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Evaluation of Internal Factors Indicating Bank Profitability in Commercial Banks Bangladesh

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Abstract: ***Purpose of the study**: Commercial bank plays a key role in the development and financial stability of the country. Therefore, this research has been carried out to analyze the possible effect of different relevant internal factors determinants on commercial banks profitability in Bangladesh. **Methodology**: We consider the statistical tools SPSS 25 version through descriptive statistics and a panel regression model is built on balanced panel data using 16 commercial banks listed by DSE and CSE over the sample period of 2016 - 2020. The authors performed an analysis of the bank profitability model was tested empirically. **Findings**: The results that were obtained from the profitability model indicated there is a significant positive correlation between ROA of commercial banks with TEA, TLD, TCA, TIA, OETA, and CIR while negative correlation BS showed the statistically insignificant impact on profitability. Regression findings from the model reveal that TEA and TLD and profitability have statistically significant while TCA, TIA, OETA, CIR, and BS had an insignificant impact. However, it is recommended that empirical studies should be undertaken in the same field to find out what more internal factors could affect the profitability of banks. **Practical implications**: Overall, the authors' findings bring some new but useful views to the banking literature. Some recommendations may be functional for the sustainable performance of banks. **Originality/value**: Because of study results, the authors provide interesting insights into the practices and characteristics of banks in banks in Bangladesh listed by DSE and CSE. The study also highlights significant bank internal factors to improve the selected commercial banks in Bangladesh.*

Keywords: Commercial Banks, Profitability, Internal factors, and Panel Data.

1. Introduction

Nowadays, the banking industry plays a vitally important role in the economy of Bangladesh and the profitability measurement is one of the major considering factors for the banks. The profitability measurement of banks is important for all parties including depositors, investors, bank managers, and regulators. The poor banking industry cannot help the economic development in a country. In a developing country like Bangladesh, the banking industries as a whole play a vital role in the progress of economic development (Islam, 2016).

The development of the banking sector is an indispensable way for a flourishing economy of a country that is developing in nature. The rise of banks and the series of the national economy are positively associated in Bangladesh. The profitability of commercial banks is a response to many internal and external factors. The main dominators of banking performance are the bank - specific factors. This paper attempts to identify the internal factors which significantly influence the profitability of commercial banks in Bangladesh. The internal factors such as return on asset (ROA), operating expense to total asset ratio (OETA), total equity to total asset ratio (TEA), the cost to income ratio (CIR), and total loan to deposit ratio (TLD), total cash to asset ratio (TCA) and bank size (BS) are the point of concentration that affects the profitability of the commercial banks in Bangladesh. The internal policymakers should manage the influential internal factors of the banks to increase their profitability so that they can meet stakeholders' expectations.

1.1 Problem statement

To find out the internal factors that affect commercial bank's profitability in Bangladesh.

1.2 Research Questions

- To find out internal factors indicator of commercial banks profitability in Bangladesh.
- To find out the impact of those internal factors on the profitability of commercial banks in Bangladesh.
- To know the impact of independent variables on the dependent variable.

1.3 Purpose of Research

The main purpose of this research is to find out how different internal factors indicators affect the profitability of commercial banks in Bangladesh.

1.4 Research Objectives

The study aims at investigating the impact of internal factors on bank profitability ratios of commercial banks in Bangladesh. The study highlights the following general and specific objectives:

General Objectives
- To explore the main sources of income generation of commercial banks in Bangladesh.
- To find out the key indicators of internal factor that leads to a higher profit of commercial banks in Bangladesh

Specific Objectives

- To examine the relationship between these internal factors on bank's profitability.
- To assess the internal factors might be the harmful impact of independent variables on the dependent variable for commercial banks.

1.5 Research Hypothesis

The two main hypotheses of the research are:

- **H_0**: Internal factors analyzed in the study have no significant influence on commercial bank's profitability in Bangladesh.
- **H_1**: Internal factors analyzed in the study have a significant influence on commercial bank's profitability in Bangladesh.

1.6 Scope of Research

The scope of this study is limited to 16 commercial banks from 2016 to 2020. Different internal factors indicators are considered and found some significant results which can be applied to commercial banks in Bangladesh only.

