

THE IMPACT OF THE COVID-19 PANDEMIC AND ECONOMIC CRISIS ON THE PERFORMANCE OF LICENSED COMMERCIAL BANKS IN SRI LANKA

Samarasinghe S.L.G.M.M.¹ and Lakmal W.A.I.²

Received: March 2024

Revised: May 2024

Accepted: May 2024

Abstract

Sri Lanka faced an array of incidents starting from the Easter Sunday attack in 2019 to COVID-19 pandemic and the Economic Crisis which caused disastrous effects on the economy. Despite the policy measure taken, the banking sector was severely affected by soaring Non-Performing Loans (NPLs) levels and dwindling profits. Therefore, the main objective of this study is to evaluate the impact created by the series of adverse economic and social issues from 2019 on the performance of the banking sector in terms of profitability and NPLs using a sample of 12 licensed commercial banks. The data were collected from secondary sources such as annual reports issued by the banks and the Central Bank for the period 2013-2022. The impact of the Easter attack, Pandemic, and Economic Crisis are referred to using a dummy variable, inflation, Gross Domestic Product (GDP) growth rate, and interest rate are used to measure the impact of the macroeconomic environment on the banking sector performance and capital adequacy ratio was used as a control variable. Return on Equity, Return on Assets, and NPLs were used to measure the bank's performance. The results of the random effects panel regression models suggest that there is a significant impact of the Pandemic, Economic Crisis, and GDP growth rate on the performance of the banking sector. This research indicates that a country like Sri Lanka needs to take aggressive policy measures to face these adverse situations. It is required to take credit risk mitigation measures and provide quality loans to curtail the adverse impact caused by the NPLs.

Keywords: COVID-19 Pandemic, Economic Crisis, Easter Attack, Banking Sector, Financial Performance, Sri Lanka

¹ Lecturer (Probationary), Faculty of Business Studies and Finance, Wayamba University of Sri Lanka *Corresponding author. Email: malmis@wyb.ac.lk

² Senior Lecturer, Faculty of Business Studies and Finance, Wayamba University of Sri Lanka. Email: lakmalwai@wyb.ac.lk

1. Introduction

The economic crisis and the macroeconomic instability in Sri Lanka began in 2019 and are considered as the worst economic crisis faced by the island nation since its independence in 1948. This resulted in extraordinary levels of inflation, depreciation of foreign currency reserves and rupee value, the decline in gross domestic production, hiking interest rates, and shortage of essentials including oil, gas, power and medical supplies. The crisis is a result of multiple interconnected factors including populist tax structures such as tax cuts, excessive money printing, shifting production practices such as a nationwide policy to shift to organic fertilizer, Easter bombing, and the adverse impact from COVID-19 pandemic. This sequence of factors led to civil unrest where protests broke in Sri Lanka in 2022 due to the unending difficulties faced by people such as long fuel and gas queues, lack of medicines, skyrocketing prices of daily goods and long hours of power cuts. The civil agitation created political and social instability in the country (Madurapperuma, 2022; Kataria *et al.*, 2022).

The sequence of causes for the crisis began with the terrorist attack on the 21st of April in 2019. The economy destroyed by the Easter bomb blast was further affected by the COVID-19 pandemic which started in December 2019 in Wuhan, China. Resultantly the Sri Lankan economy contracted 3.6% in real terms in 2020, owing to mobility restrictions and other measures taken locally and internationally in order to prevent the spread of the virus, this hampered the economic activities in all sectors where industries such as tourism, construction, manufacturing sectors contracted sharply (CBSL, 2020). The domestic economy which was facing difficulties induced by the COVID-19 pandemic started to confront escalated foreign currency and external debt distress in early 2022 after recovering from the pandemic in 2021. The rise in the current economic distress emerged as a result of the pandemic coupled with fiscal issues and vulnerabilities such as changes in the tax structure in 2019 which widened the fiscal deficit even further (Kataria *et al.*, 2022). With the decline in government revenue, to cover government expenses, the CBSL accelerated money printing by printing more than 2.3 trillion rupees since January 2020 to first quarter of 2022, becoming the world's worst-performing currency (Economynext, 2022). Moreover, the government made another blunder by only permitting organic farming and banning the import of all inorganic fertilizers which resulted in the decline in agricultural crops including rice and tea (George and Basker, 2022).

