



MAJOR DETERMINANTS ON THE PROFITABILITY OF SRI LANKAN LOCAL COMMERCIAL BANKS

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Abstract:

The main purpose of this study is to investigate the relationship between bank-specific factors and the profitability of local commercial banks in Sri Lanka. Thus, finding the main internal characteristics for achieving higher profitability. In this research, OLS regression analysis is used to examine the relationship between bank-specific characteristics and bank's profitability for a sample of 11 major Sri Lankan local banks during 12 years period from 2006 to 2017. The findings reveal that assets base and size of branch network are the main determinants of bank's profitability, by showing a significant relationship with all measures of profitability. Net profits of banks show a significant relationship with size of branch networks and total assets, but insignificant with deposit interest ratio. However, loan interest ratio and deposit interest ratio together have a significant effect on net interest margin thus leading an impact on banks' profitability. This study is an extension and a country application to the research carried-out by Kassem N.M. & Sakr A (2018) on Commercial Banks in Egypt.

JEL: G20; G21

Keywords: profitability, size of branch network, total assets, average loans interest rate, average deposit interest rate, Sri Lankan local commercial banks, CASA (Current Accounts-Savings Accounts) deposits, Central Bank of Sri Lanka (CBSL)

1. Introduction

In any country, banks act as financial intermediaries between money-savers and the money-borrowers helping to transfer funds from one to another. Hence, Banks

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represent one of the most vital groups in the financial market. The banking sector fulfils a crucial economic function in providing financial intermediation and economic acceleration by converting deposits into productive investments which would help to run the economy of any country. In this respect, banks are important providers of funds, and their stability is relevant and critical for the financial system (Menicucci and Paolucci, 2016). The banking industry is a crucial pillar for the stability and development of an economy's financial system through the efficient allocation of the national savings to prompt various investments and growth rates (Jreisat, Hassan and Shankar, 2018). In addition, the stability of the financial system is fundamental for both the overall economic development and the effectiveness of the central bank monetary policy. In other words, the financial development benefits the economy by increasing efficiency of saving mobility and resource allocation to productive sectors (Tongurai and Vithessonthi, 2018; Greenwood, Sanchez, and Wang, 2010; King and Levine, 1993). Moreover, increasing the efficiency of the financial sector enhances the economic growth through reducing agency cost (Aghion and Mayer-Foulkes, 2005) and promoting risk-sharing in the economy (Bencivenga and Smith, 1991).

Banks play a major role in the operation of Sri Lankan economy. The importance of banks' profitability in the economy is not only assessed at the SME level, but also at the macro-level. Profit is the significant requirement of a competitive banking institution, as it is essential for running the business in a period of growing competition on financial markets. Thus, the main purpose of a bank's management is to realize profits, as the critical condition for conducting any business. Profit is the main element in the existence, growth, and survival of any organization (Menicucci et al., 2016). Therefore, understanding the determinants of bank's profitability is essential to the stability of the economy as the well-being of the banking sector is critical to the welfare of the economy at large (Menicucci et al., 2016). During last decade, studies regarding the evaluation of bank performance, particularly commercial banks, have recorded an increase of attention to them. This amplifies the importance of this paper which focuses on the Sri Lankan banks of home ownership and studying the impact of bank-specific elements on its profitability. Therefore, the objective of this paper is to investigate the specific determinants of Sri Lankan banks' profitability, by collecting actual data over the period 2006-2017.

2. Literature Review

2.1. Introduction

Several studies have attempted to examine the effect of bank characteristics on its profitability in many countries of the world. Following the early work edited by Short (1979) and Bourke (1989), an extensive number of recent studies have examined the major determinants of banks' performance and profitability in many countries of the world. Some researches undertaken are based on profitability analysis of a panel of countries and majority of studies are focused on the banking Industry in a single country performance, Ben Naceur and Goaeid (2001), Athanasoglou et al., (2008),

Garcia-Herrero et al., (2009). In addition, previous studies have classified the major factors into two main categories; internal and external factors. The internal factors are influenced by the bank's management decisions and policy objectives. While the external factors are determinants that are beyond the control of bank's management but reflect the macroeconomic, political and legal factors that affect the operation and performance of banks. This study focuses solely on investigating the effect of internal determinants of bank's profitability in Sri Lanka hence literature of this study are quoted in regard to profitability determinants of similar previous studies.

