



INTERNSHIP REPORT ON Financial Performance of Nationalized Commercial Banks (NCBs) in Bangladesh.

Prepared for:

Abul Kalam

Dean, Faculty of Business
Sonargaon University, Dhaka

Prepared by:

Monowara Akhter Julee

ID: BBA1801013081

Major in Finance
Sonargaon University, Dhaka

28 September, 2021

Letter of Transmittal

28 September, 2021

To

Abul Kalam

Dean, Faculty of Business

Sonargaon University, 11/B, Green Road, Dhaka, Bangladesh

Subject: **Submission of internship report on “Financial Performance of Nationalized Commercial Banks (NCBs) in Bangladesh.”**

Dear Sir,

I have successfully completed my internship program in the banking industry. During the period of my internship I've got to learn and understand fruitful opportunities and job experience. Those experiences enabled me to bridge the gap between classroom learning and real life situations to a great extent.

As a requirement of this internship program, I am submitting my internship report entitled **“Financial Performance of Nationalized Commercial Banks (NCBs) in Bangladesh.”** I have tried to put in my best effort for this report and enjoyed working on this report.

I sincerely hope my effort will succeed to your satisfaction and will find your acceptance. I am grateful to you for your guidance and kind cooperation at every step of my endeavor in this report and to fulfill it. I shall remain deeply grateful if you kindly take some pen to go through the report and evaluate my performance accordingly.

Sincerely yours,

Monowara Akhter Julee

BBA1801013081

Major in Finance

Sonargaon University, Dhaka

28th September, 2021

Declaration

I hereby declare that,

1. The internship report submitted is my original work while completing the degree at Sonargaon University.
2. This report never has been, and never will be reproduced for any other BBA course or any other purpose.
3. This report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
4. I have acknowledged all of the main sources of help.

Student's Full Name & Signature:

Monowara Akhter Julee

Monowara Akhter Julee

ID: BBA 1801013081

Supervisor

Abul Kalam

Dean, Department of Business Administration,

Sonargaon University

ACKNOWLEDGEMENT

First, I wish to acknowledge the immeasurable blessings and profound kindness of Almighty Allah - the supreme authority of the universe. A number of people have made significant contributions in preparing this report. Their insights, advice and suggestions helped me a lot.

I would like to take the opportunity to express my sincere gratitude and thanks to my supervisor, Mr. Abul Kalam, Dean, Faculty of Business, Sonargaon University, for his continued guidance and assistance to complete this report.

I also like to thank all my course teachers from Sonargaon University who have assisted me, guiding and learning towards fulfilling my bachelor degree and within the report.

Finally, I want to thank every one of the respondents, who put forward valuable information about the topic of my report. The assistance provided by all concerned mentioned above made possible for me to complete such a vast report within the designated time.

ABSTRACT

Banks are the leading financial institutions and are the major contributors in economical and financial development in Bangladesh. The study revealed the trend analysis of the private commercial banks and gave an overview of the performance of private commercial banks of Bangladesh. Nowadays, the banking sector is the “lifeblood” of all economic activity. The study is experimental. However, the performance of the Banking industry has invited a lot of comments in recent years. It is no doubt a great threat for the economy. Profitability, productivity and associated risks to these two components are the major criteria for evaluating the performance of banks. In this study, it has been tried to find out the performance of NCBs within the period of 2015 to 2021. There are four nationalized commercial banks in Bangladesh as of now. For the convenience of this research study three banks have been taken. The study relies on secondary sources of data. The tables in the study highlight movements of banking variables as reflected in the branch expansion, deposit mobilization, deployment of credit, operational efficiency and relative risk measures. The results so far achieved through ratio analysis are not quite encouraging. In the light of this finding, it can be realized that the confidence of the general public who wants to rely on these NCBs but in the sadness of the banking system, remains unimpaired and the financial strength of the banks increases. Also some recommendations are put forward to move at an effective pace with regard to time covering the whole banking system, emphasizing more on achieving core objectives.

This research has been focused on the following objectives,

1. Investigate profitability and productivity of the Nationalized Commercial Banks in Bangladesh.
2. Evaluate the overall performance of the nationalized commercial banks.
3. Examine factors contributing to the performance of the banks.
4. Propose suggestions to enhance the financial performance of the NCBs.

The research questions and hypotheses are in Chapter 1, the study consists overall of five chapters from beginning to the end. Each of the chapters explained different types of matter depending on the title of the chapters and the need of the study. At the end a recommendation and conclusion have been given accordingly.

Chapter 1

1.0	Introduction -----	10
1.1	Background of the study-----	13
1.2	Research problem -----	14
1.3	Research objectives -----	14
1.4	Research questions -----	14
1.5	Research hypotheses -----	15
1.6	Significance of the study -----	15
1.7	Conclusion -----	15

Chapter 2 Literature Review

2.0	Introduction -----	16
2.1	Concept of the commercial bank -----	16
2.2	Background of the three selected nationalized commercial banks-----	16-18
	2.2.1 About three nationalized commercial banks	
	2.2.1.1 Janata Bank	
	2.2.1.2 Agrani Bank	
	2.2.1.3 Sonali Bank	
2.3	General literature review-----	19-29
	2.3.1 Productivity	
	2.3.2 Profitability	
	2.3.3 Factors affecting the overall performance	
	2.3.3.1 NPL Non-performing loans	
	2.3.3.2 Lack of financial technology	
	2.3.3.3 Unhealthy competition	
2.4	Theoretical literature review-----	29-30
	2.4.1 Market power theory	
	2.4.2 Efficiency theory	
2.5	Conceptual framework-----	31
2.6	Conclusion-----	31

Chapter 3
Research Methodology

3.0	Introduction -----	32
	3.0.1 General view of the methodology	
3.1	Research approach -----	32
3.2	Research design -----	33
3.3	Purpose and nature of the research-----	34
3.4	Research paradigm -----	35
3.5	Population and sampling -----	35
3.6	Source of data and data collection -----	36
3.7	Reference period -----	36
3.8	Coverage of the study -----	37
3.9	Methods of the data analysis -----	37-38
	3.9.1 Data analysis	
	3.9.2 Analytical model	
	3.9.3 Test of significance	
3.10	Accessibility issues -----	38
3.11	Ethical issues -----	38
3.12	Financial tools -----	39-40
	3.12.1 Ratio analysis	
3.13	Conclusion -----	40

Chapter 4
Results, Findings and Analysis

4.0	Introduction -----	41
4.1	Analysis of data and results -----	41-42
	4.1.1 Descriptive statistics	
	4.1.2 Summary of descriptive statistics	
4.2	Financial tools -----	42-46
	4.2.1 Return on assets	
	4.2.2 Return on equity	
	4.2.3 Expense to revenue	
	4.2.4 Net profit margin	
	4.2.5 Assets utilization	
4.3	Correlation analysis -----	47
4.4	Regression analysis -----	47
4.5	ANOVA -----	48
4.6	Hypothesis testing results -----	48-49

4.7 Analysis and discussion on finding of the study -----	49
4.8 Conclusion -----	50

Chapter 5
Recommendation and Conclusion

5.0 Introduction -----	51
5.1 Recommendation -----	51
5.2 Limitation of the study -----	51
5.3 Conclusion -----	52

Glossary of Words

BD	Bangladesh
NCBS	Nationalized Commercial Banks
Ltd	Limited
Etc	Et cetera (Latin), and (et) the rest(cetera)
BDT	Bangladesh Currency Taka
NPL	Non-performing Loans
SB	Sonali Bank
JB	Janata Bank
AB	Agranee Bank
ROA	Return on Assets
ROE	Return on Equity

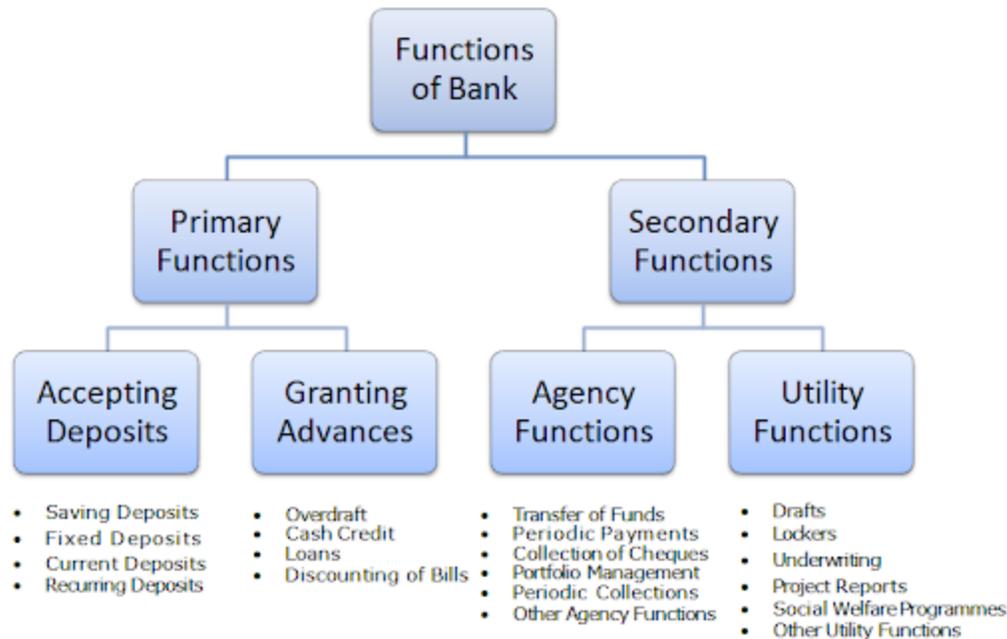
Chapter 1

Introduction

1.0 Introduction

A bank could be a monetary institution that uses cash deposited by clients for investing, pays it out once needed, and also gives loans on interest (Oed.com, 2018). A bank may, therefore, be seen as a reservoir of funds into which flow the lazy resources of the various parts of the economy and from which the funds flow out to those sectors which are in compulsory use (Bill Mitchell - Modern Monetary Theory, 2018). Thus, the idle resources of the household sector are channelized for productive purposes through the banks. The banks accept deposits from the public for the purpose of lending or investment (Nrbcommercialbank.com, 2018). So a bank can be viewed as an institution which reduces the gap between the customers with capital short-fall and customers with excess levels of capital.

Therefore, the most crucial activity of a bank is to receive deposits from the general people and lend it in the form of debts and prepaid. Deposits are accepted in the form of demand deposits, term deposits and fixed deposits. So the banks pay interest on the deposits. The banks, especially commercial banks, lend money to the needy sectors of the economy which fetch interest income to them (Anon, 2019). The variance between the interest income and interest paid is called the spread and it is the profit to the banks (Investopedia, 2019). The banks are a crucial institution of the market of money and an important and trusted source of short term working capital to business. The main roles and functions of banks can be broadly categorized as: elementary or customized functions, agency functions and general utility functions (Akrani, 2018). The figure below shows the function of banks. Few of the banks function are explained below:



Source: (Akrani, 2018).

Figure 1.1: Functions of bank

The primary or traditional functions of banks are to receive deposits in the form of deposits of fixed account, in the form of current account, in the form of savings account and in the form of home safe account etc. and to provide loans in the form of cash credit, short term, medium term and long term loans and advances, overdraft and non-regular of bills (Frbsf.org, 2019).

The next function of bank is agency functions, this function play a role like an agent of the customers, these include: cheque payments, letter and bills of credit, receiving payment for customers, payment on behalf of customers, money transfer, trading the shares and securities, function of manager, executor & trustee, functions of underwriting etc (Money Matters | All Management Articles, 2019).

General utility functions of banks include: wealth and assets security management, travelers cheques arrangement and letter of credit, information of economic position, financial adviser, publication of information, accepting of bills, security of loans, personal credit, management of public debt, function of share market, management of foreign exchange etc. [Trivedi, Chaudhary and Kumar, (2010)].

