

Research Paper

An Empirical Study of The Impact of Banking Sector Prosperity on Economy: Illustration From an Emerging One

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Abstract— This paper concentrates on the dominance of prosperity of the banking sector on the economy of Bangladesh by using several econometric techniques like Ordinary Least Squares (OLS) model, Descriptive statistics and correlation analysis using annual data for the timeframe of 1995-2020. By using OLS model, this study explores irregularities in the correlation between growth of the banking sector and GDP, Balance of trade and Inflation in short run. On the contrary, this study explores positive relationship between prosperity of the banking sector and Annual development plan, Broad money, Balance of payment, Debt repayment, Exchange rate, Foreign direct investment, foreign currency reserve, Private credit, Remittance, Revenue earnings and Unemployment rate respectively. This is the first attempt to analyze the effect of profitability of banking sector on the economy of Bangladesh with varieties of variables which represents the economy and banking sector as a whole. Policy makers of Bangladesh should think when they modify the banking sector after the post-pandemic period and impose proper attention on gaining profitability in banking sector for the betterment of the economy.

Keywords— Banking sector, OLS, Correlation analysis, Inflation, GDP, Remittance, Post-pandemic period.

1. Introduction

Bank plays an imperative role in our everyday life. The people of a certain country can't manage its financial wealth without direct contribution of banking sector. In the traditional world, people used to transact using informal channel like hundi, man to man transfer of money etc. Those channels of transaction generally resulted in fraudulence of money. After the introduction of formal banking system, people started to embrace it like their babies as their core transaction channel.

As of today, there are 7.868 billion people around the globe (United States government, 2022) which are constantly increasing every year. To meet the financial requirement this huge number population knocking the door of formal and informal banking system. As of today, 69% of this huge number of populations uses formal banking system as their prime transaction medium. (Global Findex-World Bank Group, 2022). The other 31% of the world population uses informal banking system which are associated with huge number of security issues. That means the arc of banking system are increasing like never before.

Ceylan and Ceylan, (2020) explored the impression of efficiency of the banking sector on the economy of Argentina, India, Russia, Poland and Turkey and recced a positive association by using variables like ROA and GDP [3]. Same

types of opinions shared by some other researchers by using same variables in their study (Demirguc-Kunt and Huizinga, 1999; Tan and Floros, 2012; Obamuyi, 2013; Trujillo-Ponce, 2013; Javid, 2016; Ucler and Uysal, 2017; Alev, 2018; Klein and Weill, 2018; Moussa and Hdidar, 2019) [9].

Banking sector profitability is largely measured by return on asset, return on equity, net interest margin according to varieties of studies (Tan and Floros, 2012); (Obamuyi, 2013); (Trujillo-Ponce, 2013); (Javid, 2016); (Ozturk's, 2016); (Alev, 2018). But this study here opposed the viewpoint of their studies. Net non-performing loan ration also have tremendous impact on the prosperity of the banking sector as well as CRAR and Cost to Income ratio. These profitability indicators have positive association with GDP of a certain country (Haron, 1996); (Khan *et al.* 2015); (Kamran *et al.* 2016) (Klein and Weill, 2018); Moussa and Hdidar (2019) and inflation maintain an inverse association with growth of the banking sector (Haron, 1996); (Rachdi, 2013) [5,6].

From the preceding section of this study the researcher tries to exhibit what other researchers think about productivity of the banking sector and economic growth. They have analyzed this topic by using their unique theories and model. But a few of them have analyzed this issue on the ground of developing or emerging economies. Additionally, they have used some common economic variables like GDP growth rate, Interest rate and Inflation rate to cover the macroeconomic side of the

study. But these three variables can't represent whole economy. To fill these scarcities explored from their study, the article here analyzes the upshot of usefulness of the banking sector on economic growth in the context of emerging economies like Bangladesh. This country is chosen because of speedy transition of economy and tempestuous nature of its banking sector. To indicate banking sector profitability this study has used ROA, ROE, Net NPL ratio, Cost to Income ratio and NIM. On the other hand, to indicate economic growth this study has used GDP, exchange rate, inflation rate, annual development plan budget, broad money, balance of trade, balance of payment, debt repayment capability, foreign direct investment, reserve of foreign currency, private credit amount, revenue earnings from different projects, unemployment rate and remittance amount to make inference whether economic growth influenced by effectiveness of the banking sector.