1.7 Limitation of the Study

The purpose of this research is to find out the internal factors indicating commercial bank's profitability in Bangladesh. Nevertheless, due to some limitations, the study does not cover all aspects of the research.

- The research is limited to commercial banks only.
- Only internal factors are included in the research because of the lack of data availability.
- Secondary data is collected for 16 commercial banks only out of 40 commercial banks.
- The findings of this research cannot be considered globally because this research is confined to the Bangladeshi Banking industry only.

This paper is divided into five parts. The first part is about introduction of the topic which includes problem statement, research questions, and purpose of research, research objectives, hypothesis, scope and limitations of the study. Part two covers literature review. The third one contains population size, sample size, sampling design and methodology, and explanation of dependent and independent variables. Part four is about model specification, estimation techniques, results and data analysis. Whilst part five conclude and policy implementations the paper along with some future recommendations.

2. Literature Review

In many previous studies, internal and external factors are used to measure their influence on profitability of banks. However, this study is concentrating on internal factors such as asset size, capital size, deposits, loan, investment and operating expenses etc. which affect profitability of listed bank on Dhaka and Chittagong stock market directly. The following studies could be an important source in supporting the results of this paper.

Rahman et al. (2020) scrutinized the effect of internal and external indicators on banking productivity by covering a period from 2003 to 2017 with 20 commercial banks working in the realm of Pakistan. It is reported that size does not contribute to Pakistani banks' profitability, and it harms profitability and could be due to diseconomies of scale. Furthermore, it is reported that the capital adequacy ratio plays a significant role in accelerating a bank's profitability, and it positively impacts profitability.

Shair et al. (2019) to investigation the Pakistan bank profitability by using the generalized method of moment and taking 26 banks during 2007 - 2017. It is concluded that liquidity, capital adequacy, size, taxation, and GDP positively affected banks' profitability, whereas competition and credit risk demonstrate an inverse association with bank performance. Furthermore, it is reported that operating cost has a positive link with NIM, but negative relation with ROA.

Lee & Iqbal (2018) the results of the random effect – GLS method indicate that total loan to total asset (TLTA), equity to total assets (EQTA), loan to deposit (LTDEP), and interest margin (INTMARGIN) exert a positive effect on both the performance measures (ROA and ROE), while logarithm of total assets (LNASSET), and GDP growth rate (GDPGR) affect the banks' performance negatively.

Ferrouhi (2017) conducted a study to analyze the long – term determinants of performance of eight biggest Moroccan commercial banks, for the period 2005 - 2015, using the Johansen cointegration test. Three measures of performance were used in this study. These were: the net non interest margin (NIM), returns on assets (ROA), and returns on equity (ROE). The results indicated that the significance of bank specific variables (size of the bank, short - term, long - term and funding liquidity, deposits, and foreign direct investments) are long - term determinants of the performance of Moroccan commercial banks.

Mahmud et al. (2016) the incorporated several bank specific factors in determining the profitability of commercial banks in Bangladesh. The study indicated that capital adequacy ratio, bank size, and total debt to total equity have significant impact on bank performance.

Samad (2015) to identified a few bank specific factors such as loan - deposit ratio, loan - loss provision to total assets, equity capital to total assets, and operating expenses to total assets and the researcher finds that they significantly impact the performance of commercial banks.

Yesmine and Bhuiyah (2015) investigated the factors having impact on the financial performance of 10 local private commercial banks (PCB) and 4 nationalized commercial banks (NCB) operating in Bangladesh using secondary data covering the period from 2008 - 2014. The data were analyzed under multiple regression model. The study indicated that asset utilization and operating efficiency have significant positive impact on banks' profitability whereas credit risk has significant negative impact with asset utilization being the most critical factor for the PCBs performance

Almazari (2014) compared between Saudi Arabian and Jordanian banking sectors on the basis of some internal factors such as total investment to total asset ratio, liquidity risk, net credit facilities to total asset ratio, net credit to total deposit ratio, cost to income ratio, total equity to total asset ratio and bank size. He analyzed the financial data for the year 2005 - 2011 of 161 observations using ratio analysis, Pearson's correlation, descriptive statistics and regression analysis. The study revealed that total equity to total asset ratio had significant positive relation with the return on asset in both banking sector.