The humungous amount of foreign debt at high interest rates with strong conditions from international financial organizations is a key factor for the crisis. The total government debt surged to nearly 126% of the GDP as of first quarter of 2022 (Economynext, 2022). While the foreign debt was nearly USD 51 billion (DeVotta, 2022). The heavy borrowings were mainly generated through International Sovereign Bonds (47%) as of April 2021, followed by the Asian Development Bank (13%) and China (10%) (Aljazeera, 2022). With the usage of foreign reserves in debt payments, reduction in income from tourism, and decline in remittances led to deteriorating the usable foreign reserves in the country to around USD 50 million as of May 2022 creating shortages in essential goods and creating public agitation (Mallawarachi, 2022). As mentioned above, years of mismanagement, poor decision

making, corruption led towards the bankruptcy of the country as the government defaulted foreign debt in for first time in history as of May 2022 (BBC, 2022).

Sri Lankan banking system and the impact of Covid -19 and economic crisis on banking sector performance

Banks act as financial intermediaries and perform key financial functions in the economy such as providing a payment mechanism, matching supply and demand in financial markets, dealing with complex financial instruments and markets, providing market transparency and performing risk management and risk transfer functions (Weerasinghe and Perera, 2013). Therefore, a sound and profitable banking sector which can withstand negative shocks and contribute to the stability of the financial system is important (Athansoglou et al., 2006). Due to the significant importance of the banking sector for a sustainable economic growth it is very much vital to evaluate the financial performance of the banking sector of Sri Lanka for the past decade. Since the financial performance of a bank depends on both internal and external factors (Staikourous and Wood, 1998; Sufian, 2011; Athansoglou et al., 2006) an understanding of these factors is essential and crucial to the growth and stability of the economy.

The banking sector in Sri Lanka is comprised of Licensed Commercial Banks (LCBs) and Licensed Specialized Banks (LSBs) and dominated the financial system accounting for the largest asset share (around 61.9%) of the financial sector at the end of 2022 (CBSL, 2022). An important role is played by the banking sector and the financial system as a whole as they provide the liquidity to the entire economy, in providing payment and settlement systems and transforming risk characteristics of assets. The soundness of the banking system is critical as any failure can create negative impact to the entire financial stability of the country.

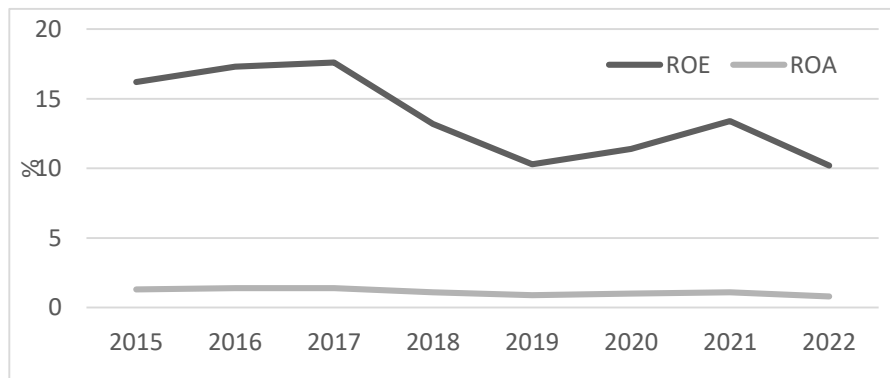
The banking sector is comprised with 30 banks as at the end of 2022, where LCBs are the single most important category in the banking sector owing to the asset base and the magnitude of services provided with 24 banks including 11 branches of foreign banks as at the end of 2022 and accounting for nearly 54.9% of the assets of the financial system and around 71.9% of the assets of the banking sector as at the end of 2022 (CBSL, 2022).