2. Related Work

The association between profitability of banking sector and economic growth is not linear all the time. It may vary with countries economic nature and situation. During 2008 financial crisis this relationship shows an inverse association between them. The relationship or direction may be positive, may be negative or in an extreme case it may show that, banking sector profitability may limit growth of a country according to countries economic situation (Turgut and Ertay, 2016). There are positive association between prosperity of the banking sector and economic growth. This statement empirically analyzed by employing GMM regression (Klein and Weill, 2019). Some of the researchers have analyzed the impact of profitability in a variety of ways. Firstly, economic growth is not the only consequences of prosperity of the banking sector but also financial stability in the economy is also the result of prosperity of the banking sector. When profitability is ensured in a bank it may causes maximization in shareholder wealth in the form of dividend or capital gain (Flannery and Ranganau, 2008).

However, prosperity of the banking sector is not the positive consequences for the respective bank only, it works for the economy as a whole. As banking sector moving towards profitability, they can witness a profitable growth on balance sheet which may change their risk perceptions (Keeley, 1990). When banking sector meet the target of reduction in risk perception their loan target will easily be fulfilled (Coval and Thakor, 2005) which helps to judge borrowers regularly (Holmstrom and Tirole, 1997). Moreover, evidence from empirical studies analyzed that prosperity of the banking sector is sensitive to economic growth (Claeys and Schoors, 2007) and this profitability can be used as an indicative measurement to predict distress in the bank which will foster financial growth (Kupiec and Ramirez, 2013, and Atkinson, Luttrell and Rosenblum, 2013).

Meanwhile, Khan et al. (2015) analyzed the upshot of viability of the banking sector on economic growth by studying the economy and banking sector of Pakistan by

using bank size, EPS, Cash Equivalents, Spread Ratio and Capital Ratio as banking sector variables and Inflation, GDP and Interest rate as macroeconomic variables and explored that, EPS, SIZE, Capital Ratio have a positive impact on GDP by using POLS tools of econometrics. Banking sector profitability is largely indicated by Return on Assets (ROA) and Return on Equity (ROE) in which ROA express a positive association with economic growth (Bhatia et al. 2012). Islamic banks profitability is also the contributor in economic growth. Recent findings explored that interest rate, inflation rate and size of the economy influenced by prosperity of the banking sector (Haron, 2012). Ceylan and Ceylan, (2020) analyze the casual relationship between several countries economic growth and prosperity of the banking sector. They have selected some economies to cover their research interest and those are; Brazil, Russia, India, Argentina, Chile, Poland, Turkey and Croatia. They have explored that economic growth and prosperity of the banking sector shows positive association for some economies likely Chile, Russia, Turkey and Poland. To meet the research goal, they have used panel causality test to define causal relationship between them [13].

Besides, the linkage between GDP growth and ROA and NIM of the banking sector shows a negative association. This study analyzed 101 Chinese banks from the period of 2003-2009 by using GMM methodology and make this inference (Tan and Floros, 2012). Obamuyi (2013) explored that, macroeconomic variables like GDP and interest rate exhibit a positive association with ROA of the banking sector by studying 20 Nigerian banks and panel data analysis tools. Trujillo-Ponce (2013) have also shared same opinion that, ROA and ROE have positive association with macro variables like inflation and interest rate by using GMM tools [15]. Ozturk's (2016) explored a positive association between banking sector ROA and GDP which make inference by analyzing the dataset for the time of 1974 to 2014 [12]. Alev (2018) reced a positive relationship between ROA and ROE of the banking sector and economic growth rate by studying the dataset of 1992-2017. Moussa and Hdidar (2019) have shared same types of opinion by studying 18 Tunisian banks for the timeframe of 2000-2017. However, along with these positive econometricians who have explored a positive relationship between prosperity of the banking sector and economic growth there are some econometricians or researchers have different argument on this relationship.

3. Theoretical background and hypotheses formulation

3.1 Background of the study

Bank, the word which makes the people of a certain country feel secured in terms of their financial transaction and locker service issues. In this modern world, without a formal banking system business people can't think to spend a day. That's why the service area of the formal banking sector is also increasing rapidly proportionate to the number of people.

