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IMPACT OF COVID-19 ON THE CAPITAL MANAGEMENT (IMPLEMENTATION AND COMPLIANCE OF THE BASEL-3 FRAMEWORK) OF THE BANKS IN BANGLADESH

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A B S T R A C T

The global economic condition has faced tremendous pressure due to the arrival of Covid-19. Covid-19 has affected the business and financial system severely and put extra pressure on banks in earnings, expenses, and operating efficiencies. Capital management has been a challenge for the banks in Bangladesh due to higher NPLs ratio, poor governance, and weakness in the quality of assets. The Covid situation has deepened manifold due to regulatory changes, fall in earnings, and asset quality with extra facilities being offered to the borrowers during the crisis period. This paper investigates the impact/s of Covid-19 on capital requirements, capital adequacy ratio, and capital management of banks in Bangladesh. The paper analyzes the effects of Covid-19 on key risk factors of the banking sector i.e. capital requirements and financial stability. The study is based on time series data comprising 62 banks operating in Bangladesh and a total of bank-year observations over the period 2012 to 2021. The empirical output of the paper unveils the degree of changes in capital adequacy of banks in the post-Covid situation. The paper also illustrates the impact of Covid-19 on CAR due to changes in performance indicators represented by different financial ratios- ROA, NIM & ROE which have been affected negatively in the post-Covid situation due to the effects of regulatory changes during the Pandemic. Although Classification status was not changed due to regulatory relaxation, the expenses on provisions and others increased substantially and resulting in a fall in profits and affecting the CAR negatively. The findings also show that there exists interconnectivity between the performance indicators and capital management.

INTRODUCTION

Capital adequacy refers to the preservation of capital at adequate level by banks to offset the plausible financial losses due to emerged risks from credit, market and operations of banks. Banks face various risk issues emerging from credit, market, interest rate, foreign exchange, operations etc. in day to day operations. These risks lead to losses for banks and threaten the profits, profitability and financial stability of banks.

Bank capital indicates the robustness and security of an individual bank. This will increase public confidence and also support the bank's future growth. Capital creates the ability to serve customers well and protect the bank from future unexpected losses. Capital is the most important issue for all banks (Torbira & Zaagha, 2016). Financial performance is an indicator of a bank's financial health (Torbira & Zaagha, 2016). Several previous studies have explained that capital adequacy ratios help measure the financial performance of firms in specific banks and banks in general.

The capital Adequacy Ratio (CAR) shows the availability of required capital of banks to address the possible risk arising from the overall banking operations. CAR is important as it strengthen the financial health of banks and protects creditors and suppliers of funds from financials instability and probable distress. The greater value of CAR reflects stronger capability of banks in addressing the risk of loss. The (Rubi et al., 2022) decline in CAR indicates the weakness of financial health and soundness of banks to face possible risks. According to Hasan and Zayed (2018) while working on the changes in Basel-3 regime over Basel-2 explained that operating efficiency by means of quality assets, diversification of assets, risk management etc. is the key to manage and minimize the required capital of banks; Quality assets help to (Mia et al., 2022)

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reduce requirement of capital by controlling risky assets and improve capital level. For improvement of assets quality, banks must put emphasis on credit quality and selection of borrower having better rating grade as it indicates the degree of riskiness of the borrowers. Better grade rating of the credit help banks to improve assets quality, minimize Risky assets and improve capital position.

Banking regulations on capital requirements, known as Basel III has a major impact on the global financial system and economy. Capital adequacy ratio (CAR) is the ratio of a bank's capital to risk-weighted assets and it is typically used to measure a bank's adequacy to support risky assets such as loans (Bangladesh Bank, 2014). The changes in business environment due to covid strike, fall of earnings of the borrowers and subsequently the regulatory changes in loan classification along with relaxation of credit repayment amid the Covid-19 Pandemic leads to significant changes in earnings and profitability of banks.