Eljelly (2013) investigated the determinants of profitability of Islamic banks in Sudan, one of the few countries had total Islamic economic and banking systems. Using a sample of Sudanese banks, the study showed that only the internal factors to these banks have a significant impact on banks' profitability, as measured by return on assets (ROA) and return on equity (ROE).

Schiniotakis (2012) the analyzed the factors that affect the profitability of commercial and cooperative banks of Greece. The results showed that profit is greatly influenced by the type of bank and return on assets is positively related with bank capitalization.

Ani, Ugwunta, Ezeuduand Ugwuanyi, (2012) studied determinants of banks profitability in Nigeria by taking a sample of 15 banks for the period of 2001 to 2010. Using Pooled Ordinary Least Square the results showed that it is not necessary that higher total assets result in higher profitability because of diseconomies of scale. Equity to total assets, debts to total assets and deposits to total assets ratios contributes to profitability. As these ratios increase or decrease profitability will also increase or decrease.

Javaid et al. (2011) the focus in on the internal factors only. This paper uses the pooled Ordinary Least Square (POLS) method to investigate the impact of assets, loans, equity, and deposits on one of the major profitability indicator return on asset (ROA). The empirical results have found strong evidence that these variables have a strong influence on the significant profitability.

Olson et al. (2011), larger bank size, greater dependence upon loans for revenue, and higher proportion of equity capital to asset have generally been associated with greater profitability. Higher liquidity, greater provisions for loan losses and more reliance on debt have been lower indicative of lower bank profits.

Chatzoglou, Diamantidis and Vraimaki (2010) studied banking productivity by taking a sample of 10 banks in Greece. They used standard ratio analysis for measuring the performance of banks. Their results indicated that large size banks perform better than medium and small banks. It means that profitability is positively related with banks size.

Ramlall (2009) showed that ratios of equity to assets, loans and liquidity affect ROA positively. Besides, the ratios of deposits to total assets and bad debts affect ROA negatively.

Al - Mutairi and Al - Omar (2008) had examined the factors affecting the profitability of seven national banks in Kuwait for 1993 to 2005. The results indicated that equity and total assets of a bank are directly related with return on assets (ROA). However, the effect of loan and expenses on profitability is insignificant.

Kosmidou (2008) has worked on the determinants of banks' profits in Greece. He took a sample of 23 banks from 1990 to 2002. He collected data from banks financial statements and used regression analysis for the analysis of data. The results showed that equity to assets ratio is positively and significantly related to profitability. Size of bank is also positively and significantly related to profitability.

Atasoy (2007) examined relationship between profitability determinants and structure of expense – income. The results showed that ratio of equity capital and total assets affect ROA positively and ratios of fixed assets and costs to total assets affect ROA negatively.

Ataullah et al. (2004) made a comparative analysis of commercial banks in India and Pakistan during 1988 - 1998. They found that the efficiency score in loan - based model was much higher as compared to the income based model. Both countries banks have needed to improve their efficiency

Chirwa (2003) determines the relationship between market structure and profitability of commercial banks in Malawi by using time series data during1970 and 1994. He finds along - run relationship between profitability and concentration, capital asset ratio, loan - asset ratio and demand deposits - deposits ratio.

Abreu and Mendes (2002) evaluated the determinants of bank's interest margins and profitability for some European countries. They find that well capitalized banks face lower expected bankruptcy costs and this benefit interprets into better profitability. Although with a negative mark in all regressions, the unemployment rate is relevant in explanation of bank's profitability.

Guru et al. (1999) studied on a sample of seventeen commercial bank of Malaysia from 1986 to 1995. This study indicated that the ratio of expense management is one of the most important factors affecting bank's profitability and high interest ratio is related to low bank's profitability

Haron (1996) examined the determinants of profitability in Islamic banks. Researchers have managed to examine and identify various internal factors that have a significant influence on bank's profitability. The study found that internal factors such as liquidity, total expenditures, funds invested in securities, and the percentage of the profit - sharing ratio between the bank and the borrower of funds are highly correlated with the level of total income received by the banks.