2.2. Bank-Specific Determinants

This study attempts to identify the main independent variables used in the research to investigate their effect on the banks' profitability. Among several internal and external determinants of profitability as previously mentioned, the most commonly used bank-specific characteristics are considered in this study as potential determinants of Sri Lankan banks' profitability are Size of bank's branch network, Total assets of the bank, Average Loan Interest Rate, Average Deposit Interest Rate and finally Net Interest Margin as a composite of loan and deposit interest rates.

2.2.1. Size of Branch Network

Size of branch network is considered to be a crucial variable in the determination of bank's profitability in Sri Lanka in view of market power to capture more business opportunities. Thus, one of the most significant questions in literature is whether bank branch network size maximizes bank profitability (Hirtle, 2015). Several studies have investigated the association between bank size and profitability resulting in different findings, however many evidences confirmed the role of size as a determinant of bank profitability. According to the market power hypothesis, banks with large market shares and well-diversified products are able to exercise market power in pricing those products to earn above average profits. In addition, in a highly-concentrated banking sector, large banks benefit from economies of scale and other size-related advantages (Goddard et al., 2004). On the other hand, product and risk diversification may lead to a negative relationship between size and profitability as the high diversification could determine higher risks. However, the evidence of such economies is not certain since the findings do not reveal that an increase in size will always amplify the profitability level (Menicucci et al., 2016). Mostly, prior studies on the effect of bank network size on its profitability line with the argument that larger banks benefit from economies of scale and cost reduction (Ben Naceur and Goaid, 2008; Bourke, 1989; Molyneux and Thornton, 1992; Bikker and Hu, 2002; Goddard et al., 2004a, 2004b), therefore they are expected to have higher levels of performance than smaller banks. Based on the relative efficiency hypothesis (Clarke et al., 1984), only at a specific level, if the relative size of an organization enlarges, its market power, reduced risk and economies of scale lead to the increase of its operational efficiency. However, an inverse relationship was also found by Aladwan (2015), Saeed (2014), Sufian and Habibullah (2009), and Kosmidou et al., (2008) for some conventional large banks. Dietrich and Wanzenried (2011), in their

banking performance study, concluded that a negative relationship observed in large banks depends on huge losses caused by several irrecoverable loans. Therefore; as in the literature, size of branch network is included in this study as an independent variable and it is measured by total assets. Based on main literature review, a bank's profitability has been stated to be positively associated with size and it is hypothesized that:

H1: There is a significant positive relationship between size of branch network and bank profitability.

2.2.2 Total Assets

Like in any other profit-oriented organization, banks' profitability is also depending on the power of asset base especially interest earning assets. World Bank Global Financial Development Report 2017-18 indicates that well managed and timely priced asset base is the major contributor for profitability of banks. The asset growth of banks can directly impact their overall profitability. As per Mehta & Bhavani (2017), growing banks have ample opportunities, which may lead to better profitability than that which banks with low growth experience. Hence, the growth of the banks was measured in terms of the growth of their total loans. However, banks should be mindful to maintain a proper asset quality and failure of which may adversely impact on overall profitability. accordingly, a higher non-performing asset ratio would be problematic for a bank, resulting in the deterioration of its profitability. Hence, it can be hypothesized that:

H2: There is a positive significant relationship between total assets and bank profitability.

2.2.3. Average Loan Interest Ratio

A low average loan interest offered can act as a stimulator for generating higher loan volumes thus recording a higher volume of interest income which directly contributes to profitability. Still loans are the main source of income and are estimated to have a positive impact on bank performance (Menicucci et al., 2016). Also, various literatures found a positive relationship between liquidity and profitability (Bashir, 2003; Sufian and Habibullah, 2009). In addition, various prior studies support the positive relationship between loan interest ratio and bank's profitability. Since loans are the main source of income for the banks, therefore the more the banks will lend, the higher will be the profitability as they earn large amount of interest from its financing in various sectors of the economy. Results of studies by Abel and Le Roux (2016) in Zimbabwe, and Tariq & Usman, Aman, and Ali (2014) in Pakistan are consistent with the previous argument. However, the empirical results of studies regarding the relationship between the level of liquidity and profitability in banks are diversified. An extremely high loan interest ratio could imply that banks have slowly grown loans portfolio, paying a higher cost for their funding requirements, thus affecting the profitability negatively. In addition, a large credit portfolio might lead to a drop in the credit quality and thus reducing bank profits as it consists mainly of high-risk loans which could cause lower returns and financial losses. In this regard, Duca and

