influencing organizational commitment, job satisfaction, and esprit de corps. Journal of Business Ethics, 81(2): 343-353.

World Bank (2009). Doing business 2010: Bangladesh. The World Bank, Washington D.C.: USA. Available at www.worldbank.org.