The study here analyses the financial state of the banking sector of Bangladesh with the help of a simple diagram enumerated below;

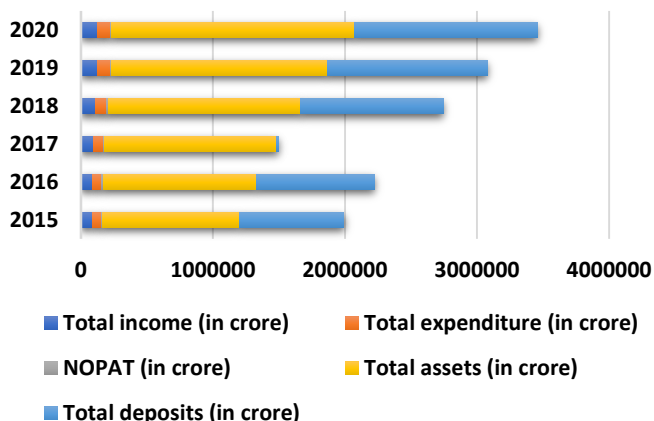


Figure 1: Financial state of the banking sector of Bangladesh

Figure 1 analyses the financial structure of the banking sector of Bangladesh. Total income from the banking sector increasing every year but in 2020 due to pandemic it has seen a negative growth. Due to this negative growth net profit after tax also reduces. But total assets and deposits have witnessed increasing growth every year. But in 2020, due to covid-19 the growth was not up to the mark. To sum up, the study concluded that prosperity of the banking sector of Bangladesh are increasing every year. Due to pandemic issue and inefficiency in managerial body non-performing loan are increasing over the few years that has a negative impact on the profitability and causes manpower turnover. The study here analyzes the NPL and manpower state of the banking sector of Bangladesh with the help of a simple diagram enumerated below;

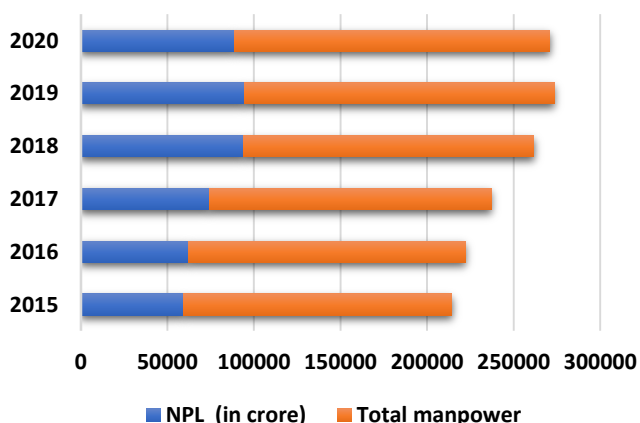


Figure 2: NPL position and total manpower

Figure 2 analyzes that NPL increasing every year except 2020. This happens because Bangladesh Bank undertake new policy to give rebate to the defaulter which reduces the amount of NPL in that period. Total manpower is increasing every year to provide service to the huge number of population efficiently.

3.2 Hypostheis formulation

Numerous researchers analyze the consequences of profitabilty of the banking sector on the economy. This issue is become a hot topic after the targic hit on the economy by pandemic. Now the economy need extra support from every sector of that. Banking sector can be the prime source of it by their huge profitabilty. Researchers conclude their studies in variety of ways. In this section, this study here tries to mention some of their notable works.

Meanwhile, return on assets is used as indicator of profitabilty of the banking sector. On the contrary, GDP, Inflation rate and Interest rate are used as indicator of economic performance (Ceylan and Ceylan, 2020); (Obamuyi, 2013); (Trujillo-Ponce, 2013); (Javid, 2016); (Klein and Weill, 2018). Profitabilty of the banking sector also can be measured by Net Interest Margin (NIM), ROE and ROA (Tan and Floros, 2012); (Obamuyi, 2013); (Trujillo-Ponce, 2013); (Javid, 2016); (Ozturk's, 2016); (Alev, 2018). They analyzed the impact of profitabilty on the developed economies only. Emerging economies like Bangladesh should be covered as well for the betterment of the economy. But GDP, interest rate and inflation rate can't describe the economy as a whole. That's why this study here include few extra variables to represent the economy as a whole. Additionally, to represent prosperity of the banking sector ROA, ROE, NIM, NPL ratio, Cost to income ratio and Capital Risk Weighted Assset ratio (CRAR) are used [7,8,14].