McLaughlin (1990), among others, concludes that variations in bank profitability depend mainly on changes in credit risk. Previous studies carried out in Egypt such as Abobakr (2018), and El-Ansary et al., (2016) showed that a higher loan interest ratio influences profitability negatively. Other studies carried out by Menicucci et al., (2016), Saeed (2014), Growe et al., (2014), Alper and Anbar,(2011), Hassan and Bashir, (2005), and Staikouras and Wood, (2004) have also confirmed the negative effect of higher loan interest ratio on the bank's profitability due to less demand for loans. Hence, it is possible to conclude that competitive loan interest ratios can quickly contribute to larger credit portfolio affects its profitability positively depending on the level of credit quality. However, with respect to the majority of the prior studies, the next hypothesis is suggested as follows:

H3: There is a positive significant relationship between loan interest ratio and bank profitability.

2.2.4. Average Deposit Interest Ratio

Banks rely significantly on customer deposits to allocate credits to other customers. Thus, enabling banks to provide more loan opportunities. In general, with deposits being the main source of funding for banks, it is commonly assumed that customer deposits affect banking performance positively, if there is a satisfactory demand for loans in the market. It is expected that higher growing CASA (Current Accounts-Savings Accounts) deposits would be able to expand the business of the bank in a competitive manner and consequently generate more margin in profits (Menicucci et al., 2016). However, several factors affect the impact on profitability that are caused from increase in banks' deposits (Menicucci et al., 2016). First, the impact is affected by the bank's ability to transform deposit liabilities into income-earning assets. In addition, empirical evidence from Ben Naceur and Goaid (2001) showed that the best-performing banks are those that have preserved high levels of consistent deposit accounts related to their assets. Correspondingly, Abobakr (2018), Kawshala et al., (2017), Islam et al., (2017), and Menicucci et, al. (2016) highlighted that the amount of deposits to total assets has a positive and significant impact on profitability. CASA deposits generally improve the lending capacity and thus result in higher profits. Surprisingly, various studies have shown negative relationship between deposits to total assets ratio and bank's profitability. Even though deposits are considered as the cheapest source of funding for banks, it can affect the profitability negatively when not efficiently transformed into investment opportunities (Abobakr, 2018). Consistently, previous researches by El-Ansary et al., (2016), Saeed (2014), and Alper and Anbar (2011) concluded a negative correlation between deposit ratio and profitability that might be due to low investment opportunities available. Finally, the relationship between the bank's deposit interest ratio and its profitability is not yet conclusive. The effect of fund source on profitability is captured by deposits over total assets ratio and is based on various prior studies. It can be hypothesized that:

H4: There is a positive significant relationship between deposit interest ratio and bank profitability.

3. Research Methodology

The statistical techniques used for the analysis are descriptive statistics such as mean and standard deviation and Pearson's Coefficient of Correlation and OLS regression analysis. The regression analysis includes alternatively two different measures of profitability as dependent variables; ROA and NIM, and four determinants of profitability as independent variables; Size of branch network, Total assets, Average Loan Interest rate and Average Deposit Interest rate. Finally, results were compared in four models in order to arrive conclusions of the study.

3.1. Data Collection and Sample Selection

The population data of this research includes all listed and non-listed (government owned) local commercial banks in the Sri Lankan banking industry, including both private and government banks. As per CBSL report published for 2017, the total number of such banks operating in the Sri Lankan market was 11. The collected data in this research are collected from secondary sources, and the main source of the research data is the banks' website where the banks disclose the audited annual reports for their stakeholders. Using a convenience sampling technique, a selected sample of 11 working banks registered with CBSL during the period of 2006 to 2017 were selected for data collection of this study.

3.2. Dependent and Independent Variables

3.2.1. Dependent Variables

Although there are various measures for profitability among previous banking studies, in line with prior literatures inspecting the determinants of banks' profitability, two most commonly used measures of bank profitability will be relied on as the dependent variable. This study considers return on assets (ROA) and net interest margin (NIM) as alternative measures of profitability.