In this research paper a south Asian country Bangladesh, this is closed to India and Myanmar



Source: (Vectors, Vectors and Image, 2019)

Figure 1.2: Bangladesh map

The three out of four nationalized commercial banks of the country will be considered. As these banks have a huge impact on the financial and economic market of the country. The banking system in Bangladesh is the same as other countries and all banks of the country are a part of a strong financial system. At present, in total there are 57 banks in Bangladesh: forty of them local private banks, nine foreign and eight state-owned (Dhaka Tribune, 2018). Among them the three of the nationalized commercial banks (NCBs) of BD will be considered and analyzed throughout the study. All these three banks are state owned and have a huge contribution to the overall financial market as well as economy of the country.

1.1 Background of the study

Finance is regarded as the life blood of a business, economic development as well as for a country (Bostonapartments.com, 2018). It helps in capital generation and capital formation, each of them are crucial for the involvement of an economy. To ensure capital improvement, the monetary resources of a rustic must be mobilized in such a way that they're placed in efficient channels. But, to below take large capital generation there's a deficiency of an honest monetary infrastructure in most of the under developed or developing economies and finance (Sol.du.ac.in, 2019).

Bangladesh is the same amongst those under developing countries. The Nationalized Commercial Banks (NCBs) have been playing a crucial role in the economy of BD since its invention in 1971 (Anon, 2018). In a developing country like Bangladesh, the banking sector has been assigned an important function to achieve certain socio-economic targets. The commercial banking system dominates Bangladesh's overall financial sector (Bis.org, 2019).

Bangladesh Bank is the crucial and financial organization of Bangladesh and also the highest administrative unit within the banking industry of the country. The Bangladesh banking industry consists of 4 state-owned industrial banks, 5 specialized banks, thirty eight personal industrial banks, one development bank and 9 foreign industrial banks (Dhaka Tribune, 2018). There is another special bank known as grameen bank founded by the inventor of microcredit Dr. Mohhd Yunus a nobel prize winner. The bank has helped to reduce poverty in the country, the major customers of the bank are from the rural area and majority of them are women (Grameen.com, 2019). After the freedom from West Pakistan, the money sector in BD began its operation with half a dozen nationalized commercialized banks, 2 State closely-held specialized banks and 3 Foreign Banks. Within the Nineteen Eighties industry achieved important growth with the enlargement of personal banks (Bb.org.bd, 2019).

1.2 Research problem

The performance of the banking sector for a country is perceived as the overall economic outcome. Improvement of the banking system is the best reflection of the development of the economy (Misra & Aspal, 2013). Assessment of monetary performance of the banking sector is an efficient live and indicator to test the soundness of economic activities of a nation. For the past several years, the Nationalized Commercial Banks (Agrani, Janata and Sonali) of Bangladesh have been facing ups and downs in the performance as per productivity and profitability (Afrin, 2019). There are many reasons behind the up and down of the nationalized commercial banks in BD. The factors and their consciousness on the financial and other performance are very impactful. Thus, it is necessary to explore the performance of these banks and examine how they can achieve the targeted aims and operational expertise.

1.3 Research objectives

The main objective of the research work is to focus and solve the relevant problems suffered by the organizations.

1. To investigate profitability and productivity of Nationalized Commercial Banks (NCBs) in Bangladesh.
2. To evaluate the overall performance of the nationalized commercial banks.
3. To examine factors contributing to the performance of the banks.
4. To propose suggestions to enhance the financial performance of NCBs.

1.4 Research questions

1. What is the profitability and productivity in NCBs in BD?
2. What is the overall performance of NCBs in BD?
3. What are the factors contributing to the performance of the nationalized commercial banks in BD?

1.5 Hypotheses

1. There is a positive correlation between overall Productivity and profitability against financial performance of the nationalized commercial banks of BD.
2. The overall performance of NCBs of BD may be a combination of negative and positive financial performance and indicators.
3. There is a negative relation between the factors and the performance of the nationalized commercial banks of BD.

1.6 Study Significance

The general finding from the above study indicates that the nationalized commercial banks of Bangladesh need a considerable amount of attention to achieve the good performance. Besides, the study will try to focus more on the issues and performance of the nationalized commercial banks of the country.

1.7 Conclusion

The chapter explains the main part of the study. This chapter is the main point of the research. Everything starts from this part of the study. The chapter started with an introduction of the study followed by the background of the study and chronologically with the research objectives, research questions and hypothesis. The upcoming chapters of the study will be like literature review, research methodology, results analysis and findings and finally the recommendation and conclusion. All the chapters stated above are equally important to complete the research and to come to a conclusion.

Chapter 2

Literature review

2.0 Introduction

The review of literature is the documentation of a meaningful review of the printed and unpublished work offered from the non-primary sources within the areas of specific interest of the man of science.

From the literature survey the researchers get a clear idea about the direction of future research studies and avoids the recurrence of the past works (The Writing Center, 2018). There exists a vast literature in the field of banking with respect to Bangladesh in particular and world banking scenario in general. Still some important studies which can form valuable premises for the present research work have been reviewed in this section.

This section outlines accessible literature on profitability, productivity and other parts of financial performance by different scholars across the world and in Bangladesh. Moreover, the chapter explained the theoretical review of literature, which will explore different theories on performance. Financial performance interpretation consists of techniques of calculation and analyzing monetary ratios to analyze and observe firms' performance. The general input for interpretation of financial performance is the firm's statement of financial position and profit and loss statement (Studymode.com, 2018). Financial ratios are tools that help to see the weakness and strengths which help to interpret the overall performance (Journals.sagepub.com, 201).

This literature review is classified broadly in different categories to understand the wide area of the study. In the following sections the details of the literature review are described in terms of different forms.

2.1 Concept of the commercial bank

The Commercial bank is a category of financial service institution that performs tasks like accepting deposits, makes business and personal loans, and provides fundamental financial products such as CDs certificates of deposit. Commercial banks also offer other services as opposed to investment banks (Investopedia, 2019).

2.2 Background of the three selected nationalized commercial banks

2.2.1 About three nationalized commercial banks

In the following sections the three nationalized commercial banks' backgrounds are discussed.

2.2.1.1 Janata Bank Ltd

Make new banks and these initiatives led to formation of Janata Bank in 1972 combining the erstwhile United Bank Limited under the Banks Nationalization Order (President's Order No. 26). On 15 November, 2007 Janata Bank got registered with the Joint Stock of Registrars and restructured it as a public limited company with the name Janata Bank Limited. including 4 overseas branches in United Arab Emirates Janata Bank runs its business with 912 branches across the country having a big family of around 11,876 (As on 16.09,2018) employees with its head office located at Janata Bhaban at Motijheel C/A, the heart of the capital city, Dhaka.

At the end of 2017 the bank held BDT 649,440.78 million. Advance BDT 459,580.05 million with authorized capital BDT 30,000 million and Paid up capital BDT 19,140 million. Janata Bank Limited, a corporate body trusted over the years, the years, the 2nd largest (in respect of Deposit/Assets) commercial bank in Bangladesh has been playing pivotal role in overall financial activities of the country and its possessing a long heritage of discharging laudable services to the society since her embankment immediately after the emergence of this verdant rich alluvial soil as a sovereign independent state (Maruf SO-IT, 2018).

2.2.1.2 Agranee Bank Ltd

Agranee Bank restricted, in independence of East Pakistan Banks (Nationalization) order (PO No. twenty six of 1972) came into being in 1971 seizing the assets & liabilities of the erstwhile Habib Bank Ltd. & Commerce Bank Ltd, functioning within the then East Pakistan. In seventeenth month 2007 it's incorporated as public Ltd. with a merchant agreement conducted in fifteenth Gregorian calendar month 2007. Currently it's one in every of the four SCB's activity in East Pakistan and absolutely owned by the govt. The bank began its journey with 249 divisions with its corporate workplace in the national capital. Currently Agranee bank restricted is working with 866 branches and total hands of 11793 (Huda, 2018).

2.2.1.3 Sonali Bank Ltd

Sonali Bank Limited provides commercial banking products and services. The bank offers company banking, project finance, SME finance, credit line, international trade, trade finance, loan syndication, exchange dealing, rural and small credit, NGO-linkage loan, investment, government treasury operate, cash and capital market operation, debit card, and remittal merchandise and services. It also provides ancillary services, such as collections, social services, and sale and encashment/purchase. Sonali Bank restricted was supported in 1972 and is head branch in the capital of Bangladesh, Asian nation with branches in Bangladesh and internationally, further as subsidiaries in Bangladesh, the uk (Bloomberg.com, 2018).

2.3 General literature review

2.3.1 Productivity

Efficiency is usually outlined as a quantitative relation between the results volume and also the volume of inputs (BusinessDictionary.com, 2018). In alternative words, it measures how efficiency production inputs, like labor and capital, are being employed in the associated economy to supply a given level of results (Oecd.org, 2018). Industry efficiency is taken into account as a key supply of economic process and fight and, as such, is basic applied math data for several international variations and country performance assessments.

Instantly the data of productivity is used to analyze the ultimate impact of the labor market and the production on the performance of the economy. The growth of productivity leads to improvement of the modeling capacity of the economy. Moreover, it allows businesses to estimate the utilization of capacity, in turn this also enables them to understand the position of the economy in a certain period of the business cycle. Furthermore, the capacity of production is used to determine the demand and inflationary pressure (Oecd.org, 2018).

According to Vitta, weighing the banking efficiency is difficult as there is no standard output definition of this industry. Total deposits, total number of accounts, the total amounts of loans never provides a meaningful index of output. In addition, the value added of banks provided by the labour cost and profitability weigh both banking cost and efficiency (Anon, 2018). He has also opined that the banks especially in the developing countries are operating in a widespread way. The researcher has further mentioned that the study of the banking performance and efficiency would lead to few difficulties. For example, if all the banks have the same level of capital structure, provide the same level of services, followed by identical practices of accounting, where they are equally affected by inflation and perform under the same authority of the regulation. In these situations a sample comparison of margin ratios of cost return may provide a clear direction of the relative productivity even when there is no satisfactory bank output definition.

From a research of PwC the efficiency of banking depends on the right data, measurement of right performance distributed to the right persons at the exact time can lead to dramatic sustainable developments in the team productivity of a bank, if the main intention of the team is to act on these. The optimization and simulation of process tools are also becoming more mainstream, enabling organizations to estimate outcomes from operating changes and choose the most productive option (PwC, 2018).

According to an Associate in Nursing bank study the truth is that whereas over pairing clients might generate a short feeling of goodwill, it won't turn out a sustainable competitive advantage. Majority bank clients have a stronger grasp of the worth of a bank's money merchandise than executives understand. Consequently, customers are willing to attend with patience for service, a minimum of for a comparatively short amount of your time, if they'll obtain a stronger product.

Adding thirty seconds of average wait time may simply go forgotten and, reckoning on the scale of the branch network, might save banks tens of countless greenbacks in staffing prices. Several banks are desperate to encourage their client service by promising nearly 0 (zero) wait time (American Banker, 2018).

2.3.2 Profitability

The ability of generating profit by a firm is called profitability (Investopedia, 2018). The definition of profit is what is left of the income a business creates after paying all expenses indirectly/directly related to the generation of the income, such as producing a product, and other expenses related to the conduct of the business activities (Study.com, 2018). N S Toor (1994) observed that the profits are important by the banks for many number of reasons, like banks are generally financial organizations and in sequence to ensure that the investors and lenders have trust and strong confidence on themselves i.e., to meet their costs and for additional extension, they must earn income and profits (Law-all.com, 2018). Fraser (1990) has stated that if the profits of a commercial banking organization are high and low risk then obviously the performance is better. Practically, high profit basically possesses a huge amount of risk. The banking industry risks are liquidity risk, interest risk, credit risk, etc. Main effects of these types

of risks are the resulting failures of many banks which led to further supervision and investigations by the authorities. According to the scholar the major factors which are affecting the performance are technology advancement, changes in customers attitude, deregulation (Fraser, 2018). Rose P. (1996) has observed that there are 2 key dimensions of bank performance gain and exposure to risks. Gain is clearly very vital, as a result of better gain preserves the bank's capital, providing it with a base for any survival and growth (MS and N, 2016).