Thus, the health of the financial system relies on the soundness of the LCBs, mainly on the performance of the systemically important banks in the country. As financial intermediaries, banks play an important role in the operation of an economy (Vong and Chan, 2006) and act as the lifeblood of modern trade and commerce to provide them with a major source of finance (Gul et al., 2011). The banking sector's performance was directly affected by the subdued economic activities of the country during the past few years. However, the banking sector was able remain resilient despite the adverse economic environment which prevails due to the terrorist attack in 2019, COVID -19 pandemic, financial crisis and political uncertainties which aroused one after the other since 2019 to the current day. The financial system which remained resilient in terms of expansion, profitability, and credit quality until 2019 experienced a decline and slowed down performance during 2019 compared to previous years owing to the uncertainties caused by the Easter Sunday attack and the political instability (CBSL, 2019). It was observed that the profitability ratios such as

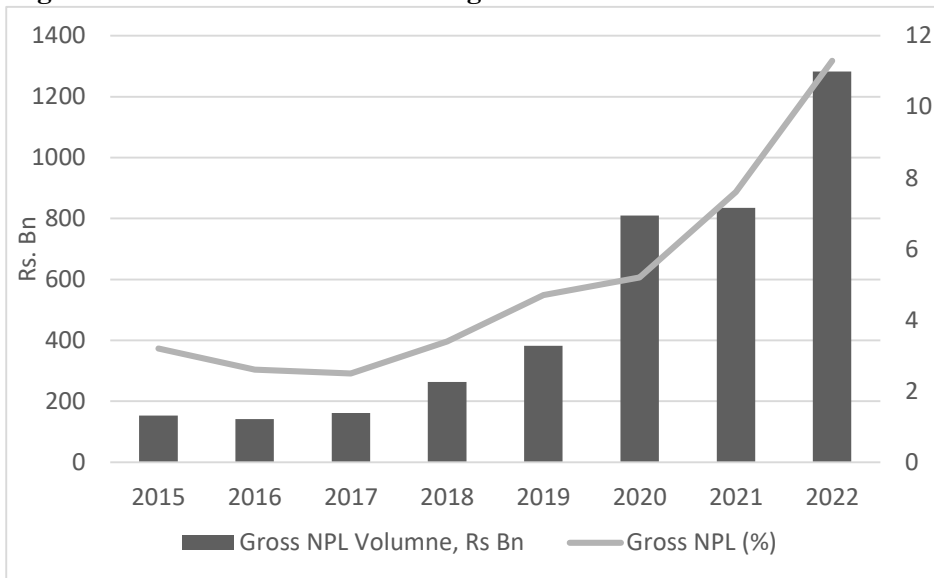
Return on Equity (ROE) declined drastically from 17.6% in 2017 to 10.3% in 2019 resulted from the subdued economic activities in the country. Moreover, the Non-Performing Loans (NPL, measured as a ratio of total NPLs and total loans and advances) increased steeply from 2.5% in 2017 to 4.7% in 2019 due to the adverse business environment that prevailed with the terrorist attack. Economic sectors such as Agriculture (8.1%), manufacturing (7.3%), tourism (6.4%), wholesale and retail (6.3%) and construction (5.8%) were higher than the banking sector average NPL ratio (CBSL,2019). Moving forward, the banking sector remained stable despite the challenging global and domestic conditions owing to COVID-19 pandemic during 2020-21 period. It could be observed that the ROE increased from 10.3% in 2019 to 13.4% in 2021 owing to the tax cuts introduced by the government. However, the country-wide lockdowns disrupted business activities and caused deterioration in the credit quality where moratoria were introduced for different sectors of the economy affected by the pandemic, and as a result, the NPL ratio (measured as a percentage of stage 3 loans to total loans and advances since 2020), increased from 4.7% in 2019 to 7.6% in 2021 (CBSL, 2021).

During 2022, the financial system suffered from the most profound economic crisis the country faced since independence. The sovereign rates were downgraded, all economic sectors contracted, foreign exchange shortage and high levels of inflation and the announcement of default of external debt servicing created significant impact on the financial sectors and challenged the resilience of the financial system (CBSL, 2022). Resultantly, the profitability measured by ROE depleted from 13.4% in 2021 to 10.2% in 2022 mainly due to increase in impairment costs (increased by 60.6% YoY in 2022). However, the Return on Assets (ROA) slightly declined from 1.1% in 2021 to 0.8% in 2022. On the other hand, the NPL ratio increased from 7.6% in 2021 to 11.3% in 2022 as debt moratoria and concessions on loan repayments were given to individuals and businesses due to the persistent unfavorable business conditions. Sectors such as transportation, tourism, construction, wholesale and retail trade, arts and entertainment, and education sectors have experienced NPL rates higher than the industry average of 11% in 2022 (CBSL,2022).