Due to the outbreak of COVID-19, many risks is manifested in the financial sector and the economy. Banks suffer from bad debt, poor governance, inefficiencies, and weak financial conditions, all of which have deteriorated during the pandemic. The number of bad debts in the banking industry has already been too high in recent years. The arrival of Covid-19 hit the overall business activities of the country and necessitates government to come up with financial assistance to the affected business to help them recover the losses. Babu (2020) Non-performing loans do not return to the record after leaving banks due to fall of monetary strengths of borrower. High bad debt ratios in banks reduce their lending capacity and increase shareholder risk. Murtuza (2020a) opined that by mid-2020, the majority of banks fell in a perilous position in terms of making operating profits.

The entire financial assistance (named stimulus package) has been facilitated by the banking sector. The central bank also designed policies and guidelines to provide the borrowers access to the incentives declared from government. But distribution of these financial supports to the existing loan defaulters is exacerbating the situation and tends to amplify the default rate and increase non-performing loans in the banking sector. For loans granted under stimulus packages, if the borrower fails to repay the loan banks will face the risk of default and substantial increase in NPLs. Kumar et al. (2020) showed that non-performing loans are the most difficult and challenging issue for Bangladesh's banking sector. Murtuza (2020b) argued that non-performing loans are the main cause of bank shortages.

Barua and Barua (2021) found that the larger the bank, the more the risk during the pandemic in the context of Bangladesh. They did research on Bangladesh's banking sector applying the stress-testing approach and found that all banks gets affected in managing risk-weighted assets, capital adequacy ratio and Interest income due to the COVID-19 pandemic.

This paper attempts to reveal the impact of Covid-19 on performance of banks measured by the financial indicators like ROE, ROA, NIM, NPLs and CAR during the Covid period and compare the result with the performance of those variables before the arrival of Covid-19 pandemic. The result portrays nature, extent and severity of the changes in the variables during two period i.e. the pre-Covid period and the post-covid period and also focuses on the key challenging areas that seems to be vulnerable for banks in terms of management of liquidity, profitability and asset quality especially during the crisis situation.

The general aim of the study is to show the impact of Covid-19 on Basel implementation of Bangladeshi banks. The following specific objectives have been identified to achieve the overall objectives:

- Identify the current challenges faced by Bangladeshi banks in implementing Basel III.
- Provides some recommendations and strategic insights to overcome the current crisis and meet Basel III mandates for higher cash and liquidity standards.

LITERATURE REVIEW

The COVID-19 pandemic could trigger a major economic recession causing Unemployment problems which affects reduce savings and investment (World Bank, 2020). As a result, this pandemic creates the risk of withdrawals of savings, rising default rates, slowing credit growth, low interest income and high risk of bankruptcy (World Bank, 2020; Goodell, 2020). Moreover, it will be difficult for developing countries to recover quickly from the (Ahmed et al., 2022) shock of COVID-19 due to weak institutional governance, underdeveloped capital markets, and Bureaucratic issues in policy making (Gorg et al., 2020; Wilson, 2020).

The banking sector is crucial and a significant factor for the country's economic development. A number of regulatory frameworks have been developed and implemented by central banks to maintain financial sector stability. Sound management of a country's accounts is said to be an indicator of its financial prosperity. Mahmoud (2020) found that the banking sector is intertwined with the economy, and the (Faisal-E-Alam et al., 2022) superior strengths of these sectors rely not only on their own strategies, but also on the expansion of all other sectors in Country. Habib (2020) states that banks in Bangladesh face a lot of uncertainty and skepticism regarding loan repayments by customers, especially when operations are disrupted.

The capital position is being considered as the measure of financial strength and resilience of banking sector. Failure of banks in maintain the minimum capital against the (Zayed et al., 2021, 2022; Chowdhury et al., 2021; Rahman et al., 2021; Kader et al., 2021) risky assets weaken the financial stability and strength of banks. Covid-19 is over and relaxation given to borrowers amid the pandemic ends, if the repayment by the borrowers are not satisfactory, banks will be affected in its earnings, profitability, liquidity, NPLs management and thus the capital management. Hasan (2020) found that nearly all banks experienced slow revenue growth, similar to last year. Paul (2020) states that the banking sector faces liquidity and loan collection problems. Hossain (2018) found that administrative softness, lack of good governance, and political desire are the (Chowdhury et al., 2021; Shahriar et al., 2021; Ali et al., 2021; Rahman et al., 2021) main factors behind dissatisfied banking. Kumar et al. (2020) said the coronavirus is hampering the normal activities of Bangladesh's agricultural economy. Agricultural products become less valuable and cannot be sold. In the end, farmers faced heavy losses. In this case, pressure to repay the loan.