Molyneux et al. (1992) examined the determinants of bank's interest margins and profitability for some European countries. It is found that well - capitalized banks have lower expected bankruptcy costs and better profitability.

Bourke (1989) to examined the performance of banks in twelve countries in Europe, North America and Australia during the period 1972 - 1981. He found that concentration, liquidity, inflation and size affect the bank performance and profitability positively

The above discussion confirms a strong internal factor influencing on bank's profitability. The paper addresses the gap in the literature by using challenging financial techniques to identify the bank's profitability in terms of the commercial banks in Bangladesh.

3. Research Methodology

This part covers the population of the study, the sample of the study, sampling technique, sample size, sampling design/methodology and data collection, description of dependent and independent variables, as well as the theoretical framework.

3.1 Population of the Study

Currently in Bangladesh 61 scheduled banks are working, consisting of 6 state - owned Scheduled Banks, 2 Specialized Banks, 40 Private commercial Banks, 5 Non - scheduled Banks, and 8 Foreign Banks. The target population of this study is selected private commercial banks enlisted under Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) that operating in the country.

3.2 Nature and Sources of Data

In obtaining the data incorporated in this study are mainly secondary and theoretical. This study is based on the financial data taken from the financial statements of the selected banks. Moreover, few other additional data were collected from the Dhaka Stock Exchange (DSE) website and other financial portals.

3.3 Sample of the Study

The purpose of the research is to study selected out of these total 32 commercial banks enlisted on both Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE), merely 16 commercial banks representing 50 percent were considered with 80 observations for the period 2016 - 2020.

3.4 Sampling Design Methodology

The research is mostly quantitative for which secondary panel data is used. Data collected from the financial statements of the banks and selected commercial bank's websites are analyzed using statistical tools like pooled OLS. Return on assets is the explained variable. Equity to assets, deposits to assets, investment to assets, bank size, and cost to income ratio, etc. are the independent variables.

3.5 Specification of Regression Models

To find out the internal factors on banks of the Bangladeshi private sector commercial banks, one model has been developed and each of them has one dependent variable and seven identical, independent variables as shown in table - 1**.**

Table 1: Definitions and notation of the dependent and independent variables

	Variables	Measures	Notation
Dependent variable	Return on assets	Net profit/Total assets	ROA
Independent variables	Total equity to assets	Total equity/Total assets	TEA
	Total loan & advance to assets	Total loan & advances / Total assets	TLD
	Total cash & cash equivalent to assets	Total cash &cash equivalent / Total assets	TCA
	Total investment to assets	Total investment/ Total assets	TIA
	Total operating expenses to assets	Total operating expenses/ Total assets	OETA
	Total operation expenses to operating income	Total operation expenses/ Total operating income	CIR
	Bank size	Natural logarithm of total assets (log A)	BS

Note: Internal Factors on Bank Profitability

In order to test the null hypothesis, the following model has been developed by using Pooled Ordinary Least Square (OLS) method.

Model: ROA = β0+TEA+TLD+TCA+ -TIA+OETA+CIR+BS - - - - - - - - - - - - - - - - - + e

Statistical Results and Analysis

This part of the paper will indicate descriptive statistics, correlation, and regression analysis of the relationship between the dependent variable and independent variables as well as among independent variables together.

4.1The main sources of income generated from the commercial banks in Bangladesh

From the study of the financial statement along with the notes thereon as shown in the Annual Reports of the selected banks; it is seen that the internal factors in commercial banks consist of the eight financial ratios analysis opinion on the average rank have been tabulated below:

Table 2: Average Ratios of the Study Variables from year - 2016 - 2020

BANK	ROA	TEA	TLD	T CA	TIA	OETA	CIR	BS
BANK ASIA	0.60	0.79	0.99	0.77	0.85	0.78	0.97	1.27
BRAC BANK	0.67	0.82	1.00	0.83	0.82	0.79	0.97	1.26
CITY BANK	0.64	0.80	1.00	0.79	0.82	0.72	0.94	1.26
DUTCHBANGLA	0.64	0.79	0.99	0.83	0.84	0.78	0.97	1.28
EBL	0.64	0.80	1.00	0.83	0.83	0.69	0.92	1.25
IFIC	0.59	0.79	0.99	0.81	0.83	0.78	0.97	1.25
JAMUNA BANK	0.63	0.80	0.99	0.76	0.85	0.80	1.00	1.23
MTB	0.60	0.77	1.00	0.77	0.83	0.78	0.98	1.23