An Australian study on the financial institutions represented that all financial performance calculated as return on assets, interest margins and capital adequacy and which are directly and positively correlated to the customers service quality score (Duncan and Elliott, 2004). Many scholars have been focused on asset and liability management in the banking sector, discussing asset and liability management in the financial crisis (Tektas, Nur Ozkan-Gunay and Gunay, 2005). They claimed that a systematic management of assets and liabilities necessitate increasing the profit of banks as well as reducing and managing different types of risks, they also represented how shifts in the market may create problems during crisis time.

Medhat, (2006) applied various forms of correlation and regression analysis to examine the financial performance of Omani Commercial Banks (dependent variable), and the asset management, the bank size and the operational efficiency as independent variables. He discovered strong positive correlation between operational efficiency and financial performance and slightly moderate correlation between ROA and size of banks.

Khan, (2013) discovered that the bank which has better deposits, total capital, total assets or credits does not imply better profitable performance. The asset management and operational efficiency, moreover to the bank size, strongly and positively impact financial performance of the banks (PasteIO, 2018).

Varda, V.S. and Sing, S.P. (1982) have analyzed the facts of profitability of banks in the condition of India and developed a simple framework to examine the issues impacting the profitability of commercial banks (CBs). The views are that any encouragement on the rise of volume of the business and proper management of the burden certainly will lead in enhancing

the profitability of the commercial banks (CBs). In this research they gave a summary that the main secret of the profit of the commercial banks in Bangladesh are the high level of volume of the operation of the business (per employees, in total) and not much costs (per person and per branch) which are very famous practice to continue profitability (Pdfs.semanticscholar.org, 2018).

Baher has critically analyzed the overall financial and non-financial performance of nationalized commercial banks (NCBs) and other form of commercial banks in the form of social justice and other indicators, form his study he found that the profitability and social banking are both in opposite direction (John J. Scully, 2019).

Based on the above, the author proposes the first research question:

RQ1: What is the profitability and productivity of the nationalized commercial banks of Bangladesh?

2.3.3 Factors affecting the overall performance

This section of the research is focused on the factor affecting the performance of the nationalized commercial banks of Bangladesh. This part will be explained from the different angles of the factors and their impact. Below are the details with the sub section.

Factors that influence commercial bank's profitability are segregated into internal and external. Internal factors are those factors which from inside the bank and bank's managers has control on it, whereas external factors are those outside or beyond bank's management control (Bami, 2019). The internal factors reflect the management policies of the banks and decisions made about the overall banks performance.

An accounting figure alone doesn't provide any useful information but provides useful meaning when being compared to other relevant data. Mathematically expressed figures though ratio shows relationship among two accounting figures which helps to summarize huge quantitative figures and provides information to make a quality judgement. But, the ratio must be compared with other relevant standards or it won't provide any favourable or unfavourable position.

Two figures in a financial statement can be used to calculate the ratio as it is simply a number stated in terms of another number and shows a relationship among two variables. It plainly

means that numerous ratios can be calculated from financial statements. However, only relevant ratios are important, which is the key concept of ratio technique. It is useless and impractical to calculate all the ratios. Therefore, relevant ratios have been computed. Twelve relevant financial ratios had been calculated and analysed for profitability and productivity.

According to the study of Staikours and Wood, external factors have a great impact on the performance of commercial banks. They are mostly relevant to the legal and financial environment and consist of factors like interest rates, inflation, recession, boom, regulations, market growth and market structure (Staikouras & Wood, 2016).

A good number of studies has been done on the crisis of the banking sector of Bangladesh. Most of them are mostly based on secondary data. Huq and Bhuiyan have observed some major problems in the corporate governance practice in the Bangladesh banking industry (Journals.sagepub.com, 2019). According to another report on the banking industry the problems in the banking sector are widespread and these are not only from the banking system this industry is dominated by other industries as well.

Mustafa in his study indicated that here the new banks are in competition to get the loans from older ones and the research team discovered that the ill or bad motives were in every step of the working behind sanction of loans (Mustafa, 2019).

As per the data of 'Loan write-offs soar'(2018) total written-off loan of the banking sector of People's Republic of Bangladesh from January 2003 to June 2017 was Tk forty five,527 crore. Written-off loans are like invalid loans (Write-off loans soar at Tk fifty et al., 2019). The recovery method of such loans is very troublesome. So, the banks ought to stop the corruption so the unconditional quarter won't take loans through the unethical method. The banks ought to toughen observation of the recovery method of written-off loans. These kinds of loans are going to be recovered within the shortest possible time if the banks strengthen their legal method to resolve the cases with the cash loan course.

According to Khondoker patriarch Khaled, Former deputy governor of People's Republic of Bangladesh Bank in 'Finance ministry cannot avoid responsibility for banking sector woes the finance ministry ought to be answerable for the miserable scenario of the banking sector without delay. The 2 main causes for the unco high default loans within the state-run banks are the large corruption and unskillfulness. The shortage of excellent governance is another excuse for the deterioration of the banking sector's health. He jointly thinks that in state banks of People's Republic of Bangladesh, the unhealthy loans account for concerning thirty two % of their outstanding loans, which is incredibly uncommon. The regulative body ought to play a proactive role just in case of the non-public banks that are concerned in corruption. supported the report 'Most banks adopt centralized systems' the introduction of centralized core banking systems, could also be a smart answer to avert fraud, cut price and supply time period services on-line to customers (Iosrjournals.org, 2018).

2.3.3.1 NPL-Non Performing loans

NPL implies those financial loans that banks provided in the form of loans but they never collected from the creditor, even the interest is also uncollected. They refer to non-performing loans because the banks are unable to generate income as the loans cease.

Choudhury mentioned that the non-performing loans is not a uniclass but it is a multiclass. This implies that the non-performing loans can be classified in different categories by depending on the lengths of the time of not collecting (Choudhury, 2002).

According to Woo the non-performing loans are viewed as the byproduct of the financial crisis for a country, however the intentional lending process is also the reason for this. Non-performing loans have an enormous impact on the overall economy of a country, this leads to deepening the crisis of finance and complicates the overall macroeconomics process (Woo, 2000). The issues behind the non performing loans are this bring down the confidence of the investors of an economy, it also makes an impact on the resource allocation.

Bernanke stated that in the banking industry national economy, NPLs will prevent economic healing by lowering in operation margin and geological process the capital oriented of the banks to prepaid new loans. This can be typically remarked as "credit crunch (Bernanke, 1991).

A study of Bangladesh banks from 2012 to 2016 found that the average ratio of NPL is about more than 27% (Report, 2019). A report by Dr. Iffteharuzzam, director of Transparency International, stated that loans default and other forms of loot in the banking and financial industry have been patronized by political influence (Dhaka Tribune, 2018).

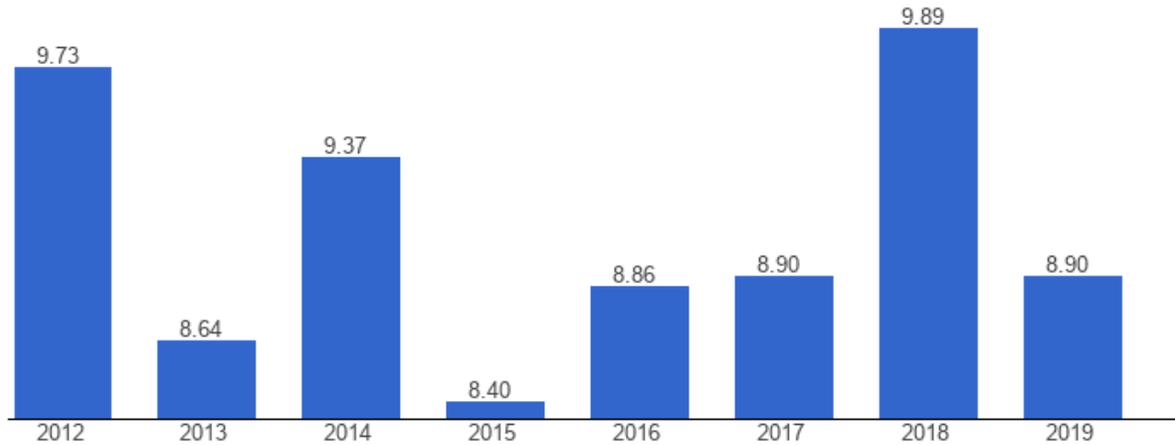
In 10 million

Bank Name	Defaulted Loan as of Sept 31, 2014	Defaulted Loan as of Dec 31, 2014	Defaulted Loan as of March 31, 2015
SONALI	11,570.21	9629.29	10,432.43
AGRANI	4387.17	2605.26	3343.48
RUPALI	5118.36	3317.84	332354
BASIC	1697.45	1053.0	1588.57
BDBL	1883.27	1282.36	2557.54
AB	716.04	520.38	616.32
BANK ASIA	596.18	440.48	463.61
BRAC	899.01	580.92	979.90
DHAKA	783.85	750.70	840.23
DBBL	755.23	375.24	563.14
EBL	474.33	402.04	477.06
EXIM	597.96	369.82	427.55
FIRST SECURITY	1003.29	516.82	677.02
ICB ISLAMIC	218.46	248.38	248.63
IBBL	749.28	717.59	725.88
JUMUNA	2788.33	1364.29	2065.99
ONE	331.40	173.10	281.45
MUTUAL TRUST	605.28	448.96	558.08
NATIONAL	698.90	465.98	534.74

Source: (Arup Shah, 2015)

A study by Arup Shah found the above results of the non-performing loans.

Bangladesh non farming loans



Source: (TheGlobalEconomy.com, 2019)

The figure above shows the non-performing loans from 2011 to 2015, the survey of global economy figured out that a higher percentage of loans in Bangladesh created difficulties to collect by banks and the non-collection loans and interest leading to less profit and threatening to the survival of the banks (TheGlobalEconomy.com, 2019).

Another study by Financial Express showed that the NPL of Bangladesh banking industry increased by 19.51 percent or TK 121.31 billion in the year of 2017, which creates an enormous threat to the whole financial sector of the country (Express, 2019).

Research done by Daily Sun news, stated that the main problems of the banking and financial industry in our country is NPL, when international standard for NPL is 2% or below but NPL of Bangladesh is 5 to 6 times more than any other countries (Daily Sun, 2019).

2.3.3.2 Lack of financial technology

Fintech is a pc system and alternative technology wont to assist or modify banking and monetary service. (Oxford Dictionaries | English, 2018).

With the reference of an extended history financial technology has a broad space in monetary services trade, during this trade monetary technology plays a crucial role. The Nineteen Fifties brought USA credit cards to ease the burden of carrying money. The Nineteen Sixties brought

ATMs to interchange tellers and branches. Within the Seventies, electronic stock commerce began on exchange commerce floors (Technews, 2008) The Eighties had seen the increase of bank mainframe computerized programs and a lot of subtle information and record-keeping programs. Within the Nineteen Nineties, the net and electronic commerce business models flourished. The outcome was the introduction of online stock brokerage websites geared toward retail investors, commutation stock brokering by phone driven systems (FinTech Magazine, 2019).

A study found that recently a few Bangladeshi banks update the technology to develop the process of the whole banking system. There are different types of options in terms of making transactions and other, even now some banks developed mobile technology to make any kind of transaction easily (FinTech Magazine, 2019).



Figure 2.3: Cost of transaction along with technology development

Another research which has been done by a group of researchers of Javelin Strategy and research, they mentioned that the improvement in technology reduces the cost of transaction as a result both the customers and banks can get the ultimate advantage in terms of facilities and cost reduction (Javelin Strategy and research, 2018).