In a study titled "COVID-19 and Risk Involvement in the Bangladesh Banking Sector: A Study", related to the Covid-19 banking sector in Bangladesh, authors have found the risk that Covid-19 is having a myriad of impacts on Bangladesh's economy and banking sector. At a critical time, Bangladesh's banking sector is facing huge financial losses, rising non-performing loans, retail investments and declining operating profits. Bank employees are severely impacted in their performance in their day-to-day operations (Kumar, 2021; Nahar et al., 2021; Kader et al., 2021; Kabir et al., 2021; Zayed et al., 2021; Shahriar et al., 2021).

Paul (2020) stated that Bangladesh banking sector already suffering from high NPLs and It will increase due to this outbreak in the near future. Bad debt takes two phases such as Pre-Covid NPL and Post-Covid NPL. During this situation Bangladesh Bank rules are necessary to initiate and speak reality. It is imperative to extract the very first relief policy against the possibility of collapse. Banking sector faces liquidity problems matching deposits and loan recalls (Iqbal et al., 2021; Ali, et al., 2020).

Aldasoro et al. (2020) in the paper titled "Effects of Covid-19 on the banking sector: the market's assessment" concluded that banks with good capitalization and high profitability will succeed and do things relatively well during the pandemic. Korzeb and Niedziółka (2020) in the paper based on the case of Poland regarding "Resistance of commercial banks to the crisis caused by the COVID-19 pandemic" found that a bigger bank be more resilient to the negative effects of the pandemic while studying Polish banking sector. In their study on the impacts of Covid-19 on banks, it was shown that despite the economic threat from the pandemic, some writers have also garnered attention to digitalization of the banking sector, the formation of high-quality and dynamic market portfolios, calculating expected losses and assessing creditor quality (Bryan et al., 2020; Selvan & Vivek, 2020; Nayeen et al., 2020).

Barua and Barua (2021) investigated the adverse effects of the COVID-19 pandemic of Bangladesh banking sector but they could not handle full/optimum portion of bank's credit portfolio. They put emphasis on two big industries like SME sector and the RMG sector. However, the (Chowdhury et al., 2020; Kader, et al., 2020) pandemic has affected export industries, service sectors and Manufacturing industry in Bangladesh. Because most banks' loan portfolios are diversified, therefore, the negative impact of the COVID-19 pandemic will ultimately affect regular loans.

Types of profitability measures for a strong and representative banking are typically earnings from deployed assets measured by ROA, earnings from interest after netting off the (Chowdhury et al., 2020) interest expenses measured by NIM, and return earned from the funds deployed by the owners i.e. the ROE. A positive ROA indicates that a bank can effectively use its assets to generate income. According to the Hong Kong Institute of Bankers, the higher the ratio, the more efficient banks are at using their assets productively. An ROA above 1% is considered good performance. ROA measures a company's overall effectiveness in generating profit from its available assets. The higher the company's return on assets, the better (Gitman, 2012).

Wahyudi conducted research on Islamic banks to determine the relationship between CAR, NPF, FDR, BOPO, and inflation and the profitability of banks, and statistical tests showed that CAR, FDR, NPF, BOPO, and inflation were united at the same time, and found that it impacts ROA during the Covid-19 pandemic.

In their study while studying the impacts of Covid on performance of Islamic Banks they concluded that a bank's efficiency is determined by a variety of bank-specific factors such as market capitalization and profitability, as well as macroeconomic factors such as GDP growth, inflation, real interest rates etc. Capitalization has a direct impact on a bank's efficiency, as high or low capitalization is an important concern. Capital adequacy ratios, asset quality, return on capital, and other solvency ratios have gradually gained importance during COVID-19 (Almonifi et al., 2021).

The aim of the study by Almonifi et al. (2021) is to examine the impact of COVID-19 on the performance of Saudi Arabia's Al Rajhi Bank as an Islamic bank. They used several key metrics such as price-to-earnings ratio, return on invested capital, return on equity, earnings per share, capital adequacy ratio, liquidity ratio, and payout ratio to assess before and during this pandemic. Five-year samples were drawn for comparison, and the cost-to-return ratio. Their study found a small impact of this COVID pandemic on performance.