3.2.1 Prosperity of the banking sector and GDP growth rate, Annual development plan, Broad money, Balance of payment, Balance of trade, Debt repayment, Exchange rate (₳-\$), Foreign direct investment, foreign currency reserve, Inflation rate, Private credit, Remittance, Revenue earning and unemployment rate.

Prosperity of the banking sector is largely measured by return on asset, return on equity, net interest margin according to varieties of studies (Tan and Floros, 2012); (Obamuyi, 2013); (Trujillo-Ponce, 2013); (Javid, 2016); (Ozturk's, 2016); (Alev, 2018). But this study here opposed the viewpoint of their studies. Net non-performing loan ration also have tremendous impact on the prosperity of the banking sector as well as CRAR and Cost to Income ratio. These profitabilty indicators have positive association with GDP of a certain country (Haron, 1996); (Khan et al. 2015); (Kamran et al. 2016) (Klein and Weill, 2018); Moussa and Hdidar (2019) and inflation maintain an inverse association with prosperity of the banking sector (Haron, 1996); (Rachdi, 2013).

However, the upshot of other macroeconomic variables by the prosperity of the banking sector have not analysed by any of the study mentioned earlier. Annual development plan (ADP) will be increased if the banking sector can provide more loan at lower rate of interest and it will happen only when prosperity of the banking sector will increase. So, prosperity of the banking sector and ADP maintain a positive relationship.

More broad money will be available to the economy when banking sector can keep huge reserve in its locker and it will be possible only when banking sector will witness profitability. So, prosperity of the banking sector and Broad money maintain a positive relationship. Balance of Payment (BOP), Balance of Trade (BOT) will amplify when prosperity of the banking sector booms. As BOT and BOP both require banking formalities, they should have a positive relationship with prosperity of the banking sector.

As prosperity of the banking sector will increase debt repayment capability of the economy will increase too as government have more money available to repay debt. Prosperity of the banking sector maintain an inverse relationship with exchange rate because prosperity of the banking sector will increase the value of Bangladeshi taka in exchange of Dollar rate. Foreign direct investment requires huge money available in foreign currency to make investment in any foreign country and this money comes from profitable banking sector growth. Profitable banking sector growth helps the economy to witness increment in foreign currency reserve by exchanging taka to dollar or other currency. As the prosperity of the banking sector increase it will have positive impact on availability of private credit. Unemployment rate will decrease as the profitability of the banking increase as this profitable growth will causes increment in employment. Remittance and profitable growth of banking sector are related with each other. Because remittance is one of the determinants of banking sector profitability. In this study prosperity of the banking sector measured by ROA, ROE, NIM, CRAR, NPL and cost to income ratio. Analysing the above argument, the study here proposes the following hypothesis;

H₁: Prosperity of the banking sector is positively related with GDP.

H₂: Prosperity of the banking sector is positively related with ADP.

H₃: Prosperity of the banking sector is positively related with broad money.

H₄: Prosperity of the banking sector is positively related with balance of payment.

H₅: Prosperity of the banking sector is positively related with balance of trade.

H₆: Prosperity of the banking sector is positively related with debt repayment.

H₇: Prosperity of the banking sector is negatively related with exchange rate.

H₈: Prosperity of the banking sector is positively related with foreign direct investment.

H₉: Prosperity of the banking sector is positively related with foreign currency reserve.

H₁₀: Prosperity of the banking sector is positively related with private credit.

H₁₁: Prosperity of the banking sector is positively related with remittance.

H₁₂: Prosperity of the banking sector is positively related with revenue earnings.

H₁₃: Prosperity of the banking sector is negatively related with inflation.

H₁₄: Prosperity of the banking sector is negatively related with unemployment rate.