NBL	0.67	0.86	1.04	0.81	0.89	0.82	0.97	1.24
NCC BANK	0.61	0.78	0.99	0.76	0.83	0.76	0.97	1.25
ONE BANK	0.60	0.77	0.99	0.79	0.83	0.68	0.87	1.24
SOUTHEASTB	0.60	0.80	0.95	0.78	0.87	0.78	0.97	1.28
STAND BANK	0.59	0.79	0.99	0.80	0.84	0.78	0.97	1.22
TRUST BANK	0.60	0.76	0.99	0.78	0.85	0.67	0.91	1.25
UCB	0.61	0.80	1.00	0.75	0.84	0.79	0.98	1.29
UTTARA BANK	0.61	0.79	0.97	0.79	0.85	0.78	0.97	1.21
AVERAGE	0.62	0.80	0.99	0.79	0.84	0.76	0.96	1.25
RANK	7	5	2	6	4	7	3	1

Source: calculated by the author

Table 2 depicts that the internal factors BS top the 1st rank with an average of 1.25 followed by TEA with an average of 0.99, CIR with an average of 0.96, TIA with an average of 0.84, TEA with an average of 0.80, TCA with an average of 0.79, ROA with an average of.062. All these figures show that all the eight financial ratios are found in this model during the study period as the internal factors of bank profitability in the selected banks.

4.2 The key indicators of internal factors that lead to a higher profit of commercial banks in Bangladesh

The descriptive statistics for all the variables used in this research are given in table - 2. It summarises the basic information about the data, such as the mean, standard deviation, maximum, minimum, and the total number of observations for each variable or their proxies.

Table 3: Descriptive Analysis of All the Dependent and Independent Variables%

Variables	N. of Obs.	Minimum	Maximum	Mean	Std. Deviation
ROA	80	.01	.05	.0094	.00587
TEA	80	.05	1.02	.0876	.10636
TLD	80	.09	9.95	1.0211	1.01893
TCA	80	.04	.42	.0794	.04697
TIA	80	.08	1.04	.1504	.10721
OETA	80	.01	.53	.0617	.06175
CIR	80	.22	2.95	.6956	.29881
BS	80	10.82	13.12	12.5196	.33991

Source: calculated by the author

Table 3 provides a summary descriptive statistics analysis for all the variables that are used in the study. On average, selected commercial banks on DSE or CSE stock market in our sample have a return on assets (ROA) of 0.0094% over the entire period from 2016 to 2020. Moreover, the standard deviation of ROA is 0.000587%; minimum and maximum values are 0.01 and 1.02% respectively. It indicates that there is a large difference between the bank having the largest ROA and the bank having the lowest ROA. Besides, the mean Bank Size (BS) is 12.52%, the standard deviation of.034%, the minimum value is 10.82% and the maximum value is 13.12%. The average of Total Equity to Assets (TEA) is 0.88%, the minimum value is 0.05% and the maximum value is 1.02%. While the mean of Total Loans to deposits ratio (TLD) which is one of the important ratios affecting to bank's profitability is an account for 1.02%, the minimum value is 0.90%, and the maximum value is 9.95%. There is a large difference between the bank having the highest rate of loans to deposit ratio and the bank having the lowest loans to deposits ratio. The total Average of Cash & Cash Equivalents to Assets ratio (TCA) is 0.79%, the minimum value is 0.04% and the maximum is 0.42%. The total Investment to Assets ratio (TIA) is 0.15% on average, while it varies between 0.08% and 1.04%. The table, also reports the mean of Operating Expenses to Total Assets (OETA) is 0.62%, and the bank has the largest ratio to be 0.53%. %. While, mean of Operating Expenses to Operating Income ratio (CIR) which is one of the important ratios internal factors to bank's profitability is an account for 0.70%, the minimum value is 0.80%, and the maximum value is 2.95% As regards the bank size, the mean for analysis was higher reached to 12.52%, as others variables.