A growing body of literature highlights the potential impact of COVID-19 for banks; however, much of this applies primarily to developed countries. (World Economic Forum, 2020; BIS, 2020; Stiller & Zink, 2020). Bangladesh's banking sector remains the main source of information of long-term finance and investment needed to foster faster growth in the country (Mujeri & Rahman, 2009). The country's banking system is already congested with high default rates and bad debts/ Asset (bad debt) ratio putting Bangladesh on the list of top bad debt countries Asia-Pacific situation (Dey, 2019).

The idea that banks need to hold sufficient buffers to cope up with recession. To make it effective, the Basel Committee has issued enhanced guidance Capital adequacy ratio (BASEL-III) agreement to improve the capacity of the banking sector to face the stressed scenario emerges from the unforeseen economic condition (BIS, 2017).

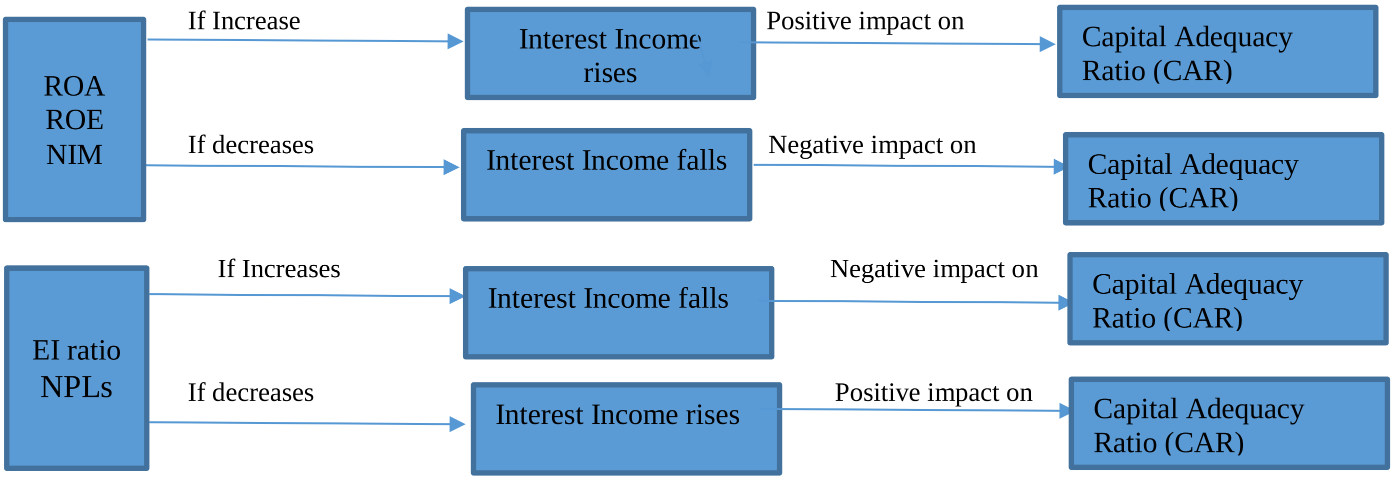
In particular, the lessons of major financial crises remain largely unknown in developing and emerging countries where banks are actively competing. in the In addition, many developing and/or emerging financial markets Suffering from inefficiencies, inadequate regulatory infrastructure and lack of innovation and high-tech adoption, and morally compromised and dysfunctional Adverse selection problems caused by political intervention (Gorg et al., 2020; Dominguez et al., 2010). The COVID-19 pandemic is likely to change things significantly Worse in these countries. For such emerging markets, this Paper explores potential impact of pandemic on banking operations in Bangladesh sector.

METHODS AND MATERIALS

To evaluate and measure the impact of Covid-19 on Performance indicators and capital management of banks in Bangladesh. The study is of analytical nature as it attempts to explore causes and effects among different variables. The quantitative method is used to measure the variables. The paper is an empirical type of study as it is mostly based on secondary data. Secondary Sources of data have been used in the study; the data are obtained from Bangladesh Bank annual reports for the period of 10 years (2012 to 2021). Annual reports were collected from website of the Bangladesh Bank.