Figure 1.1: Profitability ratios of the banking sector



Source: Compiled by the author based on the data from Annual Report, CBSL, 2022

Figure 1.2: NPL ratios of the banking sector

Source: Compiled by the author based on the data from Annual Report, CBSL, 2022

As given above, the performance of the banking sector in the recent past has been heavily declined mainly owing to the recent adverse events that took place in the country. The businesses and casuals were unable to sustain and remain resilient due to the conditions prevailed, thus affecting the banking sector.

The primary research objective of this study is to investigate the impact of adverse economic and social issues occurred from 2019 onwards on the performance of the banking sector in terms of profitability and NPLs. Therefore, this study will have a higher significance as it will provide literature regarding the effect of recent macroeconomic instability on the financial performance of the LCBs in the country and will fill the empirical gap as there is less research conducted to analyze the impact of macro-economic factors on the banking sector performance.

2. Literature Review

In banking literature, the determinants of bank performance are empirically well explored where bank profitability is typically measured using ROA and ROE (Athanasoglou et al, 2005; Ongore and Kusa, 2013; Weerasinghe and Perera 2013). On the other hand, NPL ratio is also used to analyze bank performance (Harshana and Wanniarachchige, 2022) as depletion of the quality of the loan books of banks is a main cause for financial instability which would ultimately affect the entire financial system (Kumarasinghe, 2017). These aspects can be mostly expressed as a function of external and internal determinants. The internal determinants are factors that are influenced by a bank's management decisions and policies whereas external determinants are mainly industry related and macroeconomic variables which reflect economic and legal environment the organization operates (Athanasoglou et al, 2005; Ongore and Kusa, 2013; Weerasinghe and Perera 2013). This study will mainly focus on the external determinants as the recent macro-economic issues in Sri Lanka had a

severe impact on the profitability and the quality of the loan book/credit quality and there is an empirical gap for recent studies on the impact of macro-economic instability on bank performance in Sri Lanka.

Harshana and Wanniarachchige (2022) conducted their research on the effect of the COVID-19 pandemic on the performance of Sri Lankan banks. The study used data for a ten-year period from 2012 to 2021 and used ROE, NIM, and NPL as measures of bank performance. The results suggested that the pandemic has introduced a statistically significant adverse impact on the bank performance of commercial banks in Sri Lanka and implied that developing countries need comprehensive policy measures at the early stages of global pandemic situations to reduce the adverse effects.

In another recent study conducted by Amararathne and Wanigasuriya (2022), to determine the factors influencing the profitability of LCBs in Sri Lanka analyzed 11 LCBs from 2011 to 2020 used GDP growth as dependent variables and ROA to measure profitability using a random effect model and Generalized Moment of Method. This study revealed that GDP has a significant and positive impact while operating efficiency doesn't have a significant impact.

Moreover, Batagoda, Ediriweera, & Deshika (2019), studied on bank-specific and macro-economic determinants affecting the profitability of LCBs and used Operating efficiency, GDP growth, Interest rate, liquidity, and bank size to determine the profitability for a period of 2009-2018 and revealed that bank size, operating efficiency and GDP growth rate significantly affect bank profitability while liquidity does not have a direct impact.

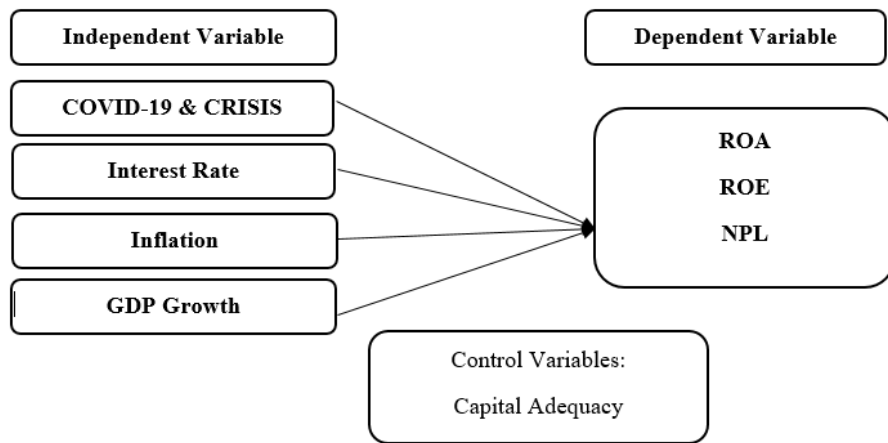
Xiazi and Shabir (2022) examined the effects of the COVID pandemic on banking sector performance considering around 1575 banks in 85 countries from 2020Q1 to 2021Q4 and revealed that the pandemic outbreak has significantly decreased bank's performance. It was found that the adverse impact of the pandemic depends on bank and country-specific factors. It was revealed that the effect is higher in smaller undercapitalized and less diversified banks.