According to Deloitte, the fintech ecosystem helps to reduce the transaction time and develop solutions to make every step easy for customers, which customers want and need (Deloitte United States, 2018). However, the nationalized commercial banks of BD are still out of any touch of technology. Till now they almost depend on the ancient manual system for transactions. The customers are not that happy with the complex ways of transaction and time consuming.

2.3.3.3 Unhealthy competition

Although few folks could disagree, competition in Bangladesh looks to be the deadliest of all. It's not the nice quiet competition that results in overall improvement, however an unhealthy and illegal competition effectively hurts the economy at a large amount (Opentextbc.ca, 2019). The requirement of bank executives to satisfy steep targets typically ends up in succumbing to the demand of those corporates, leading to the bypassing of rules, as a result of it's a matter of survival for them. One bypass leads to another, so another, leading to a never-ending loop of malpractice that has currently become the norm.

Particularly the bank's economic competition is somehow different from the normal definition of economy (Opentextbc, 2019) According to theory, competition solely results in positive achievement for the entire economy underneath the bound situation. Those conditions are: excellent info (transparency), and less prevention of entry, each of which are lacking in our banking sector thanks to restrictive shortcomings. There is competition not solely from alternative banks however additionally from nonbank monetary establishments (NBFI) and small finance establishments (MFI), and no effective framework or restrictive body to harmonize them (MFI, 2018).

A newsperson of the capital of Bangladesh apsis newspaper explained that, Not solely are the establishments' competitors, the regulators and customers also are rough one against the opposite, creating extraordinarily troublesome supply you with the sensation of being stuck between a rock and a tough place (Dhaka Tribune, 2018). A client can usually attempt to create the simplest out of matters by not yielding to the regulative demand, pertaining to the service offered by another bank or banks. The requirement of bank executives to satisfy steep targets typically ends up in succumbing to the demand of those corporates, leading to the bypassing of

rules, as a result of it's a matter of survival for them. One bypass leads to another, so another, leading to a never-ending loop of malpractice that has currently become the norm. Competition within the banking system is additionally taking a hit from the capital market finish, because the massive banks are progressively} visiting the equity market to lift more funds.

This not solely hits the banks within the belly by poignant their core business however additionally indirectly affects their contribution to promote cap that was born from fifty nine in 2007 to but seventeenth in Gregorian calendar month 2018.

Based on the above, the author proposes the first research question:

RQ3: What are the factors contributing to the performance of the nationalized commercial banks of Bangladesh?

2.4 Theoretical literature review

2.4.1 Market power theory

In 1951, Bain developed the market power theory, in which it was stated high market power leads to greater profitability and monopolistic activities as mentioned by (Athanasoglou, Brissimis & Delis, 2005). The theory is supported on the assumption that market concentration is the best standard for market power as higher concentrated industry shows superior imperfection in the market leading the firms to adjust prices on products and services at a price level which is unfavorable to clients (Punt and Rooij, 2019). Moreover, the theory states, companies can easily succeed over their competitors, if they have large market share with sound differentiated products and services which helps them to gain monopolistic profits (Erepository.uonbi.ac.ke, 2019). The theory of market power presumes that excess profits earned due to higher concentration of market allows commercial banks collude and gain abnormal profit resulting as bank portfolio of differentiated products also increases the share in market and power in adjusting the prices for products and services (Mirzaei, Liu and Beirne, 2019). Furthermore, the theory of market power mentions that power is the leading factor which affects profitability to change and market concentration which frequently include imperfections in the market resulting from collusion, due to many legal entry or exit barriers (Punt and Rooij, 2001). Market theory's main purpose is to explain how profit is affected in the banking industry by its market share. The theory also states and explains the positive relation between the size of the bank and its financial performance. It Page | 22 recommends that profitability of banks is due to its structure in the

market (Onuonga, 2019). Additionally, this theory mentions, the structure of banks in the industry influences its profitability (Euacademic.org, 2019). As mentioned by Obumuyi, the theory assumes that bank profitability is due to its role in most market factors and also states that bank structure in industry which is calculated by using concentration in market in terms of market share ratio affects the ultimate profitability of commercial banks (Fisseha, 2015).

2.4.2 Efficiency theory

Demsetz developed that the efficiency theory is in contrast to the market power theory. The concept that good management leads to higher profit for an organization has been remodeled. Consequently, this theory states that management not only affects the profitability but also leads to higher market share and better market performance with greater concentration. The theory of efficiency infers that with higher concentration on achieving higher profits is achieved with a management which is extremely efficient. Consequently, the concept further explains that efficient management not only increases profit, but also affects the firm to gain a larger market share and much improved market concentration (Athanasoglou, Brissimis and Delis, 2019). Furthermore, an improved profitability and concentration shows a positive sign of a better efficiency and size.

(Addisababa.academia.edu, 2019) states that the theory posits that a positive connection among profit and concentration results in low cost which is due to efficient production activity and better management process. Though large economies of scale, best favorable production can be obtained is supported by efficiency theory. In the short run, the maximum operation efficiency is achieved at an output level in which all economies of scale accessible are employed in a very efficient manner (Odunga et al., 2013). Additionally, banks achieve good financial performance and market share as a result of attaining higher profit margins which arises from being efficient (Mirzaei, 2012). According to Fisseha (2015). The efficiency theory states better cost reduction and management strategies leads to high profitability and high concentration which makes a firm to have an increase Page | 23 in market share and size as a result of aggressive production and management methods (Birhanu, 2012).

Based on the above, the author proposes the second research question:

RQ2: What is the overall performance of the NCBs of BD?

2.5 Conceptual framework

A conceptual framework indicates relationships exist between the variables of the study. The research seeks to discover the determination of the nationalized commercial banks of Bangladesh's profitability and productivity, factors and overall performance, hence the independent variable will consist of ROE, expense to revenue, net profit and asset utilization. The dependent variable will be return on assets (ROA), which is very comprehensive as it includes both the earnings and the total assets of the banks.

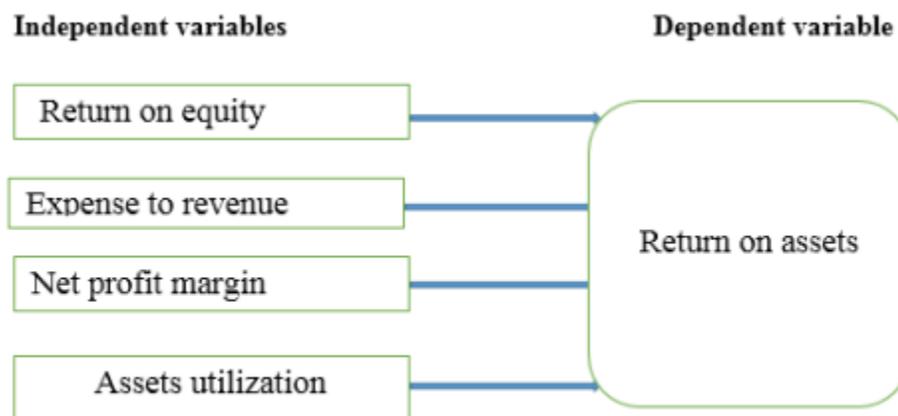


Figure 2.4: Conceptual framework

2.6 Conclusion

The main activities of the chapter was to find the related study materials, the literature review has been done on the basis of previous study or research by others researchers. To complete the literature review the different kinds of sources have been used. Throughout the literature review we tried to find the gap and suggested questions on it. Finally, a conceptual framework has been recommended.

Chapter 3

Research methodology

3.0 Introduction

This chapter is the brief explanation of the methods that will be considered to complete the whole research. Research methodology is the specific procedures or techniques accustomed to establish, select, process, and analyze info on a few analysis topics. During an analysis paper, the methodology section permits the reader to critically assess a study's overall validity and dependableness. The methodology section answers 2 main questions: however was the information collected or generated? However was it analyzed? (Libguides, 2018).

3.0.1 General view of the methodology

The rationale behind the research study was to assess and evaluate Bangladesh's nationalized commercial banks' financial position and performance. This chapter employed the methods and techniques to find the above mentioned purpose. Research methodology is adopted by a researcher to study a problem with a certain aim in perspective by following various sequential steps along with rationale of every step. It is a science of studying how a search is performed scientifically through systematically solving the research problem. It involves certain courses which are mostly adopted by a researcher conducting his/her research question in a logical way. A research will be meaningless if it is not in a meaningful sequential order which is observed through a particular problem earlier, in this case, the aim of the research study focuses on analysing and interpreting the comparative financial performance and appraisal of nationalized commercial banks of Bangladesh. In this chapter, the focus is to deal with the following aspects or methodology.

3.1 Research approach

Basically, relying on the objective and the nature of the research, one can deduce another can be inductive. Hypothesis development and testing are taken into consideration in the inductive approach by considering the previous study on the same area. If the hypothesis is not supported

with the understanding then the understanding should be modified, but if the hypothesis is matched with existing theoretical beliefs then the understanding is not changed. This is a very general view in terms of the relationship between theory and research (Bell, 2003). In contrast, for the issue of inductive procedure, attempts and theories are to build with a n understanding of the world from where data are set as set. According to Mallhotra, the inductive approach is recommended as fragmented if there is no adequate knowledge. On the other hand, the inductive approach has failed to develop a new study. Inductive approach can be applied if the prior knowledge on the study is not enough to explain a phenomenon (Kynga, 2007). Moreover, to be merged into a general or a greater statement, an inductive approach shifts the data from the specific to general examine the particular case.

3.2 Research design

The fixing a perfect approach of a research is critical to make the research work successful (Luo, 2013). An accurate research design is an important part to obtain data, collection technique of data and procedure for sampling. Furthermore, these designs of research are assisting to materialize the objectives of the research (Burns & Bush, 2002). The research of NCBs of Bangladesh will be conducted by the quantitative method. Neuman identified that the quantitative research objective is to clarify the cause and effect relation and to fix it for the population (Neuman, 2005).

Usually, a survey can be conducted with a large sample size which helps to generalize the result. According to Sukamolson (2005), the main reasons of using quantitative approach are as follows:

1. Offers inferences about the characteristics of populations at large
2. Specifies the richness of attitudes held by people.
3. Provides results that can be condensed to statistics.
4. Permits for statistical contrast between different groups.
5. Have accuracy, perfectness and consistency.
6. Measures level of occurrence, actions, trends, etc.
7. Can answer such questions as "How extent?" and "How often?".

The motive of a quantitative research is to investigate the relation between one factor (independent variable) and another (dependent variable) in design of population for either experimental or descriptive (All Root, 2007). In addition, the quantitative research strived to identify the relationship between features of variables.

3.3 Purpose and nature of the research

Generally, research is categorized into 3 types depending on the purpose and the nature of the research. Firstly, exploratory research which is conducted if there is new knowledge required in a specific field to analyze the new knowledge (Sekaran, 2006). In this category of the research the qualitative approach is more suitable than the quantitative methods (Hair, Money, Page & Samuel, 2007). Secondly, the category of research is the descriptive that solves/describes answers of the current situation questions (Sekaran, 2006). The descriptive research can be longitudinal or cross-sectional. In a longitudinal approach the data is collected more than one time but under cross sectional method the data is collected once over a certain period of time (Hair, 2007). Data is collected in different forms of collections methods which solely depends on the need of the research and analysis by different tools of statistical tools (Leedy, 2001). Finally, the research is classified as casual research or the hypothesis testing that is generally employed to discover the two or more variables relation (Thornhill, 2007). Basically this type of research elaborates the variance on the dependent variable or estimates the results of this relationship between the dependent and independent variable (Sekaran, 2006). The current study can be considered as the causal and descriptive research or hypothesis testing as the fundamental purpose of the study is to investigate the relation between variables. Descriptive analysis discovers the main attributes of the research that generally offers a worthy realization of the population nature.