Research Framework

The study explains how the changes in different indicators during the Covid pandemic period and the after, affects the Capital adequacy ratio in the banking sector. The following flowchart shows the way in which the changes in different performance indicators like ROA, ROE, NIM, NPLS, EI ratio etc. contribute and affect the CAR of banks.



Fiqure 1. Research Framework

RESULTS

Impact of Covid-19 on profitability

Of the various indicators that are used todetermine profitability and earnings of banks, the most widely accepted ratios include NIM, ROE and ROA.

During the Covid-19 period, Return on Assets (ROA) at the end of 2019 and 2020 was 0.43%, and.30% much lower than the average ROA in the previous years except of 2018 where the earnings get affected by higher rate of negative ROA by the SBs and SCBs. However, the ROA showed an increasing trend by the end of first six month of 2021.

During the Covid-19 period, return on equity (ROE) at the end of 2019 and 2020 was 6.83%, and 4.30% which shows a drastic fall of average ROE than that in the previous years except of 2018 affected by higher rate of negative ROE by the SBs and SCBs. However, the ROE showed an increasing trend in first half of 2021.

Table 1. Earnings trend of banks

	ROA -Return on Assets (%)										ROE-Return on Equity (%)									
	Pre Covid-19								Post Covid-19		Pre Covid-19								Post Covid-19	
Bank Types	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Ratio	.64	.90	.64	.77	.68	.74	.25	.43	.30	.50	08.20	11.10	08.09	10.51	09.42	10.60	03.86	06.83	04.30	08.30

Source: DOS, Bangladesh Bank (BB Annual report 2020-21)

ROA and ROE of banks have decreased during Covid-19 tenure. After-tax banking income decreased in 2020 compared to 2019. ROA and ROE of banks decreased in 2020 compared to 2019.

Table 2. Banking sector Net Interest Margin-NIM (in %)

Bank types	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021
				Pre Covid-19					**Post Covid-19**	
NIM	2.79	2.02	3.56	3.28	3.27	3.13	3.22	3.12	2.67	2.48

Source: BRPD, Bangladesh Bank (BB Annual report 2020-21)

The banking sector NIM of the banking industry dropped to 2.67 percent in 2020 from 3.12 percent in2019. NIM of all banks was significantly high in the year 2014 (3.56 percent) and then exhibited a downward trend upto 2019 except an increase in 2018.

Table 3. Ratio of NPLs to Total Loans in banking sector

Types of Bank	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	June 2021
			Pre Covid-19 period						**Post Covid-19 period**	
SCBs	23.9	19.8	22.2	21.5	25	26.5	30	23.9	20.9	20.6
SBs	26.8	26.8	32.8	23.2	26	23.4	19.5	15.1	13.3	11.4

PCBs	4.6	4.5	4.9	4.9	4.6	4.9	5.5	5.8	4.7	5.4
FCBs	3.5	5.5	7.3	7.8	9.6	7	6.5	5.7	3.5	3.9
All banks	**10**	**8.9**	**9.7**	**8.8**	**9.2**	**9.3**	**10.3**	**9.3**	**7.7**	**8.2**

Source: BRPD, Bangladesh Bank (BB Annual report 2020-21)

Non-performing loans ratio to loans show a mixed trend in the banking sector between 2012 and 2019. Banks experienced a declining NPL trend in 2020 but as of the end of June 2021, all types of banks had a slight increase in the amount of non-performing loans

The non-performing loan ratio of the banks was 10% in 2012. After that, the non-performing loan ratio of rose till 2018 and in 2019, the non-performing loan ratio declined to 9.3%. The NPLs decreased in 2020 sharply due to change in prudential guidelines of Bangladesh Bank allowing relaxation in classification norms during the Covid-19 period. As of the end of June 2021, it again increased to 8.2%.