3.2.1.1. Return on Assets

Return on Assets (ROA) measures how effectively the bank's assets are managed to generate profits (Golin, 2001; Hassan and Bashir, 2005). ROA is the ratio of net income to total assets (Islam et al., 2017; El-Ansary et al., 2016; Rahman et al., 2015; Chinoda, 2014; Growe et al., 2014; Alper and Anbar, 2011; Oslan and Zoubi, 2011; Mirzaei and Mirzaei, 2011; Liu and Wilson, 2010; Sufian and Chong, 2008).

3.2.1.3. Net Interest Margin

An important measure of bank profitability is the net interest margin (NIM). It is expressed by the difference between the interest income generated by banks and the amount of interest the bank must pay to its depositors and creditors from whom it has borrowed funds, divided by the average amount of their interest-earning assets. The NIM is used in various studies of bank performance since it quantifies the profitability of the bank's interest-earning business as explained by Menicucci et al., 2016, Garcia et al., 2016, and Ben Naceur and Goaid, 2001.

3.2.2. Independent Variables

Based on the literature review on the previous studies on banks' profitability, there are several bank-specific variables that help in determining the profitability and performance of banks. However, the following four independent variables are based to the current study.

3.2.2.1. Size of Branch Network

The majority of the previous studies used size of branch network as a key indicator of bank performance, such as Kohlscheen et al., (2018); Kawshala and Panditharathna (2017); Menicucci et al., (2016); Yakubu (2016); Pradhan and Shrestha (2016); Flamini et al., (2015); Aladwan (2015); Saeed (2014); and Ally (2014).

3.2.2.2. Total Assets

Total assets of a bank can be considered the main determinant of profitability especially loan portfolio of the bank which generates interest income. Trujillo-Ponce (2007). Total assets is mainly consisted with interest earning loans and advances portfolio which is generally over 90% of total assets and a nominal share of assets are represented by fixed assets such as lands and buildings.

3.2.2.3. Average Loan Interest Rate

The average loan interest rate is used to examine the efficiency of the bank's asset portfolio management. With reference to various previous literatures, loan interest rate is commonly measured by weighted average loan interest rates of bank's loan product portfolio (Menicucci et al., 2016; El-Ansary et al., 2016; Saeed, 2014; Tariq et al., 2014; Ben Naceur, 2013).

3.2.2.4. Average Deposit Interest Rate

Generally, deposits are considered to be a crucial source of funding for banks. As discussed above, the major impact to the profitability is caused by low cost CASA deposits. This has been discussed in prior studies such as El-Ansary et al., (2016); Saeed (2014).

3.3. Research Model

A linear regression model can be used to test the relationship between banks' profitability and bank-specific determinants of profitability such as Size of Branch Network, Total Assets, Average Loan Interest Rate, and Average deposit interest Rate. Accordingly, most of the previous studies on banks' profitability, such as Short (1979), Bourke (1989), Molyneux and Thornton (1992), Demirguc-Kunt and Huizinga (1999), Athanasoglou et al., (2006), Garcia-Herrero et al., (2009), and Goddard et al., (2004a) used linear models to assess the impact of different factors that may be significant in explaining profitability. To examine the profit determinants of Sri Lankan local commercial banks, a linear regression model is formulated as follows:

$$\gamma_x = \delta_0 + \alpha_2 \text{SIZENET}_{jt} + \alpha_1 \text{ASSETS}_{jt} + \alpha_3 \text{LOANSRT}_{jt} + \alpha_4 \text{DEPOSRT}_{jt} + \epsilon_{jt}$$

Where γ_{xt} is the profitability of bank x at time t .

Two indicators, namely, ROA and NIM, represent four alternative profitability measures for the bank x during the period t . Hence, four models are alternatively tested in the analysis, and each one includes a different measure of profitability (dependent variable). For the independent variables; size of branch network is represented by SIZENET and ASSETS is represented by total assets of the bank. LOANSRT is the Average loans Interest rate finally DEPOSRT is Average Deposit Interest rate. These models are tested for periods from 2006 to 2017.