Furthermore, the descriptive analysis/statistics mentioned the main attributes of the research to answer the questions of the research. Generally hypothesis testing investigates the relationship between the dependents and independent variables. The main objective of the study is to investigate the profitability and productivity of the nationalized commercial banks of BD, overall performance and factors affecting the performance. The motive was also to identify the correlation between the variables and thus, the study is considered as casual and descriptive.

3.4 Research paradigm

A paradigm of research is the fundamental belief or the true view of researchers which eventually leads to a further investigation or study. This is a framework depending on the work of research done (Guba & Lincoln, 1994). The researchers are bound to follow the specific belief of knowledge which may be explicit or implicit in nature in the scientific paradigm (Kuhn, 1996). The present study is referred to as the positivism approach. The general knowledge behind that is to make the knowledge separated from the researcher at the same time not separating the researchers from the idea to be identified (Wiersma, 2000).

The positivism paradigm believes on the philosophy of rationalistic which has been originated by Aristotle, Auguste Comte, Emmanuel Kant, John Locke and Francis Bacon (Mertens, 2005) and this is used to be treated as scientific method or scientific research (Creswell, 2003). But, the philosophy of positivism is applied in social science based on the prediction which can be studied in the same way as the natural world. All of these are the formula for discovering the phenomenon of social study which is somewhat free of value, and a description of an informal nature can be figured (Mertens, 2005). The theory of positivism tests the clue behind social science and its impact on the surrounding (O'Leary, 2004). As far as the methods of the research concerned, the paradigm of positivism is best suited for quantitative research in the term of collecting and analyzing the data. On the other hand, the paradigm of interpretivism or constructivism fundamentally fits with the qualitative methods or technique (Wiersma, 2000, Burns, 1997; Cohen & Manion 1994).

The overall review of the literature proposes that the research or study which belongs to post positivism or positivist paradigm is supposed to be using the quantitative methods or techniques as that implies to the collection of data techniques (Mertens, 2005: O'Leary, 2004).

3.5 Population and sample

A complete and unique group of elements (persons or objects) which holds some common characteristic defined by the sampling criteria established by the researcher. The process of selecting a group of people, events, behaviors, or other elements with which to conduct a study (Umsl.edu, 2018).

The population for this study comprises three nationalized commercial banks currently operating in the country. All the three banks perform the functions of commercial banks under rules,

regulations and directives of Bangladesh Bank. There are four nationalized commercialized banks in Bangladesh. To make the data collection easy and convenient of the study the three nationalized commercial banks have been taken into account. The three banks are known as 1. Sonali Bank, Agranee Bank and Janata Bank.

3.6 Source of Data and Data Collection

The data collection is a systematic process by using this the researchers gather the research information to analyze and find the outcome, the data also helps to find the results problems of the study, assist to test the hypothesis and evaluate the final results. In the time of collecting data the researchers need to confirm what type of data will be perfect for the study. It also needs to ensure how and when the data will be collected (Business Jargons, 2018).

To complete the study in the light of research objectives, secondary sources are considered. However, first, in order to build up the theoretical premise, standard textbooks, reference books, domestic journals and other related literature have been consulted. In the next stage, the related secondary information has been collected from annual reports and other official records of the banks. Secondary data may be considered both as quantitative and qualitative. Qualitative data could be collected from different kinds of sources like transcripts, dairies, interviews, newspapers etc. whilst the quantitative data could be collected by the means of survey, reports, statistics and financial statements. The main advantages of the secondary data is the source, meaning the data is easily available compared to the primary data and data can be obtained within a short period of time. Moreover, the data is cheaper than the primary data. However, data may not be accurate. To complete the current study the secondary data has been considered, the financial statements of the banks would be considered as the source of the secondary data.

3.7 Reference Period

The main data for the study is secondary data, to analyze the data this study has covered the period from 2013 to 2017.

3.8 Coverage of the Study

Currently in Bangladesh there are four nationalized banks with more than 3500 self-branches operating successfully throughout the country (Bdbanking, 2018). Among these four banks three of them were being considered for the purpose of the study. Performance of these banks within this very period (2013 to 2017) has been taken into consideration, ratio analysis and suitable statistical tools & techniques have been used operationally where the research where required.

3.9 Method of data analysis

3.9.1 Data Analysis

The analysis of data refers to examining the data gathered, and making this more meaningful by deduction and inferences (Macharia, 2014). The collected data has been sorted, sorted to make the study more accurate then analyzed in the form of different useful methods such as SPSS (Statistical Package for Social Studies), then the information will be tabulated, analyzed and the findings thereof laid the basis of the main research report. Data processing and analysis have been done both manually and by using a computer.

3.9.2 Analytical model

In establishing the relationship between study variables consisting of independent variables including return on equity, expense to revenue, net profit margin, assets utilization and return on assets is the dependent variable, the research also used and utilized the regression model. The regression model was as below.

$$ROA = \beta_0 + \beta_1(\text{Return on equity}) + \beta_2(\text{Expense to revenue}) + \beta_3(\text{net profit margin}) + \beta_4(\text{assets utilization}) + \varepsilon$$

Where

$$\text{Return on assets} = \frac{\text{Net earning}}{\text{Total Assets}}$$

$$\text{Return on equity} = \frac{\text{Net earning}}{\text{Equity}}$$

$$\text{Expense to revenue} = \frac{\text{Total expense}}{\text{Total revenue}}$$

$$\text{Net profit margin} = \frac{\text{Net earning}}{\text{Sales}}$$

$$\text{Assets utilization} = \frac{\text{Revenue}}{\text{Total assets}}$$

β_0 = Constant

$\beta_1 - \beta_4$ = Coefficient of the regression equation

ϵ = problem error

3.9.3 Test of significance

At the level of 95% confidence, the F and t test were used to determine the significance of this research. Significance of coefficient of regression was tested by t- test at the same time the determination of regression coefficient of the regression equation was tested by F-test.

3.10 Accessibility issues

Without the consent of any organizations no research would be started. Organizations should be allowed reasonable time to think about consent. Letters of consent from the organizations should be signed and approved. In the time of recording voice and capturing pictures there must be agreement among the parties. The participants also have the right to refuse any part of the questions to answer and remove any content from recording. All the steps during the data collection for the research must be permitted from the authentic authorities.

3.11 Ethical issues

In the time of research the ethical issues are given importance. The financial industry's data are very sensitive, thus the confidentiality from the researchers is a crucial requirement and information should not be disclosed. In the time of plan the ethical concerns should be taken into consideration. According to Bryman & Bell the four ethical principles are

1. There is harm to participant
2. Whether there is lack of informed consent

3. Whether there is an invasion of privacy
4. Whether deception is involved (Anon, 2018)

All the data will be kept confidential and no misuse of data.

3.12 Financial tools

The tools which are used for analyses and interpretation of financial data are known as financial tools. These tools explore strengths and weaknesses of financial policies and strategies from the precise knowledge it acquires of a business. Numerous financial tools have been utilized for analysis in this research study (Readyratios.com, 2019).

3.12.1 Ratio analysis

Ratio analysis helps to reach a solid quantitative judgement from a large amount of financial data about the company's financial performance. Ratio expresses analysed figures in a much more meaningful way. It represents the relationship among the mutually independent figures in the financial analysis. Ratio is used as an indicator of standard for assessing and evaluating the financial performance and position of a firm. Ratio analysis is one of the most used tools for financial analysis. Current and historical financial status of a firm can be determined through systematic use of ratio interpretation. Firm's performance and financial position can be easily interpreted through ratio analysis. It sets up relationships with many different ratios and analyses and interprets and compares them of more than one firm or among many departments within the firm. It provides ample information to examine the results for financial performance. The historical reported accounting figure alone Page | 33 does not help to provide any useful understanding of performance and financial position of the firm.

An accounting figure alone doesn't provide any useful information but provides useful meaning when being compared to other relevant data. Mathematically expressed figures though ratio shows relationship among two accounting figures which helps to summarize huge quantitative figures and provides information to make a quality judgement. But, the ratio must be compared with other relevant standards or it won't provide any favourable or unfavourable position.

Two figures in a financial statement can be used to calculate the ratio as it is simply a number stated in terms of another number and shows a relationship among two variables. It plainly means that numerous ratios can be calculated from financial statements. However, only relevant ratios are important, which is the key concept of ratio technique. It is useless and impractical to calculate all the ratios. Therefore, relevant ratios have been computed. Twelve relevant financial ratios had been calculated and analysed for profitability and productivity.

$$\text{Return on asset (ROA)} = \frac{\text{Net income after tax}}{\text{Total assets}} \times 100 \text{ (Investopedia, 2019)}$$

Return on assets (ROA) provides an indication of how profitable a firm is relative to its total assets. It provides stakeholders such as investors, analysts or managers an idea how assets are being managed by management of a company in generating earnings (Investopedia, 2019).

$$\text{Return on equity (ROE) ratio} = \frac{\text{Net income after tax}}{\text{Total equity}} \times 100 \text{ (My Accounting Course, 2019)}$$

A company's ability to generate profits from shareholders investment is measured by return on equity or ROE. In simple terms, it shows how much profit each dollar of stockholder's equity generates.

3.13 Conclusion

The chapter described the methods that would be used in the whole research. There were explanations of research design, research paradigm, research approach, data collection methods, data analysis methods. All of the methods of the study will be utilized in chapter 4. Chapter 3 research methodology is the main chapter to complete whole research. This chapter explained the tools of the research and chapter four will find and analyze the results and finding of the study.

Chapter-4

Results and finding

4.0 Introduction

Chapter 4 presents results of analyzed data using tables and charts. The chapter contains the response rate, descriptive statistics, the details of the ratios analysis, correlation and regression analysis followed by the ANOVA test. All the parts of the results of the analysis are explained in brief and at the end there is an overall interpretation and a short conclusion.

4.1 Analysis of data and results

The study targeted all the 4 nationalized commercial banks in Bangladesh, but complete data was obtained from 3 nationalized commercial banks, which were fully operating for the period between 2013 -2017. The one bank in which data was not collected from receivership and under statutory management and had no complete published financial statements. The 3 nationalized commercial banks made up a response rate of 90.78%, which was considered representative of all the commercial banks.

4.1.1 Descriptive statistics

Descriptive statistics, describe the characters of a sample or population by presenting, organizing and summarizing the data (Socialresearchmethods.net, 2019).

4.1.1.2 Summary of descriptive statistics

Descriptive statistics was utilized to summarize collected data in terms of mean, standard deviation, maximum values and minimum values.

The summary of descriptive statistics are contains in the table,

	Minimum	Maximum	Mean	Mode	Median	Std. Deviation	Std. Error
ROA	0.1	2	0.64	1	0.5	0.53	0.14
ROE	0.4	26	8.16	1	1	7.20	1.86
Expense to revenue	42	82	55	43	55	11.6	3
Net profit	2	48	222	11	15	15	3.87
Assets utilization	2	4	2.80	2	3	0.8	0.2

Source: Research findings

Results of the table show average profitability proxies by ROA ratio of the nationalized commercial banks in BD is 0.55 with maximum and minimum ROA being 1.64 and 0.06 respectively. Results indicate that the average returns on equity (ROE) ratio for the banks is 8.41 with minimum value of 0.43 and 25.96. The average expense to revenue ratio 54.75 with minimum and maximum ratio of 42.00 and 65.00 respectively. The average net profit ratio for the nationalized commercial banks is 20.00 with minimum and maximum ratio of 2.39 and 48.29. Finally, the average assets utilization ratio is 2.80 with minimum and maximum ratio of 1.64 and 4.29 respectively.