Table 4. Provision in banking sector

										(BDTin Billion)
Types of Bank	**Year 2012**	**Year 2013**	**Year 2014**	**Year 2015**	**Year 2016**	**Year 2017**	**Year 2018**	**Year 2019**	**Year 2020**	**June 2021**
	Pre Covid-19 period								**Post Covid-19 period**	
Amount of NPLs	427.3	405.8	501.6	594.1	621.7	743	939.1	943.3	887.7	992.1
Required provision	242.4	252.4	289.6	308.9	362.1	443	570.4	613.2	648	709.5
Provision maintained	189.8	249.8	281.6	266.1	307.4	375.3	504.3	546.6	646.8	653.7
Excess(+)/Shortfall(-)	-52.6	-2.6	-7.9	-42.8	-54.7	-67.7	-66.1	-66.6	-1.2	-55.8
Provision maintenance ratio (%)	**78.3**	**99**	**97.2**	**86.1**	**84.9**	**84.7**	**88.4**	**89.2**	**99.8**	**92.1**

Source: BRPD, Bangladesh Bank (BB Annual report 2020-21)

Increase of NPLs put pressure on banks in maintaining provisions as a cushion for the expected loss which reduces profits and thus the capital of the banks.

Table 5. Expenditure to Income ratio (in percentage)

Banktypes	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Pre Covid-19								**Post Covid-19**	
SCBs	73.2	84.1	84.1	84.5	90.2	81.3	80.5	84.9	83.2	87.1
SBs	91.2	94.8	99.5	113.9	137.8	124.0	144.6	159.8	158.1	176.3
PCBs	76.0	77.9	75.8	75.5	73.5	73.8	76.7	77.6	79.6	76.2
FCBs	49.6	50.4	46.8	47.0	45.7	46.6	47.5	48.8	46.2	44.9
Total	74.0	77.8	76.1	76.3	76.6	74.7	76.6	78.0	79.2	80.2

Source: DOS, Bangladesh Bank (BB Annual report 2020-21)

The Expenditure-to Income ratio has increased for all types of banks in 2020 and 2021 than that of the previous years which is a clear indication of an increase in business expenditures and a fall of profits and earnings during the period**.**

Capital Adequacy Ratio (CAR) of Banking Sector

Capital adequacy put emphasis on overall capital position of banks and the protection of the suppliers of funds (depositors & creditors) from potential losses.Capital adequacy is cushion to possible losses of banks arising from credit, market and operational risks that emerges in banks from day to day course of activities. According to Basel-3 rules, all the banks operating in Bangladesh have to keep the Minimum amount of Capital (known as the MCR required as per Basel norms) which is currently “10.00 percent of the Risk Weighted Assets (RWA) or BDT 4.0 billion as capital, whichever is higher”.

Table 6. CAR maintained by banks (in %)

Bank types	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Pre-Covid-19 period								**Post-Covid-19 period**	
SCBs	8.1	10.8	8.3	6.4	5.9	7.00	10.3	5	9.6	6.8
SBs	-7.8	-9.7	-17.3	-32	-33.7	-32.8	-31.7	-32	-32.9	-32.2
PCBs	11.4	12.6	12.5	12.4	12.4	12.2	12.8	13.6	13.7	13.3
FCBs	20.6	20.2	22.6	25.6	25.4	23.3	25.9	24.5	28.4	28.5
Total	**10.5**	**11.5**	**11.3**	**10.8**	**10.8**	**10.8**	**12.1**	**11.6**	**12.5**	**11.6**

Source: BRPD, Bangladesh Bank (BB Annual report 2020-21)

It is observed that the CAR of the banking sector increased in 2021, but decreased in 2021 which shows the impact of regulatory relaxation in classification which improved the assets quality for shorter period and increased the CAR during the period.

The results shows a sharp decline in the CAR in post pandemic situation. CAR decline resulted due to lower profits earned by banks from lending and overall businesses because of change in regulatory guidelines on classification, liquidity and interest charge by Bangladesh Bank. The decline in CAR indicates the weakness of financial health and soundness of banks to face possible risks.