4. Findings and Analysis

This section emphasizes the empirical study and findings of testing the research hypotheses. In addition, it deals with presenting the results of summary statistics of each variable in the research, showing the effect of bank specific variables on banks' profitability. Data analysis had been performed where descriptive statistics is presented as a preliminary step of the research findings. Afterwards, the hypotheses are tested using OLS regression analysis.

4.1. Descriptive Analysis

Table 4.1. shows the summary statistics for 12 years covering dependent and independent variables used in the research model. Firstly, the profitability data, the value of ROA has a very narrow dispersion in the scores, as revealed by the minimum, maximum and standard deviation values. On average, the Sri Lankan banks included in this sample exhibit a ROA of 1.1333 over the entire period 2006 to 2017. The ROA ranges from 1.0 to 1.8, and the standard deviation for ROA is 0.2640. This difference between mean and standard deviation points out great differences among the profitability of banks. As for the ROA, the data ranges from -0.08 to 0.06 with a mean of 0.0125 and a standard deviation of 0.01482.

The data displayed for NIM in this sample indicates that the observations in the data set are close to the mean and that no significant discrepancies are shown between banks. In addition, NIM ranges from 3.2 to 4.6, with an average of 4.042 and standard deviation of 0.4889, showing that there are only few variations. This explains that the interest rates on all types of finances are relatively consistent among almost all Sri Lankan commercial banks.

Table 4.1: Descriptive Statistics

	No of years	Minimum	Maximum	Mean	Std. Deviation
Av.Deposits %	12	6.2	11.6	8.097	1.8658
Av.Loan Rate%	12	10.0	22.2	14.125	3.9153
Size of Branch network	12	3769	5844	4923.83	768.795
Total Assets (in Rs. Billions)	12	1461	7572	3872.42	2079.954
Ret. on Assets	12	1.0	1.8	1.333	.2640
Net.Int.Margin%	12	3.2	4.6	4.042	.4889
Valid N (listwise)	12				

In the concept that the data reveals no wide variations in ROA and NIM has supported the idea that almost all banks in the country apply relatively similar interest rates for almost all kinds of finances.

Secondly, the independent variables which shows a wide range of variations. Specifically, total assets and size of branch network show the highest dispersion, similar to results of Abobakr (2018); and Menicucci et al., (2016). Branch network size ranges from 3,768 to 5,844, with a mean of 4,923 and a standard deviation of 768. As for total assets, the minimum and maximum values are 1461 and 7572, respectively, the mean is 3,872, and the standard deviation is 2,079. The wide dispersion for both variables is revealed since the sample includes banks of different sizes and some banks are well established for a long period, while others are smaller in size. Finally, the loan and deposit interest ratios have similar minimum and maximum values, means and standard deviations indicating no major disparities in pricing. Descriptive statistics results for the independent variables of this study are relatively similar to some recent studies carried out on South Asian banks.

4.2. Regression Analysis

The linear regression is used in this study by the OLS method. To justify using OLS, there are four main assumptions; linearity, normality and autocorrelation, homoscedasticity, and multicollinearity. Firstly, the linearity assumption was checked by plotting the dependent versus the independent variables for the three models, and the results show the existence of linear relationships. Moreover, visual indicators of normality (P-P plot and histogram) showed that data were normally distributed in either the histogram or P-P Plot for the four models tested. Results of the Pearson's correlation analysis conducted are presented in table 4.2. confirm some existence of multicollinearity between some independent variables.

Table 4.2: Pearson's Correlation Matrix

		Total Assets	Av. Deposits%	Av. Loans%	Size of Branch network	Ret. on Assets	Net. Int. Margin%
Total Assets	Pearson Correlation	1					
	Sig. (1-tailed)						
Av. Deposits %	Pearson Correlation	-0.206	1				
	Sig. (1-tailed)	0.260					
Av. Loans %	Pearson Correlation	-0.640*	0.585*	1			
	Sig. (1-tailed)	0.013	0.023				
Size of Branch Network	Pearson Correlation	0.932**	-0.193	-0.771**	1		
	Sig. (1-tailed)	0.000	0.273	0.002			
Ret. on Assets	Pearson Correlation	0.175	-0.255	-0.562*	0.409	1	
	Sig. (1-tailed)	0.294	0.212	0.029	0.094		

Net.Int.Margin%	Pearson Correlation	-0.868**	0.249	0.561*	-0.746**	0.031	1
	Sig. (1-tailed)	0.000	0.218	0.029	0.003	0.462	
*. Correlation is significant at the 0.05 level (1-tailed).							
**. Correlation is significant at the 0.01 level (1-tailed).							