4.2 Financial tools

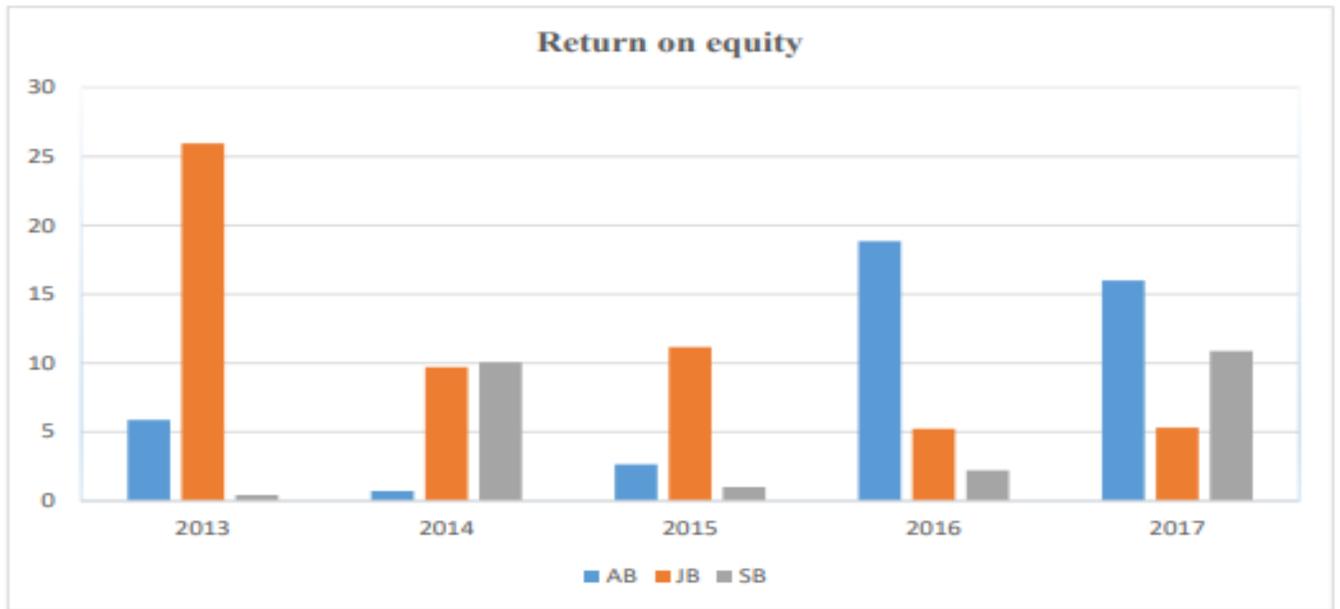
4.2.1 Return on assets



Source: Annual report of the sample banks

Among the five years (from 2013 to 2017) and the all three banks, the worst ROA is in 2014 and for the Agrani bank. One the other hand, the best ROA is 1.69 in the year of 2013 which is under Janata bank. For all the other years the overall ROA performance is not stable; it fluctuated from year to year and bank to bank. The year and the banks made the lowest ROA may due to the low return or the banks fail to utilize the overall assets means current non-current assets of the banks have. Maybe the reason for the low ratio is that the banks have many lazy assets. The banks may fail to use them efficiently or accurately.

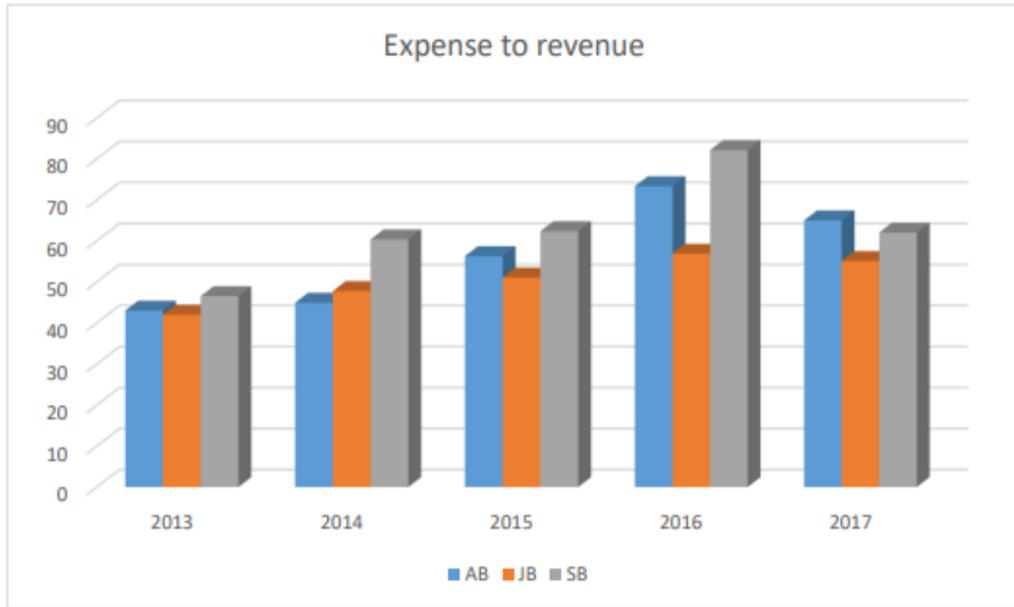
4.2.2 Return on equity



Source: Annual report of the sample banks

From the finding of the above calculation and analysis the worst ROE was in Sonali bank in the year of 2013. The best ROE was in the year of 2013 for the Janata bank. For any other years and banks the ROE was very unpredictable and was on an up down trend. The reasons for the low ROE may be due to the low return means low profit compared to the owner equity. Moreover, the banks have failed to generate profitability compared to the equity they have. Increasing the profitability by considering cost and other performance may give a good amount of ROE to the banks.

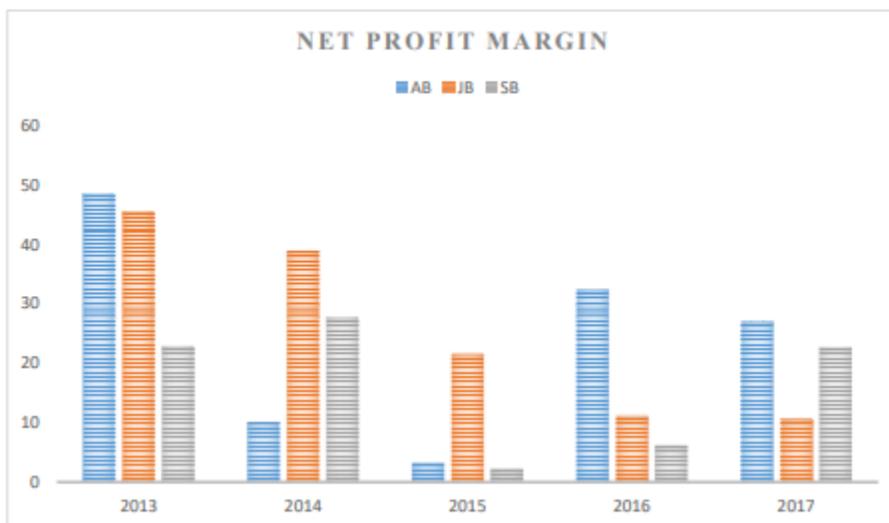
4.2.3 Expenses to revenue



Source: Annual report of the sample banks

From the above table it is clear that the expense to revenue of the nationalized commercial of BD is very high, these are almost more than 50% for all the five years and for the three banks. Maybe the banks fail to control the cost, they may have over expenditure or they may also not be productive, they also may have an excess level of overhead expenditure. If the increase of the revenue is tough then the reduction in cost can improve the ratio.

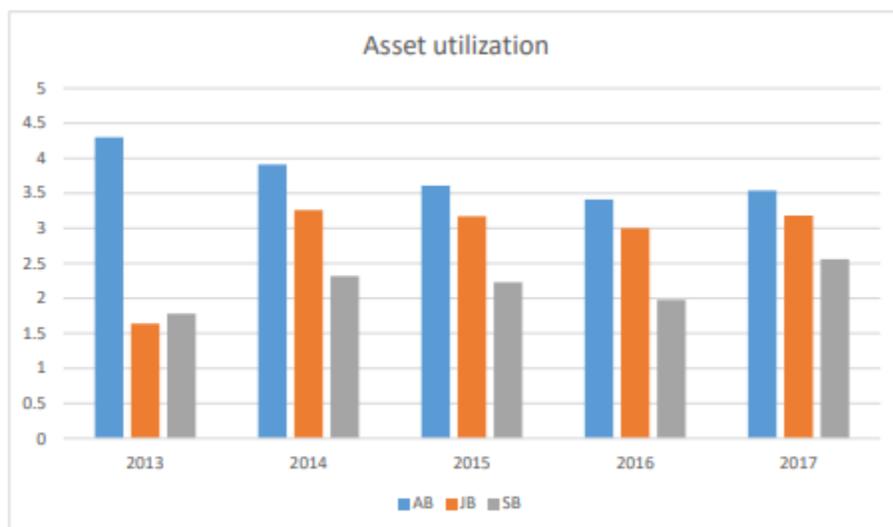
4.2.4 Net profit margin



Source: Annual report of the sample banks

Except for the year of 2015 the net profit margin is at a satisfactory level. The indication from the figure shows that the profitability of the banks are not in any standard form, same banks the profitability is different in different periods of time or years. On the other hand, in the same year the three banks have different profitability. The reasons for low profitability may be due to the high level of cost. The tax rest also can be another reason for the low profits, depreciation of the assets also can influence the profitability of the banks. Most important as the bank has the cost per transaction, thus the high cost in each transaction can impact the overall performance of the profitability of the banks.

4.2.5 Assets utilization ratio



Source: Annual report of the sample banks

From the table above shows the overall assets utilization which is minimum more than 1 and in the maximum range it is more than 4. The lowest recorded in the year of 2013 for JB and SB but in the same year AB recorded the highest assets utilization ratio.

4.3 Correlation analysis

	ROA	ROE	Expense to revenue	Net Profit margin	Assets Utilization
ROA	1				
ROE	0.93	1			
Expense to revenue	-0.33	-0.12	1		
Net profit margin	0.76	0.68	-0.48	1	
Assets Utilization	-0.33	-0.22	-0.21	-0.05	1

Source: Research findings

Return on equity and net profit margin have highly positive relation with the return on assets, but, expense to revenue and assets utilization have moderate negative significant relationship with return on assets. The correlation analysis found that there is a strong relationship between the financial performance and the overall performance of the nationalized commercial banks of Bangladesh, as per the objective. The findings also reveal that the financial factors affected the overall performance of the banks.

4.4 Regression analysis

Regression analysis consists of the model summary, the ANOVA and the results of the regression coefficients. ROA is very comprehensive as the performance compares between the profit and assets. The ROA is taken as the dependent variable, as the previous research on the financial performance of the banking industry of Kenya had considered the ROA as a dependent variable and produced meaningful results (Macharia, 2014).

4.5 ANOVA

Table shows the analysis of variance (ANOVA) results.

Model	Sum of Squares	Df	Man Square	F	Sig.
Regression	3.7	4	0.93	56.56	786E-07
Residual	0.16	10	0.02		
Total	3.87	14			

4.6 Hypotheses testing results

The regression analysis of the OLS results have been used to test all the hypotheses of the current study. The table 4.6 below summarizes the overall results of the OLS regression analysis in the current study.

The results on hypothesis test

Variables	Reported Sign
Return on equity	Negative
Expense to revenue	Negative
Net profit margin	Positive
Assets utilization	Negative

Hypothesis 1

Hypothesis 1 predicted the positive correlation between overall productivity and profitability against financial performance. The study results do not support the hypothesis as all the variables except net profit margin are showing the negative results. The study supports that only net profit margin supports the results of the study to prove the hypothesis. Earlier analysis of correlation

also represented the negative relationship between the profitability and productivity of the study, but all the profitability indicators are positively related to each other, however the profitability and productivity together show the negative relationship. Thus, the hypothesis is not acceptable and proved incorrect, in terms of the results of the study. Furthermore, the actual performance indicators of the nationalized commercial banks of Bangladesh may be not only the productivity and profitability, but there are other indicators which determine the overall performance of nationalized commercial banks of BD along with the productivity and profitability performance.