Table 7. Summary of the impacts of the independent variables on the CAR the dependent variables

	Pre Covid	**Post Covid**		**Post Covid**	
	2019	**2020**	**Change direction**	**2021**	**Change direction**
			Earnings ratio		
ROA	0.43	0.30	Decreased	0.50	Increased
ROE	6.83	4.30	Decreased	8.30	Increased
NIM	3.12	2.67	Decreased	2.48	Decreased
			Assets quality		

NPLs	9.30	7.70	Decreased	8.20	Increased
		Operating Expenses			
Provision	89.20	99.80	Increased	92.10	Decreased
EI	78.00	79.20	Increased	80.20	Increased
CAR	11.6	12.5	Increased	11.60	Decreased

Source: Self-developed

DISCUSSION

ROA & ROE have been affected negatively in the post Covid situation due to adverse effects of Pandemic which caused downturn in business and economic activities; as a result the assets deployed by banks by giving credit to the borrowers failed to generate the desired earnings in the form of interest as the payment from borrowers was irregular due to regulatory relaxation in credit management during the pandemic.

Regulatory changes in loan classification along with the moratorium period (the grace period to charge interest in a loan account) facilities affected the earnings, profitability and liquidity position of banks; delay in repayment and static status of loans even after non- payment lead to a drastic fall in interest earnings and bubbled the assets quality for a particular time period;

Irregular repayment, regulatory forbearances and regulatory instruction regarding accounting treatment caused the interest income to fall significantly; but the regular payment to the creditors of banks had to be made on time just like the earlier times; as a result decreasing interest income with an increasing or at least prevailing interest expenses resulted in a negative change in net Interest margin;

Due to relaxation in loan classification during the pandemic and disbursement of new/fresh loans under Government stimulus packages showed a temporary improvement in the NPLs scenario; In one way classification status remained unchanged during the tenure and the new loans increased the total amount of NPLs which brought the NPLs ratio down in 2020 as an effect of pandemic;

Although Classification status was not changed due to regulatory relaxation, the banks needed to maintain the provisions against the NPLs as per the existing rules; thus decrease in NPLs did not show significant improvement in provisioning requirement of banks;

As interest expenses, and operating expenses are quite fixed in nature and needs settlement on due time but interest income decreased significantly during the pandemic, the expenses of banks thus showed an upward shift;

As CAR is dependent on the earnings (as measured by ROA, ROE, NIM etc.) for capital supply, liquidity as well as efficiency (measured by EI ratio) and quality of assets for managing requirement of capital (indicated by NPLs), banks could manage to maintain the ratio in 2020 just after the pandemic is over; but later on banks faced the challenges in maintain in CAR in 2021 where change in assets quality with an increase in CAR (due to the end of facility tenure given from regulators in terms of repayment, interest charge and classification norms.

CONCLUSIONS

As the pandemic facilitated the borrowers and restricted the activities of banks in earnings, profitability, liquidity, NPL management and overall banking performances, it is now responsibility of both the regulator and the banks to adjust the changing situation in such a way that ensure protection of interests of both banks and the customers with maximum benefits. Under the circumstances, following are the suggestions that can be made here based on the findings of the study which can help the policy makers and regulatory authorities in making the right choices in future.

- Regulatory relaxation as given to the borrowers should not be extended further; because banks will not be able to bear the expected losses in earnings and profitability for a long time;
- It is crucial for banks to monitor the loans given under stimulus packages; because default of these loans will affect the earnings as well as the asset quality i.e. the NPLs scenario of banks;
- Bangladesh Bank can allow a time-bound facilities to the banks for a particular time to transfer the earned interest in income account, preserving provisioning against the NPLs and maintaining CAR with CCB;
- Banks should follow the austerity policy and control the unnecessary expenses to bring the EI ratio at least to a reasonable level;
- If banks can make adequate profits in a year they should try to retain the profits in the form of capital to strengthen the capital position and ensure long term financial soundness.

The global economy has been affected by the COVID-19 pandemic and resulted in slowdown of business activity and brought economic downturn. Already Bangladesh's banking industry is entangled with huge nonperforming loans, poor corporate governance, capital shortfalls etc. Amidst all this, the Covid-19 pandemic added new challenges to the banking industry and put extra pressure for ensuring effective capital management after the Covid-19 situation to comply the requirement of adequate capital under Basel-3 regulation.

The prevalence of bad debt, Covid-19 pressure, a culture of political interference in sanctioning loans are responsible for banks' net losses. Central banks should pressure banks to step up efforts to collect bad debts and force them to act internally to strictly manage and comply.

In this context, to recover from Covid-19 and implement Basel III, banks will have to restructure if they want to survive in the new environment through better risk management and measurement by banks.

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