Boubaker et al (2022), conducted a study using 49 Islamic banks across 10 countries during 2019-2020 to examine the performance and resilience of these banks in the aftermath of the COVID-19 pandemic. The conventional inverse data development analysis approach was used and revealed that 31 out of 49 banks reduced their inputs to maintain their efficiency levels unchanged.

There is an empirical gap on the financial performance of the banking sector in Sri Lanka during the pandemic period and the economic crisis. Thus, this study will fill an important gap in the literature as many of the banking studies have focused the bank-specific factors, whereas only few macroeconomic factors are analyzed and there are no similar published empirical studies that analyze the recent macro-economic instability on the banking sector performance.

3. Methodology

Figure 3.1: Conceptual framework



Source: Compiled by the author

This study examines the effect of COVID-19 and the macroeconomic instability on bank performance in Sri Lanka. The sample consists the 12 domestic LCBs out of the 24 LCBs in the country as of December 2022. The remaining banks were dropped from the sample to the unavailability of data. The data was collected from annual reports for the 10-year period from 2013-2022. The country started to face a crisis situation in 2019 April after the Easter Sunday attack. The performance of the banking sector started to indicate adverse effects from 2019 onwards due to the prevailed social and political instability. And thereafter from 11th of March 2020 onwards the country suffered from the adverse effects of the COVID-19 pandemic which halted the economic activities and disturbed the day to day life of the public due to travel restrictions. Resultantly, the country faced the worst economic crisis since independence in 2021-2022 period and became unable to settle external debts and declared default. Therefore, the crisis period is defined in this study as the period from 2019-2022, while the pre-crisis period is defined from 2013-2018. Thus, the crisis period covers four years and the pre-crisis period covers six years.

As given in Table 1, COVID-19 and the CRISIS is represented by a dummy variable which takes the value of zero if the observation belongs to the pre-crisis period and a value of one if the observation belongs to the crisis period while the impact from macroeconomic factors on bank performance was measured using GDP growth rate, inflation, and interest rate while capital adequacy ratio was used as bank specific control variables. Bank performance was measured using ROA, ROE and NPL.

A random effect panel regression was conducted using the least square dummy variable approach to estimate the impact of the COVID-19 pandemic, the crisis and the impact of macro-economic variables on bank performance in Sri Lanka which is used widely in similar research such as Harshana and Wanniarachchige

(2022) and Demir and Danisman (2021). The regression model used in this study is mentioned below;

$$BP_{it} = \alpha + \beta_1 \text{ COVID\&CRISIS}_t + \beta_2 \text{ INR}_t + \beta_3 \text{ INF}_t + \beta_4 \text{ GDP}_t + \beta_5 \text{ CAR}_{it}$$

In the above equation, BP stands as a vector of bank performance to measure ROA, ROE and NPL. Thus, there are three separate regression models as Model 1, Model 2, and Model 3 were performed to measure bank performance as the dependent variable.