Hypothesis 2

Hypothesis 2 assumed that the overall performance of nationalized commercial banks of BD may be a combination of negative and positive financial performance and indicators. According to the data in table 3 variables out of 4 are indicating the negative results and only one name net profit margin shows the positive direction, thus the hypothesis is supported. The hypothesis stressed the main focus on the negative performance and gave a little focus on positivity, as almost all of the variables are negative and only one of them positive without a doubt the hypothesis proved the truth. Therefore, the findings of the results recommend that the overall performance of NCBs of BD are both a negative and positive combination. But the negative influences are very significant.

Hypothesis 3

Hypothesis 3 predicted that there is a negative relation between the factors (other than financial performance) and the performance of nationalized commercial banks of BD. The regression results did not represent the overall scenario of the study by using the financial ratio, as the significance of the ANOVA test was not zero. Therefore, there are other known or unknown factors which are directly impacting the performance of the nationalized commercial banks of BD. Maybe the factors are related to other performance than directly related to the financial performance, these can be the lack of technology development of the country, poor banking management systems, the long term loans of the banks are not collecting efficiently, may all of these factors are affecting the nationalized commercial banks of BD. As these factors may have a significant influence on the banks thus the hypothesis is accepted.

4.7 Analysis and discussion on finding of the study

The main objectives of the study were: (1) to investigate profitability and productivity and financial performance of Nationalized Commercial Banks (NCBs) in Bangladesh; (2) to evaluate the overall performance of the nationalized commercial banks; (3) to examine factors contributing to the performance of the banks, and (4) to propose suggestions to achieve the target

of financial discipline with operational efficiency of the banking sector. The following sections explain in detail the findings and hence the accomplishment of the first three research objectives. The fourth objective will be discussed in the following chapter named “Conclusion and Recommendation”

4.8 Conclusion

The chapter explained the overall finding analysis and discussion of the study. From the analysis different issues came into attention. The chapter also critically analyzed the results and findings. The chapter contains different types of statistical tests namely, descriptive test, ANOVA, correlation analysis, regression analysis to make the overall findings meaningful and suitable. The chapter also found the different types of the relationship between the independent and dependent variables. The dependent variable ROA depends in many ways, which has been found by the study. The correlation showed the results and the relations among all the variables. The regression and the correlation analysis proved that the relationship between the profitability and the productivity are not in the same direction, thus the study observed that the two components profitability and productivity are not in the same direction. However, in real life the profitability should be in the same direction as the productivity. It may happen due to other factors which are affecting both the profitability and productivity of the nationalized commercial banks of Bangladesh.

Chapter-5

Conclusion and recommendation

5.0 Introduction

Last chapter described the three research objectives and questions along with a test of the hypothesis. This chapter will describe the fourth research question and objectives which was to make recommendations for all three selected nationalized commercial banks of BD. Apart from this the key finding of the study will be taken into account. The chapter starts with the pointing out of the recommendations, followed by a conclusion and by providing the research limitation and future research scope.

5.1 Recommendations

Productivity and profitability are very important measurements to know the performance of any industry. Increase in productivity is the automatic increase in profitability. To improve productivity the fast step the nationalized commercial banks of BD can take to reduce the transaction cost for the transaction. According to the findings the three nationalized commercial banks of Bangladesh are struggling due to they are less efficient than they should, the increase in efficiency means they will be able to minimize the cost at the same time cost minimizations lead to the higher profitability. Thus, strong efficiency will help to make a good amount of profit for the banks. To achieve this three nationalized commercial banks can implement the new technology like fintech to reduce the cost and make the process faster or efficient.

5.2 Limitations of the study

The study focuses on banks' profitability and productivity, hence the scope of the study is only the three nationalized commercial banks of Bangladesh since the profitability and productivity of the banking industry may be influenced by other factors as well. The data collected depends on the secondary source and the source is not every time reliable as the data is coming from another source not from the authentic source like primary data, thus the data may be accurate but there can be some assumption to complete the total financial statements of the banks.

Conclusion

In conclusion, the nationalized commercial banks are supported by the government of the country, therefore if they take all the factors seriously explained in the study, they can go further. The negative correlation of the study implies that the nationalized banks of Bangladesh are still in an underperforming situation. To achieve all the objectives that have been described in this study the NCBs of BD should focus more on the solution based customer friendly services. Page | 56 The overall performance of the banks may be achieved if the factors which affect the performance can be linked and solved along with the financial performance. Thus, achieving the financial performance is also not only the issue to obtain the objective, long term and sustainable financial services to the customers and winning the confidence of the customers can lead to the ultimate performance of the banks along with the profitability. Finally, to achieve financial performance (profitability and productivity) the nationalized commercial banks of BD cannot avoid the non-financial performance or indicators of the industry. Therefore, the financial (profitability and productivity) success of nationalized commercial banks of Bangladesh may be achieved by solving the non-financial issues or factors.

Reference

- Addisababa.academia.edu. (2019). Birhanu Beshah | Addis Ababa University - Academia.edu. [online] Available at: <https://addisababa.academia.edu/BirhanuBeshah/CurriculumVitae> [Accessed 1 Jan. 2019]
- Afrin, S. (2019). Financial performance analysis of five leading banks of Bangladesh. [online] Dspace.bracu.ac.bd. Available at: <http://dspace.bracu.ac.bd/xmlui/handle/10361/2463> [Accessed 1 Jan. 2019].
- Akrani, G. (2018). Functions of Banks - Important Banking Functions and Services. [online] Kalyancity.blogspot.com. Available at: <http://kalyan-city.blogspot.com/2011/04/functions-of-banks-importantbanking.html> [Accessed 25 Dec. 2018]
- Addisababa.academia.edu. (2019). Birhanu Beshah | Addis Ababa University - Academia.edu. [online] Available at: <https://addisababa.academia.edu/BirhanuBeshah/CurriculumVitae> [Accessed 1 Jan. 2019].
- American Banker. (2018). Four Myths About Bank Productivity. [online] Available at: <https://www.americanbanker.com/opinion/four-myths-about-bank-productivity> [Accessed 7 Nov. 2018].
- Anon, (2018). [online] Available at: <https://www.linkedin.com/pulse/root-causes-non-performing-loan-itsimpact-economy-jamil-hossain> [Accessed 7 Nov. 2018].
- Anon, (2018). [online] Available at: https://www.researchgate.net/publication/273328723_Performance_Evaluation_and_Competitive_Analyses_of_State_Owned_Commercial_Banks_in_Bangladesh [Accessed 25 Dec. 2018].
- Anon, (2018). [online] Available at: https://www.researchgate.net/publication/23723809_Measuring_commercial_bank_efficiency_use_and_misuse_of_bank_operating_ratios [Accessed 25 Dec. 2018].
- Anon, (2019). [online] Available at: https://www.researchgate.net/publication/273328723_Performance_Evaluation_and_Competitive_Analyses_of_State_Owned_Commercial_Banks_in_Bangladesh [Accessed 1 Jan. 2019].
- Bb.org.bd. (2019). [online] Available at: <https://www.bb.org.bd/fnansys/bankfi.php> [Accessed 1 Jan. 2019].
- Anon, (2019). [online] Available at: <https://www.quora.com/How-do-commercial-banks-transfer-surplusfunds-from-develop-sectors-to-needy-sectors-and-create-a-balance-between-surplus-economic-unitsand-deficit-business-units> [Accessed 1 Jan. 2019].
- Athanasoglou, P., Brissimis, S. and Delis, M. (2019). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. [online] Ideas.repec.org.

Available at: <https://ideas.repec.org/a/eee/intfin/v18y2008i2p121-136.html> [Accessed 1 Jan. 2019]. Bami, B. (2019). Internal and External Factors Affecting Banking Profitability: Evidence from Albanian Banking Sector. [online] Dspace.epoka.edu.al. Available at: <http://dspace.epoka.edu.al/handle/1/1747> [Accessed 1 Jan. 2019]

Bill Mitchell - Modern Monetary Theory. (2018). Flow-of-funds and sectoral balances. [online] Available at: <http://bilbo.economicoutlook.net/blog/?p=32396> [Accessed 25 Dec. 2018]. Bis.org. (2019). [online] Available at: https://www.bis.org/publ/othp04_2.pdf [Accessed 1 Jan. 2019]. Bloomberg.com. (2018). Bloomberg - Are you a robot?. [online] Available at: <https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=31034216> [Accessed 25 Dec. 2018]. Bostonapartments.com. (2018). business financing - Finance is one of the functional areas in a. [online] Available at: <https://www.bostonapartments.com/loans/business/businessfinance/business-financing.html> [Accessed 25 Dec. 2018]. Bragg, S. and Bragg, S. (2019). Net profit margin. [online] AccountingTools. Available at: <https://www.accountingtools.com/articles/what-is-net-profit-margin.html> [Accessed 17 Jan. 2019]. BusinessDictionary.com. (2018). How has this term impacted your life?. [online] Available at: <http://www.businessdictionary.com/definition/productivity.html> [Accessed 25 Dec. 2018]. Business Jargons. (2018). What is Data Collection? definition and meaning - Business Jargons. [online] Available at: <https://businessjargons.com/data-collection.html> [Accessed 25 Dec. 2018]. Dhaka Tribune. (2018). Bangladesh ranks 143rd in corruption index. [online] Available at: <https://www.dhakatribune.com/bangladesh/2018/02/22/tib-bangladesh-progresses-two-positions-corruption-perceptions-index> [Accessed 7 Nov. 2018]. Dhaka Tribune. (2018). Banking sector at risk due to aggressive lending. [online] Available at: <https://www.dhakatribune.com/business/2018/04/28/banking-sector-risk-due-aggressive-lending> [Accessed 7 Nov. 2018]. Dhaka Tribune. (2018). It's business: Problems in our banking sector. [online] Available at: <https://www.dhakatribune.com/business/2018/01/25/business-problems-banking-sector> [Accessed 7 Nov. 2018]. Dhaka Tribune. (2018). Muhith: 3 new banks to get licences. [online] Available at: <https://www.dhakatribune.com/business/banks/2017/11/27/muhith-three-new-banks-licences> [Accessed 25 Dec. 2018]. Page, B. and Correspondent, S. (2018). 'Deteriorating Health' of Banking Sector: It's a big worry for economy: WB. [online] The Daily Star. Available at: <https://www.thedailystar.net/backpage/deterioratinghealth-banking-sector-its-big-worry-economy-wb-1560628> [Accessed 7 Nov. 2018]. FinTech Magazine. (2019). The Digital Banking Revolution in Bangladesh. [online] Available at: <http://www.fintechbd.com/the-digital-banking-revolution-in-bangladesh/> [Accessed 19 Jan. 2019]

Daily Sun. (2019). Causes of non-performing loan and effects on banking sector | daily sun. [online] Available at: <https://www.daily-sun.com/post/311639/2018/05/27/Causes-of-nonperforming-loan-and-effects-on-banking-sector> [Accessed 18 Jan. 2019].

Deloitte United States. (2018). 2018 Banking Industry Outlook | Deloitte US. [online] Available at: <https://www2.deloitte.com/us/en/pages/financial-services/articles/banking-industry-outlook.html> [Accessed 7 Nov. 2018].

Desai, F. (2018). The Evolution Of Fintech. [online] Forbes. Available at: <https://www.forbes.com/sites/falgunidesai/2015/12/13/the-evolution-of-fintech/#682add727175> [Accessed 7 Nov. 2018].

Duncan, E. and Elliott, G. (2004). Efficiency, customer service and financial performance among Australian financial institutions. *International Journal of Bank Marketing*, 22(5), pp.319-342.

Express, T. (2019). Non-performing loans swell 19.51 per cent in 2017. [online] The Financial Express. Available at: <https://www.thefinancialexpress.com.bd/economy/bangladesh/non-performing-loans-swell-19-51-per-cent-in-2017-1521173544> [Accessed 18 Jan. 2019].