4. Experimental Method

4.1 Sources of data

Data used in this study are annual secondary data which are collected from Bangladesh Bank website, Bangladesh Bureau of Statistics and several online news portals for the timeframe of 1995 to 2020. To represent prosperity of the banking sector ROA, ROE, NIM, CRAR, NPL and cost to income ratio are used. To represent macroeconomic variables GDP growth rate, Annual development plan, Broad money, Balance of payment, Balance of trade, Debt repayment, Exchange rate (₳-\$), Foreign direct investment, foreign currency reserve, Inflation rate, Private credit, Remittance, Revenue earning and unemployment rate are used for the same timeframe.

4.2 Variable description

Table 1: Variable description

Variables	Acronym	Measurement scale
<i>Dependent variables (Individual effect will be measured)</i>		
Gross Domestic Product growth rate	GDP	Annual growth rate of GDP for the time frame of 1995-2020.
Annual Development Plan	ADP	Annual planning budget every year for the time frame of 1995-2020.
Broad Money	BM	Broad money available in Bangladesh Bank.
Balance of payment	BOP	All economic transaction of the country.
Balance of trade	BOT	Money available after deducting net import from net export.
Debt repayment	DR	The amount of money circulated to lender to repay debt by government.
Exchange rate	ER	Exchange rate of taka against dollar.
Foreign direct investment	FDI	The amount of money invested in foreign bonds or project every year.
Foreign currency reserve	FOREX	Foreign currency reserve in Bangladesh every year.
Inflation	INF	Inflation rate of every year (Base

		year, 2005-06)
Private credit	PC	Total amount of loans distributed in the private sector in a year.
Remittance	REM	Total amount of remittances sent by the workers living abroad.
Revenue earnings	REV	Total amount of revenue collected from government projects every year.
Unemployment rate	UR	The rate unemployment every year.
<i>Independent variables</i>		
Return on asset	ROA	Calculate with this equation; Net profit after tax/Total assets.
Return on equity	ROE	Calculate with this equation; Net profit after tax/Total shareholders' equity.
Net interest margin	NIM	Calculate with this equation; Interest revenue- interest expense / Total earning assets.
Capital Risk Weighted Asset ratio	CRAR	Calculate with this equation; Tier-1 capital + Tie-2 capital / Risk weighted assets
Net non-performing loan ratio	NPL	Calculate with this equation; Non-performing loan amount / gross loan.
Cost to Income ratio	CI	Calculate with this equation; Total operating cost / Total operating income. 1

Table 1 in this study described the variables used in this study. GDP growth rate, Annual development plan, Broad money, Balance of payment, Balance of trade, Debt repayment, Exchange rate (₹-₹), Foreign direct investment,

¹ Compiled by the author

foreign currency reserve, Inflation rate, Private credit, Remittance, Revenue earning and unemployment rate used as dependent variable individually and ROA, ROE, NIM, CRAR, NPL and CI used as independent variable with individual dependent variable.

4.3 Methodology of the study

Over the years, researchers around the world have analyzed the influential power of prosperity of the banking sector on the economy. This study here tries to mention their works with the help of which variables they use to make inferences. Ceylan and Ceylan, (2020) explored the impression of prosperity of the banking sector on the economy of Argentina, India, Russia, Poland and Turkey and receded a positive association by using variables like ROA and GDP. Same types of opinions shared by some other researchers by using same variables in their study (Demirguc-Kunt and Huizinga, 1999; Tan and Floros, 2012; Obamuyi, 2013; Trujillo-Ponce, 2013; Javid, 2016; Ucler and Uysal, 2017; Alev, 2018; Klein and Weill, 2018; Moussa and Hdidar, 2019). [1,4,10,11,14]

By analyzing above arguments, this study uses three econometric tools to rationalize this issue. One is descriptive statistics and another one is Correlation analysis and the last one is OLS regression analysis. In the third method, this study designs several models to run regression. Each of the model contains same independent variables but different dependent variables. GDP, ADP, BM, BOP, BOT, DR, ER, FDI, FOREX, INF, PC, REM, REV and UR acts as dependent variable in each model respectively. On the contrary, ROA, ROE, NIM, CRAR, NPL and CI acts as an independent variable in each model. This study proposes models in a following way;

$$GDP_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \epsilon_t$$

(Model 1)

$$ADP_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \epsilon_t$$

(Model 2)

$$BM_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \epsilon_t$$

(Model 3)

$$BOP_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \epsilon_t$$

(Model 4)

$$BOT_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \epsilon_t$$

(Model 5)

$$DR_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \epsilon_t$$

(Model 6)

$$ER_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 7)}$$

$$FDI_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 8)}$$

$$FOREX_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 9)}$$

$$INF_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 10)}$$

$$PC_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 11)}$$

$$REM_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 12)}$$

$$REV_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 13)}$$

$$UR_t = \alpha + \beta_1 ROA + \beta_2 ROE + \beta_3 NIM + \beta_4 CRAR + \beta_5 NPL + \beta_6 CI + \varepsilon_t \quad \text{(Model 14)}$$