Where;

BP= vector of bank performance to measure ROA, ROE and NPL

α =intercept

COVID and CRISIS= COVID impact and Economic crisis/dummy variable

INR= Interest rate

INF= Inflation

GDP= Economic growth

CAR= Capital Adequacy Ratio

β = Regression coefficients

ε = Error term

i= 12 LCBs

t=2013-2022

Table 1: Measurement of variables

Name of the Variable	Symbol	Proxies and Measurement
Bank Performance	BP	Return on Equity Return on Assets Non- Performing Loans
Covid-19 and the Economic Crisis	COVID and CRISIS	Pre-crisis (0) and crisis (1)
Interest rate	INR	Interest rate
Economic growth	GDP	Growth rate of GDP
Inflation rate	INF	Annual inflation rate
Capital Adequacy	CAR	Ratio of Regulatory Capital to Risk-Weighted Assets

Source: Developed by author

4. Data Analysis and Discussion

Descriptive statistics

Table 2: Descriptive statistics

	RO A	ROE	NPL	CAR	GDP_ GRO WTH	INTERE ST_RAT E	INFL ATIO N	UNE MPL OYM ENT
Mean	1.11	12.97	4.06	16.96	1.82	14.98	10.17	4.65
Median	1.22	13.73	3.70	15.50	3.45	15.00	5.10	4.55
Maximum	4.24	44.69	14.42	85.44	6.50	30.22	57.20	5.50
Minimum	-3.13	-7.14	0.00	0.00	-7.80	8.50	2.10	4.20
Std. Dev.	0.93	8.08	2.00	8.79	4.44	5.67	15.84	0.38
Skewness	-1.51	0.22	1.78	4.95	-1.09	1.67	2.60	0.94
Kurtosis	9.31	4.59	10.10	34.74	2.87	5.59	7.91	2.94
Jarque-Bera	245. 13	13.71	316.6 9	5528. 25	24.05	89.642	256.0 0	17.75
Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The table 2 shows the descriptive statistics of the selected variables in the study. The average value of the ROE over the period considered for the selected banks was 12.9% while the ROA was only 1.1%. The minimum ROA and ROE values were -3.1% and -7.1% respectively mainly owing to the turbulent economic environment prevailed in the country for the past couple of years. On the other hand, the mean NPL was nearly 4.6% whereas the highest NPL recorded was 14.2%. The high level of NPL is mainly due to the macroeconomic instability prevailed in the country and indicates high levels of credit risk in the banking sector. In order to face the risks rising from declining profits and rising NPLs it become vital for the banks to follow the regulatory guidelines and to follow proper risk mitigation techniques. As per the Basel III, LCBs are required to maintain a capital adequacy rate of 13.5% to withstand any unexpected losses during challenging times. The results in the descriptive statistics table shows that the mean CAR of the selected banks over the period is 16.9% which is more than the required minimum level and it means that the LCBs are maintaining capital requirement in an appropriate manner.

With regard to the macroeconomic factors, the mean GDP growth has been around 1.8% over the past ten years where the highest growth was recorded in 2017 which was nearly 6.5% and the economy contracted steadily thereafter due to the pandemic and the crisis and recorded the worst economic growth of -7.8% in 2022. With the declining economic growth, the inflation increased drastically where the mean inflation rate was around 10% over the period and recorded the highest (57.2%) in 2022 due to the prevailed unhealthy economic environment with the highest standard deviation of 15.8. In order to curtail the rising inflation, the CBSL increased the interest rates where the highest interest rate was recorded as 30.2% in 2022 and the mean rate was around 14.9% over the period considered.

Regression analysis**Table 3: Regression results of random effect model**

Variable	Model 1 (ROE)	Model 2 (ROA)	Model 3 (NPL)
C	13.57	1.18	4.97
COVID and Economic crisis- Dummy variable	-2.48*	-0.17	1.57*
GDP – GDP growth rate	0.51*	0.04*	-0.19*
Inflation	0.60	0.07	-0.44*
Interest rate	-0.21	-0.06	0.10
CAR	-0.05	-0.07	-0.05
R ²	0.75	0.56	0.49
Adjusted R ²	0.71	0.52	0.41
Prob (F- statistic)	0.00	0.00	0.00
Durbin-Watson statistic	1.41	1.32	1.19

Note: *Significant at 5%

According to the Hausman test, a random effect panel regression-based analysis was used to identify the impact of COVID and the Economic Crisis on the performance of LCBs in Sri Lanka. In relation to profitability measured using the 1st model (ROE) and 2nd model (ROA), it is evident that 75% of the variation of ROE and 56% of the variations in ROA can be explained by the independent variables included in the models. COVID-19 Pandemic and the Economic Crisis indicates a significant and negative impact on profitability indicators. This indicates that the LCBs have exhibited a low profitability during the pandemic and the economic crisis compared to pre pandemic period.