Euacademic.org. (2019). [online] Available at: <http://euacademic.org/UploadArticle/2926.pdf> [Accessed 1 Jan. 2019].

dummies. (2019). How Banks Calculate Their Loans to Deposits Ratio - dummies. [online] Available at: <https://www.dummies.com/business/accounting/how-banks-calculate-their-loans-to-deposits-ratio/> [Accessed 17 Jan. 2019].

Frbsf.org. (2019). Education | What is the economic function of a bank?. [online] Available at: <https://www.frbsf.org/education/publications/doctor-econ/2001/july/bank-economic-function/> [Accessed 1 Jan. 2019].

Google Books. (2019). Indian Public Administration. [online] Available at: <https://books.google.com.my/books?id=nvzcy7o4sgAC&pg=PT2&lpg=PT2&dq=Varda,+V.S.+and+Sing,+S.P.&source=bl&ots=n5bNSOdn1e&sig=19xlqmTPdZ9hobQCgJM6lBtOe8c&hl=en&sa=X&ved=2ahUKEwiXu6XP4MvfAhUQ2o8KHXpICvEQ6AEwGHoECAMQAQ#v=onepage&q=Varda%20%20V.S.%20and%20Sing%20%20S.P.&f=false> [Accessed 1 Jan. 2019].

Grameen.com. (2019). Grameen Bank | Bank for the Poor. [online] Available at: <http://www.grameen.com/> [Accessed 1 Jan. 2019].

Huda, M. (2018). Chapter one: Agrani Bank Limited Background of Agrani Bank Limited. [online] Academia.edu. Available at: Investopedia. (2019). Net Interest Margin. [online] Available at: <https://www.investopedia.com/terms/n/netinterestmargin.asp> [Accessed 17 Jan. 2019].

Investopedia. (2019). Operating Ratio. [online] Available at: <https://www.investopedia.com/terms/o/operatingratio.asp> [Accessed 17 Jan. 2019].

Investopedia. (2019). Return on Assets - ROA. [online] Available at: <https://www.investopedia.com/terms/r/returnonassets.asp> [Accessed 17 Jan. 2019].

Investopedia. (2019). Commercial Bank. [online] Available at: <https://www.investopedia.com/terms/c/commercialbank.asp> [Accessed 23 Jan. 2019].

Journals.sagepub.com. (2019). SAGE Journals: Your gateway to world-class journal research. [online] Available at: <http://journals.sagepub.com/doi/abs/10.1177/0262728015598702> [Accessed 1 Jan. 2019].

John J. Scully, C. (2019). Three-Minute Financial Analysis for the Non-Financial Manager. [online] Graziadio Business Review | Graziadio School of Business and Management | Pepperdine University. Available at: <https://gbr.pepperdine.edu/2018/07/three-minute-financial-analysis-for-the-non-financial>

Kansascityfed.org. (2019). Banking Research Papers. [online] Available at: <https://www.kansascityfed.org/publications/research/rwp/brp> [Accessed 16 Jan. 2019].

manager/ [Accessed 1 Jan. 2019].

Limited [Accessed 25 Dec. 2018].

Iosrjournals.org. (2018). [online] Available at: <http://www.iosrjournals.org/iosr-jbm/papers/Vol20-issue4/Version-2/B2004021321.pdf> [Accessed 7 Nov. 2018].

Investopedia. (2018). The Difference Between Profitability and Profit. [online] Available at: <https://www.investopedia.com/ask/answers/012715/what-difference-between-profitability-and-profit.asp> [Accessed 25 Dec. 2018].

Investopedia. (2019). The Banking System: Commercial Banking - How Banks Make Money. [online] Available at: <https://www.investopedia.com/university/banking-system/banking-system3.asp> [Accessed 1 Jan. 2019].

Investopedia. (2019). Total Debt to Total Assets. [online] Available at: <https://www.investopedia.com/terms/t/totaldebttototalassets.asp> [Accessed 17 Jan. 2019].

Libguides.wits.ac.za. (2018). LibGuides: Research Support: Research Methodology. [online] Available at: <https://libguides.wits.ac.za/c.php?g=693518&p=4914913> [Accessed 25 Dec. 2018].

Libguides.usc.edu. (2018). Research Guides: Organizing Your Social Sciences Research Paper: Types of Research Designs. [online] Available at: <http://libguides.usc.edu/writingguide/researchdesigns> [Accessed 25 Dec. 2018].

Money Matters | All Management Articles. (2019). Agency functions of Commercial Banks. [online] Available at: <https://accountlearning.com/agency-functions-of-commercial-banks/> [Accessed 1 Jan. 2019].

Maruf SO-IT, W. (2018). Janata Bank Limited. [online] Jb.com.bd. Available at: <https://www.jb.com.bd/> [Accessed 25 Dec. 2018].

MS, S. and N, Z. (2016). The Impact of Credit Risk on Profitability of the Commercial Banks. *Journal of Business & Financial Affairs*, 5(2).

Mustafa, S. (2019). Participation Banking Competitiveness (A Theoretical Review of Pakistan's Islamic Banking Sector). [online] iiste.org. Available at: <https://www.iiste.org/Journals/index.php/RJFA/article/view/39477> [Accessed 1 Jan. 2019].

Mirzaei, A., Liu, G. and Beirne, J. (2019). Market Structure and Bank Profitability: Emerging versus Advanced Economies. [online] Econpapers.repec.org. Available at: <https://econpapers.repec.org/article/eblecbull/eb-12-00687.htm> [Accessed 1 Jan. 2019].

My Accounting Course. (2019). Debt to Asset Ratio Formula | Example | Analysis | Calculation Explanation. [online] Available at: <https://www.myaccountingcourse.com/financial-ratios/debt-to-assetratio> [Accessed 17 Jan. 2019].

My Accounting Course. (2019). Return on Equity (ROE) | Formula | Example | Ratio Calculation. [online] Available at: <https://www.myaccountingcourse.com/financial-ratios/return-on-equity> [Accessed 17 Jan. 2019].

Nrbcommercialbank.com. (2018). [online] Available at: https://www.nrbcommercialbank.com/downloads/Bank_Its%20Origin,%20Meaning,%20Objectives%20&%20Function.pdf [Accessed 25 Dec. 2018].

PasteIO. (2018). https://www.researchgate.net/publication/328567098_Get_NBA_Live_Mobile_hack_for_android_and_ios - PasteIO. [online] Available at: <https://pasteio.com/xHnqkJEBR16N> [Accessed 30 Oct. 2018].

Oecd.org. (2018). [online] Available at: <https://www.oecd.org/sdd/productivity-stats/40526851.pdf> [Accessed 25 Dec. 2018].

Oed.com. (2018). Home : Oxford English Dictionary. [online] Available at: <http://www.oed.com/> [Accessed 25 Dec. 2018].

Onuonga, S. (2019). Financial Development and Economic Growth in Kenya: An Empirical Analysis 1980–2011. Oecd.org. (2018). [online] Available at: <https://www.oecd.org/sdd/productivity-stats/40526851.pdf> [Accessed 7 Nov. 2018].

Oecd.org. (2018). [online] Available at: <https://www.oecd.org/sdd/productivity-stats/40526851.pdf> [Accessed 7 Nov. 2018].

Oxford Dictionaries | English. (2018). fintech | Definition of fintech in English by Oxford Dictionaries. [online] Available at: <https://en.oxforddictionaries.com/definition/fintech> [Accessed 7 Nov. 2018].

Pdfs.semanticscholar.org. (2018). [online] Available at: <https://pdfs.semanticscholar.org/0f8a/691217a59ac4d9f099cf31923982079dcfcf.pdf> [Accessed 25 Dec. 2018].

PwC. (2018). Increase operational efficiency. [online] Available at: <https://www.pwc.co.uk/issues/dataanalytics/issues/analytics-to-run-operations-more-efficiently.html> [Accessed 7 Nov. 2018].

Study.com. (2018). What Is Profitability? - Definition & Analysis - Video & Lesson Transcript | Study.com. [online] Available at: <https://study.com/academy/lesson/what-is-profitability-definition-analysis-quiz.html> [Accessed 7 Nov. 2018].

Punt, L. and Rooij (2019). The profit-structure relationship, efficiency and mergers in the European banking industry: an empirical assessment. [online] Ideas.repec.org. Available at: <https://ideas.repec.org/p/dnb/wormem/604.html> [Accessed 1 Jan. 2019].

Opentextbc.ca. (2019). Introduction to Money and Banking – Principles of Economics. [online] Available at: <https://opentextbc.ca/principlesofeconomics/chapter/introduction-to-money-and-banking/> [Accessed 19 Jan. 2019].

Readyratios.com. (2019). Revenue per Employee. [online] Available at: https://www.readyratios.com/reference/profitability/revenue_per_employee.html [Accessed 17 Jan. 2019].

Report, S. (2019). Banks' NPL a curse for sustainable growth. [online] The Daily Star. Available at: <https://www.thedailystar.net/business/banks-npl-curse-sustainable-growth-1561663> [Accessed 18 Jan. 2019].

Readyratios.com. (2019). Financial Analysis Tools. [online] Available at: https://www.readyratios.com/reference/software/financial_analysis_tools.html [Accessed 24 Jan. 2019].

Sol.du.ac.in. (2019). SM-1: LESSON 1 Meaning of underdevelopment. [online] Available at: <https://sol.du.ac.in/mod/book/view.php?id=1734> [Accessed 1 Jan. 2019].

Tektas, A., Nur Ozkan-Gunay, E. and Gunay, G. (2005). Asset and liability management in financial crisis. *The Journal of Risk Finance*, 6(2), pp.135-149.

The Writing Center. (2018). Literature Reviews - The Writing Center. [online] Available at: <https://writingcenter.unc.edu/tips-and-tools/literature-reviews/> [Accessed 25 Dec. 2018].

Umsl.edu. (2018). POPULATIONS AND SAMPLING. [online] Available at: <https://www.umsl.edu/~lindquists/sample.html> [Accessed 25 Dec. 2018].

Vectors, R., Vectors, B. and Image, B. (2019). Bangladesh map vector image on VectorStock. [online] VectorStock. Available at: <https://www.vectorstock.com/royalty-free-vector/bangladesh-map-vector1608043> [Accessed 1 Jan. 2019].

Erepository.uonbi.ac.ke. (2019). [online] Available at: http://erepository.uonbi.ac.ke/bitstream/handle/11295/97888/Macharia_Determinants%20Of%20Profitability%20Of%20Commercial%20Banks%20In%20Kenya%20_%20%20%20%2C%20University%20Of%20Nairobi.pdf?sequence=1&isAllowed=y [Accessed 1 Jan. 2019].

Ycharts.com. (2019). Asset Utilization Definition. [online] Available at: https://ycharts.com/glossary/terms/asset_utilization [Accessed 17 Jan. 2019].

TheGlobalEconomy.com. (2019). Bangladesh Non-performing loans - data, chart | TheGlobalEconomy.com. [online] Available at: https://www.theglobaleconomy.com/Bangladesh/Nonperforming_loans/ [Accessed 18 Jan. 2019].

TheGlobalEconomy.com. (2019). Malaysia Non-performing loans - data, chart | TheGlobalEconomy.com. [online] Available at: https://www.theglobaleconomy.com/Malaysia/Nonperforming_loans/ [Accessed 24 Jan. 2019].

Socialresearchmethods.net. (2019). Social Research Methods - Knowledge Base - Descriptive Statistics. [online] Available at: <https://www.socialresearchmethods.net/kb/statdesc.php> [Accessed 24 Jan. 2019].

Luo, D. (2013). Code Switching in Sons and Lovers. *Advances in Literary Study*, 01(04), pp.39-42.

Wahed, M. (2019). Janata Bank History. [online] Jb.com.bd. Available at: https://www.jb.com.bd/about_us/history [Accessed 25 Jan. 2019].