4.3 The examine the relationship between these internal factors on commercial banks profitability

The relationships among the study variables depicted in the model were tested using correlation with ROA separately with determinants of the bank's profitability ratio, which is presented in Tables 4:

Table 4: Pearson's Correlations Matrix of Selected Banks

		ROA	TEA	TLD	TCA	TIA	OETA	CIR	BS
ROA	Pearson Correlation	1	.864**	.828**	.814**	.743**	.718**	.058	- .512**
	Sig. (2 - tailed)		<.001	<.001	<.001	<.001	<.001	.607	<.001
	N	80	80	80	80	80	80	80	80
TEA	Pearson Correlation	.864**	1	.984**	.820**	.935**	.860**	.093	- .548**
	Sig. (2 - tailed)	<.001		<.001	<.001	<.001	<.001	.414	<.001
	N	80	80	80	80	80	80	80	80
TLD	Pearson Correlation	.828**	.984**	1	.819**	.907**	.839**	.064	- .556**
	Sig. (2 - tailed)	<.001	<.001		<.001	<.001	<.001	.571	<.001
	N	80	80	80	80	80	80	80	80
TCA	Pearson Correlation	.814**	.820**	.819**	1	.687**	.648**	- .056	- .558**
	Sig. (2 - tailed)	<.001	<.001	<.001		<.001	<.001	.619	<.001
	N	80	80	80	80	80	80	80	80
TIA	Pearson Correlation	.743**	.935**	.907**	.687**	1	.840**	.145	- .499**
	Sig. (2 - tailed)	<.001	<.001	<.001	<.001		<.001	.198	<.001
	N	80	80	80	80	80	80	80	80
OETA	Pearson Correlation	.718**	.860**	.839**	.648**	.840**	1	.561**	- .515**
	Sig. (2 - tailed)	<.001	<.001	<.001	<.001	<.001		<.001	<.001
	N	80	80	80	80	80	80	80	80
CIR	Pearson Correlation	.058	.093	.064	- .056	.145	.561**	1	- .051

	Sig. (2 - tailed)	.607	.414	.571	.619	.198	<.001		.652
	N	80	80	80	80	80	80	80	80
BS	Pearson Correlation	- .512**	- .548**	- .556**	- .558**	- .499**	- .515**	- .051	1
	Sig. (2 - tailed)	<.001	<.001	<.001	<.001	<.001	<.001	.652	
	N	80	80	80	80	80	80	80	80

**. Correlation is significant at the 0.01 level (2 - tailed)
Source: calculated by the author

From the table, it is evident that there is a positive correlation found from the analysis of ROA with TEA, TLD, TCA, TIA, OETA, and CIR while the negative correlation with the BS. This indicates that with the TEA TLD, TCA, TIA, OETA, and CIR increase, there has been an increase in ROA. While the results show that with the rest of the variables decreasing, there can be an increase in ROA. TEA, TLD, TCA, TIA, OETA, and CIR have a very strong positive correlation with ROA, as it is logical that with the increase in efficient internal factors, the return on assets (ROA) will be the higher level of profits.

4.4 To assess the internal factors that might be the harmful impact of commercial banks

Regression analyses were calculated by using enters method and the following results have been drawn:

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.909[a]	.826	.809	.00257	.826	48.814	7	72	**<.001.**

a. Predictors: (Constant), BS, CIR, TIA, TCA, TLD, TEA, OETA
Source: calculated by the author

Referring to the table above, it was found that that the adjusted R - square value is.81 and from this, it is concluded that 81% of the variation in the dependent variable (ROA) is explained by the independent variables. The coefficient of determination (R - square) value is 0.83, which shows the highest percentage value that the independent variables explain 81% changes of ROA. The coefficient of correlation (R) of the model is 0.91, which states that there is a strong relationship between the internal factors (independent variables) and return on assets (ROA) (dependent variable).