5. Results and Discussion

Table 2: Correlation coefficient result

Variables	1	2	3	4	5	6
ROA	1					
ROE	0.92*	1				
NIM	0.30	0.24	1			
CRAR	0.34	0.09	0.42	1		
NPL	-0.55	-	-0.48	-0.84	1	
CI	-0.58	-	-0.56	-0.73	0.82*	1

Analytical part of the study started with correlation between independent variables which is demonstrated in Table II, explored that ROE (0.92) is significantly correlated with all other independent variables. On the other hand, CI (0.82) found significantly correlated with NPL only. Jarque-Bera test (>5% level of significance) reced that all the variables are normally distributed except ADP and BOT, which means the study can analyze the data set with OLS regression analysis. To check the robustness of the dataset the study here run several diagnostic tests. As the dataset here includes time series variable, their stationarity should be checked. To check stationarity of the dataset the study here uses unit root test tools and the method is ADF test. The result of ADF unit

root test which express all the variables except PC are stationary in nature.

Table 3: Regression analysis

Variables	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)
ROA	(0.58)	(0.02) **	(0.05) *	(0.08) *	(0.20)
ROE	(0.36)	(0.75)	(0.89)	(0.61)	(0.91)
NIM	(0.68)	(0.83)	(0.68)	(0.86)	(0.59)
NPL	(0.09) *	(0.05) **	(0.01) ***	(0.13)	(0.10) *
CI	(0.39)	(0.07) *	(0.02) **	(0.00) ***	(0.25)
CRAR	(0.19)	(0.24)	(0.16)	(0.18)	(0.33)
F-stat	(0.08) *	(0.00) ***	(0.00) ***	(0.00) ***	(0.00) ***
BG Ser. Corr. test	(0.71)	(0.29)	(0.74)	(0.01) ***	(0.34)
BPG het. test	(0.20)	(0.15)	(0.44)	(0.93)	(0.32)

Table 4: Regression Analysis cont.

Variables	Model (6)	Model (7)	Model (8)	Model (9)	Model (10)
ROA	(0.09) *	(0.02) **	(0.72)	(0.04) **	(0.01) ***
ROE	(0.69)	(0.54)	(0.39)	(0.94)	(0.05) **
NIM	(0.62)	(0.99)	(0.92)	(0.66)	(0.85)
NPL	(0.00) ***	(0.00) ***	(0.07) *	(0.03) **	(0.88)
CI	(0.00) ***	(0.00) ***	(0.05) **	(0.04) **	(0.31)
CRAR	(0.28)	(0.35)	(0.62)	(0.15)	(0.64)
F-stat	(0.00) ***	(0.00) ***	(0.00) ***	(0.00) ***	(0.20)
BG Ser. Corr. test	(0.93)	(0.43)	(0.36)	(0.70)	(0.20)
BPG het. test	(0.11)	(0.28)	(0.27)	(0.39)	(0.27)

Table 5: Regression Analysis cont.

Variables	Model (11)	Model (12)	Model (13)	Model (14)
ROA	(0.04) **	(0.32)	(0.05) **	(0.00) ***
ROE	(0.91)	(0.50)	(0.67)	(0.00) ***
NIM	(0.74)	(0.37)	(0.98)	(0.44)
NPL	(0.00) ***	(0.00) ***	(0.01) ***	(0.00) ***
CI	(0.02) **	(0.03) **	(0.00) ***	(0.45)
CRAR	(0.17)	(0.10) *	(0.22)	(0.02) **
F-stat	(0.00) ***	(0.00) ***	(0.00) ***	(0.00) ***
BG Ser. Corr. test	(0.53)	(0.44)	(0.45)	(0.27)
BPG het. test	(0.39)	(0.77)	(0.13)	(0.19)