Similarly, GDP growth rate has exhibited a significant and positive impact on ROE which indicates that the LCBs have experienced low profitability in relation to the declining GDP growth since 2017. The GDP growth rate which was nearly 6.5% in 2017 declined to -7.8% in 2022 owing to the pandemic and economic crisis. Owing to that, the profitability of the banking sector drastically declined with the contractions in all the economic segments in the country. In terms of the inflation, the annual inflation rates increased to nearly 57.2% in 2022 and created a positive impact on the profitability of LCBs aligning to the findings of Athanasoglou et al (2006). On the other hand, the interest rates have shown a negative but insignificant impact on the profitability indicators contrary to the findings of Harshana and Wanniarachchige (2022). The lending rates increased to nearly 30% during 2022 reaching all time high rates with the swirling inflation levels, the negative impact can be mainly due to the increase in provisions for loan losses during the pandemic and economic crisis period which declined the profitability rates despite the rise in interest rates (Montes,2018).

The result of Model 3, suggests that 49% of the variations in NPL can be explained by the explanatory variables included in the model. COVID-19 and the Economic Crisis show a statistically significant and positive impact on NPL. This assures that the NPL levels have increased during the post-crisis period starting from

2019 align with the research findings of Harshana and Wanniarachchige (2022). This can be attributed to the poor performance of the industries such as construction, tourism, transportation etc which made it difficult for the banks to recover the granted loans on the other hand, with the rising levels of unemployment it became difficult for the household borrowers to repay their loans. Both the GDP growth rate and the inflation have exhibited negative and significant impact on NPLs which is similar to the findings of Rathnayake and Dissanayake (2022) and Ekanayake and Azzez (2015). The negative relation of NPLs with inflation can be attributed to banks becoming more selective of high quality borrowers during the times of inflation. And the negative relationship with GDP indicates that, NPLs increase with the declining economic performance.

5. Conclusion

The main objective of this study was to examine the impact of COVID-19 Pandemic and Economic Crisis and macroeconomic instability in the country on the banking sector performance in Sri Lanka over the time period from 2013-2022. Although there are multiple researches conducted in Sri Lanka to measure the banking performance, they have given lesser priority for macroeconomic factors and the latest macro-economic issues are not incorporated. Thus, this study will contribute to have a better understanding on the impact of macro-economic factors on banking sector. In this study, capital adequacy was used as an internal determinant while inflation, interest rates, GDP growth and COVID-19 and Economic Crisis impact were considered as macro-economic variables.

The empirical results suggest that, the pandemic and the economic crisis and the negative economic growth have significantly impacted the performance of the banking sector. While inflation had a significant but negative impact on NPLs and other macro-economic variables such as the interest rate did not have a significant impact on the performance during the considered period. However, when considering the performance of the banking sector, it is clear that there was a decline in profits as well as a steep rise of NPLs even before the pandemic and the economic crisis where the ROE of the banking sector declined from 17.6% in 2017 to 10.2% in 2022 amidst some fluctuations, while ROA declined from 1.4% in 2017 to 0.8% in 2022 and the NPLs increased sharply from 2.5% in 2017 to 11.3% in 2022. Thus, it can be said that the banking sector was in a weaker position even before the pandemic and Easter Sunday attacks in 2019. The crisis period that started with the Easter Sunday attack worsened the bank performance where the banks recorded the lowest performance (highest NPL levels and lowest profitability) in 2022 owing to the Economic Crisis despite slight recovery in 2021 owing to the relaxation of COVID restrictions.

As policy implications it can be recommended, that Sri Lanka needs more aggressive policies in order to face repercussions of adverse situations like the pandemic, Easter attack and the economic crisis as it will enable the banks to maintain resilience in both short and long term. Further, these policies need to be implemented immediately by the management. Also, banks need to be vigilant when lending loans as the high risk-taking behavior of banks will lead to poor quality loans which will ultimately impact the NPL levels. Further it is needed to take proper risk mitigation steps such as proper evaluations of the customers and accessing their repayment

capacities to reduce the credit risk and ensure the stability of the banks which will ultimately impact the overall financial system stability. As the impact of the COVID-19 and Economic Crisis will continue for a considerable time period it becomes vital to take steps to make the system more resilient and stable as a banking crisis will lead to serious solvency and liquidity issues and ultimately collapse the entire financial system.