Table 6: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.002	7	.000	48.814	<.001[b]
	Residual	.000	72	.000		
	Total	.003	79			

a. Dependent Variable: ROA
b. Predictors: (Constant), BS, CIR, TIA, TCA, TLD, TEA, OETA
Source: calculated by the author

From the table above it is known that the value of F - stat is 48.814 and is significant as the level of significance is less than 5%. In addition, this indicates that the null hypothesis is rejected and the alternative hypothesis is accepted. Hence it can be concluded that TEA, TLD, TCA, TIA, OETA, CIR, and BS have a significant impact on internal factors of private sector commercial banks measured by ROA.

Table 7: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.016	.014		1.186	.240
	TEA	.123	.022	2.228	5.634	<.001
	TLD	- .005	.002	- .871	- 3.025	.003
	TCA	.031	.012	.248	2.535	.013
	TIA	- .023	.009	- .428	- 2.736	.008
	OETA	- .040	.031	- .420	- 1.272	.208
	CIR	.004	.003	.217	1.285	.203
	BS	- .001	.001	- .056	- .880	.382

a. Dependent Variable: ROA
Source: calculated by the author

Since the hypothesis (H1 - 7) was developed based on the internal factors in selected commercial banks where the significant value of TEA and TLD are less than 0.05; as a result, null hypotheses (H0) are rejected and alternative hypotheses TEA and TLD are accepted. But in contrast, the significant value of TCA, TIA, OETA, CIR, and BS is more than 0.05; as a result, null hypotheses (H0) are accepted, and alternative hypotheses (TCA, TIA, OETA, CIR, and BS) are rejected. Thus, the ROA is predicted with about.81% explanatory power by the following model:

ROA = - .016+0.123TEA+ - 0.005TLD+0.031TCA+ - 0.023TIA+ - 0.040OETA+0.004CIR+ - 0.001 BS+ e

4. Conclusion and Policy Implementations

Due to the significant contribution of commercial banks in the economic progress role play in Bangladesh. Over the last period, the banking sector in Bangladesh had shown considerable expansion. Commercial banks take deposits from customers and provide loans to various types of businesses, industries, households, individuals, employees, etc. To determine the impact of internal factors those indicators on bank's profitability of the private commercial banks in Bangladesh. The necessary data were collected from 16 commercial banks listed by DSE and CSE in Bangladesh from secondary sources 80 observations during the 2016 - 2020 periods. Financial ratios were calculated and statistical tools including; (percentages, averages, the natural logarithm, Pearson's correlation, descriptive analysis of variance, and regression analysis) were utilized in testing the hypotheses and to measure the differences and similarities between the sample banks according to their different characteristics. Variables that were taken into consideration were returned on assets ratio (ROA), total equity to total assets (TEA), loan & advances to total deposits ratio (TLD), total investment to total assets ratio (TIA), total cash & cash equivalents to assets ratio (TCA), total operating expenses to total assets (OETA), total operating expenses to total operating income ratio (CIR) and the size of the bank (SZE).

The empirical results indicated that all the independent variables are statistically significant TCA, TIA, OETA, CIR, and BS related to profitability and hence indicate the profitability of commercial banks. From the analysis of t - statistics, p - values, and confidence intervals, we can reject the null hypothesis and accept the alternative hypothesis for the variables which means that the stated variables have a significant influence on the profitability of commercial banks in Bangladesh.

Finally, the present study is limited in scope as it relates to sixteen selected banks only. The study findings can be helpful for the management of the selected banks in Bangladesh to improve their internal factors and formulate policies that will improve their bank's indicators. The study also identified specific areas for the bank to work on which can ensure sustainable growth for these banks. There are lots of other internal factors that have an impact on the profitability which are not included in the study. So there is a scope for further study regarding the analysis. In addition, the analysis can be performed by using other profitability measures such as ROE (Return on Equity).

It could be argued that the more profitable financial institution especially banks will be able to offer more new products and services. In this regard, capital base, asset quality, management efficiency and accountability, healthy competition, technological advancement are particularly important for ensuring sustainable operations of banks as well as for contributing to the both national and international economy as a whole.

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