Table 3,4 and 5 represents results from OLS regression. From the table, the study check robustness of the dataset. From all the model, the study estimated F-statistic value, serial correlation value (Breusch-Godfrey test), Heteroscedasticity test (Breusch-Pagan-Godfrey) [2]. In serial correlation test, null is no serial correlation in the residuals. On the other hand, in heteroscedasticity test this study examine whether homoskedasticity is available on the dataset. During checking of robustness in the dataset, this study explored null of no correlation in the residuals can't be rejected as all the value of probability in the model greater than 5% level of significance. During analyzing heteroskedasticity in the dataset this study explored homoscedasticity as null of homoscedasticity can't be rejected (>5% level of significance) in any of the model.

From model 1 result this study explored prosperity of the banking sector is inversely related with GDP except NPL (statistically significant at 10%) of the banking sector. That means that, government uses bank profitability and private loan in mega project which reduces profitability and increases non-performing loan. From model 2 result this study explored prosperity of the banking sector linearly related with ADP. That means as prosperity of the banking sector increases economy will have more money available to plan for something big. From model 3 result this study explored prosperity of the banking sector linearly related with BM. That means prosperity of the banking sector acts as a catalyst in broad money. From model 4 result this study explored prosperity of the banking sector linearly related with BOP. ROA and CI of the banking sector tend to have positive impact on balance of payment. From model 5 result this study explored prosperity of the banking sector are not linearly related with BOT. Only NPL of the banking sector has positive impact on balance of trade. From model 6 result this study explored prosperity of the banking sector linearly related with DR. ROA, NPL and CI of the banking sector are positively related with debt repayment.

However, from model 7 result this study explored prosperity of the banking sector linearly related with ER. ROA, NPL and CI of the banking sector are sensitive to exchange rate. From model 8 result this study explored prosperity of the banking sector linearly related with FDI. NPL and CI of the banking sector are positively related with foreign direct investment. From model 9 result this study explored prosperity of the banking sector linearly related with FOREX. ROA, NPL and CI are positively related with foreign currency reserve. That means prosperity of the banking sector helps to increase the amount in foreign currency reserve. From model 10 result this study explored prosperity of the banking sector are not linearly related with inflation (INF). From model 11 result this study explored prosperity of the banking sector linearly related with PC. ROA, NPL and CI of the banking sector have positive impact on private credit. From model 12 result this study explored prosperity of the banking sector linearly related with REM. NPL and CI have positive impact on remittance. From model 13 result this study explored prosperity of the banking sector linearly related with REV. ROA, NPL and CI have positive impact on

revenue earnings of the government. From model 14 result this study explored prosperity of the banking sector linearly related with unemployment rate. ROA, NPL and CI have positive impact on UR. That happens because of the recent pandemic situation in which prosperity of the banking sector rises but employment fall. That means H2, H3, H4, H6, H7, H8, H9, H10, H11, H12 and H13 holds in this study.

6. Conclusion and Future Scope

Pandemic situation around the world made us to think in a different way to revive the economy. The researchers around the world started to think how they can contribute in the revival of the world economy. To revive the economy as like before researchers reced profitable growth on a continuous basis from every sector. Banking sector is not the exception in this case. Researchers around the world analyzed the impact of prosperity of the banking sector on economic growth in a variety of ways and contexts and they have explored that, profitable growth of the banking sector can revive the economy. But they covered the interest of developed countries only with limited variables. The study here analyzed the sway of prosperity of the banking sector on the economy of Bangladesh with varieties of macroeconomic indicators and profitability indicators of banking sector and explored prosperity of the banking sector have no impact on GDP, BOT and INF but have positive impact on ADP, BM, BOP, DR, ER, FDI, FOREX, PC, REM and REV. The study here uses OLS regression tools, correlation tools and descriptive statistics tools with varieties of robustness checker to make this inference.

Finally, this study will help the policy makers to reshape the banking sector by which it can attain so much profitability that will help the economy to revive in long run.

Conflict of Interest

This article don,t have any conflict of interest.

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Author Contribution

This article tries to recognize the imact of prosperity of the banking sector on the economy of Bangladesh. This articles exhibits how banking sector can play a pivotal role in recouping economy after pandemic.

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