References

- Ruwanthika, W. M. T., Wijekoon, W. M. H. N., & Gunathilaka, R. C. (2022). Determinants of Banks' Profitability: Empirical Evidence from Sri Lanka
- Azeez, A. A., & Gamage, S. (2013). The determinants of net interest margins of commercial banks in Sri Lanka.
- Bhowmick, S. (2022). How tourism in Sri Lanka went downhill: Causes and consequences. Observer Research Foundation. <https://www.orfonline.org/expert-speak/how-tourism-in-sri-lanka-went-downhill>.
- Central Bank of Sri Lanka. (2019). Central Bank of Sri Lanka.
- Central Bank of Sri Lanka. (2020). Central Bank of Sri Lanka.
- Central Bank of Sri Lanka. (2021). Central Bank of Sri Lanka.
- Central Bank of Sri Lanka. (2022). Central Bank of Sri Lanka.
- DeVotta, N. (2022). Sri Lanka's Agony. *Journal of Democracy*, 33(3), 92–99.
- George, A. H., George, A. S., & Baskar, T. (2022). Sri Lanka's economic crisis: A brief overview. *Partners Universal International Research Journal*, 1(2), 9–19.
- Harshana, K. R., & Wanniarachchige, M. K. (2022). Effect of covid-19 pandemic on the performance of Sri Lankan banks.
- Hoskins, P. (2022). Sri Lanka defaults on debt for first time in its history. BBC (May 20, 2018), available at bbc.com/news/business-61505842.
- HT News Desk. (2022, May 4). Sri Lanka foreign reserves dip below \$50 million, minister waves red flag. *Hindustan Times*.
- International Banker. (2022). Sri Lankan Banking Sector Under Pressure Amid Nationwide Crisis. *International Banker*.
- Jazeera, A. (2022a, April 14). Timeline of Sri Lanka's worst economic crisis since independence. *Business and Economy News*.
- Jazeera, A. (2022b, April 14). Timeline of Sri Lanka's worst economic crisis since independence. *Business and Economy News*.
- Keshtgar, N., Pahlavani, M., & Mirjalili, S. H. (2020). The impact of exchange rate volatility on banking performance (case of Iran). *International Journal of Business and Development Studies*, 12(1), 39-56.
- Kumarasinghe, P. J. (2017). Determinants of non performing loans: Evidence from Sri Lanka. *International Journal of Management Excellence* (ISSN: 2292-1648), 9(2), 1113-1121.
- Madurapperuma, W. (2022). The dynamic relationship between economic crisis, macroeconomic variables and stock prices in Sri Lanka. *Journal of Money and Business*, 3(1), 25-42.

- Nazeeruddin, M., & Baig, M. J. (2022). Sri Lanka's Economic crisis-An Eye Opener. *Research Review International Journal of Multidisciplinary*, 7(4), 01-02.
- Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. *International journal of economics and financial issues*, 3(1), 237-252.
- Weersainghe, V. E. I. W., & Perera, T. R. (2013). Determinants of profitability of commercial banks in Sri Lanka. *International Journal of Arts and Commerce*, 2(10), 141-170.
- Raphael, G. (2013). Bank-specific, industry-specific and macroeconomic determinants of bank efficiency in Tanzania: A two stage analysis.
- Sharma, D. S., Anawade, P., & Sahu, A. (2022). The economic crisis faced by island nation-Sri Lanka: An empirical study. *Journal of Contemporary issues in Business and Government*, 28(3).
- Sufian, F. (2011). Profitability of the Korean banking sector: Panel evidence on bank-specific and macroeconomic determinants. *Journal of economics and management*, 7(1), 43-72.
- Vong, P. I., & Chan, H. S. (2009). Determinants of bank profitability in Macao. *Macau Monetary Research Bulletin*, 12(6), 93-113.
- Wijesinghe, M. D. J. W., & Pallearachchi, D. (2022). Banking Sector Development and Economic Growth in Sri Lanka: An Econometric Analysis. *Journal of Finance*, 2(1), 1-13.
- Yamuna, S. (2013). Determinants of Profitability in the Banking Sector: A study with special reference to Private Commercial Banks in Sri Lanka.