Regression results indicate that certain variables such as Total assets against NIM, Total assets against Loan interest rate, Total assets against Deposits rate, Size of Branch Network against Loan interest rate and Size of Branch Network against Deposits rate show negative correlations thus no correlation exist among them. According to Bryman and Cramer (1997), Pearson’s correlation between independent variables is considered as a problem if it is higher than 0.80 (Kennedy, 2008). As shown in table 4.2 the highest correlation, exists between independent variables, is 0.942 of size of branch network against total assets which is well above 0.80 denote that it is obvious to report high profits by large banks with large assets bases. Thus, according to Pearson’s correlation, there is multicollinearity between those independent variables used in the research model.

4.2.1. Testing the effect of bank-specific variables on banks’ profitability

The statistic method used in this study was Ordinary Least Squares regression (OLS), commonly named linear regression (simple or multiple depending on the number of explanatory variables) which corresponds to minimizing the sum of square differences between the observed and predicted values. The following table 4.3 presents the results of ordinary least squares (OLS) regression used in testing the relationship between bank-specific variables and bank’s profitability for the whole period from 2006 to 2017 for the four models.

Table 4.3: Regression Analysis Results (2006-2017)

Variables		Model 1 ROA	Model 2 Loans Int. Rate	Model 3 Deposit Int. Rate	Model 4 Network Size
Total Assets	Coefficient	0.175	-	-	-
	Sig.	0.294	-	-	-
Net Interest Margin	Coefficient	-	0.561	0.249	-
	Sig.	-	0.058	0.436	-
Net Profit	Coefficient	-	-	-	0.966
	Sig.	-	-	-	0.000
R-square %		3.0%	31.4%	6.2%	93.3%
F		0.314	4.587	0.660	138.964

4.2.1.1. Regression Analysis using Size of branch network (SIZENET) as Independent Variable

As per Kondo (2017), expansion of Japanese banks has positively contributed towards mobilizing more CASA (low cost deposits) for increased number of loans in order to record a substantial growth in banks' profitability. Accordingly, same determinant was tested in current study as well and found that coefficient was as high as 0.966 (close to 1) thus indicating banks with large networks have always generated higher profits compared to the banks with smaller branch networks. This was further confirmed by p-value of 0.000. Hence, H1 is accepted.

4.2.1.2. Regression Analysis using Total Assets (ASSETS) as Independent Variable

The results show that the total assets base has a coefficient of 0.175 with ROA where p-value is above 0.05 thus supporting the argument that larger banks with larger assets base benefit from economies of scale and achieve higher profitability. But for loan interest ratio and deposit ratio, results show a negative insignificant effect on ROA, -0.640 and -0.206 respectively. Therefore, supporting the argument that the bank's profitability increases by improving the quality of assets and the bank's credit quality. Similar to the results reflected in previous studies such as Saddique et al., (2017); Pradhan et al., (2016); and Menicucci et al., (2016). Accordingly, it reflects that loan quality is more important than its quantity in achieving higher profitability. Therefore, H2 is accepted, when ROA is used as a measure of profitability.

4.2.1.2. Regression Analysis using Average loans interest rate (LOANSRT) as Independent Variable

Similar to the results of model 1, loan interest rate shows a positive significant effect on bank's profitability when using NIM as a measure of profitability. The results are consistent with the findings of various prior studies such as Abobakr (2018), Kawshala et al., (2017), Menicucci et al., (2016), and Saeed (2014). Accordingly, supporting the argument that well priced loans (priced in a way to optimize quantity and quality) tend to be more profitable as they tend to yield high interest income volumes. The positive relationship between loan ratio and NIM implies that more loans aid in achieving higher profitability as they are considered the main source of income due to high coefficient of 0.561 the effect is conclusive as the p-value is 0.058 almost same over accepted rule of 0.05. Hence, H3 can also be accepted.

4.2.1.3. Regression Analysis using Average deposits interest rate (DEPOSRT) as Independent Variable

Similar to the first and second models, the regression results show that deposit interest rate has a positive significant effect on NIM with a coefficient of 0.249 but a p-value well above 0.05. Hence, it is likely to support the argument that well priced deposits rates (optimum deposit rates to attract adequate number and volume of depositors as well as to manage liquidity and funding requirements) may yield an optimum NIM in order to increase banks' profitability. Accordingly, H4 can be partially accepted.

4.3. Summary

In conclusion, after conducting the regression analysis to analyze the impact of bank-specific variables such as size of branch network, total assets, loan interest ratio and deposit interest ratio, it is proved that all can be identified as major determinants of banks' profitability in Sri Lanka during the period of 2006 to 2017. Accordingly, all hypotheses; H1, H2, H3 and H4 were accepted signifying the positive effect on bank profitability mainly by two determinants; size of branch network and total assets.

5. Conclusion

As the banking system in any country is crucial for stabilizing the financial system and economic development; during current decade, number of studies is on increase on the assessment and analysis of banking performance and profitability especially for commercial banks (Nuhiu et al., 2017). The main aim of this study was to determine the bank-specific factors that affect the profitability of local commercial banks in Sri Lanka for the period 2006 to 2017. The results indicate that size of branch network and total assets can be identified as major determinants of the Sri Lankan banks' profitability, supporting the argument that large banks take the advantage of economies of scale. The findings also show that effective management of loans and deposit interest rates is a crucial determinant of bank profitability. On the other hand, regression analysis shows that higher loan interest rate and lower deposit rate may not the only factor that lead to higher profitability. Based on the empirical results, it is difficult to find a conclusive impact on profitability in all cases. Hence, the impact of Net Interest Margin arisen due to loan interest ratio and deposit interest ratio may not adequate enough to clarify the changes of Sri Lankan local banks' profitability. Consequently, future studies could be conducted by analyzing other internal and/or external variables that could affect a banks' profitability. Moreover, future studies are suggested to do on increasing the number of banks analyzed and could focus on banks from other continents such as Europe or Africa to validate the reliability of findings presented in the study.

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Appendix

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	.175 ^a	.030	-.066	2147.984	.030	.314	1	10	.587

a. Predictors: (Constant), Ret. on Assets

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1449937.536	1	1449937.536	.314	.587 ^b
	Residual	46138355.380	10	4613835.538		
	Total	47588292.917	11			

a. Dependent Variable: Assets Value
 b. Predictors: (Constant), Ret. on Assets

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2038.793	3329.149		.612	.554
	Ret. on Assets	1375.217	2453.171	.175	.561	.587

a. Dependent Variable: Assets Value

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	.561 ^a	.314	.246	.4245	.314	4.587	1	10	.058

a. Predictors: (Constant), Av.W.Lending%

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1 Regression	.827	1	.827	4.587	.058 ^b	
Residual	1.802	10	.180			
Total	2.629	11				

a. Dependent Variable: Net.Int.Margin%
 b. Predictors: (Constant), Av.W.Lending%

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.053	.478		6.389	.000
Av.W.Lending%	.070	.033	.561	2.142	.058

a. Dependent Variable: Net.Int.Margin%

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	.249 ^a	.062	-.032	.4966	.062	.660	1	10	.436

a. Predictors: (Constant), Av.W.Deposits%

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1 Regression	.163	1	.163	.660	.436 ^b	
Residual	2.466	10	.247			
Total	2.629	11				

a. Dependent Variable: Net.Int.Margin%
 b. Predictors: (Constant), Av.W.Deposits%

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.514	.665		5.280	.000
Av.W.Deposits%	.065	.080	.249	.812	.436

a. Dependent Variable: Net.Int.Margin%

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	.966 ^a	.933	.926	8.3348	.933	138.964	1	10	.000

a. Predictors: (Constant), No of Branches

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9653.632	1	9653.632	138.964	.000 ^b
	Residual	694.685	10	69.468		
	Total	10348.317	11			

a. Dependent Variable: Profit after Tax
 b. Predictors: (Constant), No of Branches

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-132.816	16.274		-8.161	.000
	No of Branches	.039	.003	.966	11.788	.000

a. Dependent Variable: Profit after Tax

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